

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 10-K**

(Mark One)

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
For the fiscal year ended June 30, 2017  
**OR**  
 **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission File Number: 001-36410

**Phibro Animal Health Corporation**  
(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)  
  
Glenpointe Centre East, 3<sup>rd</sup> Floor  
300 Frank W. Burr Boulevard, Suite 21  
Teaneck, New Jersey  
(Address of Principal Executive Offices)

13-1840497  
(I.R.S. Employer Identification No.)

07666-6712  
(Zip Code)

(201) 329-7300  
(Registrant's telephone number, including area code)

**Securities registered pursuant to Section 12(b) of the Act:**

Class A Common Stock, \$0.0001 par value per share (Title of each class)	NASDAQ Stock Market (Name of each exchange on which registered)
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**Securities registered pursuant to Section 12(g) of the Act: None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of Securities Act.  
Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files.) Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
Emerging Growth Company	<input checked="" type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any or new revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).  
Yes  No

The aggregate market value of the registrant's Class A common stock and Class B common stock held by non-affiliates of the registrant was \$540,780,431 as of December 31, 2016, the last business day of the registrant's most recently completed second fiscal quarter based on the closing price of the common stock on the NASDAQ Stock Market. The registrant has no non-voting common stock.

As of August 23, 2017, there were 19,261,789 shares of the registrant's Class A common stock, par value \$0.0001 per share, and 20,626,836 shares of the registrant's Class B common stock, par value \$0.0001 per share, outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE:**

Portions of the registrant's Proxy Statement for the 2017 Annual Meeting of Shareholders to be held on November 6, 2017 (hereinafter referred to as the "2017 Proxy Statement") are incorporated herein by reference in Part III of this Annual Report on Form 10-K. Such proxy statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended June 30, 2017.

PHIBRO ANIMAL HEALTH CORPORATION

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### Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements that are subject to risks and uncertainties. All statements other than statements of historical or current fact included in this report are forward-looking statements. Forward-looking statements discuss our current expectations and projections relating to our financial condition, results of operations, plans, objectives, future performance and business. You can identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. These statements may include words such as “aim,” “anticipate,” “believe,” “estimate,” “expect,” “forecast,” “outlook,” “potential,” “project,” “projection,” “plan,” “intend,” “seek,” “believe,” “may,” “could,” “would,” “will,” “should,” “can,” “can have,” “likely,” the negatives thereof and other words and terms of similar meaning in connection with any discussion of the timing or nature of future operating or financial performance or other events. For example, all statements we make relating to our estimated and projected earnings, revenues, costs, expenditures, cash flows, growth rates and financial results, our plans and objectives for future operations, growth or initiatives, strategies, or the expected outcome or impact of pending or threatened litigation are forward-looking statements. All forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially from those that we expected. Examples of such risks and uncertainties include:

- perceived adverse effects on human health linked to the consumption of food derived from animals that utilize our products could cause a decline in the sales of those products;
- restrictions on the use of antibacterials in food-producing animals may become more prevalent;
- a material portion of our sales and gross profits are generated by antibacterials and other related products;
- competition in each of our markets from a number of large and small companies, some of which have greater financial, research and development (“R&D”), production and other resources than we have;
- the impact of current and future laws and regulatory changes;
- outbreaks of animal diseases could significantly reduce demand for our products;
- our ability to successfully implement several of our strategic initiatives;
- our business may be negatively affected by weather conditions and the availability of natural resources;
- the continuing trend toward consolidation of certain customer groups as well as the emergence of large buying groups;
- our ability to control costs and expenses;
- any unforeseen material loss or casualty;
- exposure relating to rising costs and reduced customer income;
- competition deriving from advances in veterinary medical practices and animal health technologies;
- unanticipated safety or efficacy concerns;
- our dependence on suppliers having current regulatory approvals;
- our raw materials are subject to price fluctuations and their availability can be limited;
- natural and man-made disasters, including but not limited to fire, snow and ice storms, flood, hail, hurricanes and earthquakes;
- terrorist attacks, particularly attacks on or within markets in which we operate;
- our reliance on the continued operation of our manufacturing facilities and application of our intellectual property;

- adverse U.S. and international economic market conditions, including currency fluctuations;
- the risks of product liability claims, legal proceedings and general litigation expenses;
- our dependence on our Israeli and Brazilian operations;
- our substantial level of indebtedness and related debt-service obligations;
- restrictions imposed by covenants in our debt agreements;
- the risk of work stoppages; and
- other factors as described in “Risk Factors” in Item 1A. of this Annual Report on Form 10-K.

While we believe that our assumptions are reasonable, we caution that it is very difficult to predict the impact of known factors, and it is impossible for us to anticipate all factors that could affect our actual results. Important factors that could cause actual results to differ materially from our expectations, or cautionary statements, are disclosed under “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” All forward-looking statements are expressly qualified in their entirety by these cautionary statements. You should evaluate all forward-looking statements made in this report in the context of these risks and uncertainties.

We caution you that the important factors referenced above may not contain all of the factors that are important to you. In addition, we cannot assure you that we will realize the results or developments we expect or anticipate or, even if substantially realized, that they will result in the consequences we anticipate or affect us or our operations in the way we expect. The forward-looking statements included in this report are made only as of the date hereof. We undertake no obligation to publicly update or revise any forward-looking statement as a result of new information, future events or otherwise, except as otherwise required by law. If we do update one or more forward-looking statements, no inference should be made that we will make additional updates with respect to those or other forward-looking statements.

#### **Emerging Growth Company Status**

We are an “emerging growth company,” as defined in Section 2(a) of the Securities Act of 1933 (the “Securities Act”), as modified by the Jumpstart Our Business Startups Act of 2012 (the “JOBS Act”). As such, we are eligible to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not “emerging growth companies.” These exemptions include, but are not limited to, (i) not being required to comply with the auditor attestation requirements of Section 404 (“Section 404”) of the Sarbanes-Oxley Act of 2002, as amended (the “Sarbanes-Oxley Act”), (ii) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and (iii) exemptions from the requirements of holding a non-binding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We have taken, and plan to continue to take, advantage of some or all of these exemptions. If we do continue to take advantage of any of these exemptions, we do not know if some investors will find our Class A common stock less attractive as a result. If some investors find our Class A common stock less attractive, there may be a less active trading market for our Class A common stock and our stock price may be more volatile. We have elected to forego the extended transition period for complying with new or revised accounting standards that emerging growth companies are permitted to take advantage of pursuant to Section 107 of the JOBS Act.

Pursuant to Section 102 of the JOBS Act, our 2017 Proxy Statement will provide reduced executive compensation disclosure.

We will remain an emerging growth company until the earliest of (a) the last day of the first fiscal year in which our annual gross revenues exceed \$1.07 billion, (b) the date that we become a “large accelerated filer” as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), which would occur if the market value of our Class A common stock that is held by

non-affiliates exceeds \$700 million as of the last business day of our most recently completed second fiscal quarter, (c) the date on which we have issued more than \$1 billion in non-convertible debt during the preceding three-year period, or (d) June 30, 2019, which is the end of the fiscal year following the fifth anniversary of our initial public offering.

#### **Market, Ranking and Other Industry Data**

Unless otherwise indicated, information contained in this report concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on management estimates and on information from Vetnosis Limited (“Vetnosis”), a research and consulting firm specializing in global animal health and veterinary medicine. The Vetnosis information cited in this document was not prepared by Vetnosis on our behalf. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. We believe these estimates are reasonable as of the date of this report, or if an earlier date is specified, as of such earlier date. However, this information may prove to be inaccurate because of the method by which we obtained some of the data for our estimates or because this information is subject to change and cannot always be verified due to limits on the availability and reliability of independent sources, the voluntary nature of the data gathering process and other limitations and uncertainties inherent in any statistical survey of market shares. In addition, purchasing patterns and consumer preferences can and do change. As a result, you should be aware that market share, ranking and other similar data set forth in this report, and estimates and beliefs based on such data, may not be reliable.

#### **Trademarks, Service Marks and Trade Names**

The following trademarks and service marks used throughout this report belong to, are licensed to, or are otherwise used by us in our business: Stafac<sup>®</sup>; Eskalin<sup>™</sup>; V-Max<sup>®</sup>; Terramycin<sup>®</sup>; Neo-Terramycin<sup>®</sup>; Neo-TM<sup>™</sup>; TM-50<sup>®</sup>; TM-100<sup>™</sup>; Mecadox<sup>®</sup>; Nicarb<sup>®</sup>; Bovipro<sup>™</sup>; Bloat Guard<sup>®</sup>; Aviax<sup>®</sup>; Aviax II<sup>™</sup>; Aviax Plus<sup>™</sup>; Avi-Carb<sup>®</sup>; Coxistac<sup>™</sup>; Posistac<sup>™</sup>; Banminth<sup>®</sup>; Cerditac<sup>™</sup>; Cerdimix<sup>™</sup>; Rumatel<sup>®</sup>; OmniGen-AF<sup>®</sup>; Animate<sup>®</sup>; Procreatin 7<sup>®</sup>; Magni-Phi<sup>®</sup>; Chromax<sup>®</sup>; Provia 6086<sup>™</sup>; Cellerate Yeast Solutions<sup>®</sup>; SRP<sup>®</sup>; Safmannan<sup>®</sup>; Biosaf<sup>®</sup>; AB20<sup>®</sup>; Lactrol<sup>®</sup>; MJPRRS<sup>®</sup>; TAbic<sup>®</sup>; Tailor Made<sup>®</sup>; MVP Adjuvants<sup>®</sup>; and V.H.<sup>®</sup>

## PART I

## Item 1. Business

## Overview

Phibro Animal Health Corporation is a leading global diversified animal health and mineral nutrition company. We are committed to providing livestock producers with value-based products and solutions to help them maintain and enhance the health and productivity of their animals and meet the growing demand for animal protein. We sell more than 1,400 product presentations in over 65 countries to approximately 3,000 customers. We develop, manufacture and market products for a broad range of food animals including poultry, swine, beef and dairy cattle and aquaculture. Our products help prevent, control and treat diseases, enhance nutrition to help improve health and performance and contribute to balanced mineral nutrition. We sell animal health and mineral nutrition products either directly to integrated poultry, swine and cattle integrators or through commercial animal feed manufacturers, wholesalers and distributors.

Our products include:

- Animal health products such as antibacterials, anticoccidials, nutritional specialty products and vaccines that help improve the animal's health and therefore improve performance, food safety and animal welfare.
- Mineral nutrition products that fortify the animal's diet and help maintain optimal health.

We have focused our efforts in regions where the majority of livestock production is consolidated in large commercial farms such as the United States, Brazil, China, Russia, Mexico, Australia, Turkey, Israel, Canada and Europe, and we believe we are well positioned to further accelerate our growth with our established network of sales, marketing and distribution professionals in emerging markets in Latin America, Asia Pacific, Europe and Africa.

In addition to animal health and mineral nutrition products, we manufacture and market specific ingredients for use in the personal care, automotive, industrial chemical and chemical catalyst industries. We sell performance products directly to customers in the aforementioned industries.

Unless otherwise indicated or the context requires otherwise, references in this report to "we," "our," "us," "the Company," "Phibro," "PAHC" and similar expression refer to Phibro Animal Health Corporation and its subsidiaries. We completed our initial public offering on April 16, 2014. Our Class A common stock trades on the NASDAQ Stock Market ("NASDAQ") under the trading symbol "PAHC." Our Class B common stock is not listed or traded on any stock exchange.

## Business Segments

We manage our business in three segments—Animal Health, Mineral Nutrition and Performance Products—each with its own dedicated management and sales team, for enhanced focus and accountability. Net sales by segments, species and regions were:

For the Years Ended June 30	Segments			Change				Percentage of total		
	2017	2016	2015	2017 / 2016	2016 / 2015	2017	2016	2015		
	(\$ in millions)									
Animal Health	\$498	\$486	\$471	\$12	2%	\$15	3%	65%	65%	63%
Mineral Nutrition	218	217	227	2	1%	(10)	(5)%	29%	29%	30%
Performance Products	48	49	51	(0)	(1)%	(2)	(4)%	6%	6%	7%
Total	<u>\$764</u>	<u>\$752</u>	<u>\$749</u>	\$13	2%	\$3	0%			

For the Years Ended June 30	Species			Change				Percentage of total		
	2017	2016	2015	2017 / 2016		2016 / 2015		2017	2016	2015
	(\$ in millions)									
Poultry	\$301	\$292	\$280	\$ 9	3%	\$ 12	4%	39%	39%	37%
Dairy	157	146	135	11	7%	12	9%	21%	19%	18%
Cattle	76	96	100	(20)	(21)%	(4)	(4)%	10%	13%	13%
Swine	93	100	102	(8)	(8)%	(1)	(1)%	12%	13%	14%
Other <sup>(1)</sup>	137	116	132	21	18%	(16)	(12)%	18%	15%	18%
Total	<u>\$764</u>	<u>\$752</u>	<u>\$749</u>	\$ 13	2%	\$ 3	0%			

For the Years Ended June 30	Regions <sup>(2)</sup>			Change				Percentage of total		
	2017	2016	2015	2017 / 2016		2016 / 2015		2017	2016	2015
	(\$ in millions)									
U.S. & Canada	\$502	\$493	\$483	\$ 9	2%	\$ 9	2%	66%	66%	65%
Brazil & Latin America	99	109	107	(10)	(9)%	2	2%	13%	15%	14%
China & Asia Pacific	67	61	61	6	10%	(1)	(1)%	9%	8%	8%
Israel & Other	96	89	97	7	8%	(8)	(8)%	13%	12%	13%
Total	<u>\$764</u>	<u>\$752</u>	<u>\$749</u>	\$ 13	2%	\$ 3	0%			

(1) Other includes the Performance Products segment, Mineral Nutrition sales to pet food and fertilizer manufacturers and sales to the ethanol industry.

(2) Net sales by region are based on country of destination.

Certain amounts and percentages may reflect rounding adjustments.

Adjusted EBITDA by segment was:

For the Year Ended June 30	Adjusted EBITDA <sup>(1)</sup>			Change				Percentage of total <sup>(2)</sup>		
	2017	2016	2015	2017 / 2016		2016 / 2015		2017	2016	2015
	(\$ in millions)									
Animal Health	\$130	\$127	\$120	\$ 3	3%	\$ 7	6%	87%	89%	88%
Mineral Nutrition	17	15	14	2	16%	1	7%	12%	10%	10%
Performance Products	2	1	3	1	106%	(2)	(67)%	1%	1%	2%
Corporate	(30)	(29)	(27)	(1)	*	(2)	*			
Total	<u>\$120</u>	<u>\$114</u>	<u>\$110</u>	\$ 6	5%	\$ 4	4%			

(1) See "Management's Discussion and Analysis of Financial Condition and Results of Operations—General description of non-GAAP financial measures" for description of Adjusted EBITDA.

(2) Before unallocated corporate costs

Certain amounts and percentages may reflect rounding adjustments.

Net identifiable assets by segment were:

As of June 30	Net Identifiable Assets			Change				Percentage of total		
	2017	2016	2015	2017 / 2016		2016 / 2015		2017	2016	2015
	(\$ in millions)									
Animal Health	\$442	\$445	\$349	\$ (3)	(1)%	\$ 95	27%	71%	73%	71%
Mineral Nutrition	55	58	59	(2)	(4)%	(1)	(1)%	9%	10%	12%
Performance Products	24	22	22	2	10%	(0)	(2)%	4%	4%	4%
Corporate	102	84	60	18	22%	23	39%	16%	14%	12%
Total	<u>\$623</u>	<u>\$608</u>	<u>\$490</u>	\$ 16	3%	\$ 118	24%			

Corporate assets include cash and cash equivalents, debt issuance costs, income tax related assets and certain other assets.

Certain amounts and percentages may reflect rounding adjustments.

### Animal Health

Our Animal Health business develops, manufactures and markets more than 900 product presentations, including:

- antibacterials, which inhibit the growth of pathogenic bacteria that cause bacterial infections in animals; anticoccidials, which inhibit the growth of coccidia (parasites) that damage the intestinal tract of animals; and related products (MFAs and other);
- nutritional specialty products, which enhance nutrition to help improve health and performance (nutritional specialties); and
- vaccines, which cause an increase in antibody levels against a specific virus or bacterium, thus preventing infection from that viral or bacterial antigen (vaccines).

Our animal health products help our customers prevent, control and treat diseases and enhance nutrition to help improve health and performance, enabling our customers to more efficiently produce high-quality, wholesome animal protein products for human consumption. We develop, manufacture and market animal health products for a broad range of food animals including poultry, swine, beef and dairy cattle and aquaculture. We provide technical and product support directly to our customers to ensure the optimal use of our products. The animal health industry and demand for many of our animal health products in a particular region are affected by changing disease pressures and by weather conditions, as usage of our products follows varying weather patterns and seasons. As a result, we may experience regional and seasonal fluctuations in our animal health segment. Animal Health net sales by product group and regions were:

For the Years Ended June 30	Product Groups			Change				Percentage of total		
	2017	2016	2015	2017 / 2016		2016 / 2015		2017	2016	2015
	(\$ in millions)									
MFAs and other	\$321	\$340	\$336	\$(19)	(5)%	\$ 4	1%	65%	70%	71%
Nutritional specialties	111	94	82	17	18%	12	15%	22%	19%	17%
Vaccines	65	52	53	13	25%	(1)	(2)%	13%	11%	11%
Animal Health	<u>\$498</u>	<u>\$486</u>	<u>\$471</u>	\$ 12	2%	\$15	3%			

For the Years Ended June 30	Regions <sup>(1)</sup>			Change				Percentage of total		
	2017	2016	2015	2017 / 2016		2016 / 2015		2017	2016	2015
	(\$ in millions)									
U.S. & Canada	\$241	\$235	\$219	\$ 6	3%	\$17	8%	48%	48%	46%
Brazil & Latin America	96	104	99	(9)	(8)%	6	6%	19%	21%	21%
China & Asia Pacific	67	61	61	6	10%	(1)	(1)%	13%	12%	13%
Israel & Other	94	86	92	8	9%	(6)	(7)%	19%	18%	20%
Total	<u>\$498</u>	<u>\$486</u>	<u>\$471</u>	\$12	2%	\$15	3%			

(1) Net sales by region are based on country of destination

Certain amounts and percentages may reflect rounding adjustments.

### MFAs and Other

Our MFAs and other business primarily consists of concentrated medicated products that are administered through animal feeds, commonly referred to as Medicated Feed Additives (“MFAs”). Our MFAs and other business primarily consists of the production and sale of antibacterials (including Stafac<sup>®</sup>, Terramycin<sup>®</sup>, Neo-Terramycin<sup>®</sup> and Mecadox<sup>®</sup>) and anticoccidials (including Nicarb<sup>®</sup>, Aviax<sup>®</sup>, Aviax Plus<sup>™</sup>, Coxistac<sup>™</sup> and amprolium). MFAs and other also includes antibacterial products used to control bacterial infections, as well as other processing aids, for the ethanol fermentation industry.



Approximately 54% of our MFAs and other sales in fiscal year 2017 were to the poultry industry, with sales to swine, cattle, dairy and other customers accounting for the remainder. The principal regions we serve include the U.S. and Canada, Brazil and Latin America, China and Asia Pacific, and Israel and other, with the largest region (as measured by net sales) accounting for less than half of total net sales.

#### *Nutritional Specialties*

Many of our proprietary nutritional specialty products have been developed through basic research in cooperation with private research companies or by leading universities with whom we collaborate and then further develop through commercial trials with customers. Our nutritional specialty products include OmniGen-AF<sup>®</sup>, a unique, patented nutritional specialty product that has been shown in several studies to help maintain a cow's healthy immune system; Animate<sup>®</sup>, a unique, patented anionic nutritional specialty product that helps optimize the health and performance of the transition dairy cow; Magni-Phi<sup>®</sup>, a unique proprietary nutritional specialty product that has been shown in several studies to help improve immune response in poultry; and, Cellerate Yeast Solutions<sup>®</sup>, a unique proprietary yeast culture product that is used in all classes of livestock to help improve digestive health, which may lead to improved animal health and performance. We sell our nutritional specialty products in the United States and various other countries internationally.

#### *Vaccines*

Our vaccines products are primarily focused on preventing diseases in poultry and swine. We market these products in the United States, Israel, Turkey, China, South East Asia, India, East and Central Europe, Brazil and other Latin American countries and various African countries. Our vaccine products protect animals from both viral and bacterial disease challenges.

We have developed and distribute over 25 licensed vaccine presentations for prevention of disease in poultry including vaccines to protect against Infectious Bursal Disease, Infectious Bronchitis, and Newcastle Disease.

We develop, manufacture and distribute autogenous vaccines against bacterial and viral diseases, adjuvants and other products. We manufacture and distribute the MJ Biologics, Inc. ("MJB") autogenous vaccine against porcine reproductive and respiratory syndrome ("PRRS"). We are the exclusive distributor of EpiTopix's proprietary SRP<sup>®</sup> autogenous vaccines for chickens, primarily broiler breeders and table egg laying hens, that protect against various diseases, including Salmonella and E. coli. Our autogenous vaccines allow us to produce custom vaccines for veterinarians that contain antigens specific to each farm, allowing Phibro to provide comprehensive health management solutions to our customers.

We have developed TABic<sup>®</sup>, an innovative and proprietary delivery platform for vaccines. TABic is a patented technology for formulation and delivery of vaccine antigens in effervescent tablets, packaged in sealed aluminum blister packages. The technology replaces the glass bottles that are in common use today, and offers significant advantages including storage requirements, customer handling and disposal. Several of our vaccine products are available in the patented TABic format. We also focus on innovation to produce new antigens or new presentations of antigens, and have developed new vaccines, such as the inactivated subunit Infectious Bursal Disease Virus and Egg Drop Syndrome vaccines, being sold as monovalent vaccines or in combinations with other antigens.

#### **Mineral Nutrition**

Our Mineral Nutrition business manufactures and markets approximately 400 formulations and concentrations of trace minerals such as zinc, manganese, copper, iron and other compounds, with a focus on customers in North America. Our customers use these products to fortify the daily feed requirements of their livestock's diets and maintain an optimal balance of trace elements in each animal. We manufacture and market mineral nutrition products for a broad range of food animals including poultry, swine and beef and dairy cattle. Volume growth in the mineral nutrition sector is primarily driven by livestock production numbers, while pricing is largely based on costs of the underlying commodity metals. Demand for our mineral nutrition products can vary in different seasons of the year and due to changes in weather conditions in a particular region, both of which may cause animal feed consumption to fluctuate. As a result, we may experience regional and seasonal fluctuations in our Mineral Nutrition segment.

## Performance Products

Our Performance Products business manufactures and markets a number of specialty ingredients for use in the personal care, automotive, industrial chemical and chemical catalyst industries, predominantly in the United States.

## Our Products

### Animal Health

#### MFAs and Other

Our MFAs and other business primarily consists of the production and sale of antibacterials (Stafac, Terramycin, Neo-Terramycin and Mecadox) and anticoccidials (Nicarb, Aviax, Aviax Plus, Coxistac and amprolium).

#### Antibacterials and Anticoccidials

We manufacture and market a broad range of antibacterials and other medicated products to the global livestock industry. These products provide therapeutic benefits for the animals and increased feed conversion efficiency, which are proven drivers of profitability for animal producers. The table below presents our core MFA products:

<u>Product</u>	<u>Active Ingredient</u>	<u>Market Entry of Active Ingredient</u>	<u>Description</u>
Terramycin <sup>®</sup> /TM-50 <sup>®</sup> / TM-100 <sup>™</sup>	oxytetracycline	1951	Antibacterial with multiple applications for a wide number of species
Nicarb <sup>®</sup>	nicarbazin	1954	Anticoccidial for poultry
amprolium	amprolium	1960	Anticoccidial for poultry and cattle
Bloat Guard <sup>®</sup>	poloxalene	1967	Anti-bloat treatment for cattle
Banminth <sup>®</sup>	pyrantel tartrate	1972	Anthelmintic for livestock
Mecadox <sup>®</sup>	carbadox	1972	Antibacterial for swine to control Salmonellosis and dysentery
Stafac <sup>®</sup> /Eskalin <sup>™</sup> /V-Max <sup>®</sup>	virginiamycin	1975	Antibacterial used to prevent and control diseases in poultry, swine and cattle
Coxistac <sup>™</sup> /Posistac <sup>™</sup>	salinomycin	1979	Anticoccidial for poultry and cattle; disease preventative in swine
Rumatel <sup>®</sup>	morantel tartrate	1981	Anthelmintic for livestock
Cerditac <sup>™</sup> /Cerdimix <sup>™</sup>	oxibendazole	1982	Anthelmintic for livestock
Aviax <sup>®</sup> /Aviax II <sup>™</sup>	semduramicin	1995	Anticoccidial for poultry
Neo-Terramycin <sup>®</sup> /Neo-TM <sup>™</sup>	oxytetracycline + neomycin	1999	Combination of two antibacterials with multiple applications for a wide number of species
Aviax Plus <sup>™</sup> /Avi-Carb <sup>®</sup>	semduramicin + nicarbazin	2010	Anticoccidial for poultry

Antibacterials are biological or chemical products used in the animal health industry to treat or to prevent bacterial diseases, thereby promoting more efficient livestock growth. Several factors contribute to limit the efficiency, weight gain and feed conversions of livestock production, including stress, poor

nutrition, environmental and management challenges and disease. Antibacterials help prevent, control and treat disease in livestock, which can also lead to improved overall health of the animals, improved rate of weight gain and more efficient feed conversion. Our antibacterial products include:

- *Oxytetracycline and Neomycin*. Terramycin<sup>®</sup> utilizes the active ingredient oxytetracycline and Neo-Terramycin<sup>®</sup> combines the active ingredients neomycin and oxytetracycline to prevent, control and treat a wide range of diseases in chickens, turkeys, cattle, swine and aquaculture. We sell Terramycin and/or Neo-Terramycin products primarily in the United States, Latin America, Mexico and Asia to livestock and aquaculture producers, feed companies and distributors.
- *Virginiamycin*. Virginiamycin is an antibacterial marketed under the brand names Stafac<sup>®</sup> to poultry, swine and cattle producers, Eskalin<sup>™</sup> to dairy cows and beef cattle producers and V-Max<sup>®</sup> for beef cattle producers. Virginiamycin is used to prevent necrotic enteritis in chickens, treat and control swine dysentery and aid in the prevention of liver abscesses in cattle. Our experience in the development and production of virginiamycin has enabled us to develop significant intellectual property through trade secret know-how, which has helped protect against competition from generics. We are the sole worldwide manufacturer and marketer of virginiamycin.
- *Carbadox*. We market carbadox under the brand name Mecadox<sup>®</sup> for use in swine feeds to control swine Salmonellosis and swine dysentery and, as a result, improve animal health and performance. Mecadox is sold primarily in the United States to feed companies and large integrated swine producers.

Anticoccidials are produced through fermentation and chemical synthesis, and are primarily used to prevent and control the disease coccidiosis in poultry and cattle, thereby promoting more efficient livestock growth. Coccidiosis is a disease of the digestive tract that has considerable health consequences to livestock and, as a result, is of great concern to livestock producers. We sell our anticoccidials primarily to integrated poultry producers and feed companies in North America, Latin America and Asia, and to international animal health companies. Our anticoccidial products include:

- *Nicarbazin*. We produce and market nicarbazin under the trademark Nicarb<sup>®</sup> and as an active pharmaceutical ingredient. Nicarbazin is a broad-spectrum anticoccidial used for coccidiosis prevention in chickens.
- *Amprolium*. We produce and market amprolium as an active pharmaceutical ingredient. We also have received U.S. Food and Drug Administration (“FDA”) approval to sell amprolium as Bovipro<sup>™</sup> 9.6% Oral Solution to cattle and calves and Coxipro<sup>™</sup> 9.6% Oral Solution to poultry.
- *Salinomycin and Semduramicin*. We produce and market Coxistac<sup>®</sup>, Aviax<sup>®</sup>/Aviax II<sup>™</sup>/Aviax Plus<sup>™</sup>/Avi-Carb<sup>®</sup> and Posistac<sup>™</sup>, which are in a class of compounds known as ionophores, to combat coccidiosis and increase feed efficiency in poultry and swine. We market our salinomycin and semduramicin products in Asia, Latin America and the Middle East and have received FDA approval to sell Aviax/Aviax II in the United States.

Anthelmintics are used to treat infestations of parasitic intestinal worms. Our anthelmintic products include Rumatel<sup>®</sup> and Banminth<sup>®</sup>, which are both marketed to control major internal nematode parasites in beef and dairy cattle and swine.

Bloat Guard<sup>®</sup> is an anti-bloat treatment used in cattle to control bloat in animals grazing on legume or wheat-pasture.

#### *Nutritional Specialties*

Our primary nutritional specialty products have been identified, developed and commercialized by our staff of nutritionists and veterinarians working with private research companies, leading universities, and customers with whom we collaborate. For those of our nutritional specialty products that are not proprietary or exclusive to us, we typically maintain unique supply agreements or exclusive distributor status with the product developers giving us preferential access to trademarks, territories and research data.

Our nutritional specialty products include:

<b>Product</b>	<b>Market Entry</b>	<b>Description</b>
AB20 <sup>®</sup>	1989	Natural flow agent that improves overall feed quality
Chromax <sup>®</sup>	1992	Source of organic chromium used to optimize swine production through reproductive efficiency
Animate <sup>®</sup>	1999	Maintains proper blood calcium levels in dairy cows during critical transition period
Omnigen-AF <sup>®</sup>	2004	Optimizes immune status in dairy cows
Provia 6086 <sup>™</sup>	2013	Direct fed microbial for all classes of livestock
Magni-Phi <sup>®</sup>	2015	Proprietary blend that helps to improve immune response to enhance absorption and utilization of nutrients for poultry
Cellerate Yeast Solutions <sup>®</sup>	2017	Proprietary yeast culture products for all classes of livestock to help improve digestive health

AB20<sup>®</sup> is a natural flow agent that, when added to feed, improves the overall feed quality. The product is one of the most thoroughly researched in the flow agent product category.

Chromax<sup>®</sup>, chromium tripicolinate, is a source of organic chromium used to optimize swine production and is predominantly used in sows where it has been proven to improve reproductive efficiency and litter size. Chromax can result in a significant return on investment for swine producers because of its low cost relative to other production costs and the reproductive and litter size improvements it promotes.

Animate<sup>®</sup> is a unique patented anionic mineral supplement that helps optimize the health and performance of the transition dairy cow and improves profitability for dairy producers.

Omnigen-AF<sup>®</sup> is a proprietary nutritional specialty product manufactured and marketed exclusively by us that has been shown in various studies to help maintain a cow's healthy immune system and improve their natural response to potential environmental and health challenges.

Magni-Phi<sup>®</sup> is a proprietary blend of saponins, triterpenoids and polyphenols that helps to improve immune response to enhance the absorption and utilization of nutrients for poultry.

Cellerate Yeast Solutions<sup>®</sup> is a line of proprietary yeast culture and yeast culture blends with yeast fractions and/or live cell yeast used in all classes of livestock and companion animals for improved digestive health, feed intake and/or pathogen inhibition. Improved digestive health may lead to improved animal health and performance.

Nutritional specialty products are marketed to livestock producers by working through key influencers, such as animal nutritionists and veterinarians.

### *Vaccines*

We develop, manufacture and market vaccines primarily for poultry in Israel, Turkey, China, South East Asia, India, East and Central Europe, Brazil and other Latin American countries and various African countries. In addition, we manufacture and market certain autogenous vaccines for chickens, swine and cattle in the United States. We produce vaccines that protect animals from both viral and bacterial disease challenges.

Our vaccine products include:

<b>Product</b>	<b>Market Entry</b>	<b>Description</b>
V.H. <sup>®</sup>	1974	Live vaccine for the prevention of Newcastle Disease in poultry
Tailor Made <sup>®</sup> Vaccines	1982	Autogenous vaccines against bacterial and viral diseases in swine and cattle
MVP Adjuvants <sup>®</sup>	1982	Components of veterinary vaccines which enhance the immune response to a vaccine

<b>Product</b>	<b>Market Entry</b>	<b>Description</b>
TAbic M.B.	2004	Live vaccine for the prevention of Infectious Bursal Disease in poultry
MJPRRS <sup>®</sup>	2007	Autogenous vaccine for the prevention of PRRS in swine
TAbic IB VAR	2009	Live vaccine for the prevention of Infectious Bronchitis variant 1 strain 233A in poultry
TAbic IB VAR206	2010	Live vaccine for the prevention of Infectious Bronchitis variant 206 in poultry
SRP <sup>®</sup> Autogenous Vaccines	2014	Autogenous vaccines using Epitopix's proprietary SRP vaccine technology for prevention of various diseases in chickens including Salmonella and E. coli bacteria

The V.H. strain of Newcastle Disease vaccine is a pathogenic strain and is effective when applied by aerosol, coarse spray, drinking water or eye-drops. It has been used successfully under various management and climate conditions in many breeds of poultry.

Tailor Made<sup>®</sup> Vaccines are autogenous vaccines against bacterial and viral diseases which contain antigens specific to each farm. We manufacture and sell these vaccines to veterinarians for use primarily in swine and cattle.

MVP Adjuvants<sup>®</sup> are integral components used in inactivated veterinary vaccines which enhance the immune response to a vaccine. Our adjuvants include Emulsigen<sup>®</sup>, Carbigen and Polygen.

The M.B. strain of Gumboro vaccine is an intermediate virulence live vaccine strain used for the prevention of Infectious Bursal Disease in poultry. The intermediate strain was developed to provide protection against the new field epidemic virus, which is more virulent than those previously encountered.

MJPRRS<sup>®</sup>, an autogenous vaccine for swine, is administered to pregnant sows to protect their offspring from PRRS. This vaccine includes multiple PRRS isolates representing different groups of PRRS viruses.

TAbic IB VAR and TAbic IB VAR206 vaccines are intermediate virulence live vaccine strains used for the prevention of infectious bronchitis in poultry. Both vaccines have become significant tools in the increasing fight against infectious bronchitis in regions throughout the world.

In the United States, we distribute Epitopix's proprietary SRP<sup>®</sup> autogenous vaccines for chickens. Several clinical challenge studies with Salmonella and E. coli bacteria (which are a focus of food safety) have been completed using SRP technology.

We also focus on innovation to produce new antigens or new presentations of antigens, and have developed new vaccines, such as the inactivated subunit Infectious Bursal Disease Virus and Egg Drop Syndrome vaccines, being sold as monovalent vaccines or in combinations with other antigens.

### ***Mineral Nutrition***

Our mineral nutrition products principally include inorganic and organic compounds of copper, zinc, cobalt, iron, selenium, manganese, magnesium and iodine.

Our major mineral nutrition customers are regional and national feed companies, distributors, co-ops, premixers, integrated swine, beef and poultry operations and pet food companies. The majority of our customers have nutrition staffs who determine their own formulae for custom trace mineral premixes.

Trace mineral costs fluctuate with commodity markets, and therefore, these products are price-sensitive. Their sale requires a focused effort on cost management, quality control, customer service, pricing and logistics execution to be profitable.

### ***Performance Products***

Our Performance Products business manufactures and markets products for use in the personal care, automotive, industrial chemical and chemical catalyst industries. We operate the business through our PhibroChem (a division of PAHC), Ferro Metal and Chemical Corporation Limited and Phibro-Tech, Inc. ("Phibro-Tech") business units.

**Sales and Marketing**

Our sales organization includes sales, marketing and technical support employees. In markets where we do not have a direct commercial presence, we generally contract with distributors that provide logistics and sales and marketing support for our products. Together, our Animal Health and Mineral Nutrition businesses have a sales, marketing and technical support organization of approximately 300 employees plus approximately 200 distributors who market our portfolio of more than 1,300 product presentations to livestock producers, animal feed companies and distributors in over 65 countries.

In direct sales markets, we sell our animal health and mineral nutrition products through our local sales offices, either directly to integrated poultry, swine and cattle integrators or through commercial animal feed manufacturers, wholesalers and distributors. Our sales representatives visit our customers, including animal feed companies, distributors and livestock producers, to inform, promote and sell our products and services. In direct service markets, our technical operations specialists provide scientific consulting focused on disease management and herd management, training and education on diverse topics, including responsible product use.

We sell our Performance Products through our local sales offices to the personal care, automotive, industrial chemical and chemical catalyst industries. We market these products predominately in the United States.

**Customers**

We have approximately 3,000 customers, of which approximately 2,700 customers are served by our Animal Health and Mineral Nutrition businesses. We consider a diverse set of livestock producers, including poultry and swine operations and beef and dairy farmers, to be the primary customers of our livestock products. We sell our products directly to livestock and aquaculture producers and to distributors that typically re-sell the products to livestock producers. We do not consider the business to be dependent on a single customer or a few customers, and we believe the loss of any one customer would not have a material adverse effect on our results.

We typically sell pursuant to purchase orders from customers and generally do not enter into long-term delivery contracts.

**Product Registrations, Patents and Trademarks**

We own certain product registrations, patents, trade names and trademarks, and use know-how, trade secrets, formulae and manufacturing techniques, which assist in maintaining the competitive positions of certain of our products. We believe that technology is an important component of our competitive position, and it provides us with low cost positions enabling us to produce high quality products. Patents protect some of our technology, but a significant portion of our competitive advantage is based on know-how built up over many years of commercial operation, which is protected as trade secrets. We own, or have exclusive rights to use under license, approximately 180 patents or pending applications in approximately 50 countries but we believe that no single patent is of material importance to our business and, accordingly, that the expiration or termination thereof would not materially affect our business.

We market our animal health products under hundreds of governmental product registrations approving many of our products with respect to animal drug safety and efficacy. The use of many of our medicated products is controlled by regulatory authorities that are specific to each country (e.g., the FDA in the United States, Health Canada in Canada and EFSA/EMA in Europe). Because they regulate the safety and wholesomeness of the human food supply, their responsibility includes feed additives for animals from which human food products are derived. Each of our medicated products is registered separately in each country where it is sold. We continuously monitor, maintain and update the appropriate registration files pertaining to such regulations and approvals. In certain countries where we work with a third party distributor, local regulatory requirements may require registration in the name of such distributor. As of June 30, 2017, we had approximately 700 Animal Health product registrations globally, including approximately 400 MFA registrations and approximately 300 vaccine registrations. Our MFA global registrations included 95 registrations for virginiamycin.

Additionally, many of our vaccine products are based on proprietary master seeds, proprietary adjuvant formulations or patented virus grouping technology. We actively seek to protect our proprietary information, including our trade secrets and proprietary know-how, by seeking to require our employees, consultants, advisors and partners to enter into confidentiality agreements and other arrangements upon the commencement of their employment or engagement.

We seek to file and maintain trademark registrations around the world based on commercial activities in most regions where we have, or desire to have, a business presence for a particular product or service. We currently maintain, or have rights to use under license, approximately 1,500 trademark registrations or pending applications globally, identifying goods and services related to our business.

Our technology, brands and other intellectual property are important elements of our business. We rely on patent, trademark, copyright and trade secret laws, as well as non-disclosure agreements, to protect our intellectual property rights. Our policy is to vigorously protect, enforce and defend our rights to our intellectual property, as appropriate.

### **Regulatory**

Many of our animal health and mineral nutrition products require licensing by a governmental agency before marketing. To maintain compliance with these regulatory requirements, we have established processes, systems and dedicated resources with end-to-end involvement from product concept to launch and maintenance in the market. Our regulatory function seeks to engage in dialogue with various global agencies regarding their policies that relate to animal health products. For products that are currently subject to formal licensing by government agencies, our business relies on the ongoing approval and/or periodic re-approval of those licenses. Failure to maintain and, where applicable, renew those licenses for any reason including, but not limited to, changing regulations, more stringent technical, legal or regulatory requirements, or failure of the company or its agents to make timely, complete or accurate submissions, could result in suspension or loss of the company's rights to market its products in one or more countries.

#### *United States*

In the United States, governmental oversight of animal nutrition and health products is conducted primarily by the United States Department of Agriculture ("USDA") and/or the FDA. The United States Environmental Protection Agency (the "EPA") has jurisdiction over certain products applied topically to animals or to premises to control external parasites and shares regulatory jurisdiction of ethanol manufactured in biofuel manufacturing facilities with the FDA.

The USDA and the FDA are primarily responsible for the safety and wholesomeness of the U.S. human food supply. The FDA regulates foods intended for human consumption and, through the Center for Veterinary Medicine ("CVM"), regulates the manufacture and distribution of animal drugs that will be given to animals from which human foods are derived. All manufacturers of animal health pharmaceuticals must show their products to be safe, effective and produced by a consistent method of manufacture as defined under the Federal Food, Drug, and Cosmetic Act. To protect the food and drug supply for animals, the FDA develops technical standards for animal drug safety and effectiveness and evaluates data necessary to support approvals of veterinary drugs. Drug sponsors are required to file reports of certain product quality defects and adverse events in accordance with agency requirements.

The main regulatory body in the United States for veterinary pesticides is the EPA. The EPA's Office of Pesticide Programs is responsible for the regulation of pesticide products applied to animals. All manufacturers of animal health pesticides must show their products will not cause "unreasonable adverse effects to man or the environment" as stated in the Federal Insecticide, Fungicide, and Rodenticide Act. Within the United States, pesticide products that are approved by the EPA must also be approved by individual state pesticide authorities before distribution in that state. Post-approval monitoring of products is required, with reports provided to the EPA and some state regulatory agencies.

FDA approval of Type A/B/C Medicated Feed Articles and drugs is based on satisfactory demonstration of safety, efficacy, manufacturing quality standards and appropriate labelling. Efficacy requirements are based on the desired label claim and encompass all species for which label indication is desired. Safety requirements include target animal safety and, in the case of food animals, human food



safety (HFS). HFS reviews encompass drug residue levels and the safety of those residue levels. In addition to the safety and efficacy requirements for animal drugs used in food-producing animals, environmental safety must be demonstrated. Depending on the compound, the environmental studies may be quite extensive and expensive. In many instances, the regulatory hurdles for a drug that will be used in food-producing animals are at least as stringent as, if not more so than, those required for a drug used in humans.

The Office of New Animal Drug Evaluation is responsible for reviewing information submitted by drug sponsors who wish to obtain approval to manufacture and sell animal drugs. A new animal drug is deemed unsafe unless there is an approved New Animal Drug Application (“NADA”). Virtually all animal drugs are “new animal drugs” within the meaning of the term in the Federal Food, Drug, and Cosmetic Act. An approved Abbreviated New Animal Drug Application (“ANADA”) is a generic equivalent of an NADA previously approved by the FDA. Both are administered by the FDA. The drug development process for human therapeutics can be more involved than that for animal drugs. However, because human food safety and environmental safety are issues for food-producing animals, the animal drug approval process for food-producing animals typically takes longer than for non-food-producing animals, such as companion animals.

The FDA may deny an NADA or ANADA if applicable regulatory criteria are not satisfied, require additional testing or information, or require post-marketing testing and surveillance to monitor the safety or efficacy of a product. There can be no assurances that FDA approval of any NADA or ANADA will be granted on a timely basis, or at all. Moreover, if regulatory approval of a product is granted, such approval may entail limitations on the indicated uses for which it may be marketed. Finally, product approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur following initial marketing. Among the conditions for NADA or ANADA approval is the requirement that the prospective manufacturer’s quality control and manufacturing procedures conform to FDA’s current Good Manufacturing Practice (“cGMP”) regulations. A manufacturing facility is periodically inspected by the FDA for determination of compliance with cGMP after an initial pre-approval inspection. Certain subsequent manufacturing changes must be approved by the FDA prior to implementation. In complying with standards set forth in these regulations, manufacturers must continue to expend time, monies and effort in the area of production and quality control to ensure compliance. The process of seeking FDA approvals can be costly, time consuming, and subject to unanticipated and significant delays. There can be no assurance that such approvals will be granted on a timely basis, or at all. Any delay in obtaining or any failure to obtain FDA or foreign government approvals, or the suspension or revocation of such approvals, would adversely affect our ability to introduce and market our products and to generate revenue.

The issue of the potential for increased bacterial resistance to certain antibiotics used in certain food-producing animals is the subject of discussions on a worldwide basis and, in certain instances, has led to government restrictions on the use of antibiotics in these food-producing animals. The sale of antibiotics is a material portion of our business. Legislative bills are introduced in the United States Congress from time to time that, if adopted, could have an adverse effect on our business. One of these initiatives is a proposed bill called the Preservation of Antibiotics for Medical Treatment Act, which has been introduced in every Congress since the mid 2000’s. To date, such bills have not had sufficient support to become law. Should statutory, regulatory or other developments result in restrictions on the sale of our products, it could have a material adverse impact on our financial position, results of operations and cash flows.

In November 2004, the CVM released a draft for comment of its risk assessment of streptogramin resistance for treatment of certain infections in humans attributable to the use of streptogramins in animals (the “risk assessment”). The risk assessment was initiated after approval of a human drug called Synercid<sup>®</sup> (quinupristin/dalfopristin) for treating vancomycin resistant *Enterococcus faecium* (VREf), which led to increased attention regarding the use of streptogramins in animals. Synercid and virginiamycin (the active ingredient in our Stafac product) are both members of the streptogramin class of antimicrobial drugs. The risk assessment was unable to produce any firm conclusions as to whether, and, if so, how much, the use of virginiamycin in food animals contributes to the occurrence of streptogramin-resistant infections in humans via a foodborne pathway.



In classifying virginiamycin in 2003 as a “medically important antimicrobial” (“MIA”) on the CVM’s Guidance for Industry (“GFI”) 152 list, a guidance document for evaluating the microbial safety of antimicrobial new animal drugs on food for human consumption, the FDA’s stated concern was the potential impact on use of Synercid for treating VREf in humans. In 2010, the U.S. label for Synercid was changed and the VREf indication was removed. The FDA determined that data submitted by the sponsor of Synercid failed to verify clinical benefit of the product for the treatment of VREf infections in humans. We have requested that FDA remove the streptogramin class of antimicrobials from GFI 152 to reflect that they are not “medically important” for human therapy, however, the FDA has declined our request, citing primarily the need to engage all stakeholders on any possible changes to GFI 152 through the processes mandated by the FDA’s good guidance practices, including issuing guidance revisions in draft and giving the public an opportunity to comment. There can be no assurance that we will be successful in the future in gaining the FDA’s agreement with our view that removal of the VREf indication for Synercid requires the FDA to remove virginiamycin from the GFI 152 list.

Effective January 2017, the CVM’s revised VFD regulations, which included changes to the control and use of antimicrobial products for use in animal feed, require that affected antimicrobial products may only be used if authorized by a veterinarian in accordance with the regulations. Prior to implementation of the revised VFD regulations, many approved antimicrobial products could be obtained and used without formal veterinary authorization.

In January 2017, the FDA and industry completed the process of label changes for MIA products to remove production claims and to limit the use of MIAs to those uses that are considered necessary for assuring animal health, namely for the prevention, control, and/or treatment of disease, and that MIA use in food-producing animals should include veterinary oversight or consultation. The label changes were the result of recommendations from the CVM, as described in GFI 213 (“New Animal Drugs and New Animal Drug Combination Products Administered in or on Medicated Feed or Drinking Water of Food-Producing Animals: Recommendations for Drug Sponsors for Voluntarily Aligning Product Use Conditions with GFI 209”) and GFI 209 (“The Judicious Use of Medically Important Antimicrobial Drugs in Food-Producing Animals”). We completed the process for label changes as described in GFI 213 by January 2017, within the timeline requested by the FDA.

In the United States, the antibacterial products within our poultry business, the largest portion of our MFAs and other business in this region, as well as our cattle business, have approved therapeutic indications. We believe, based on current producer usage patterns, the large majority of use of our products that have been classified by the FDA as medically important antimicrobials is for therapeutic purposes. Overall, United States sales of antibacterial products that have been classified by the FDA as medically important antimicrobials were \$23 million and \$37 million for the years ended June 30, 2017 and 2016, respectively.

In April 2016, the FDA began initial steps to withdraw approval of Mecadox (carbadox), due to concerns that certain residues from the product may persist in tissues for longer than previously determined. This initial action by the FDA does not prohibit the sale or use of Mecadox in the United States. Mecadox has been approved and sold in the United States for more than 40 years and is a widely used treatment for controlling bacterial diseases including Salmonella and swine dysentery. Mecadox is not used in human medicine and the class of drug is not considered a medically important antimicrobial. The approved Mecadox label requires a 42-day withdrawal period pre-harvesting, and to date we have not seen any hazardous residues of carbadox being detected from pig meat treated in accordance with the approved label. We have complete confidence in the safety of Mecadox. In response to FDA inquiries several years ago, we began rigorous new studies of the continued safety of the product when used in accordance with the label. Our studies were completed in July 2016, and we submitted our data, analyses and information to the FDA that we believe support the continued safe use of Mecadox. The timing of the FDA’s response to our submission is not subject to a predetermined deadline. Our sales of Mecadox in the United States were approximately \$15 million for each of the years ended June 30, 2017 and 2016. Should we be unable to successfully defend the safety of the product, the loss of Mecadox sales would have a negative impact to the results of our operations.

In February 2015, the FDA conducted a follow-up inspection at our Teaneck, NJ headquarters to verify changes to and corrective actions related to various analytical test results and practices, expiration

dating and reporting requirements regarding specification non-conformance. A Form 483 was issued, which contained one inspectional observation citing two examples of the observed violation. The observation questioned whether or not we are able to confirm that the drug components (of Type A medicated products) remain uniformly dispersed and stable under ordinary conditions of shipment, storage and use. We responded to the inspectional observation in writing in March 2015. This inspectional observation has not impacted our ability to market products in the United States or any other country. We believe the Form 483 observation has been satisfactorily addressed; however, we have not yet received a formal response from the FDA to our written response.

In March 2016, the FDA conducted a cGMP audit of our manufacturing facility at Guarulhos, Brazil. The FDA issued inspectional observations (Form 483) pertaining to six observations made during the inspection. We responded to the inspectional observations in May 2016 and have committed to provide additional data when available. It is likely the FDA will require a follow up site inspection to review the actions we have taken. Such an inspection, if needed, could occur at any time, or may be incorporated with a routine cGMP audit. The timing of such audit is determined by the FDA but is typically at approximately two year intervals. While we have taken actions to address our cGMP program and are working to implement the FDA's remaining recommendations, there can be no assurance that the FDA will concur. Failure to comply with cGMP standards could have a material impact on our business and financial results.

#### *European Union*

European Union ("E.U.") legislation requires that veterinary medicinal products must have a marketing authorization before they are placed on the market in the European Union. A veterinary medicinal product must meet certain quality, safety, efficacy and environmental criteria to receive a marketing authorization. The European Medicines Agency (and its main veterinary scientific committee, the Committee for Medicinal Products for Veterinary Use) and the national authorities in the various E.U. Member States, are responsible for administering this regime.

A separate E.U. regime applies to feed additives. It provides for a re-registration process for existing additives and this process is ongoing. For certain types of additives, the authorizations are not generic in nature (so that they can be relied upon by any operator) but are limited to the company that obtained the marketing authorization. They are known as Brand Specific Approvals ("BSA"). The system is similar to the U.S. system, where regulatory approval is for the formulated product or "brand."

The European Food Safety Authority ("EFSA") is responsible for the E.U. risk assessment regarding food and feed safety. In close collaboration with national authorities and in open consultation with its stakeholders, EFSA provides independent scientific advice and communication on existing and emerging risks. EFSA may issue advice regarding the process of adopting or revising European legislation on food or feed safety, deciding whether to approve regulated substances such as pesticides and food additives, or developing new regulatory frameworks and policies, for instance, in the field of nutrition. EFSA aims to provide appropriate, consistent, accurate and timely communications on food safety issues to all stakeholders and the public at large, based on the Authority's risk assessments and scientific expertise. One of the key areas of concern for the EFSA is the containment of antimicrobial resistance.

A number of manufacturers, including us, submitted dossiers in order to re-register various anticoccidials for the purpose of obtaining regulatory approval from the European Commission. The BSA for our nicarbazin product was published in October 2010. We sell nicarbazin under our own BSA and as an active ingredient for another marketer's product that has obtained a BSA and is sold in the European Union. Similarly, a BSA for our semduramicin product, Aviax, was published in 2006 and requires reauthorization in October 2016. We have submitted a dossier for reauthorization in accordance with the requirements of the EFSA and responded to request for additional information from EFSA by submitting additional data. Because the EFSA's requests were in addition to standard reauthorization requirements, the current BSA remains valid while EFSA reviews the additional data we have submitted. There can be no guarantee that these submissions will be reviewed favorably or in a timely manner. Failure to gain reauthorization in a timely manner could have an adverse financial impact on our business.

*Brazil*

The Ministry of Agriculture, Livestock Production and Supply (“MAPA”) is the regulatory body in Brazil responsible for the regulation and control of pharmaceuticals, biologicals and medicinal feed additives for animal use. MAPA’s regulatory activities are conducted through the Secretary of Agricultural Defense and its Livestock Products Inspection Department. These activities include the inspection and licensing of both manufacturing and commercial establishments for veterinary products, as well as the submission, review and approval of pharmaceuticals, biologicals and medicinal feed additives.

*Rest of world*

We are also subject to regulatory requirements governing investigation, clinical trials and marketing approval for animal drugs in many other countries in which our products are sold. The regulatory approval process includes similar risks to those associated with FDA and European Commission approvals set forth above.

*Global policy and guidance*

Country-specific regulatory laws have provisions that include requirements for certain labeling, safety, efficacy and manufacturers’ quality procedures (to assure the consistency of the products), as well as company records and reports. With the exception of Australia, Canada, Japan and New Zealand, most other countries’ regulatory agencies will generally refer to the FDA, USDA, European Union and other international animal health entities, including the World Organization for Animal Health, Codex Alimentarius Commission, the recognized international standard-setting body for food (“Codex”), before establishing their own standards and regulations for veterinary pharmaceuticals and vaccines.

The Joint FAO/WHO Expert Committee on Food Additives is an international expert scientific committee that is administered jointly by the Food and Agriculture Organization of the United Nations and the World Health Organization. It provides risk assessments and safety evaluations of residues of veterinary drugs in animal products as well as exposure and residue definition and maximum residue limit proposals for veterinary drugs in traded food commodities. These internationally published references may also be used by national authorities when setting domestic standards. We work with the national authorities to establish acceptable safe levels of residual product in food-producing animals after treatment. This in turn enables the calculation of appropriate withdrawal times for our products prior to an animal entering the food chain.

In July 2014, the Codex adopted risk management advice language for a number of compounds including carbadox. The advice language states “authorities should prevent residues of carbadox in food. This can be accomplished by not using carbadox in food producing animals.” The advice language is to provide advice only and is not binding on individual national authorities, and almost all national authorities already have long-established regulatory standards for carbadox, including prohibiting the use of carbadox in swine production within their territory, prohibiting the importation of pork from swine that are fed carbadox, or permitting the importation of pork from swine that are fed carbadox provided there is no detection of carbadox residues in the meat. The advice language may be considered by national authorities in making future risk management determinations. To the extent additional national authorities elect to follow the advice and prohibit the use of carbadox in food-producing animals and/or the importation of pork from swine that are fed carbadox, such decisions could have an adverse effect on our sales of carbadox in those countries or in countries that produce meat for export to those countries.

*Advertising and promotion review*

Promotion of animal health products is controlled by regulations in many countries. These rules generally restrict advertising and promotion to those approved claims and uses that have been reviewed and endorsed by the applicable agency. We conduct a review of promotion material for compliance with the local and regional requirements in the markets where we sell animal health products.

*Food Safety Inspection Service/Generally Recognized As Safe*

The FDA is authorized to determine the safety of substances (including “generally recognized as safe” (“GRAS”) substances, and food and feed additives), as well as prescribing safe conditions of use. The

FDA, which has the responsibility for determining the safety of substances, together with the Food Safety and Inspection Service, the food safety branch within the USDA, maintain the authority in the United States to determine that new substances and new uses of previously approved substances are suitable for use in meat, milk and poultry products.

In 2008, the FDA announced that the agency required formal review of all additives used in the production of ethanol, including our Lactrol<sup>®</sup> product (formulated virginiamycin), where the co-products may be used for animal feed. Virginiamycin has been certified by an independent expert panel convened by us as GRAS for use as a processing aid in ethanol production and as related to the use of the resulting distiller's co-products for animal feed. We believe that this determination satisfies the FDA requirement. However, there can be no assurance we will be successful in maintaining market access for our Lactrol product or other ethanol production additives that we sell.

### **Competition**

We are engaged in highly competitive industries and, with respect to all of our major products, face competition from a substantial number of global and regional competitors. Some competitors have greater financial, R&D, production and other resources than we have. Our competitive position is based principally on our product registrations, customer service and support, breadth of product line, product quality, manufacturing technology, facility location, and product prices. We face competition in every market in which we participate. Some of our principal competitors include Bayer AG, Ceva Santé Animale, Boehringer Ingelheim International GMBH, Eli Lilly and Company (Elanco Animal Health), Huvepharma Inc., Lallemand Inc., Merck & Co., Inc. (Merck Animal Health and MSD Animal Health), Pharmgate LLC, Southeastern Minerals, Inc., Virbac and Zoetis Inc. Many of our products face competition from products that may be used as an alternative or substitute.

There continues to be consolidation in the animal health market, which could strengthen our competitors. Our competitors can be expected to continue to improve the design and performance of their products and to introduce new products with competitive price and performance characteristics. There can be no assurance that we will have sufficient resources to maintain our current competitive position, however, we believe the following strengths create sustainable competitive advantages that will enable us to continue our growth as a leader in our industry:

#### *Products Aligned with Need for Increased Protein Production*

Increased scarcity of natural resources is increasing the need for efficient production of food animals such as poultry, swine and cattle. Our animal health products, including our MFAs, vaccines and nutritional specialty products, help prevent and manage disease outbreaks and enhance nutrition to help support natural defenses against diseases. These products are often critical to our customers' efficient production of healthy animals. Our leading MFAs product franchise, Stafac/V-Max/Eskalin, is approved in over 30 countries for use in poultry, swine and cattle and is regarded as one of the leading MFA products for production animals. Our nicarbazin and amprolium MFAs are globally recognized anticoccidials. Our nutritional specialty product offerings such as OmniGen-AF and Animate are used increasingly in the global dairy industry, and Magni-Phi is rapidly becoming an important product for poultry producers. Our vaccine products are effective against critical diseases in poultry, swine and cattle.

#### *Global Presence with Existing Infrastructure in Key High-Growth Markets*

We have an established direct presence in many important emerging markets, and we believe we are a leader in many of the emerging markets in which we operate. Our existing operations and established sales, marketing and distribution network in over 65 countries, provide us with opportunities to take advantage of global growth opportunities. Outside of the United States, our global footprint reaches to key high growth regions (countries where the livestock production growth rate is expected to be higher than the average growth rate) including Brazil and other countries in South America, China, India and Southeast Asia, Russia and former CIS countries, Mexico, Turkey, Australia, Canada and South Africa and other countries in Africa. Our operations in countries outside of the United States contributed approximately 52% of our Animal Health segment revenues for the year ended June 30, 2017.

*Leading Positions in High Growth Sub-sectors of the Animal Health Market*

We are a global leader in the development, manufacture and commercialization of MFA products for the animal health market. We believe we are well positioned in the fastest growing food animal species segments of the animal health market with significant presence in poultry and swine, which are projected by Vetnosis to grow globally at compound annual rates from 2016 through 2021 of 6.8% and 5.1%, respectively. Our sales of MFA products were third largest in the animal health market. According to Vetnosis, MFA products are projected to grow at a compound annual rate of approximately 4.2% between 2016 and 2021.

*Diversified and Complementary Product Portfolio with Strong Brand Name Recognition*

We market products across the three largest livestock species (poultry, cattle and swine) and aquaculture and in the major product categories (MFAs, vaccines and nutritional specialty products). We believe our diversity of species and product categories enhances our sales mix and lowers our sales concentration risk. The complementary nature of our Animal Health and Mineral Nutrition portfolio provides us with unique cross-selling opportunities that can be used to gain access to new customers or deepen our relationships with existing customers. We believe we have strong brand name recognition for the Phibro name and for many of our animal health and mineral nutrition products, and we believe Phibro vaccines are recognized as an industry standard in efficacy against highly virulent disease challenges. Our diverse portfolio of products also allows us to address the distinct growing conditions of livestock in different regions.

*Experienced Sales Force and Technical Support Staff with Strong, Consultative Customer Relationships*

Within our Animal Health and Mineral Nutrition segments, utilizing both our sales, marketing and technical support organization of approximately 300 employees and a broad distribution network, we market our portfolio of more than 1,300 product presentations to livestock producers and veterinarians in over 65 countries. We interact with customers at both their corporate and operating level, which we believe allows us to develop an in-depth understanding of their needs. Our technical support and research personnel are also important contributors to our overall sales effort. We have a total of approximately 130 technical, field service and quality control/quality assurance personnel throughout the world. These professionals interface directly with our key customers to provide practical solutions to derive optimum benefits from our products.

*Experienced, Committed Employees and Management Team*

We have a diverse and highly skilled team of animal health professionals, including technical and field service personnel located in key countries throughout the world. These individuals have extensive field experience and are vital to helping us maintain and grow our business. Many of our field team have more than 20 years of experience in the animal health industry and many have been with us for more than 10 years.

We have a strong management team with a proven track record of success at both the corporate and operating levels. The executive management team has diverse backgrounds and an average of approximately 18 years of experience in the animal health industry.

**Employees**

As of June 30, 2017, we had approximately 1,400 employees. Employees at our Guarulhos, Brazil facility are covered by a multi-employer regional industry-specific union. Certain of our Israeli employees are covered by site-specific collective bargaining agreements. Certain employees are covered by individual employment agreements. We believe our relations with union and non-union employees are good.

**Manufacturing**

The Animal Health business segment manufactures many products internally and supplements that production with contract manufacturing organizations (“CMOs”) as necessary.

We manufacture active pharmaceutical ingredients for certain of our antibacterial and anticoccidial products at our facilities in Guarulhos, Brazil and Braganca Paulista, Brazil. We manufacture active pharmaceutical ingredients for certain of our anticoccidial products at our facility in Neot Hovav, Israel. We produce vaccines at our facilities in Beit Shemesh, Israel and Omaha, Nebraska. We produce pharmaceuticals, disinfectants and other animal health products at our facility in Petach Tikva, Israel. We produce certain of our major nutritional specialty and mineral nutrition products at our facilities in Quincy, Illinois, and we produce certain of our mineral nutrition products at our facility in Omaha, Nebraska.

We supplement internal manufacturing and production capabilities with CMOs. We purchase certain active pharmaceutical ingredients for other medicated products from CMOs in China, India, Mexico and other locations. We then formulate the final dosage form in our facilities and in contract facilities located in the United States, Brazil, Canada, Mexico, Australia, China and Israel.

We purchase certain raw materials necessary for the commercial production of our products from a variety of third-party suppliers. Such raw materials are generally available from multiple sources, are purchased worldwide and are normally available in quantities adequate to meet the needs of the Company's business.

We believe that our existing facilities, as supplemented by CMOs, are adequate for our current requirements and for our operations in the foreseeable future.

### **Research and Development**

Most of our manufacturing facilities have chemists and technicians on staff involved in product development, quality assurance, quality control and providing technical services to customers. Research, development and technical service efforts are conducted by our veterinarians (DVMs) and nutritionists at various facilities.

We operate Animal Health R&D and product testing at our facilities in: Guarulhos, Brazil; Beit Shemesh, Israel; Neot Hovav, Israel; Ma'ayan Tzvi, Israel; Quincy, Illinois; Corvallis, Oregon; State College, Pennsylvania; Manhattan, Kansas; St. Paul, Minnesota; and Omaha, Nebraska.

These facilities provide R&D services relating to: fermentation development and micro-biological strain improvement; vaccine development; chemical synthesis and formulation development; nutritional specialty product development; and ethanol-related products.

Our R&D expenses were \$9.4 million, \$11.0 million and \$9.5 million for fiscal years 2017, 2016 and 2015, respectively.

### **Environmental, Health and Safety**

Our operations and properties are subject to Environmental Laws (as defined below) and regulations. We have incurred, and will continue to incur, expenses to attain and maintain compliance with Environmental Laws. While we believe that our operations are currently in material compliance with Environmental Laws, we have, from time to time, received notices of violation from governmental authorities, and have been involved in civil or criminal action for such violations, including for odor releases in Guarulhos, Brazil. Additionally, at various sites, our subsidiaries are engaged in continuing investigation, remediation and/or monitoring to address contamination associated with historical operations. We maintain accruals for costs and liabilities associated with Environmental Laws, which we currently believe are adequate. In many instances, it is difficult to predict the ultimate costs under Environmental Laws and the time period during which such costs are likely to be incurred.

Governmental authorities have the power to enforce compliance with their regulations. Violators of Environmental Laws may be subject to civil, criminal and administrative penalties, injunctions or both. Failure to comply with Environmental Laws may result in the temporary or permanent suspension of operations and/or permits, limitations on production, or increased operating costs. In addition, private plaintiffs may initiate lawsuits for personal injury, property damage, diminution in property value or other relief as a result of our operations. Environmental Laws, and the interpretation or enforcement thereof, are subject to change and may become more stringent in the future, potentially resulting in substantial future costs or capital or operating expenses. We devote considerable resources to complying with Environmental

Laws and managing environmental liabilities. We have developed programs to identify requirements under and maintain compliance with Environmental Laws; however, we cannot predict with certainty the impact of increased and more stringent regulation on our operations, future capital expenditure requirements, or the cost of compliance. Based upon our experience to date, we believe that the future cost of compliance with existing Environmental Laws, and liabilities for known environmental claims pursuant to such Environmental Laws, will not have a material adverse effect on our financial position, results of operations, cash flows or liquidity.

### ***Environmental Health and Safety Regulations***

The following summarizes the principal Environmental Laws affecting our business.

*Waste Management.* Our operations are subject to statutes and regulations addressing the contamination by, and management of, hazardous substances and solid and hazardous wastes. In the United States, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (“CERCLA”), also known as the “Superfund” law, and comparable state laws, generally impose strict joint and several liability for costs of investigation and remediation and related liabilities, on defined classes of “potentially responsible parties” (“PRPs”). PRPs can be required to bear all of such costs regardless of fault, the legality of the original disposal or ownership of the disposal site. We have been, and may become, subject to liability under CERCLA for cleanup costs or investigation or clean up obligations or related third-party claims in connection with releases of hazardous substances at or from our current or former sites or offsite waste disposal facilities used by us, including those caused by predecessors or relating to divested properties or operations.

We must also comply with the Resource Conservation and Recovery Act of 1976, as amended (“RCRA”), and comparable state laws regulating the treatment, storage, disposal, remediation and transportation of solid and hazardous wastes. These laws impose management requirements on generators and transporters of such wastes and on the owners and operators of treatment, storage and disposal facilities. As current or historic recyclers of chemical waste, certain of our subsidiaries have been, and are likely to be, the focus of extensive compliance reviews by environmental regulatory authorities under RCRA. Our subsidiary Phibro-Tech currently has a RCRA operating permit for its Santa Fe Springs, California facility, for which a renewal application is under review. Phibro-Tech initially submitted an application for renewal of its permit for the Santa Fe Springs facility in 1996. We are unable to predict when the State of California will issue a draft permit for public review and comment. Until the State of California issues its final decision on the renewal application, the facility is continuing to operate under the existing permit. In addition, because we or our subsidiaries have closed several facilities that had been the subject of RCRA permits, we or our subsidiaries have been and will be required to investigate and remediate certain environmental contamination conditions at these shutdown plant sites within the requirements of RCRA corrective action programs.

*Federal Water Pollution Control Act, as amended.* We must comply with regulations related to the discharge of pollutants to the waters of the United States without governmental authorization, including those pursuant to the Federal Water Pollution Control Act.

*Chemical Product Registration Requirements.* We must comply with regulations related to the testing, manufacturing, labeling, registration and safety analysis of our products in order to distribute many of our products, including, for example, in the United States, the federal Toxic Substances Control Act and Federal Insecticide, Fungicide and Rodenticide Act, and in the European Union, the Regulation on Registration, Evaluation, Authorization and Restriction of Chemical Substances (“REACH”).

*Air Emissions.* Our operations are subject to the U.S. Clean Air Act (the “CAA”) and comparable U.S. state and foreign statutes and regulations, which regulate emissions of various air pollutants and contaminants. Certain of the CAA’s regulatory programs are the subject of ongoing review and/or are subject to ongoing litigation, such as the rules establishing new Maximum Achievable Control Technology for industrial boilers; significant expenditures may be required to meet current and emerging air quality standards. Regulatory agencies can also impose administrative, civil and criminal penalties for non-compliance with air permits or other air quality regulations. States may choose to set more stringent air emissions rules than those in the CAA. State, national and international authorities have also issued



requirements focusing on greenhouse gas reductions. In the United States, the EPA has promulgated federal greenhouse gas regulations under the CAA affecting certain sources. In addition, a number of state, local and regional greenhouse gas initiatives are also being developed or are already in place. In Israel and Brazil, implementation of the Kyoto Protocol requirements regarding greenhouse gas emission reductions consists of energy efficiency regulations, carbon dioxide emissions allowances trading and renewable energy requirements.

### ***Capital Expenditures***

We have incurred and expect to continue to incur costs to maintain compliance with environmental, health and safety laws and regulations. Our capital expenditures relating to environmental, health and safety regulations were \$3.3 million for fiscal year 2017. We estimate that our capital expenditures for compliance will be \$9.6 million and \$5.0 million for fiscal years 2018 and 2019, respectively; however, these estimates are subject to change given the uncertainty of future Environmental Laws and the interpretation and enforcement thereof, as further described in this Annual Report on Form 10-K. Our environmental capital expenditure plans cover, among other things, the currently expected costs associated with known permit requirements relating to facility improvements.

### ***Contamination and Hazardous Substance Risks***

*Investigation, Remediation and Monitoring Activities.* Certain of PAHC's subsidiaries that are currently or were historically engaged in recycling and other activities involving hazardous materials have been required to perform site investigations at their active, closed and former facilities and neighboring properties. Contamination of soil, groundwater and other environmental media has been identified or is suspected at several of these locations, including Santa Fe Springs, California; Powder Springs, Georgia; Union, Illinois; Sewaren, New Jersey; Sumter, South Carolina; and Joliet, Illinois, and regulatory authorities have required, and will continue to require, further investigation, corrective action and monitoring over future years. These subsidiaries also have been, and in the future may be, required to undertake additional capital improvements as part of these actions. In addition, RCRA and other applicable statutes and regulations require these subsidiaries to develop closure and post-closure plans for their facilities and in the event of a facility closure, obtain a permit that sets forth a closure plan for investigation, remediation and monitoring and requires post-closure monitoring and maintenance for up to 30 years. We believe we are in material compliance with these requirements and maintain adequate reserves to complete remediation and monitoring obligations at these locations.

In connection with past acquisitions and divestitures, we have undertaken certain indemnification obligations that require us, or may in the future require us, to conduct or finance environmental cleanups at sites we no longer own or operate. Under the terms of the sale of the former facility in Joliet, Illinois, Phibro-Tech remains responsible for any required investigation and remediation of the site attributable to conditions at the site at the time of the February 2011 sale date, and we believe we have sufficient reserves to cover the cost of the remediation.

*PRP at Omega Chemical Superfund Site.* The EPA is investigating and planning for the remediation of offsite contaminated groundwater that has migrated from the Omega Chemical Corporation Superfund Site ("Omega Chemical Site"), which is upgradient of Phibro-Tech's Santa Fe Springs, California facility. The EPA has named Phibro-Tech and certain other subsidiaries of PAHC as PRPs due to groundwater contamination from Phibro-Tech's Santa Fe Springs facility that has allegedly commingled with contaminated groundwater from the Omega Chemical Site. In September 2012, the EPA notified approximately 140 PRPs, including Phibro-Tech and the other subsidiaries, that they have been identified as potentially responsible for remedial action for the groundwater plume affected by the Omega Chemical Site and for EPA oversight and response costs. Phibro-Tech contends that groundwater contamination at its site is due to historical operations that pre-date Phibro-Tech and/or contaminated groundwater that has migrated from upgradient properties. In addition, a successor to a prior owner of the Phibro-Tech site has asserted that PAHC and Phibro-Tech are obligated to provide indemnification for its potential liability and defense costs relating to the groundwater plume affected by the Omega Chemical Site. Phibro-Tech has vigorously contested this position and has asserted that the successor to the prior owner is required to indemnify Phibro-Tech for its potential liability and defense costs. Furthermore, a nearby property owner



has filed a complaint in the Superior Court of the State of California against many of the PRPs allegedly associated with the groundwater plume affected by the Omega Chemical Site (including Phibro-Tech) for alleged contamination of groundwater underneath its property, and a group of companies that sent chemicals to the Omega Chemical Site for processing and recycling has filed a complaint under CERCLA, RCRA and the common law public nuisance doctrine in the United States District Court for the Central District of California against many of the PRPs allegedly associated with the groundwater plume affected by the Omega Chemical Site (including Phibro-Tech) for contribution toward past and future costs associated with the investigation and remediation of the groundwater plume affected by the Omega Chemical Site. Due to the ongoing nature of the EPA's investigation and Phibro-Tech's dispute with the prior owner's successor, at this time we cannot predict with any degree of certainty what, if any, liability Phibro-Tech or the other subsidiaries may ultimately have for investigation, remediation and the EPA oversight and response costs associated with the affected groundwater plume.

*Potential Claims.* In addition to cleanup obligations, we could also be held liable for any and all consequences arising out of human exposure to hazardous substances or other environmental damage, which liability may not be covered by insurance.

*Environmental Accruals and Financial Assurance.* We have established environmental accruals to cover known remediation and monitoring costs at certain of our current and former facilities. Our accruals for environmental liabilities are recorded by calculating our best estimate of probable and reasonably estimable future costs using current information that is available at the time of the accrual. Our accruals for environmental liabilities totaled \$7.2 million and \$7.0 million as of June 30, 2017 and 2016, respectively.

In certain instances, regulatory authorities have required us to provide financial assurance for estimated costs of remediation, corrective action, monitoring and closure and post-closure plans. Our subsidiaries, in most instances, have chosen to provide the required financial assurance by means of letters of credit, issued pursuant to our revolving credit facility, or by surety bonds. As of June 30, 2017, surety bonds and letters of credit provided \$10.0 million of financial assurance.

#### ***Workplace Health and Safety***

We are committed to manufacturing safe products and achieving a safe workplace. Our Environmental Health and Safety ("EHS") Global Director, along with regional and site-based EHS professionals, manage environmental, health and safety matters throughout the Company. The site managers are responsible for implementing the established EHS controls. To protect employees, we have established health and safety policies, programs and processes at all our manufacturing sites. An external EHS audit is performed at each of our sites as needed based on the conditions at the respective sites.

#### ***Where You Can Find More information***

We are subject to the information and periodic and current reporting requirements of the Exchange Act and, in accordance therewith, will file periodic and current reports, proxy statements and other information with the Securities and Exchange Commission ("SEC"). Such periodic and current reports, proxy statements and other information will be available to the public on the SEC's website at [www.sec.gov](http://www.sec.gov) and through our website at [www.pahc.com](http://www.pahc.com). You may also read or copy such periodic or current reports, proxy statements and other information the Company files with the SEC at the SEC's Public Reference Room, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information.

#### **Item 1A. Risk Factors**

You should carefully consider all of the information set forth in this Annual Report on Form 10-K, including the following risk factors, before deciding to invest in our Class A common stock. If any of the following risks actually occurs, our business, financial condition, results of operation or cash flows could be materially adversely affected. In any such case, the trading price of our Class A common stock could decline, and you could lose all or part of your investment. The risks below are not the only ones the Company faces. Additional risks not currently known to the Company or that the Company presently deems immaterial may also impair its business operations. This Annual Report on Form 10-K also contains

forward-looking statements that involve risks and uncertainties. The Company's results could materially differ from those anticipated in these forward-looking statements as a result of certain factors, including the risks it faces described below and elsewhere. See also "Forward-Looking Statements."

### **Risk Factors Relating to Our Business**

#### ***Perceived adverse effects on human health linked to the consumption of food derived from animals that utilize our products could cause a decline in the sales of those products.***

Our business depends heavily on a healthy and growing livestock industry. Some in the public perceive risks to human health related to the consumption of food derived from animals that utilize certain of our products, including certain of our MFA products. In particular, there is increased focus, primarily in the United States, on the use of medically important antimicrobials, as defined by the FDA. Medically important antimicrobials include classes that are prescribed in animal and human health and are listed in the Appendix of the FDA-CVM Guidance for Industry (GFI) 152. Our products that contain virginiamycin, oxytetracycline or neomycin have previously been classified by the FDA as medically important antimicrobials. This may lead to a decline in the demand for and production of food products derived from animals that utilize our products and, in turn, demand for our products. Livestock producers may experience decreased demand for their products or reputational harm as a result of evolving consumer views of nutrition and health-related concerns, animal rights and other concerns. Any reputational harm to the livestock industry may also extend to companies in related industries, including us. In addition, campaigns by interest groups, activists and others with respect to perceived risks associated with the use of our products in animals, including position statements by livestock producers and their customers based on non-use of certain medicated products in livestock production, whether or not scientifically-supported, could affect public perceptions and reduce the use of our products. Those adverse consumer views related to the use of one or more of our products in animals could have a material adverse effect on our financial condition and results of operations. Our sales in the United States of products that have been classified by the FDA as medically important antimicrobials were approximately \$23 million and \$37 million for the fiscal years ended June 30, 2017 and 2016, respectively.

#### ***Restrictions on the use of antibacterials in food-producing animals may become more prevalent.***

The issue of the potential transfer of antibacterial resistance from bacteria from food-producing animals to human bacterial pathogens, and the causality and impact of that transfer, are the subject of global scientific and regulatory discussion. Antibacterials refer to molecules that can be used to treat or prevent bacterial infections and are a sub-categorization of the products that make up our medicated feed additives portfolios. In some countries, this issue has led to government restrictions on the use of specific antibacterials in some food-producing animals, regardless of the route of administration (in feed, water, intramammary, topical, injectable or other route of administration). These restrictions are more prevalent in countries where animal protein is plentiful and governments are willing to take action even when there is scientific uncertainty.

Effective January 1, 2017, we voluntarily removed non-therapeutic claims from several of our antibacterial products sold in the United States, in order to align with the FDA's GFI 209 and GFI 213. The FDA objective, as described in GFI 209 and GFI 213, was to eliminate the production (non-therapeutic) uses of medically important antimicrobials administered in feed or water to food producing animals while providing for the continued use of medically important antimicrobials in food-producing animals for treatment, control and prevention of disease ("therapeutic" use) under the supervision of a veterinarian. The FDA indicated that it took this action to help preserve the efficacy of medically important antimicrobials to treat infections in humans. In the United States, the antibacterial products within our poultry business, the largest portion of our MFAs and other business in this region, as well as our cattle business, have approved therapeutic indications. We believe, based on current producer usage patterns, that the large majority of use of our products that have been classified by the FDA as medically important antimicrobials is at therapeutic dosage levels.

Our Mecadox (carbadox) product has been approved for use in food animals in the United States for over 40 years. Certain regulatory bodies have raised concerns about the possible presence of certain residues of our carbadox product in meat from animals that consume the product. The product was banned

for use in the European Union in 1998 and has been banned in several other countries outside the United States. In July 2014, the Codex adopted risk management advice language for a number of compounds including carbadox. The advice language states “authorities should prevent residues of carbadox in food. This can be accomplished by not using carbadox in food producing animals.” The advice language is to provide advice only and is not binding on individual national authorities, and almost all national authorities already have long-established regulatory standards for carbadox. The advice language may be considered by national authorities in making future risk management determinations. To the extent additional national authorities elect to follow the risk management advice and prohibit the use of carbadox in food-producing animals, those decisions could have an adverse effect on our sales of carbadox in those countries or in countries like the United States that produce meat for export to those countries.

In April 2016, the FDA began initial steps to withdraw approval of Mecadox (carbadox), due to concerns that certain residues from the product may persist in tissues for longer than previously determined. This initial action by the FDA does not prohibit the sale or use of Mecadox in the United States. Mecadox has been approved and sold in the United States for more than 40 years and is a widely used treatment for controlling bacterial diseases including Salmonella and swine dysentery. Mecadox is not used in human medicine and the class of drug is not considered a medically important antimicrobial. The approved Mecadox label requires a 42-day withdrawal period pre-harvesting, and to date we have not seen any hazardous residues of carbadox being detected from pig meat treated in accordance with the approved label. We have complete confidence in the safety of Mecadox. In response to FDA inquiries several years ago, we began rigorous new studies of the continued safety of the product when used in accordance with the label. Key studies were completed in July 2016, and we submitted our data, analyses and information to the FDA that we believe support the continued safe use of Mecadox. The timing of the FDA’s response to our submission is not subject to a predetermined deadline. Our sales of Mecadox in the United States were approximately \$15 million for each of the years ended June 30, 2017 and 2016, respectively. Should we be unable to successfully defend the safety of the product, the loss of Mecadox sales would have a negative impact to the results of our operations.

In 2008, the FDA announced that the agency required formal review of all additives used in the production of ethanol, including our Lactrol product (formulated virginiamycin), where the co-products may be used for animal feed. Virginiamycin has been certified by an independent expert panel convened by us as “generally recognized as safe” (“GRAS”) for use as a processing aid in ethanol production and as related to the use of the resulting distiller’s co-products for animal feed. We believe that this certification satisfies the FDA requirement. However, there can be no assurance we will be successful in maintaining market access for our Lactrol product or other ethanol production additives that we sell.

Our global sales of antibacterials and other related products were approximately \$321 million for the year ended June 30, 2017. We cannot predict whether concerns regarding the use of antibacterials will result in additional restrictions, expanded regulations or public pressure to discontinue or reduce use of antibacterials in food-producing animals, which could materially adversely affect our operating results and financial condition.

***A material portion of our sales are generated by antibacterials and other related products.***

Our medicated products business is comprised of a relatively small number of compounds and accounted for 42% and 45% of net sales for the years ended June 30, 2017 and 2016, respectively. The significant loss of antibacterial or other related product sales for any reason, including product bans or restrictions, public perception, competition or any of the other risks related to such products as described in this Annual Report on Form 10-K, could have a material adverse effect on our business.

***We face competition in each of our markets from a number of large and small companies, some of which have greater financial, R&D, production and other resources than we have.***

Many of our products face competition from alternative or substitute products. We are engaged in highly competitive industries and, with respect to all of our major products, face competition from a substantial number of global and regional competitors. We believe many of our competitors are conducting R&D activities in areas served by our products and in areas in which we are developing products. Some competitors have greater financial, R&D, production and other resources than we have. Some of our

principal competitors include Bayer AG, Ceva Santé Animale, Boehringer Ingelheim International GmbH, Eli Lilly and Company (Elanco Animal Health), Huvepharma Inc., Lallemand Inc., Merck & Co., Inc. (Merck Animal Health and MSD Animal Health), Pharmgate LLC, Southeastern Minerals, Inc., Virbac and Zoetis Inc. To the extent these companies or new entrants offer comparable animal health, mineral nutrition or performance products at lower prices, our business could be adversely affected. New entrants could substantially reduce our market share or render our products obsolete.

In certain countries, because of our size and product mix, we may not be able to capitalize on changes in competition and pricing as fully as our competitors. In recent years, there have been new generic medicated products introduced to the livestock industry, particularly in the United States.

There continues to be consolidation in the animal health market, which could strengthen our competitors. Our competitors can be expected to continue to improve the formulation and performance of their products and to introduce new products with competitive price and performance characteristics. There can be no assurance that we will have sufficient resources to maintain our current competitive position or market share.

***Outbreaks of animal diseases could significantly reduce demand for our products.***

The demand for our products could be significantly affected by outbreaks of animal diseases, and such occurrences may have a material adverse impact on the sale of our products and our financial condition and results of operations. The outbreaks of disease are beyond our control and could significantly affect demand for our products and consumer perceptions of certain meat products. An outbreak of disease could result in governmental restrictions on the import and export of chicken, pork, beef or other products to or from our customers. This could also create adverse publicity that may have a material adverse effect on our ability to sell our products successfully and on our financial condition and results of operations. In addition, outbreaks of disease carried by animals may reduce regional or global sales of particular animal-derived food products or result in reduced exports of such products, either due to heightened export restrictions or import prohibitions, which may reduce demand for our products due to reduced herd or flock sizes.

There has been substantial publicity regarding H1N1, known as North American (or Swine) Influenza and, previously, H5N1, known as Highly Pathogenic Avian Influenza, in the human population. There have also been concerns relating to E. coli in beef and Salmonella in poultry and other food poisoning micro-organisms in meats and other foods. Consumers may associate human health fears with animal diseases, food, food production or food animals whether or not it is scientifically valid, which may have an adverse impact on the demand for animal protein. Occurrences of this type could significantly affect demand for animal protein, which in turn could affect the demand for our products in a manner that has a significant adverse effect on our financial condition and results of operations. Also, the outbreak of any highly contagious disease near our main production sites could require us to immediately halt production of our products at such sites or force us to incur substantial expenses in procuring raw materials or products elsewhere.

Outbreaks of an exotic or highly contagious disease in a country where we produce our products (particularly vaccines produced at our Israeli facility) may result in other countries halting importation of our products for fear that our product may be contaminated with the exotic organism.

***Our business may be negatively affected by weather conditions and the availability of natural resources.***

The animal health industry and demand for many of our animal health products in a particular region are affected by changing disease pressures and by weather conditions, as usage of our products follows varying weather patterns and weather-related pressures from diseases. As a result, we may experience regional and seasonal fluctuations in our results of operations.

In addition, livestock producers depend on the availability of natural resources, including abundant rainfall to sustain large supplies of drinking water, grasslands and grain production. Their animals' health and their ability to operate could be adversely affected if they experience a shortage of fresh water due to human population growth or floods, droughts or other weather conditions. In the event of adverse weather conditions or a shortage of fresh water, livestock producers may purchase less of our products.

***Our operations could be subject to the effects of climate change.***

Our operations and customers may be subject to potential physical impacts of climate change, including changes in weather patterns and the potential for extreme weather events, which could affect the manufacture and distribution of our products, agricultural yields and the demand for our products and result in additional regulation that increase our operating costs.

***The testing, manufacturing, and marketing of certain of our products are subject to extensive regulation by numerous government authorities in the United States and other countries, including, but not limited to, the FDA.***

Among other requirements, FDA approval of antibacterials and other medicated products, including the manufacturing processes and facilities used to produce such products, is required before such products may be marketed in the United States. Further, cross-clearance approvals are generally required for such products to be used in combination in animal feed. Similarly, marketing approval by a foreign governmental authority is typically required before such products may be marketed in a particular foreign country. In addition to approval of the product and its labeling, regulatory authorities typically require approval and periodic inspection of the manufacturing facilities. In order to obtain FDA approval of a new animal health product, we must, among other things, demonstrate to the satisfaction of the FDA that the product is safe and effective for its intended uses and that we are capable of manufacturing the product with procedures that conform to FDA's current cGMP regulations, which must be followed at all times.

In February 2015, the FDA conducted an inspection at our Teaneck, NJ headquarters to verify changes to and corrective actions related to various analytical test results and practices, expiration dating and reporting requirements regarding specification non-conformance. A Form 483 was issued, which contained one inspectional observation citing two examples of the observed violation. The observation questioned whether or not we are able to confirm that the drug components (of Type A medicated products) remain uniformly dispersed and stable under ordinary conditions of shipment, storage and use. We responded to the inspectional observation in writing in March 2015. This inspectional observation has not impacted our ability to market products in the United States or any other country. We believe the Form 483 observation has been satisfactorily addressed, however, we have not yet received a formal response from the FDA to our written response.

In March 2016, the FDA conducted a cGMP audit of our manufacturing facility at Guarulhos, Brazil. The FDA issued inspectional observations (Form 483) pertaining to six observations made during the inspection. We responded to the inspectional observations in May 2016 and have committed to provide additional data when available. It is likely the FDA will require a follow up site inspection to review the actions we have taken. Such an inspection, if needed, could occur at any time, or may be incorporated with a routine cGMP audit. The timing of such audit is determined by the FDA but is typically at approximately two year intervals. While we have taken actions to address our cGMP program and are working to implement the FDA's remaining recommendations, there can be no assurance that the FDA will concur. Failure to comply with cGMP standards could have a material impact on our business and financial results.

The process of seeking FDA approvals can be costly, time consuming, and subject to unanticipated and significant delays. There can be no assurance that such approvals will be granted to us on a timely basis, or at all. Any delay in obtaining or any failure to obtain FDA or foreign government approvals or the suspension or revocation of such approvals would adversely affect our ability to introduce and market medicated feed additive products and to generate product revenue. For more information on FDA and foreign government approvals and cGMP issues, see "Business—Regulatory."

***We may experience declines in the sales volume and prices of our products as the result of the continuing trend toward consolidation of certain customer groups as well as the emergence of large buying groups.***

We make a majority of our sales to integrated poultry, swine and cattle operations and to a number of regional and national feed companies, distributors, co-ops and blenders. Significant consolidation of our customers may result in these groups gaining additional purchasing leverage and consequently increasing the product pricing pressures facing our business. Additionally, the emergence of large buying groups potentially could enable such groups to attempt to extract price discounts on our

products. Moreover, if, as a result of increased leverage, customer pressures require us to reduce our pricing such that our gross margins are diminished, we could decide not to sell our products to a particular customer, which could result in a decrease in our revenues. Consolidation among our customer base may also lead to reduced demand for our products and replacement of our products by the combined entity with those of our competitors. The result of these developments could have a material adverse effect on our business, financial condition and results of operations.

***Our business is subject to risk based on customer exposure to rising costs and reduced customer income.***

Livestock producers may experience increased feed, fuel, transportation and other key costs or may experience decreased animal protein prices or sales. Either of these trends could cause deterioration in the financial condition of our livestock producer customers, potentially inhibiting their ability to purchase our products or pay us for products delivered. Our livestock producer customers may offset rising costs by reducing spending on our products, including by switching to lower-cost alternatives to our products.

***Generic products may be viewed as more cost-effective than certain of our products.***

We face competition from products produced by other companies, including generic alternatives to certain of our products. We depend primarily on trade secrets to provide us with competitive advantages for many of our products. The protection afforded is limited by the availability of new competitive products or generic versions of existing products that can successfully compete with our products. As a result, we may face competition from new competitive products or lower-priced generic alternatives to many of our products. Generic competitors are becoming more aggressive in terms of pricing, and generic products are an increasing percentage of overall animal health sales in certain regions. If animal health customers increase their use of new or existing generic products, our financial condition and results of operations could be materially adversely affected.

***Advances in veterinary medical practices and animal health technologies could negatively affect the market for our products.***

The market for our products could be impacted negatively by the introduction and/or broad market acceptance of newly developed or alternative products that address the diseases and conditions for which we sell products, including “green” or “holistic” health products or specially bred disease-resistant animals. In addition, technological breakthroughs by others may obviate our technology and reduce or eliminate the market for our products. Introduction or acceptance of such products or technologies could materially adversely affect our business, financial condition and results of operations.

***The misuse or extra-label use of our products may harm our reputation or result in financial or other damages.***

Our products have been approved for use under specific circumstances for, among other things, the prevention, control and/or treatment of certain diseases and conditions in specific species, in some cases subject to certain dosage levels or minimum withdrawal periods prior to the slaughter date. There may be increased risk of product liability if livestock producers or others attempt any extra-label use of our products, including the use of our products in species for which they have not been approved, or at dosage levels or periods prior to withdrawal that have not been approved. If we are deemed by a governmental or regulatory agency to have engaged in the promotion of any of our products for extra-label use, such agency could request that we modify our training or promotional materials and practices and we could be subject to significant fines and penalties. The imposition of these sanctions could also affect our reputation and position within the industry. Even if we were not responsible for having promoted the extra-label use, concerns could arise about the safety of the resulting meat in the human food supply. Any of these events could materially adversely affect our financial condition and results of operations.

***The public perception of the safety and efficacy of certain of our animal health products may harm our reputation.***

The public perception of the safety and efficacy of certain of our animal health products, whether or not these concerns are scientifically or clinically supported, may lead to product recalls, withdrawals, suspensions or declining sales as well as product liability and other claims.



In addition, we depend on positive perceptions of the safety and quality of our products, and animal health products generally, by our customers, veterinarians and end-users, and such concerns may harm our reputation. In some countries, these perceptions may be exacerbated by the existence of counterfeit versions of our products, which, depending on the legal and law enforcement recourse available in the jurisdiction where the counterfeiting occurs, may be difficult to police or stop. These concerns and the related harm to our reputation could materially adversely affect our financial condition and results of operations, regardless of whether such reports are accurate.

***We are dependent on suppliers having current regulatory approvals, and the failure of those suppliers to maintain these approvals or other challenges in replacing any of those suppliers could affect our supply of materials or affect the distribution or sale of our products.***

Suppliers and third party contract manufacturers for our animal health and mineral nutrition products or the active pharmaceutical ingredients or other materials we use in our products, like us, are subject to extensive regulatory compliance. If any one of these third parties discontinues its supply to us because of changes in the regulatory environment to which such third parties are subject, significant regulatory violations or for any other reason, or an adverse event occurs at one of their facilities, the interruption in the supply of these materials could decrease sales of our affected products. In this event, we may seek to enter into agreements with third parties to purchase active ingredients, raw materials or products or to lease or purchase new manufacturing facilities. We may be unable to find a third party willing or able to provide the necessary products or facilities suitable for manufacturing pharmaceuticals on terms acceptable to us or the cost of those pharmaceuticals may be prohibitive. If we have to obtain substitute materials or products, additional regulatory approvals will likely be required, as approvals are typically specific to a single product produced by a specified manufacturer in a specified facility and there can be no assurances that such regulatory approvals will be obtained. As such, the use of new facilities also requires regulatory approvals. While we take measures where economically feasible and available to secure back-up suppliers, the continued receipt of active ingredients or products from a sole source supplier could create challenges if a sole source was interrupted. We may not be able to provide adequate and timely product to eliminate any threat of interruption of supply of our products to customers and these problems may materially adversely impact our business.

***The raw materials used by us in the manufacture of our products can be subject to price fluctuations and their availability can be limited.***

While the selling prices of our products tend to increase or decrease over time with the cost of raw materials, such changes may not occur simultaneously or to the same degree. The costs of certain of our significant raw materials are subject to considerable volatility, and we generally do not engage in activities to hedge the costs of our raw materials. Although no single raw material accounted for more than 6% of our cost of goods sold for the year ended June 30, 2017, volatility in raw material costs can result in significant fluctuations in our costs of goods sold of the affected products. The costs of raw materials used by our Mineral Nutrition business are particularly subject to fluctuations in global commodities markets and cost changes in the underlying commodities markets typically lead directly to a corresponding change in our revenues. Although we attempt to adjust the prices of our products to reflect significant changes in raw material costs, we may not be able to pass any increases in raw material costs through to our customers in the form of price increases. Significant increases in the costs of raw materials, if not offset by product price increases, could have a material adverse effect on our financial condition and results of operations. The supply of certain of our raw materials is dependent on third party suppliers. There is no guarantee that supply shortages of such raw materials will not occur. In addition, if any one of these third parties discontinues its supply to us, or an adverse event occurs at one of their facilities, the interruption in the supply of these materials could decrease sales of our affected products. In the event that we cannot procure necessary major raw materials from other suppliers, the occurrence of any of these may have an adverse impact on our business.

***Our revenues are dependent on the continued operation of our various manufacturing facilities.***

Although presently all our manufacturing facilities are considered to be in good condition, the operation of our manufacturing facilities involves many risks, including the breakdown, failure or substandard performance of equipment, construction delays, shortages of materials, labor problems, power

outages, the improper installation or operation of equipment, natural disasters, terrorist activities, the outbreak of any highly contagious diseases near our production sites and the need to comply with environmental and other directives of governmental agencies. In addition, regulatory authorities such as the FDA typically require approval and periodic inspection of the manufacturing facilities to confirm compliance with applicable regulatory requirements, and those requirements may be enforced by various means, including seizures and injunctions. Certain of our product lines are manufactured at a single facility, and certain of our product lines are manufactured at a single facility with limited capacity at a second facility, and production would not be easily transferable to another site. The occurrence of material operational problems, including but not limited to the above events, may adversely affect our financial condition and results of operations.

***A significant portion of our operations are conducted in foreign jurisdictions and are subject to the economic, political, legal and business environments of the countries in which we do business.***

Our international operations could be limited or disrupted by any of the following:

- volatility in the international financial markets;
- compliance with governmental controls;
- difficulties enforcing contractual and intellectual property rights;
- compliance with a wide variety of laws and regulations, such as the U.S. Foreign Corrupt Practices Act (“FCPA”) and similar non-U.S. laws and regulations;
- compliance with foreign labor laws;
- compliance with Environmental Laws;
- burdens to comply with multiple and potentially conflicting foreign laws and regulations, including those relating to environmental, health and safety requirements;
- changes in laws, regulations, government controls or enforcement practices with respect to our business and the businesses of our customers;
- political and social instability, including crime, civil disturbance, terrorist activities and armed conflicts;
- trade restrictions, export controls and sanctions laws and restrictions on direct investments by foreign entities, including restrictions administered by the Office of Foreign Assets Control of the U.S. Department of the Treasury;
- changes in tax laws and tariffs;
- costs and difficulties in staffing, managing and monitoring international operations; and
- longer payment cycles and increased exposure to counterparty risk.

The multinational nature of our business subjects us to potential risks that various taxing authorities may challenge the pricing of our cross-border arrangements and subject us to additional tax, adversely impacting our effective tax rate and our tax liability.

In addition, international transactions may involve increased financial and legal risks due to differing legal systems and customs. Compliance with these requirements may prohibit the import or export of certain products and technologies or may require us to obtain a license before importing or exporting certain products or technology. A failure to comply with any of these laws, regulations or requirements could result in civil or criminal legal proceedings, monetary or non-monetary penalties, or both, disruptions to our business, limitations on our ability to import and export products and services, and damage to our reputation. In addition, variations in the pricing of our products in different jurisdictions may result in the unauthorized importation of our products between jurisdictions. While the impact of these factors is difficult to predict, any of them could materially adversely affect our financial condition and results of



operations. Changes in any of these laws, regulations or requirements, or the political environment in a particular country, may affect our ability to engage in business transactions in certain markets, including investment, procurement and repatriation of earnings.

***We are subject to product registration and authorization regulations in many of the jurisdictions in which we operate and/or distribute our products, including the United States and member states of the European Union.***

We are subject to regulations related to testing, manufacturing, labeling, registration, and safety analysis in order to lawfully distribute many of our products, including for example, in the United States, the federal Toxic Substances Control Act and the Federal Insecticide, Fungicide, and Rodenticide Act, and in the European Union, the Regulation on REACH. We are also subject to similar requirements in many of the other jurisdictions in which we operate and/or distribute our products. In some cases, such registrations are subject to periodic review by relevant authorities. Such regulations may lead to governmental restrictions or cancellations of, or refusal to issue, certain registrations or authorizations, or cause us or our customers to make product substitutions in the future. Such regulations may also lead to increased third party scrutiny and personal injury or product liability claims. Compliance with these regulations can be difficult, costly and time consuming and liabilities or costs relating to such regulations could have a material adverse effect on our business, financial condition and results of operations.

***We have significant assets located outside the United States and a significant portion of our sales and earnings is attributable to operations conducted abroad.***

As of June 30, 2017, we had manufacturing and direct sales operations in 14 countries and sold our products in over 65 countries. Our operations outside the United States accounted for 52% and 48% of our consolidated assets as of June 30, 2017 and 2016, respectively, and 37% and 37% of our consolidated net sales for the years ended June 30, 2017 and 2016, respectively. Our foreign operations are subject to currency exchange fluctuations and restrictions, political instability in some countries, and uncertainty of, and governmental control over, commercial rights.

Changes in the relative values of currencies take place from time to time and could in the future adversely affect our results of operations as well as our ability to meet interest and principal obligations on our indebtedness. To the extent that the U.S. dollar fluctuates relative to the applicable foreign currency, our results are favorably or unfavorably affected. We may from time to time manage this exposure by entering into foreign currency contracts. Such contracts generally are entered into with respect to anticipated costs denominated in foreign currencies for which timing of the payment can be reasonably estimated. No assurances can be given that such hedging activities will not result in, or will be successful in preventing, losses that could have an adverse effect on our financial condition or results of operations. There are times when we do not hedge against foreign currency fluctuations and therefore are subject to the risks associated with fluctuations in currency exchange rates.

In addition, international manufacturing, sales and raw materials sourcing are subject to other inherent risks, including possible nationalization or expropriation, labor unrest, political instability, price and exchange controls, limitation on foreign participation in local enterprises, health-care regulation, export duties and quotas, domestic and international customs and tariffs, compliance with export controls and sanctions laws, the Foreign Corrupt Practices Act and other laws and regulations governing international trade, unexpected changes in regulatory environments, difficulty in obtaining distribution and support, and potentially adverse tax consequences. Although such risks have not had a material adverse effect on us in the past, these factors could have a material adverse impact on our ability to increase or maintain our international sales or on our results of operations in the future.

***We have manufacturing facilities located in Israel and a portion of our net sales and earnings is attributable to products produced and operations conducted in Israel.***

Our Israeli manufacturing facilities and local operations accounted for 25% and 22% of our consolidated assets, as of June 30, 2017 and 2016, respectively, and 22% and 20% of our consolidated net sales for the years ended June 30, 2017 and 2016. We maintain manufacturing facilities in Israel, which manufacture:

- nicarbazin and amprolium anticoccidials, most of which are exported;
- vaccines, a substantial portion of which are exported; and
- animal health pharmaceuticals, nutritional specialty products and trace minerals for the domestic animal industry.

A substantial portion of this production is exported from Israel to major world markets. Accordingly, our Israeli operations are dependent on foreign markets and the ability to reach those markets. Hostilities between Israel and its neighbors may hinder Israel's international trade. This, in turn, could have a material adverse effect on our business, financial condition and results of operations.

Certain countries, companies and organizations continue to participate in a boycott of Israeli firms and other companies doing business in Israel or with Israeli companies. We do not believe that the boycott has had a material adverse effect on us, but we cannot provide assurance that restrictive laws, policies or practices directed toward Israel or Israeli businesses will not have an adverse impact on our operations or expansion of our business. Our business, financial condition and results of operations in Israel may be adversely affected by factors outside of our control, such as currency fluctuations, energy shortages and other political, social and economic developments in or affecting Israel.

***We have manufacturing facilities located in Brazil and a portion of our sales and earnings is attributable to products produced and operations conducted in Brazil.***

Our Brazilian manufacturing facilities and local operations accounted for 14% and 16% of our consolidated assets, as of June 30, 2017 and 2016, respectively, and 18% and 21% of our consolidated net sales for the years ended June 30, 2017 and 2016, respectively. We maintain manufacturing facilities in Brazil, which manufacture virginiamycin, semduramicin and nicarbazin. Our Brazilian facilities also produce Stafac, Aviax, Aviax Plus, Coxistac, Nicarb and Terramycin granular formulations. A substantial portion of the production is exported from Brazil to major world markets. Accordingly, our Brazilian operations are dependent on foreign markets and the ability to reach those markets.

Our business, financial condition and results of operations in Brazil may be adversely affected by factors outside of our control, such as currency fluctuations, energy shortages and other political, social and economic developments in or affecting Brazil.

***Certain of our employees are covered by collective bargaining or other labor agreements.***

As of June 30, 2017, approximately 224 of our Israeli employees and 405 of our Brazilian employees were covered by collective bargaining agreements. We believe we have satisfactory relations with our employees. There can be no assurance that we will not experience a work stoppage or strike at our manufacturing facilities. A prolonged work stoppage or strike at any of our manufacturing facilities could have a material adverse effect on our business, financial condition and results of operations.

***The loss of key personnel may disrupt our business and adversely affect our financial results.***

Our operations and future success are dependent on the continued efforts of our senior executive officers and other key personnel. Although we have entered into employment agreements with certain executives, we may not be able to retain all of our senior executive officers and key employees. These senior executive officers and other key employees may be hired by our competitors, some of which have considerably more financial resources than we do. The loss of the services of any of our senior executive officers or other key personnel, or the inability to hire and retain qualified employees, could have a material adverse effect on our business, financial condition and results of operations.

***Our R&D relies on evaluations in animals, which may become subject to bans or additional regulations.***

As a company that produces animal health medicines and vaccines, evaluation of our existing and new products in animals is required in order to be able to register our products. Animal testing in certain industries has been the subject of controversy and adverse publicity. Some organizations and individuals have attempted to ban animal testing or encourage the adoption of additional regulations applicable to

animal testing. To the extent that the activities of such organizations and individuals are successful, our R&D, and by extension our financial condition and results of operations, could be materially adversely affected. In addition, negative publicity about us or our industry could harm our reputation.

***Our operations, properties and subsidiaries are subject to a wide variety of complex and stringent federal, state, local and foreign environmental laws and regulations.***

We are subject to environmental, health and safety laws and regulations, including those governing pollution; protection of the environment; the use, management and release of hazardous materials, substances and wastes; air emissions; greenhouse gas emissions; water use, supply, and discharges; the investigation and remediation of contamination; the manufacture, distribution and sale of regulated materials, including pesticides; the importing, exporting and transportation of products; and the health and safety of our employees and the public (collectively, “Environmental Laws”). See “Business—Environmental, Health and Safety.”

Pursuant to Environmental Laws, certain of our subsidiaries are required to obtain and maintain numerous governmental permits, licenses, registrations, authorizations and approvals, including “RCRA Part B” hazardous waste permits, to conduct various aspects of their operations (collectively “Environmental Permits”), any of which may be subject to suspension, revocation, modification, termination or denial under certain circumstances or which may not be renewed upon their expiration for various reasons, including noncompliance. See “Business—Environmental, Health and Safety.” These Environmental Permits can be difficult, costly and time consuming to obtain and may contain conditions that limit our operations. Additionally, any failure to obtain and maintain such Environmental Permits could restrict or otherwise prohibit certain aspects of our operations, which could have a material adverse effect on our business, financial condition and results of operations.

We have expended, and may be required to expend in the future, substantial funds for compliance with Environmental Laws. As recyclers of hazardous metal-containing chemical wastes, certain of our subsidiaries have been, and are likely to be, the focus of extensive compliance reviews by environmental regulatory authorities under Environmental Laws, including those relating to the generation, transportation, treatment, storage and disposal of solid and hazardous wastes under the RCRA. In the past, some of our subsidiaries have paid fines and entered into consent orders to address alleged environmental violations. See “Business—Environmental, Health and Safety.” We cannot assure you that our operations or activities or those of certain of our subsidiaries, including with respect to compliance with Environmental Laws, will not result in civil or criminal enforcement actions or private actions, regulatory or judicial orders enjoining or curtailing operations or requiring corrective measures, installation of pollution control equipment or remedial measures or costs, revocation of required Environmental Permits, or fines, penalties or damages, which could have a material adverse effect on our business, financial condition and results of operations. In addition, we cannot predict the extent to which Environmental Laws, and the interpretation or enforcement thereof, may change or become more stringent in the future, each of which may affect the market for our products or give rise to additional capital expenditures, compliance costs or liabilities that could be material.

***Our operations or products may impact the environment or cause or contribute to contamination or exposure to hazardous substances.***

Given the nature of our current and former operations, particularly at our chemical manufacturing sites, we have incurred, are currently incurring and may in the future incur liabilities under CERCLA, or under other federal, state, local and foreign Environmental Laws related to releases of or contamination by hazardous substances, with respect to our current or former sites, adjacent or nearby third-party sites, or offsite disposal locations. See “Business—Environmental, Health and Safety.” Certain Environmental Laws, including CERCLA, can impose strict, joint, several, and retroactive liability for the cost of investigation and cleanup of contaminated sites on owners and operators of such sites, as well as on persons who dispose of or arrange for disposal of hazardous substances at such sites. Accordingly, we could incur liability, whether as a result of government enforcement or private claims, for known or unknown liabilities at, or caused by migration from or hazardous waste transported from, any of our current or

former facilities or properties, including those owned or operated by predecessors or third parties. See “Business—Environmental, Health and Safety.” Such liability could have a material adverse effect on our business, financial condition and results of operations.

The nature of our current and former operations also exposes us to the risk of claims under Environmental Laws. We could be subject to claims by environmental regulatory authorities, individuals and other third parties seeking damages for alleged personal injury, property damage, and damages to natural resources resulting from hazardous substance contamination or human exposure caused by our operations, facilities or products, and there can be no assurance that material costs and liabilities will not be incurred in connection with any such claims. Our insurance may not be sufficient to cover any of these exposure, product, injury or damage claims.

Furthermore, regulatory agencies are showing increasing concern over the impact of animal health products and livestock operations on the environment. This increased regulatory scrutiny may necessitate that additional time and resources be spent to address these concerns for both new and existing products and could affect product sales and materially adversely affect our business, financial condition or results of operations.

We cannot assure you that our liabilities arising from past or future releases of, or exposure to, hazardous substances will not materially adversely affect our business, financial condition or results of operations.

***We have been and may continue to be subject to claims of injury from direct exposure to certain of our products that constitute or contain hazardous substances and from indirect exposure when such substances are incorporated into other companies’ products.***

Because certain of our products constitute or contain hazardous substances, and because the production of certain chemicals involves the use, handling, processing, storage and transportation of hazardous substances, from time to time we are subject to claims of injury from direct exposure to such substances and from indirect exposure when such substances are incorporated into other companies’ products. There can be no assurance that as a result of past or future operations, there will not be additional claims of injury by employees or members of the public due to exposure, or alleged exposure, to such substances. We are also party to a number of claims and lawsuits arising out of the normal course of business, including product liability claims and allegations of violations of governmental regulations, and face present and future claims with respect to workplace exposure, workers’ compensation and other matters. In most cases, such claims are covered by insurance and, where applicable, workers’ compensation insurance, subject to policy limits and exclusions; however, our insurance coverage, to the extent available, may not be adequate to protect us from all liabilities that we might incur in connection with the manufacture, sale and use of our products. Insurance is expensive and in the future may not be available on acceptable terms, if at all. A successful claim or series of claims brought against us in excess of our insurance coverage could have a material adverse effect on our business, financial condition and results of operations. In addition, any claims, even if not ultimately successful, could adversely affect the marketplace’s acceptance of our products.

***We are subject to risks from litigation that may materially impact our operations.***

We face an inherent business risk of exposure to various types of claims and lawsuits. We are involved in various legal proceedings that arise in the ordinary course of our business. Although it is not possible to predict with certainty the outcome of every pending claim or lawsuit or the range of probable loss, we believe these pending lawsuits and claims will not individually or in the aggregate have a material adverse impact on our results of operations. However, we could, in the future, be subject to various lawsuits, including intellectual property, product liability, personal injury, product warranty, environmental or antitrust claims, among others, and incur judgments or enter into settlements of lawsuits and claims that could have a material adverse effect on our results of operations in any particular period.

***We are subject to risks that may not be covered by our insurance policies.***

In addition to pollution and other environmental risks, we are subject to risks inherent in the animal health, mineral nutrition and performance products industries, such as explosions, fires, spills or

releases. Any significant interruption of operations at our principal facilities could have a material adverse effect on us. We maintain general liability insurance, pollution legal liability insurance, and property and business interruption insurance with coverage limits that we believe are adequate. Because of the nature of industry hazards, it is possible that liabilities for pollution and other damages arising from a major occurrence may not be covered by our insurance policies or could exceed insurance coverages or policy limits or that such insurance may not be available at reasonable rates in the future. Any such liabilities, which could arise due to injury or loss of life, severe damage to and destruction of property and equipment, pollution or other environmental damage or suspension of operations, could have a material adverse effect on our business.

***Adverse U.S. and international economic and market conditions may adversely affect our product sales and business.***

Current U.S. and international economic and market conditions are uncertain. Our revenues and operating results may be affected by uncertain or changing economic and market conditions, including the challenges faced in the credit markets and financial services industry. If domestic and global economic and market conditions remain uncertain or persist or deteriorate further, we may experience material impacts on our business, financial condition and results of operations. Adverse economic conditions impacting our customers, including, among others, increased taxation, higher unemployment, lower customer confidence in the economy, higher customer debt levels, lower availability of customer credit, higher interest rates and hardships relating to declines in the stock markets, could cause purchases of meat products to decline, resulting in a decrease in purchases of our products, which could adversely affect our financial condition and results of operation. Adverse economic and market conditions could also negatively impact our business by negatively affecting the parties with whom we do business, including among others, our customers, our manufacturers and our suppliers.

***We may not be able to realize the expected benefits of our investments in emerging markets.***

We have been taking steps to take advantage of the rise in global demand for animal protein in emerging markets, including by expanding our manufacturing presence, sales, marketing and distribution in these markets. Failure to continue to maintain and expand our business in emerging markets could also materially adversely affect our operating results and financial condition.

Some countries within emerging markets may be especially vulnerable to periods of local, regional or global economic, political or social instability or crisis. For example, our sales in certain emerging markets have suffered from extended periods of disruption due to natural disasters. Furthermore, we have also experienced lower than expected sales in certain emerging markets due to local, regional and global restrictions on banking and commercial activities in those countries. For all these and other reasons, sales within emerging markets carry significant risks.

***We may not be able to expand through acquisitions or integrate successfully the products, services and personnel of acquired businesses.***

From time to time, we may make selective acquisitions to expand our range of products and services and to expand the geographic scope of our business. However, we may be unable to identify suitable targets, and competition for acquisitions may make it difficult for us to consummate acquisitions on acceptable terms or at all. We may not be able to locate any complementary products that meet our requirements or that are available to us on acceptable terms or we may not have sufficient capital resources to consummate a proposed acquisition. In addition, assuming we identify suitable products or partners, the process of effectively entering into these arrangements involves risks that our management's attention may be diverted from other business concerns. Further, if we succeed in identifying and consummating appropriate acquisitions on acceptable terms, we may not be able to integrate successfully the products, services and personnel of any acquired businesses on a basis consistent with our current business practice. In particular, we may face greater than expected costs, time and effort involved in completing and integrating acquisitions and potential disruption of our ongoing business. Furthermore, we may realize fewer, if any, synergies than envisaged. Our ability to manage acquired businesses may also be limited if we enter into joint ventures or do not acquire full ownership or a controlling stake in the acquired business. In

addition, continued growth through acquisitions may significantly strain our existing management and operational resources. As a result, we may need to recruit additional personnel, particularly at the level below senior management, and we may not be able to recruit qualified management and other key personnel to manage our growth. Moreover, certain transactions could adversely impact earnings as we incur development and other expenses related to the transactions and we could incur debt to complete these transactions. Debt instruments could contain contractual commitments and covenants that could adversely affect our cash flow and our ability to operate our business, financial condition and results of operations.

***We may not successfully implement our business strategies or achieve expected gross margin improvements.***

We are pursuing and may continue to pursue strategic initiatives that management considers critical to our long-term success, including, but not limited to, increasing sales in emerging markets, base revenue growth through new product development and value added product lifecycle development; improving operational efficiency through manufacturing efficiency improvement and other programs; and expanding our complementary products and services. There are significant risks involved with the execution of these types of initiatives, including significant business, economic and competitive uncertainties, many of which are outside of our control. Accordingly, we cannot predict whether we will succeed in implementing these strategic initiatives. It could take several years to realize the anticipated benefits from these initiatives, if any benefits are achieved at all. We may be unable to achieve expected gross margin improvements on our products or technologies. Additionally, our business strategy may change from time to time, which could delay our ability to implement initiatives that we believe are important to our business.

***Our product approval, R&D, acquisition and licensing efforts may fail to generate new products and product lifecycle developments.***

Our future success depends on both our existing product portfolio, including our ability to obtain cross-clearances enabling the use of our medicated products in conjunction with other products, approval for use of our products with new species, approval for new claims for our products, approval of our products in new markets, and our pipeline of new products, including new products that we may develop through joint ventures and products that we are able to obtain through license or acquisition. The majority of our R&D programs focus on product lifecycle development, which is defined as R&D programs that leverage existing animal health products by adding new species or claims, achieving approvals in new markets or creating new combinations and reformulations. We commit substantial effort, funds and other resources to expanding our product approvals and R&D, both through our own dedicated resources and through collaborations with third parties.

We may be unable to determine with accuracy when or whether any of our expanded product approvals for our existing product portfolio or any of our products now under development will be approved or launched, or we may be unable to obtain expanded product approvals or develop, license or otherwise acquire product candidates or products. In addition, we cannot predict whether any products, once launched, will be commercially successful or will achieve sales and revenues that are consistent with our expectations. The animal health industry is subject to regional and local trends and regulations and, as a result, products that are successful in some of our markets may not achieve similar success when introduced into new markets. Furthermore, the timing and cost of our R&D may increase, and our R&D may become less predictable. For example, changes in regulations applicable to our industry may make it more time-consuming and/or costly to research, test and develop products.

Products in the animal health industry are sometimes derived from molecules and compounds discovered or developed as part of human health research. We may enter into collaboration or licensing arrangements with third parties to provide us with access to compounds and other technology for purposes of our business. Such agreements are typically complex and require time to negotiate and implement. If we enter into these arrangements, we may not be able to maintain these relationships or establish new ones in the future on acceptable terms or at all. In addition, any collaboration that we enter into may not be successful, and the success may depend on the efforts and actions of our collaborators, which we may not be able to control. If we are unable to access human health-generated molecules and compounds to conduct R&D on cost-effective terms, our ability to develop new products could be limited.

***We are subject to the U.S. Foreign Corrupt Practices Act and other anti-corruption laws or trade control laws, as well as other laws governing our operations. If we fail to comply with these laws, we could be subject to civil or criminal penalties, other remedial measures, and legal expenses, which could adversely affect our business, financial condition and results of operations.***

Our operations are subject to anti-corruption laws, including the FCPA and other anti-corruption laws that apply in countries where we do business. The FCPA, UK Bribery Act and other laws generally prohibit us and our employees and intermediaries from bribing, being bribed or making other prohibited payments to government officials or other persons to obtain or retain business or gain some other business advantage. We operate in a number of jurisdictions that pose a high risk of potential FCPA violations, and we participate in relationships with third parties whose actions could potentially subject us to liability under the FCPA or local anti-corruption laws. In addition, we cannot predict the nature, scope or effect of future regulatory requirements to which our international operations might be subject or the manner in which existing laws might be administered or interpreted.

We are also subject to other laws and regulations governing our international operations, including regulations administered by the U.S. Department of Commerce’s Bureau of Industry and Security, the U.S. Department of Treasury’s Office of Foreign Asset Control, and various non-U.S. government entities, including applicable export control regulations, economic sanctions on countries and persons, customs requirements, currency exchange regulations and transfer pricing regulations (collectively, the “Trade Control laws”).

There is no assurance that we will be completely effective in ensuring our compliance with all applicable anticorruption laws, including the FCPA or other legal requirements, including Trade Control laws. If we are not in compliance with the FCPA and other anti-corruption laws or Trade Control laws, we may be subject to criminal and civil penalties, disgorgement and other sanctions and remedial measures, and legal expenses, which could have an adverse impact on our business, financial condition, results of operations and liquidity. Likewise, any investigation of any potential violations of the FCPA other anti-corruption laws or Trade Control laws by U.S. or foreign authorities could also have an adverse impact on our reputation, business, financial condition and results of operations.

***The actual or purported intellectual property rights of third parties may negatively affect our business.***

A third party may sue us or otherwise make a claim, alleging infringement or other violation of the third-party’s patents, trademarks, trade dress, copyrights, trade secrets, domain names or other intellectual property rights. If we do not prevail in this type of litigation, we may be required to:

- pay monetary damages;
- obtain a license in order to continue manufacturing or marketing the affected products, which may not be available on commercially reasonable terms, or at all; or
- stop activities, including any commercial activities, relating to the affected products, which could include a recall of the affected products and/or a cessation of sales in the future.

The costs of defending an intellectual property claim could be substantial and could materially adversely affect our operating results and financial condition, even if we successfully defend such claims.

The intellectual property positions of animal health medicines and vaccines businesses frequently involve complex legal and factual questions, and an issued patent does not guarantee us the right to practice the patented technology or develop, manufacture or commercialize the patented product. We cannot be certain that a competitor or other third party does not have or will not obtain rights to intellectual property that may prevent us from manufacturing, developing or marketing certain of our products, regardless of whether we believe such intellectual property rights are valid and enforceable or we believe we would be otherwise able to develop a more commercially successful product, which may harm our financial condition and results of operations.

***If our intellectual property rights are challenged or circumvented, competitors may be able to take advantage of our R&D efforts. We are also dependent upon trade secrets, which generally are difficult to protect.***

Our long-term success largely depends on our ability to market technologically competitive products. We rely and expect to continue to rely on a combination of intellectual property, including patent,



trademark, trade dress, copyright, trade secret and domain name protection laws, as well as confidentiality and license agreements with our employees and others, to protect our intellectual property and proprietary rights. If we fail to obtain and maintain adequate intellectual property protection, we may not be able to prevent third parties from using our proprietary technologies or from marketing products that are very similar or identical to ours. Our currently pending or future patent applications may not result in issued patents, or be approved on a timely basis, or at all. Similarly, any term extensions that we seek may not be approved on a timely basis, if at all. In addition, our issued patents may not contain claims sufficiently broad to protect us against third parties with similar technologies or products or provide us with any competitive advantage, including exclusivity in a particular product area. The scope of our patent claims also may vary between countries, as individual countries have their own patent laws. For example, some countries only permit the issuance of patents covering a novel chemical compound itself, and its first use, and thus further methods of use for the same compound, may not be patentable. We may be subject to challenges by third parties regarding our intellectual property, including claims regarding validity, enforceability, scope and effective term. The validity, enforceability, scope and effective term of patents can be highly uncertain and often involve complex legal and factual questions and proceedings. Our ability to enforce our patents also depends on the laws of individual countries and each country's practice with respect to enforcement of intellectual property rights. In addition, if we are unable to maintain our existing license agreements or other agreements pursuant to which third parties grant us rights to intellectual property, including because such agreements expire or are terminated, our financial condition and results of operations could be materially adversely affected.

In addition, patent law reform in the United States and other countries may also weaken our ability to enforce our patent rights, or make such enforcement financially unattractive. For instance, in September 2011, the United States enacted the America Invents Act, which will permit enhanced third-party actions for challenging patents and implement a first-to-invent system, and, in April 2012, Australia enacted the Intellectual Property Laws Amendment (Raising the Bar) Act, which provides higher standards for obtaining patents. These reforms could result in increased costs to protect our intellectual property or limit our ability to patent our products in these jurisdictions.

Additionally, certain foreign governments have indicated that compulsory licenses to patents may be granted in the case of national emergencies, which could diminish or eliminate sales and profits from those regions and materially adversely affect our operating results and financial condition.

Likewise, in the United States and other countries, we currently hold issued trademark registrations and have trademark applications pending, any of which may be the subject of a governmental or third party objection, which could prevent the maintenance or issuance of the same and thus create the potential need to rebrand or relabel a product. As our products mature, our reliance on our trademarks to differentiate us from our competitors increases and as a result, if we are unable to prevent third parties from adopting, registering or using trademarks and trade dress that infringe, dilute or otherwise violate our trademark rights, our business could be materially adversely affected.

Our competitive position is also dependent upon unpatented trade secrets, which generally may be difficult to protect. Others may independently develop substantially equivalent proprietary information and techniques or may otherwise gain access to our trade secrets, trade secrets may be disclosed or we may not be able to protect our rights to unpatented trade secrets.

Many of our vaccine products and other products are based on or incorporate proprietary information, including proprietary master seeds and proprietary or patented adjuvant formulations. We actively seek to protect our proprietary information, including our trade secrets and proprietary know-how, by requiring our employees, consultants, other advisors and other third parties to execute confidentiality agreements upon the commencement of their employment, engagement or other relationship. Despite these efforts and precautions, we may be unable to prevent a third party from copying or otherwise obtaining and using our trade secrets or our other intellectual property without authorization and legal remedies may not adequately compensate us for the damages caused by such unauthorized use. Further, others may independently and lawfully develop substantially similar or identical products that circumvent our intellectual property by means of alternative designs or processes or otherwise.

The misappropriation and infringement of our intellectual property, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States, may occur



even when we take steps to prevent it. In the future, we may be party to patent lawsuits and other intellectual property rights claims that are expensive and time consuming, and if resolved adversely, could have a significant impact on our business and financial condition. In the future, we may not be able to enforce intellectual property that relates to our products for various reasons, including licensor restrictions and other restrictions imposed by third parties, and that the costs of doing so may outweigh the value of doing so, and this could have a material adverse impact on our business and financial condition.

***Increased regulation or decreased governmental financial support for the raising, processing or consumption of food animals could reduce demand for our animal health products.***

Companies in the animal health industry are subject to extensive and increasingly stringent regulations. If livestock producers are adversely affected by new regulations or changes to existing regulations, they may reduce herd sizes or become less profitable and, as a result, they may reduce their use of our products, which may materially adversely affect our operating results and financial condition. Furthermore, adverse regulations related, directly or indirectly, to the use of one or more of our products may injure livestock producers' market position. More stringent regulation of the livestock industry or our products could have a material adverse effect on our operating results and financial condition. Also, many industrial producers, including livestock producers, benefit from governmental subsidies, and if such subsidies were to be reduced or eliminated, these companies may become less profitable and, as a result, may reduce their use of our products.

***We have substantial debt and interest payment requirements that may restrict our future operations and impair our ability to meet our obligations under our indebtedness. Restrictions imposed by our outstanding indebtedness, including the restrictions contained in our Credit Facilities, may limit our ability to operate our business and to finance our future operations or capital needs or to engage in other business activities.***

As of June 30, 2017, we had \$250.0 million of outstanding indebtedness under our Term A loan (reflects the principal amount), \$65.0 million of outstanding borrowings under our revolving credit facility (together with the Term A loan, the "Credit Facilities") and \$6.0 million of outstanding letters of credit. Subject to restrictions in our Credit Facilities, we may incur significant additional indebtedness. If we and our subsidiaries incur significant additional indebtedness, the related risks that we face could intensify.

Our substantial debt may have important consequences. For instance, it could:

- make it more difficult for us to satisfy our financial obligations, including those relating to the Credit Facilities;
- require us to dedicate a substantial portion of any cash flow from operations to the payment of interest and principal due under our debt, which will reduce funds available for other business purposes, including capital expenditures and acquisitions;
- increase our vulnerability to general adverse economic and industry conditions;
- limit our flexibility in planning for or reacting to changes in our business and the industry in which we operate;
- place us at a competitive disadvantage compared with some of our competitors that may have less debt and better access to capital resources; and
- limit our ability to obtain additional financing required to fund working capital and capital expenditures and for other general corporate purposes.

Our ability to satisfy our obligations and to reduce our total debt depends on our future operating performance and on economic, financial, competitive and other factors, many of which are beyond our control. Our business may not generate sufficient cash flow, and future financings may not be available to provide sufficient net proceeds, to meet these obligations or to successfully execute our business strategy.

The terms of the Credit Facilities contain certain covenants that limit our ability and that of our subsidiaries to create liens, merge or consolidate, dispose of assets, incur indebtedness and guarantees, repurchase or redeem capital stock and indebtedness, make certain investments or acquisitions, enter into certain transactions with affiliates or change the nature of our business. As a result of these covenants and

restrictions, we will be limited in how we conduct our business, and we may be unable to raise additional debt or equity financing to compete effectively or to take advantage of new business opportunities. The terms of any future indebtedness we may incur could include more restrictive covenants. We may not be able to maintain compliance with the covenants in any of our debt instruments in the future and, if we fail to do so, we may not be able to obtain waivers from the lenders and/ or amend the covenants.

***We may not be able to generate sufficient cash to service all of our indebtedness and may be forced to take other actions to satisfy our obligations under our indebtedness, which may not be successful.***

Our ability to make scheduled payments on or refinance our debt obligations depends on our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain financial, business, legislative, regulatory and other factors beyond our control. We may be unable to maintain a level of cash flows from operating activities sufficient to permit us to pay the principal and interest on our indebtedness.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we could face substantial liquidity problems and could be forced to reduce or delay investments and capital expenditures, or to dispose of material assets or operations, alter our dividend policy, seek additional debt or equity capital or restructure or refinance our indebtedness. We may not be able to effect any such alternative measures on commercially reasonable terms or at all and, even if successful, those alternative actions may not allow us to meet our scheduled debt service obligations. The instruments that govern our indebtedness may restrict our ability to dispose of assets and may restrict the use of proceeds from those dispositions and may also restrict our ability to raise debt or equity capital to be used to repay other indebtedness when it becomes due. We may not be able to consummate those dispositions or to obtain proceeds in an amount sufficient to meet any debt service obligations when due.

In addition, we conduct our operations through our subsidiaries. Accordingly, repayment of our indebtedness will depend on the generation of cash flow by our subsidiaries, including our international subsidiaries, and their ability to make such cash available to us, by dividend, debt repayment or otherwise. Our subsidiaries may not have any obligation to pay amounts due on our indebtedness or to make funds available for that purpose. Our subsidiaries may not be able to, or may not be permitted to, make distributions to enable us to make payments in respect of our indebtedness. Each subsidiary is a distinct legal entity, and under certain circumstances, legal, tax and contractual restrictions may limit our ability to obtain cash from our subsidiaries or may subject any transfer of cash from our subsidiaries to substantial tax liabilities. In the event that we do not receive distributions from our subsidiaries, we may be unable to make required principal and interest payments on our indebtedness.

Our inability to generate sufficient cash flows to satisfy our debt obligations, or to refinance our indebtedness on commercially reasonable terms or at all, may materially adversely affect our operating results, financial condition and liquidity and our ability to satisfy our obligations under our indebtedness or pay dividends on our common stock.

***We are subject to change of control provisions.***

We are a party to certain contractual arrangements that are subject to change of control provisions. In this context, “change of control” is generally defined as including (a) any person or group, other than Mr. Jack C. Bendheim and his family and affiliates (the current holders of approximately 91.5% of the combined voting power of all classes of our outstanding common stock), becoming the beneficial owner of more than 50% of the total voting power of our stock, and (b) a change in any twelve month period in the majority of the members of the Board that is not approved by Mr. Bendheim and/or his family and affiliates or by the majority of directors in office at the start of such period.

Mr. Bendheim and his family and affiliates may choose to dispose of part or all of their stakes in us and/or may cease to exercise the current level of control they have over the appointment and removal of members of our Board. Any such changes may trigger a “change of control” event that could result in us being forced to repay the Credit Facilities or lead to the termination of a significant contract to which we are a party. If any such event occurs, this may negatively affect our financial condition and operating results. In addition, we may not have sufficient funds to finance repayment of any of such indebtedness upon any such “change in control.”

***We depend on sophisticated information technology and infrastructure.***

We rely on various information systems to manage our operations, and we increasingly depend on third parties and applications on virtualized, or “cloud,” infrastructure to operate and support our information technology systems. These third parties include large established vendors as well as small, privately owned companies. Failure by these providers to adequately service our operations or a change in control or insolvency of these providers could have an adverse effect on our business, which in turn may materially adversely affect our business, financial condition or results of operations.

***We may be required to write down goodwill or identifiable intangible assets.***

Under GAAP, if we determine goodwill or identifiable intangible assets are impaired, we will be required to write down these assets and record a non-cash impairment charge. As of June 30, 2017, we had goodwill of \$24.0 million and identifiable intangible assets, less accumulated amortization, of \$54.6 million. Identifiable intangible assets consist primarily of developed technology rights and patents, customer relationships, distribution agreements and trade names and trademarks. During fiscal year 2017, we determined certain of our intangible assets were impaired. See “Notes to Consolidated Financial Statements—Summary of Significant Accounting Policies and New Accounting Standards, Long-Lived Assets and Goodwill.”

Determining whether an impairment exists and the amount of the potential impairment involves quantitative data and qualitative criteria that are based on estimates and assumptions requiring significant management judgment. Future events or new information may change management’s valuation of goodwill or an intangible asset in a short amount of time. The timing and amount of impairment charges recorded in our consolidated statements of operations and write-downs recorded in our consolidated balance sheets could vary if management’s conclusions change. Any impairment of goodwill or identifiable intangible assets could have a material adverse effect on our financial condition and results of operations.

***We may be unable to adequately protect our customers’ privacy or we may fail to comply with privacy laws.***

The protection of customer, employee and company data is critical and the regulatory environment surrounding information security, storage, use, processing, disclosure and privacy is demanding, with the frequent imposition of new and changing requirements. In addition, our customers expect that we will adequately protect their personal information. Any actual or perceived significant breakdown, intrusion, interruption, cyber-attack or corruption of customer, employee or company data or our failure to comply with federal, state, local and foreign privacy laws could damage our reputation and result in lost sales, fines and lawsuits. Despite our considerable efforts and technology to secure our computer network, security could be compromised, confidential information could be misappropriated or system disruptions could occur. Such failures could materially adversely affect our financial condition and results of operations.

***We may be subject to information technology system failures, network disruptions and breaches in data security.***

We are increasingly dependent upon information technology systems and infrastructure to conduct critical operations and generally operate our business. The size and complexity of our computer systems make them potentially vulnerable to breakdown, malicious intrusion and random attack. Disruption, degradation, or manipulation of these systems and infrastructure through intentional or accidental means could impact key business processes. Cyber-attacks against the Company’s systems and infrastructure could result in exposure of confidential information, the modification of critical data, and/or the failure of critical operations. Likewise, data privacy breaches by employees and others with permitted access to our systems may pose a risk that sensitive data may be exposed to unauthorized persons or to the public. Although the aggregate impact on the Company’s operations and financial condition has not been material to date, the Company has been the target of events of this nature and expects them to continue. The Company monitors its data, information technology and personnel usage of Company systems to reduce these risks and continues to do so on an ongoing basis for any current or potential threats. While we have invested in protection of data and information technology, there can be no assurance that our efforts will prevent breakdowns, cybersecurity attacks or breaches in our systems that could cause reputational

damage, business disruption and legal and regulatory costs; could result in third-party claims; could result in compromise or misappropriation of our intellectual property, trade secrets and sensitive information; and could otherwise adversely affect our business and financial results.

#### **Risks Related to Ownership of Our Class A Common Stock**

***Our multiple class structure and the concentration of our voting power with certain of our stockholders will limit your ability to influence corporate matters, and conflicts of interest between certain of our stockholders and us or other investors could arise in the future.***

As of August 23, 2017, BFI Co., LLC (“BFI”) beneficially owns 12,000 shares of our Class A common stock and 20,626,836 shares of our Class B common stock, which together represent approximately 91.5% of the combined voting power of all classes of our outstanding common stock. As of August 23, 2017, our other stockholders, collectively own interests representing approximately 8.5% of the combined voting power of all classes of our outstanding common stock. Because of our multiple class structure and the concentration of voting power with BFI, BFI will continue to be able to control all matters submitted to our stockholders for approval for so long as BFI holds common stock representing greater than 50% of the combined voting power of all classes of our outstanding common stock. BFI will therefore have significant influence over management and affairs and control the approval of all matters requiring stockholder approval, including the election of directors and significant corporate transactions, such as a merger or other sale of the Company or its assets, for the foreseeable future.

***We are classified as a “controlled company” and, as a result, we qualify for, and intend to rely on, exemptions from certain corporate governance requirements. You will not have the same protections afforded to stockholders of companies that are subject to such requirements.***

BFI controls a majority of the combined voting power of all classes of our outstanding common stock. As a result, we are a “controlled company” within the meaning of the NASDAQ corporate governance standards. Under NASDAQ rules, a company of which more than 50% of the voting power is held by an individual, group or another company is a “controlled company” and may elect not to comply with certain corporate governance requirements, including:

- the requirement that a majority of the Board consists of independent directors;
- the requirement that we have a nominating and corporate governance committee and that it is composed entirely of independent directors;
- the requirement that we have a compensation committee and that it is composed entirely of independent directors; and
- the requirement for an annual performance evaluation of the nominating and corporate governance and compensation committees.

We utilize and intend to continue to utilize these exemptions. As a result, while we currently have a majority of independent directors:

- we may not have a majority of independent directors in the future;
- we will not have a nominating and corporate governance committee;
- our compensation committee will not consist entirely of independent directors; and
- we will not be required to have an annual performance evaluation of the compensation committee.

Accordingly, you will not have the same protections afforded to stockholders of companies that are subject to all of the NASDAQ corporate governance requirements.

***Our stock price may be volatile or may decline regardless of our operating performance.***

The market price of our Class A common stock may fluctuate significantly in response to a number of factors, many of which we cannot control, including those described under “—Risks Related to Our Business” and “—Risks Related to Our Indebtedness” and the following:

- changes in financial estimates by any securities analysts who follow our Class A common stock, our failure to meet these estimates or failure of those analysts to initiate or maintain coverage of our Class A common stock;
- downgrades by any securities analysts who follow our Class A common stock;
- future sales of our Class A common stock by our officers, directors and significant stockholders;
- market conditions or trends in our industry or the economy as a whole and, in particular, in the animal health industry;
- investors' perceptions of our prospects;
- announcements by us or our competitors of significant contracts, acquisitions, joint ventures or capital commitments; and
- changes in key personnel.

In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. In the past, stockholders have instituted securities class action litigation following periods of market volatility. If we were involved in securities litigation, we could incur substantial costs, and our resources and the attention of management could be diverted from our business.

***Our majority stockholder has the ability to control significant corporate activities and our majority stockholder's interests may not coincide with yours.***

As of August 23, 2017, approximately 91.5% of the combined voting power of all classes of our outstanding common stock is held by BFI. As a result of its ownership, so long as it holds a majority of the combined voting power of all classes of our outstanding common stock, BFI will have the ability to control the outcome of matters submitted to a vote of stockholders and, through our Board of Directors, the ability to control decision-making with respect to our business direction and policies. Matters over which BFI, directly or indirectly, exercises control include:

- the election of our Board of Directors and the appointment and removal of our officers;
- mergers and other business combination transactions, including proposed transactions that would result in our stockholders receiving a premium price for their shares;
- other acquisitions or dispositions of businesses or assets;
- incurrence of indebtedness and the issuance of equity securities;
- repurchase of stock and payment of dividends; and
- the issuance of shares to management under our equity incentive plans.

Even if BFI's ownership of our shares falls below a majority of the combined voting power of all classes of our outstanding common stock, it may continue to be able to influence or effectively control our decisions.

***Future sales of our Class A common stock, or the perception in the public markets that these sales may occur, may depress our stock price.***

Sales of substantial amounts of our Class A common stock in the public market, or the perception that these sales could occur, could adversely affect the price of our Class A common stock and could impair our ability to raise capital through the sale of additional shares. In addition, subject to certain restrictions on converting Class B common stock into Class A common stock, all of our outstanding shares of Class B common stock may be converted into Class A common stock and sold in the public market by existing stockholders. As of August 23, 2017, we had 19,261,789 shares of Class A common stock and 20,626,836 shares of Class B common stock outstanding.

BFI, which holds all of our outstanding Class B common stock, has the right to require us to register the sales of their shares under the Securities Act, under the terms of an agreement between us and the holders of these securities. In the future, we may also issue our securities in connection with investments or acquisitions. The amount of shares of our Class A common stock issued in connection with an investment or acquisition could constitute a material portion of our then-outstanding shares of our Class A common stock.

***As an emerging growth company under the JOBS Act we are eligible to take advantage of certain exemptions from various reporting requirements.***

We are an emerging growth company, as defined in the JOBS Act, and we are eligible to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include, but are not limited to, (i) not being required to comply with the auditor attestation requirements of Section 404, (ii) reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and (iii) exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We have taken, and plan to continue to take, advantage of some or all of these exemptions. If we do continue to take advantage of any of these exemptions, we do not know if some investors will find our Class A common stock less attractive as a result. The result may be a less active trading market for our securities and our security prices may be more volatile. We could remain an emerging growth company until the earliest of (i) the last day of the first fiscal year in which our annual gross revenues exceed \$1.07 billion, (ii) the date that we become a “large accelerated filer” as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by nonaffiliates exceeds \$700 million as of the last business day of our most recently completed second fiscal quarter, (iii) the date on which we have issued more than \$1 billion in non-convertible debt during the preceding three year period or (iv) June 2019, which is the end of the fiscal year following the fifth anniversary of our initial public offering.

***Pursuant to the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 for so long as we are an “emerging growth company.”***

Section 404 requires annual management assessments of the effectiveness of our internal control over financial reporting, starting with the annual report for the year ending June 30, 2015, that we file with the SEC, and generally requires in the same report a report by our independent registered public accounting firm on the effectiveness of our internal control over financial reporting. However, under the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 until we are no longer an “emerging growth company.” We could remain an emerging growth company until the earliest of (i) the last day of the first fiscal year in which our annual gross revenues exceed \$1.07 billion, (ii) the date that we become a “large accelerated filer” as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by nonaffiliates exceeds \$700 million as of the last business day of our most recently completed second fiscal quarter, (iii) the date on which we have issued more than \$1 billion in non-convertible debt during the preceding three year period or (iv) June 2019, which is the end of the fiscal year following the fifth anniversary of our initial public offering.

***As a public company, we are subject to financial and other reporting and corporate governance requirements that did not previously apply to us and that may be difficult for us to satisfy and may divert management’s attention from our business.***

As a public company, we are required to file annual and quarterly reports and other information pursuant to the Exchange Act with the SEC. We are required to ensure that we have the ability to prepare consolidated financial statements that comply with SEC reporting requirements on a timely basis. We are also subject to other reporting and corporate governance requirements, including the applicable stock exchange listing standards and certain provisions of the Sarbanes-Oxley Act and the regulations promulgated thereunder, which impose significant compliance obligations upon us. Specifically, we are required to:

- prepare and distribute periodic reports and other stockholder communications in compliance with our obligations under the federal securities laws and applicable stock exchange rules;
- maintain compliance and internal audit functions that are more comprehensive;
- maintain effective disclosure controls and procedures;
- evaluate and maintain an effective system of internal control over financial reporting, and report on management’s assessment thereof, in compliance with the requirements of Section 404 and the related rules and regulations of the SEC and the Public Company Accounting Oversight Board;
- continue to enhance our investor relations function;
- maintain internal policies, including those relating to disclosure controls and procedures; and
- involve and retain outside legal counsel and accountants in connection with the activities listed above.

As a public company, we are required to commit significant resources and management time and attention to the above-listed requirements, which cause us to incur significant costs and which may place a strain on our systems and resources. As a result, our management’s attention might be diverted from other business concerns. Compliance with these requirements place significant demands on our legal, accounting and finance staff and on our accounting, financial and information systems and increase our legal and accounting compliance costs as well as our compensation expense as we have been or may be required to hire additional accounting, tax, finance and legal staff with the requisite technical knowledge, particularly after we are no longer an “emerging growth company.”

***Our management and independent registered public accounting firm have determined that there are material weaknesses in our internal controls over financial reporting. If we fail to maintain an effective system of internal controls over financial reporting, we may not be able to accurately report our financial results.***

Our management and independent registered public accounting firm have identified material weaknesses in our internal controls over financial reporting and our audit committee has agreed with the assessment of our management and independent registered public accounting firm. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. Our management and independent registered public accounting firm have identified the following material weaknesses in our internal controls over financial reporting:

- We did not maintain effective internal controls to ensure processing and reporting of valid transactions are complete, accurate, and timely. Specifically, we have not designed and implemented formal accounting policies and procedures that define how transactions across the business cycles should be initiated, recorded, processed and reported and appropriately authorized and approved.
- We did not maintain effective internal controls that restrict access to key financial systems and records to appropriate users and ensure appropriate segregation of duties is maintained. Certain personnel had access to financial application, programs and data beyond that needed to perform their individual job responsibilities and without independent monitoring. In addition, certain financial personnel had incompatible duties that allowed for the creation, review and processing of certain financial data without independent review and authorization.

Each of these material weaknesses could result in a material misstatement of our annual or interim financial statements that possibly would not be prevented or detected on a timely basis. We are currently evaluating the controls and procedures we will design and put in place to address these weaknesses and plan to implement appropriate measures as part of this effort. The measures may include additional staffing and other resources to strengthen internal controls and financial reporting. Failure to maintain an effective system of internal controls over financial reporting could have a material adverse effect on our business, financial condition and our results of operations. If we are unsuccessful in remediating the material weakness, or if we suffer other deficiencies or material weaknesses in our internal controls in the



future, we may be unable to report financial information in a timely and accurate manner and it could result in a material misstatement of our annual or interim financial statements that would not be prevented or detected on a timely basis, which could cause investors to lose confidence in our financial reporting, negatively affect the trading price of our common stock, and could cause a default under the agreements governing our indebtedness.

***Failure to comply with requirements to design, implement and maintain effective internal controls could have a material adverse effect on our business and stock price.***

As a public company, we have significant requirements for enhanced financial reporting and internal controls. The process of designing and implementing effective internal controls is a continuous effort that requires us to anticipate and react to changes in our business and the economic and regulatory environments and to expend significant resources to maintain a system of internal controls that is adequate to satisfy our reporting obligations as a public company. If we are unable to establish or maintain appropriate internal financial reporting controls and procedures, it could cause us to fail to meet our reporting obligations on a timely basis, result in material misstatements in our consolidated financial statements and harm our operating results. In addition, we are required, pursuant to Section 404, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment includes disclosure of any material weaknesses identified by our management in our internal control over financial reporting and a statement that our auditors have issued an attestation report on the effectiveness of our internal controls, provided that, as long as we are an “emerging growth company,” our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting pursuant to Section 404. Testing and maintaining internal controls may divert our management’s attention from other matters that are important to our business. We may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404 or our independent registered public accounting firm may not issue an unqualified opinion. If either we are unable to conclude that we have effective internal control over financial reporting or our independent registered public accounting firm is unable to provide us with an unqualified opinion, investors could lose confidence in our reported financial information, which could have a material adverse effect on the trading price of our stock.

***Anti-takeover provisions in our charter documents and Delaware law might discourage or delay acquisition attempts for us that you might consider favorable.***

Our certificate of incorporation and bylaws contain provisions that may make the acquisition of the Company more difficult without the approval of our Board of Directors. These provisions:

- authorize the issuance of undesignated preferred stock, the terms of which may be established and the shares of which may be issued without stockholder approval, and which may include super voting, special approval, dividend, or other rights or preferences superior to the rights of the holders of Class A common stock;
- prohibit, at any time after BFI and its affiliates cease to hold at least 50% of the combined voting power of all classes of our outstanding common stock, stockholder action by written consent, without the express prior consent of the Board of Directors;
- provide that the Board of Directors is expressly authorized to make, alter or repeal our amended and restated bylaws;
- establish advance notice requirements for nominations for elections to our Board of Directors or for proposing matters that can be acted upon by stockholders at stockholder meetings;
- establish a classified Board of Directors, as a result of which our Board of Directors will be divided into three classes, with each class serving for staggered three-year terms, which prevents stockholders from electing an entirely new Board of Directors at an annual meeting; and

- require, at any time after BFI and its affiliates cease to hold at least 50% of the combined voting power of all classes of our outstanding common stock, the approval of holders of at least three quarters of the combined voting power of all classes of our outstanding common stock for stockholders to amend the amended and restated bylaws or amended and restated certificate of incorporation.

These anti-takeover provisions and other provisions under Delaware law could discourage, delay or prevent a transaction involving a change in control of the Company, even if doing so would benefit our stockholders. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing and to cause us to take other corporate actions you desire.

***Our certificate of incorporation designates the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.***

Our certificate of incorporation provides that, subject to limited exceptions, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim against us arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our by-laws, or (iv) any other action asserting a claim against us that is governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our certificate of incorporation described above. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find these provisions of our restated certificate of incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition and results of operations.

***Provisions of our certificate of incorporation could have the effect of preventing us from having the benefit of certain business opportunities that we would otherwise be entitled to pursue.***

Our certificate of incorporation provides that BFI and its affiliates are not required to offer corporate opportunities of which they become aware to us and could, therefore, offer such opportunities instead to other companies including affiliates of BFI. In the event that BFI obtains business opportunities from which we might otherwise benefit but chooses not to present such opportunities to us, these provisions of our restated certificate of incorporation could have the effect of preventing us from pursuing transactions or relationships that would otherwise be in the best interests of our stockholders.

***We may not pay cash dividends in the future and, as a result, you may not receive any return on investment unless you are able to sell your Class A common stock for a price greater than your initial investment.***

Though we have paid a quarterly dividend of \$0.10 per share since September 2014 on our Class A and Class B common stock and our Board of Directors has declared a cash dividend of \$0.10 per share on Class A common stock and Class B common stock that is payable on September 27, 2017, any determination to pay dividends in the future will be at the discretion of our Board of Directors and will depend upon results of operations, financial condition, contractual restrictions, and our ability to obtain funds from our subsidiaries to meet our obligations. Our Credit Facilities permit us to pay distributions to stockholders out of available cash subject to certain annual limitations and so long as no default or event of default under the Credit Facilities shall have occurred and be continuing at the time such distribution is declared. Realization of a gain on your investment will depend on the appreciation of the price of our Class A common stock.

#### **Item 1B. Unresolved Staff Comments**

None.

**Item 2. Properties**

The following table lists our material properties:

<u>Business Segment(s)</u>	<u>Location</u>	<u>Owned/Leased</u>	<u>Approx. sq. Footage</u>	<u>Purpose(s)</u>
Animal Health	Beit Shemesh, Israel	Owned/land lease	78,000	Manufacturing and Research
Animal Health	Braganca Paulista, Brazil	Owned	44,000	Manufacturing and Administrative
Animal Health	Chillicothe, Illinois	Owned	19,000	Manufacturing
Animal Health	Corvallis, Oregon	Owned	5,000	Research
Animal Health	Guarulhos, Brazil	Owned	1,294,000	Manufacturing, Sales, Premixing, Research and Administrative
Animal Health	Neot Hovav, Israel	Owned/land lease	140,000	Manufacturing and Research
Mineral Nutrition	Omaha, Nebraska	Owned	84,000	Manufacturing
Animal Health	Omaha, Nebraska	Owned	43,000	Manufacturing, Sales and Research
Animal Health	Petach Tikva, Israel	Owned	60,000	Manufacturing
Animal Health and Mineral Nutrition	Quincy, Illinois	Owned	306,000	Manufacturing, Sales, Research and Administrative
Performance Products	Santa Fe Springs, California	Owned	108,000	Manufacturing
Animal Health	State College, Pennsylvania	Owned	13,000	Research
Animal Health	St. Paul, Minnesota	Leased	4,000	Research
Corporate	Teaneck, New Jersey	Leased	50,000	Corporate and Administrative

In addition to the above facilities, we maintain sales offices throughout the world in countries including the United States, Canada, Mexico, Brazil, Argentina, Chile, the United Kingdom, Belgium, Turkey, Israel, South Africa, China, Malaysia and Australia.

**Item 3. Legal Proceedings**

We are from time to time subject to claims and litigation arising in the ordinary course of business. These claims and litigation may include, among other things, allegations of violation of United States and foreign competition law, labor laws, consumer protection laws, and Environmental Laws and regulations, as well as claims or litigation relating to product liability, intellectual property, securities, breach of contract and tort. We operate in multiple jurisdictions and, as a result, a claim in one jurisdiction may lead to claims or regulatory penalties in other jurisdictions.

We do not believe that the ultimate resolution of existing claims and litigation will have a material adverse effect on our financial position, results of operations, liquidity or capital resources. However, one or more unfavorable outcomes in any claim or litigation against us could have a material adverse effect for the period in which they are resolved. In addition, regardless of their merits or their ultimate outcomes, such matters are costly, divert management's attention and may materially adversely affect our reputation, even if resolved in our favor.

**Item 4. Mine Safety Disclosures**

None.

## PART II

**Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities****Market Information for Common Stock**

Our Class A common stock is traded on NASDAQ under the trading symbol “PAHC.” Our Class B common stock is not listed or traded on any stock exchange. At June 30, 2017, there were 19,249,132 Class A common shares outstanding, and the closing sales price of our Class A common stock was \$37.05. The table below sets forth the high and low sales prices of our common stock for the quarters indicated.

<u>Quarter Ended</u>	<u>High</u>	<u>Low</u>
September 30, 2015	\$40.54	\$30.11
December 31, 2015	\$34.65	\$29.75
March 31, 2016	\$35.69	\$23.21
June 30, 2016	\$27.99	\$16.80
September 30, 2016	\$28.04	\$18.68
December 31, 2016	\$30.75	\$24.83
March 31, 2017	\$30.85	\$26.10
June 30, 2017	\$38.85	\$26.70

During the fiscal year ended June 30, 2017, we did not sell any unregistered securities nor did we purchase any of our equity securities.

**Holders of Record**

As of August 23, 2017, there were 19,261,789 shares of our Class A common stock outstanding, which were held by one stockholder of record, not including beneficial owners of shares registered in nominee or street name. As of August 23, 2017, there were 20,626,836 shares of our Class B common stock outstanding, which were held by one stockholder of record. Each share of Class B common stock is convertible at any time at the option of the holder into one share of Class A common stock. Information about 5% beneficial owners of our common stock is incorporated by reference from the discussion in our 2017 Proxy Statement under the heading *Security Ownership of Certain Beneficial Owners and Management*.

**Dividend Policy**

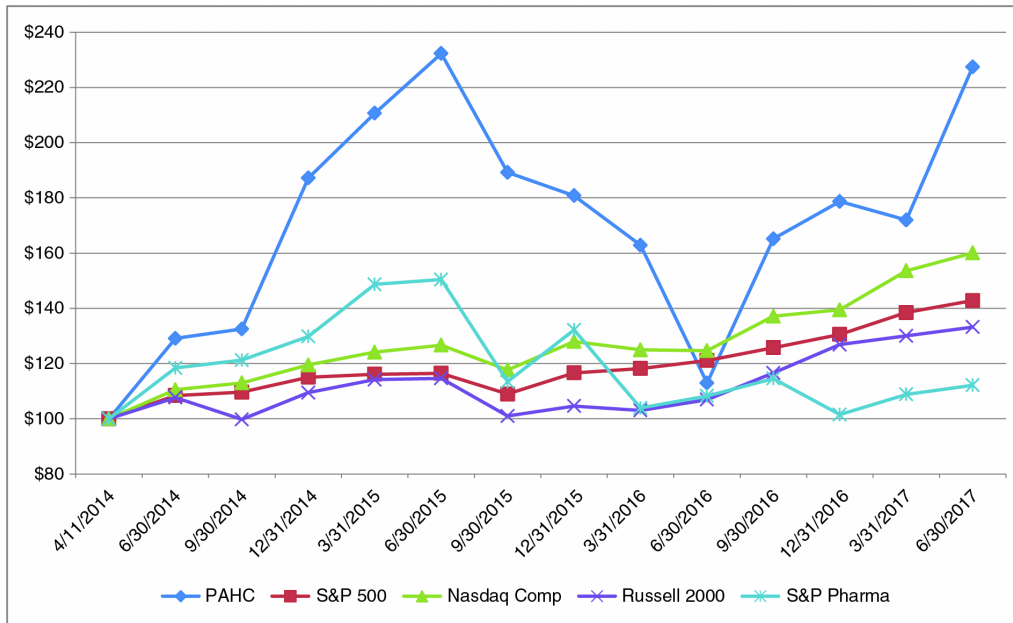
During fiscal year 2017, we paid quarterly dividends of \$0.10 per share to holders of our Class A and Class B common stock. We intend to pay regular quarterly dividends to holders of our Class A and Class B common stock out of assets legally available for this purpose. On July 24, 2017, our Board of Directors declared a \$0.10 per share quarterly dividend to holders of record as of September 6, 2017 of our Class A and Class B common stock, payable September 27, 2017. Any future determination to pay dividends will depend upon our results of operations, financial condition, capital requirements, our ability to obtain funds from our subsidiaries and other factors that our Board of Directors deems relevant. Additionally, the terms of our current and any future agreements governing our indebtedness could limit our ability to pay dividends or make other distributions.

**Stock Performance Graph**

*This performance graph is not “soliciting material,” is not deemed “filed” with the SEC and is not to be incorporated by reference in any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act.*

The following graph shows a comparison from April 11, 2014 (the date our Class A common stock commenced trading on NASDAQ) through June 30, 2017, of the cumulative stockholder return of our Class A common stock, the S&P 500 Index, the NASDAQ Composite Index, the Russell 2000 Index and S&P Pharmaceuticals Index. The graph assumes that \$100 was invested in our Class A common stock

and each of the aforementioned indexes at the market close on April 11, 2014, and assumes dividends, if any, are reinvested. The stock price performance shown on the graph is not necessarily indicative of future stock price performance, and we do not make any projections of future stockholder returns.



**Item 6. Selected Financial Data**

The following table presents our selected consolidated financial data and certain other financial data. The balance sheet data as of June 30, 2017, 2016, 2015, 2014 and 2013 and the results of operations data and cash flows data for the years then ended were derived from our consolidated financial statements. The consolidated financial data and other financial data presented below should be read in conjunction with our consolidated financial statements and the related notes thereto, under the sections entitled “Financial Statements and Supplementary Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
	(in thousands, except per share amounts)				
<b>Results of operations data</b>					
Net sales	\$764,281	\$751,526	\$748,591	\$691,914	\$653,151
Cost of goods sold	<u>516,038</u>	<u>512,494</u>	<u>515,311</u>	<u>487,500</u>	<u>476,307</u>
Gross profit	248,243	239,032	233,280	204,414	176,844
Selling, general and administrative expenses	<u>150,309</u>	<u>153,288</u>	<u>145,612</u>	<u>140,620</u>	<u>120,113</u>
Operating income	97,934	85,744	87,668	63,794	56,731
Interest expense, net	14,906	16,592	14,305	32,962	35,629
Foreign currency (gains) losses, net	(113)	(7,609)	(5,400)	1,753	3,103
Loss on extinguishment of debt	2,598	—	—	22,771	—
Other (income) expense, net	—	—	—	—	151
Income before income taxes	80,543	76,761	78,763	6,308	17,848
Provision (benefit) for income taxes	<u>15,928</u>	<u>(5,967)</u>	<u>18,483</u>	<u>9,435</u>	<u>(7,043)</u>
Net income (loss)	<u>\$ 64,615</u>	<u>\$ 82,728</u>	<u>\$ 60,280</u>	<u>\$ (3,127)</u>	<u>\$ 24,891</u>
Net income (loss) per share					
basic	\$ 1.63	\$ 2.11	\$ 1.55	\$ (0.10)	\$ 0.82
diluted	\$ 1.61	\$ 2.07	\$ 1.51	\$ (0.10)	\$ 0.82
Weighted average common shares outstanding					
basic	39,524	39,254	38,969	32,193	30,458
diluted	40,042	39,962	39,815	32,193	30,458
Dividends per share	\$ 0.40	\$ 0.40	\$ 0.40	\$ 0.82	\$ 0.10
<b>Other financial data</b>					
Adjusted EBITDA <sup>(1)</sup>	\$120,119	\$114,060	\$110,019	\$ 90,597	\$ 75,754
Cash provided (used) by operating activities <sup>(2)</sup>	98,385	37,218	68,704	(712)	1,437
Capital expenditures	20,880	36,352	20,058	19,846	19,947
<b>As of June 30</b>					
	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
	(in thousands)				
<b>Balance sheet data</b>					
Cash and cash equivalents	\$ 56,083	\$ 33,605	\$ 29,216	\$ 11,821	\$ 27,369
Working capital <sup>(3)</sup>	198,036	203,356	175,988	177,999	153,677
Total assets	623,397	607,835	490,250	468,725	470,513
Total debt <sup>(4)</sup>	313,141	350,172	286,450	285,793	361,975
Long-term debt and other liabilities	356,444	408,578	349,185	341,138	424,047
Total stockholders’ equity (deficit)	151,157	90,480	29,628	15,149	(68,938)

(1) See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—General description of non-GAAP financial measures” for descriptions of EBITDA and Adjusted EBITDA.

<b>For the Years Ended June 30</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
			(in thousands)		
Net income (loss)	\$ 64,615	\$ 82,728	\$ 60,280	\$ (3,127)	\$24,891
Plus:					
Interest expense, net	14,906	16,592	14,305	32,962	35,629
Provision (benefit) for income taxes	15,928	(5,967)	18,483	9,435	(7,043)
Depreciation and amortization	26,001	23,452	21,604	21,453	19,023
EBITDA	121,450	116,805	114,672	60,723	72,500
Acquisition-related cost of goods sold	—	2,566	—	—	—
Acquisition-related accrued compensation	1,680	1,680	747	—	—
Acquisition-related transaction costs	1,274	618	—	—	—
Acquisition-related other, net	(972)	—	—	—	—
Pension settlement cost	1,702	—	—	—	—
(Gain)/Loss on insurance (settlement)/claim	(7,500)	—	—	5,350	—
Foreign currency (gains) losses, net	(113)	(7,609)	(5,400)	1,753	3,103
Loss on extinguishment of debt	2,598	—	—	22,771	—
Other (income) expense, net	—	—	—	—	151
Adjusted EBITDA	<u>\$120,119</u>	<u>\$114,060</u>	<u>\$110,019</u>	<u>\$90,597</u>	<u>\$75,754</u>

Acquisition-related other, net includes the net effect of adjustments to contingent consideration on acquisitions and impairments of intangible assets.

(2) Cash provided (used) by operating activities:

<b>For the Years Ended June 30</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
			(in thousands)		
EBITDA	\$121,450	\$116,805	\$114,672	\$ 60,723	\$ 72,500
Adjustments					
Acquisition-related cost of goods sold	—	2,566	—	—	—
Acquisition-related accrued compensation	1,680	1,680	747	—	—
Acquisition-related transaction costs	1,274	618	—	—	—
Acquisition-related other, net	(972)	—	—	—	—
Pension settlement cost	1,702	—	—	—	—
(Gain)/Loss on insurance (settlement)/claim	(7,500)	—	—	5,350	—
Foreign currency (gains) losses, net	(113)	(7,609)	(5,400)	1,753	3,103
Loss on extinguishment of debt	2,598	—	—	22,771	—
Other (income) expense, net	—	—	—	—	151
Interest paid	(14,600)	(14,215)	(12,912)	(45,370)	(33,824)
Income taxes paid	(14,762)	(16,828)	(10,780)	(12,207)	(7,061)
Changes in operating assets and liabilities and other items	1,402	(45,181)	(12,337)	(16,527)	(33,432)
Cash provided by (used for) gain (loss) on insurance settlement (claim)	7,500	—	(5,286)	—	—
Cash used for acquisition-related transactions costs	(1,274)	(618)	—	—	—
Payment of premiums and costs on extinguished debt	—	—	—	(17,205)	—
Net cash provided (used) by operating activities	<u>\$ 98,385</u>	<u>\$ 37,218</u>	<u>\$ 68,704</u>	<u>\$ (712)</u>	<u>\$ 1,437</u>



- (3) We define working capital as total current assets (excluding cash & cash equivalents) less total current liabilities (excluding current portion of long-term debt). Current assets in 2015 and prior years included current deferred tax assets.
- (4) Total debt includes revolving credit facility, current and long-term portions of long-term debt and capitalized lease obligations. Total debt is reduced by certain unamortized debt issuance costs and unamortized debt discount, if any.

Certain reclassifications have been made to prior year amounts to conform to the current year presentations.

## **Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations**

### **Introduction**

Our management’s discussion and analysis of financial condition and results of operations (“MD&A”) is provided to assist readers in understanding our performance, as reflected in the results of our operations, our financial condition and our cash flows. The following discussion summarizes the significant factors affecting our consolidated operating results, financial condition, liquidity and cash flows as of and for the periods presented below. This MD&A should be read in conjunction with the “Selected Financial Data” and our consolidated financial statements and related notes thereto included under the section entitled “Financial Statements and Supplementary Data.” Our future results could differ materially from our historical performance as a result of various factors such as those discussed in “Risk Factors” and “Forward-Looking Statements.”

### **Overview of our business**

Phibro Animal Health Corporation is a global diversified animal health and mineral nutrition company. We develop, manufacture and market products for a broad range of food animals including poultry, swine, beef and dairy cattle and aquaculture. Our products help prevent, control and treat diseases, enhance nutrition to help improve health and performance and contribute to balanced mineral nutrition. In addition to animal health and mineral nutrition products, we manufacture and market specific ingredients for use in the personal care, automotive, industrial chemical and chemical catalyst industries. We sell more than 1,400 product presentations in over 65 countries to approximately 3,000 customers.

### **Factors affecting our performance**

#### ***Industry growth***

According to Vetnosis, a research and consulting firm specializing in global animal health and veterinary medicine, the global livestock animal health sector represented approximately \$19.4 billion of sales in 2016. The market grew at a compound annual growth rate of 0.8% between 2011 and 2016 and the market is projected to grow at a compound annual growth rate of approximately 5.2% per year between 2016 and 2021. We believe global population growth, the growth of the global middle class and the productivity improvements needed due to limitations of arable land and water supplies have supported and will continue to support this growth.

#### ***Regulatory Developments***

Our business depends heavily on a healthy and growing livestock industry. Some in the public perceive risks to human health related to the consumption of food derived from animals that utilize certain of our products, including certain of our MFA products. In particular, there is increased focus, primarily in the United States, on the use of medically important antimicrobials, as defined by the FDA. Medically important antimicrobials (“MIAs”) include classes that are prescribed in animal and human health and are listed in the Appendix of the FDA-CVM Guidance for Industry (GFI) 152. Our products that contain virginiamycin, oxytetracycline or neomycin have previously been classified by the FDA as medically important antimicrobials. This may lead to a decline in the demand for and production of food products derived from animals that utilize our MIA products and, in turn, demand for our MIA products. Livestock

producers may experience decreased demand for their products or reputational harm as a result of evolving consumer views of nutrition and health-related concerns, animal rights, and other concerns. Any reputational harm to the livestock industry may also extend to companies in related industries, including us. In addition, campaigns by interest groups, activists and others with respect to perceived risks associated with the use of our products in animals, including position statements by livestock producers and their customers based on non-use of certain medicated products in livestock production, whether or not scientifically-supported, could affect public perceptions and reduce the use of our products. Those adverse consumer views related to the use of one or more of our products in animals could have a material adverse effect on our financial condition and results of operations. Our sales in the United States of products that have been classified by the FDA as medically important antimicrobials were approximately \$23 million and \$37 million for the years ended June 30, 2017 and 2016, respectively.

Our business is subject to product registration and authorization regulations. Changes in the regulations could have a material impact on our business. In April 2016, the FDA began initial steps to withdraw approval of Mecadox (carbadox), due to concerns that certain residues from the product may persist in tissues for longer than previously determined. This initial action by the FDA does not prohibit the sale or use of Mecadox in the United States. Mecadox has been approved and sold in the United States for more than 40 years and is a widely used treatment for controlling bacterial diseases including Salmonella and swine dysentery. Mecadox is not used in human medicine and the class of drug is not considered a medically important antimicrobial. The approved Mecadox label requires a 42-day withdrawal period pre-harvesting, and to date we have not seen any hazardous residues of carbadox being detected from pig meat treated in accordance with the approved label. We have complete confidence in the safety of Mecadox. In response to FDA inquiries several years ago, we began rigorous new studies of the continued safety of the product when used in accordance with the label. Our studies were completed in July 2016, and we submitted our data, analyses and information to the FDA that we believe support the continued safe use of Mecadox. The timing of the FDA's response to our submission is not subject to a predetermined deadline. Our sales of Mecadox in the United States were approximately \$15 million for each of the years ended June 30, 2017 and 2016, respectively. Should we be unable to successfully defend the safety of the product, the loss of Mecadox sales would have a negative impact to the results of our operations.

### ***Competition***

The animal health industry is highly competitive. We believe many of our competitors are conducting R&D activities in areas served by our products and in areas in which we are developing products. Our competitors include the animal health businesses of large pharmaceutical companies and specialty animal health businesses. In addition to competition from established participants, there could be new entrants to the animal health medicines and vaccines industry in the future. Principal methods of competition vary depending on the region, species, product category or individual products, including reliability, reputation, quality, price, service and promotion to veterinary professionals and livestock producers.

### ***Foreign exchange***

We conduct operations in many areas of the world, involving transactions denominated in a variety of currencies. In fiscal year 2017, we generated approximately 37% of our revenues from operations outside the United States. Although a portion of our revenues are denominated in various currencies, the selling prices of the majority of our sales outside the United States are referenced in U.S. dollars, and as a result, our revenues have not been significantly directly affected by currency movements. We are subject to currency risk to the extent that our costs are denominated in currencies other than those in which we earn revenues. We manufacture some of our major products in Brazil and Israel and production costs are largely denominated in local currencies, while the selling prices of the products are largely set in U.S. dollars. As such, we are exposed to changes in cost of goods sold resulting from currency movements and may not be able to adjust our selling prices to offset such movements. In addition, we incur selling and administrative expenses in various currencies and are exposed to changes in such expenses resulting from currency movements. Because our financial statements are reported in U.S. dollars, changes in currency exchange rates between the U.S. dollar and other currencies have had, and will continue to have, an impact on our results of operations.

***Climate***

The animal health industry and demand for many of our animal health products in a particular region are affected by changing disease pressures and by weather conditions, as usage of our products follows varying weather patterns and weather-related pressures from diseases. As a result, we may experience regional and seasonal fluctuations in our results of operations.

In addition, livestock producers depend on the availability of natural resources, including abundant rainfall to sustain large supplies of drinking water, grasslands and grain production. Their animals' health and their ability to operate could be adversely affected if they experience a shortage of fresh water due to human population growth or floods, droughts or other weather conditions. In the event of adverse weather conditions or a shortage of fresh water, livestock producers may purchase less of our products.

***Product development initiatives***

Our future success depends on both our existing product portfolio, including our ability to obtain cross-clearances enabling the use of our medicated products in conjunction with other products, approval for use of our products with new species, approval for new claims for our products, approval of our products in new markets, and our pipeline of new products, including new products that we may develop through joint ventures and products that we are able to obtain through license or acquisition. The majority of our R&D programs focus on product lifecycle development, which is defined as R&D programs that leverage existing animal health products by adding new species or claims, achieving approvals in new markets or creating new combinations and reformulations. We commit substantial effort, funds and other resources to expanding our product approvals and R&D, both through our own dedicated resources and through collaborations with third parties.

**Recent Developments*****Refinancing***

In June 2017, we entered into a new credit agreement (the "Credit Agreement"). Under the Credit Agreement, lenders extended credit to us in the form of a Term A loan, with an aggregate principal amount of \$250.0 million (the "Term A Loan") and a revolving credit facility, with an aggregate principal amount of \$250.0 million (the "Revolver," and together with the Term A Loan, the "Credit Facilities"). We used the proceeds of \$314.1 million from the Credit Facilities to repay all debt outstanding as of the closing date and to pay fees and expenses of the transaction. We recorded a \$2.6 million loss on extinguishment of debt for certain unamortized debt issuance costs and debt discount related to retired debt. See "Notes to Consolidated Financial Statements—Debt" for additional details.

In July 2017, we entered into an interest rate swap agreement on \$150.0 million of notional principal that effectively converts the floating LIBOR or base rate portion of our interest obligation on that amount of debt, to a fixed interest rate of 1.8325% plus the applicable rate. The agreement matures concurrent with the Credit Agreement.

**Analysis of the consolidated statements of operations****Summary Results of Operations**

For the Years Ended June 30				Change	
	2017	2016	2015	2017/2016	2016/2015
	(in thousands, except per share)				
Net sales	\$764,281	\$751,526	\$748,591	\$ 12,755	2% \$ 2,935 0%
Gross profit	248,243	239,032	233,280	9,211	4% 5,752 2%
Selling, general and administrative expenses	150,309	153,288	145,612	(2,979)	(2)% 7,676 5%
Operating income	97,934	85,744	87,668	12,190	14% (1,924) (2)%
Interest expense, net	14,906	16,592	14,305	(1,686)	(10)% 2,287 16%
Foreign currency (gains) losses, net	(113)	(7,609)	(5,400)	7,496	* (2,209) *
Loss on extinguishment of debt	2,598	—	—	2,598	* — *
Income before income taxes	80,543	76,761	78,763	3,782	5% (2,002) (3)%
Provision (benefit) for income taxes	15,928	(5,967)	18,483	21,895	* (24,450) *
Net income (loss)	<u>\$ 64,615</u>	<u>\$ 82,728</u>	<u>\$ 60,280</u>	<u>\$(18,113)</u>	<u>(22)% \$ 22,448 37%</u>
Net income (loss) per share					
basic	\$ 1.63	\$ 2.11	\$ 1.55	\$ (0.48)	\$ 0.56
diluted	\$ 1.61	\$ 2.07	\$ 1.51	\$ (0.46)	\$ 0.56
Weighted average number of shares outstanding					
basic	39,524	39,254	38,969		
diluted	40,042	39,962	39,815		
Ratio to net sales					
Gross profit	32.5%	31.8%	31.2%		
Selling, general and administrative expenses	19.7%	20.4%	19.5%		
Operating income	12.8%	11.4%	11.7%		
Income before income taxes	10.5%	10.2%	10.5%		
Net income	8.5%	11.0%	8.1%		
Effective tax rate	19.8%	(7.8)%	23.5%		

Certain amounts and percentages may reflect rounding adjustments.

\* Calculation not meaningful

Changes in net sales from period to period primarily result from changes in volumes and average selling prices. Although a portion of our net sales is denominated in various currencies, the selling prices of the majority of our sales outside the United States are referenced in U.S. dollars, and as a result, our revenues have not been significantly directly affected by currency movements.

Our effective income tax rate has varied significantly from period to period and from the federal statutory rate, due to the mix of income tax provisions on profitable foreign jurisdictions; the effect of the 2017 and 2016 releases of valuation allowances against foreign and domestic deferred income taxes, respectively; minimal income tax provision or benefit being recorded on domestic pre-tax income or losses prior to fiscal year 2016; and the effect of discrete items. Our future effective income tax rate will vary depending on the relative amounts of taxable income in various jurisdictions, future changes in tax rates and other laws and other factors. We intend to continue to reinvest indefinitely the undistributed earnings of our foreign subsidiaries. See "Notes to Consolidated Financial Statements—Income Taxes" for additional information.

**Net sales, Adjusted EBITDA and reconciliation of GAAP net income to Adjusted EBITDA**

We report Net sales and Adjusted EBITDA by segment to understand the operating performance of each segment. This enables us to monitor changes in net sales, costs and other actionable operating metrics at the segment level. See “—General description of non-GAAP financial measures” for descriptions of EBITDA and Adjusted EBITDA.

Segment net sales and Adjusted EBITDA:

For the Years Ended June 30	2017	2016	2015	Change			
				2017/2016	2016/2015		
(in thousands)							
<b>Net sales</b>							
MFAs and other	\$321,430	\$339,916	\$335,735	\$(18,486)	(5)%	\$ 4,181	1%
Nutritional specialties	111,282	94,084	81,702	17,198	18%	12,382	15%
Vaccines	65,033	52,140	53,363	12,893	25%	(1,223)	(2)%
Animal Health	497,745	486,140	470,800	11,605	2%	15,340	3%
Mineral Nutrition	218,298	216,685	227,102	1,613	1%	(10,417)	(5)%
Performance Products	48,238	48,701	50,689	(463)	(1)%	(1,988)	(4)%
Total	<u>\$764,281</u>	<u>\$751,526</u>	<u>\$748,591</u>	\$ 12,755	2%	\$ 2,935	0%
<b>Adjusted EBITDA</b>							
Animal Health	\$130,261	\$127,442	\$120,259	\$ 2,819	2%	\$ 7,183	6%
Mineral Nutrition	17,426	14,971	14,429	2,455	16%	542	4%
Performance Products	2,057	970	2,646	1,087	112%	(1,676)	(63)%
Corporate	(29,625)	(29,323)	(27,315)	(302)	*	(2,008)	*
Total	<u>\$120,119</u>	<u>\$114,060</u>	<u>\$110,019</u>	\$ 6,059	5%	\$ 4,041	4%
<b>Adjusted EBITDA ratio to segment net sales</b>							
Animal Health	26.2%	26.2%	25.5%				
Mineral Nutrition	8.0%	6.9%	6.4%				
Performance Products	4.3%	2.0%	5.2%				
Corporate <sup>(1)</sup>	(3.9)%	(3.9)%	(3.6)%				
Total <sup>(1)</sup>	15.7%	15.2%	14.7%				

(1) reflects ratio to total net sales

A reconciliation of net income, as reported under GAAP, to Adjusted EBITDA:

For the Years Ended June 30	2017	2016	2015	Change			
				2017/2016	2016/2015		
	(in thousands)						
Net income (loss)	\$ 64,615	\$ 82,728	\$ 60,280	\$(18,113)	(22)%	\$ 22,448	37%
Interest expense, net	14,906	16,592	14,305	(1,686)	(10)	2,287	16
Provision (benefit) for income taxes	15,928	(5,967)	18,483	21,895	*	(24,450)	*
Depreciation and amortization	26,001	23,452	21,604	2,549	11%	1,848	9%
EBITDA	121,450	116,805	114,672	4,645	4%	2,133	2%
Acquisition-related cost of goods sold	—	2,566	—	(2,566)	*	2,566	*
Acquisition-related accrued compensation	1,680	1,680	747	—	0%	933	125%
Acquisition-related transaction costs	1,274	618	—	656	106%	618	*
Acquisition-related other, net <sup>(1)</sup>	(972)	—	—	(972)	*	—	*
Pension settlement cost	1,702	—	—	1,702	*	—	*
Gain on insurance settlement	(7,500)	—	—	(7,500)	*	—	*
Foreign currency (gains) losses, net	(113)	(7,609)	(5,400)	7,496	*	(2,209)	*
Loss on extinguishment of debt	2,598	—	—	2,598	*	—	*
Adjusted EBITDA	<u>\$120,119</u>	<u>\$114,060</u>	<u>\$110,019</u>	\$ 6,059	5%	\$ 4,041	4%

(1) Acquisition-related other, net includes the net effect of adjustments to contingent consideration on acquisitions and impairments of intangible assets.

Certain amounts and percentages may reflect rounding adjustments.

\* Calculation not meaningful

#### **Comparison of fiscal years ended June 30, 2017 and 2016**

##### ***Net sales***

Net sales of \$764.3 million for the year ended June 30, 2017, increased \$12.8 million, or 2%, as compared to the year ended June 30, 2016. Animal Health and Mineral Nutrition grew \$11.6 million and \$1.6 million respectively, while Performance Products declined \$0.5 million.

##### ***Animal Health***

Net sales of \$497.7 million for the year ended June 30, 2017, grew \$11.6 million, or 2%. The growth was primarily due to volume increases in the nutritional specialty and vaccine product groups within the segment. Nutritional specialty products grew \$17.2 million, or 18%, primarily due to volume growth of our products for the U.S. poultry and dairy industries. Vaccines grew \$12.9 million, or 25%, primarily due to volume growth of our products for the poultry and swine industries. The vaccine sales growth included the effect of products acquired from MVP Laboratories, Inc. in January 2016 being included in the full year ended June 30, 2017. MFAs and other declined \$18.5 million, or 5%, primarily due to volume declines. Domestic net sales of MFAs and other declined \$13.8 million as reduced volumes of medically important antimicrobials, due to regulatory changes and consumer preferences, were partially offset by growth in other products. International net sales declined \$4.7 million due to economic conditions in Brazil, partially offset by growth in other regions.

*Mineral Nutrition*

Net sales of \$218.3 million increased \$1.6 million, or 1%, for the year ended June 30, 2017. The increased revenue was primarily due to higher volumes. The increase in volumes was partially offset by lower average selling prices resulting from underlying raw material commodity price declines.

*Performance Products*

Net sales of \$48.2 million decreased \$0.5 million, or 1%, for the year ended June 30, 2017, due to lower average selling prices of personal care ingredients and lower volumes of copper-based products and chemical catalyst products, partially offset by higher volumes of personal care ingredients.

**Gross profit**

Gross profit of \$248.2 million for the year ended June 30, 2017, increased \$9.2 million, or 4%, as compared to the year ended June 30, 2016. Gross profit increased to 32.5% of net sales for the year ended June 30, 2017, as compared to 31.8% for the year ended June 30, 2016. The increase included the effect of \$2.6 million of acquisition-related cost of goods sold recorded for the year ended June 30, 2016. Depreciation and amortization expense included in cost of goods sold increased \$3.4 million due to recent capital expenditures and the MVP acquisition. Excluding the effects of the 2016 acquisition-related cost of goods sold and the increased depreciation and amortization, Animal Health gross profit increased \$7.4 million due to volume growth in nutritional specialty and vaccine products, as well as lower unit costs from improved operating efficiencies, partially offset by volume declines in MFAs and other products. Mineral Nutrition gross profit increased \$2.4 million due to lower raw material costs, partially offset by lower average selling prices. Performance Products gross profit increased \$0.1 million due to higher volumes of personal care ingredients and higher average selling prices of copper-based products, partially offset by lower average selling prices of personal care ingredients.

**Selling, general and administrative expenses**

SG&A of \$150.3 million for the year ended June 30, 2017, decreased \$3.0 million, or 2%, as compared to the year ended June 30, 2016. SG&A for the year ended June 30, 2017, included the following unusual items:

- a \$7.5 million gain from a payment to us by an insurance carrier. The payment reflected the settlement of our claims against the carrier under our liability insurance policies, which arose from damages incurred in fiscal year 2010 by certain customers resulting from the use of one of our animal health products;
- \$1.7 million in costs relating to the partial settlement of the pension plan;
- \$1.3 million in acquisition-related transaction costs for professional fees and other items in the evaluation and negotiation of an unsuccessful acquisition; and,
- a \$1.0 million gain from the net effect of acquisition-related adjustments to contingent consideration and impairments of intangible assets.

SG&A for the year ended June 30, 2016, included \$0.6 million in acquisition-related transaction costs. Without the gain on the insurance settlement, the pension settlement costs and the acquisition-related items, SG&A increased \$3.1 million, or 2%, for the year.

Animal Health SG&A increased \$4.2 million, driven by sales force expansion and development costs. Mineral Nutrition decreased \$0.1 million due to one-time costs in the prior year. Performance Products decreased \$0.8 million primarily due to lower environmental costs. Corporate decreased \$0.1 million primarily due to lower retirement plan costs.



***Interest expense, net***

Interest expense, net of \$14.9 million for the year ended June 30, 2017, decreased \$1.7 million, or 10%, as compared to the year ended June 30, 2016. Interest income increased \$1.7 million from interest on deposits in foreign jurisdictions. Interest expense was level with the prior year, as increased interest relating to the Credit Facilities due to higher rates and increased size of the facility, was offset by other items.

***Foreign currency (gains) losses, net***

Foreign currency (gains) losses, net for the year ended June 30, 2017, amounted to net gains of \$0.1 million, as compared to \$7.6 million in net gains for the year ended June 30, 2016. Foreign currency gains in the year ended June 30, 2017, were primarily due to the movement of the South African, Turkish and Israeli currencies relative to the U.S. dollar. Foreign currency gains and losses primarily arise from intercompany balances.

***Loss on extinguishment of debt***

Our consolidated statements of operations for the year ended June 30, 2017, included a \$2.6 million loss on extinguishment of debt for unamortized debt issuance costs and debt discount related to retired debt.

***Provision (benefit) for income taxes***

The provision for income taxes was \$15.9 million for the year ended June 30, 2017, as compared to an income tax benefit of \$(6.0) million for the year ended June 30, 2016. The effective income tax rates for the years ended June 30, 2017 and 2016, were 19.8% and (7.8)%, respectively. The provisions for income taxes for the years ended June 30, 2017 and 2016, included benefits of \$4.1 million and \$19.6 million, respectively, from the release of valuation allowances for certain foreign and all domestic deferred income taxes, benefits of \$3.1 million and \$3.5 million, respectively, from the exercise of employee stock options and benefits of \$0.5 million and \$4.8 million, respectively, from the recognition of previously unrecognized tax benefits. Without these benefits, the effective income tax rates for the years ended June 30, 2017 and 2016, would have been 29.3% and 28.6%, respectively.

Our future effective income tax rate may fluctuate due to various factors, including the relative amounts of income earned in different taxing jurisdictions, changes in statutory tax rates, potential strategies to reduce our overall income tax expense, discrete items, the benefit of employee stock option exercises and certain non-deductible items.

***Net income***

Net income of \$64.6 million for the year ended June 30, 2017, decreased \$18.1 million, as compared to net income of \$82.7 million for the year ended June 30, 2016. The decrease was a result of the factors described above, including a \$19.6 million income tax benefit in the prior year period, an unfavorable change of \$7.5 million in foreign currency (gains) losses, net, a \$2.6 million loss on extinguishment of debt and the favorable \$7.5 million gain on insurance settlement.

***Adjusted EBITDA***

Adjusted EBITDA of \$120.1 million for the year ended June 30, 2017, increased \$6.1 million, or 5%, as compared to the year ended June 30, 2016. Animal Health Adjusted EBITDA increased \$2.8 million, or 2%, due to sales growth and increased gross profit, partially offset by increased SG&A. Mineral Nutrition Adjusted EBITDA increased \$2.5 million, or 16%, due to improved operating margins from lower raw material costs, partially offset by lower average selling prices. Performance Products Adjusted EBITDA increased \$1.1 million, due to higher volumes and lower product costs, partially offset by lower average selling prices. Corporate expenses increased \$0.3 million due to increased compensation and benefit costs and business development costs.

### ***Pension Plan and Retirement Savings Plan Changes***

In July 2016, we amended our domestic noncontributory defined benefit pension plan to eliminate credit for future service and compensation increases, effective as of September 30, 2016. The amendment resulted in a curtailment of the pension plan. During the three months ended September 30, 2016, we recorded a pension curtailment gain of \$6.8 million in other comprehensive income and an offsetting reduction in the liability for pension benefits included in other liabilities. We also modified the 401(k) retirement savings plan effective October 1, 2016, to include, for all domestic employees, a non-elective Company contribution of 3% of compensation and an additional discretionary contribution of up to 4% of compensation, depending on the employee's age and years of service.

Separately, we offered a lump sum settlement option to certain pension plan participants. During the three months ended December 31, 2016, we recognized a partial settlement of the pension plan with respect to the lump sum settlement, which resulted in a charge to the consolidated statement of operations of \$1.7 million, which we recorded as a component of SG&A.

### **Comparison of fiscal years ended June 30, 2016 and 2015**

Our results for the fiscal year ended June 30, 2015 included \$8.0 million of revenue and income from milestone payments for licensing of vaccine delivery technology. For a better understanding of underlying trends, we also present comparisons with 2015 that exclude the prior year milestone payments.

#### ***Net sales***

Net sales of \$751.5 million for the year ended June 30, 2016 increased \$2.9 million, or less than 1%, as compared to the year ended June 30, 2015. Animal Health grew \$15.3 million, while Mineral Nutrition and Performance Products declined \$10.4 million and \$2.0 million, respectively.

Excluding the prior year \$8.0 million of vaccine licensing milestone revenue, net sales increased \$10.9 million, or 1%.

#### ***Animal Health***

Net sales of \$486.1 million for the year ended June 30, 2016 grew \$15.3 million, or 3%. The growth was primarily due to volume increases across all product groups within the segment. Nutritional specialty products grew \$12.4 million, or 15%, primarily due to U.S. and E.U. volume growth of our products for the dairy and poultry industries. MFAs and other grew \$4.2 million, or 1%, primarily due to volume growth in international markets, which offset declines in domestic volumes. Vaccines declined \$1.2 million, or 2%, due to the \$8.0 million in vaccine licensing milestone revenue recorded in the prior year. Excluding the prior year \$8.0 million in vaccine licensing milestone revenue, vaccines grew \$6.8 million, or 15%, principally from volume growth, including sales of MVP products.

Excluding the prior year \$8.0 million of vaccine licensing milestone revenue, net sales grew \$23.3 million, or 5%.

#### ***Mineral Nutrition***

Net sales of \$216.7 million decreased \$10.4 million, or 5%, for the year ended June 30, 2016. The decrease is due to lower average selling prices due to underlying raw material commodity price declines. Increased volumes from improved demand for trace mineral products partially offset the lower average selling prices.

#### ***Performance Products***

Net sales of \$48.7 million decreased \$2.0 million, or 4%, for the year ended June 30, 2016, due to lower average selling prices of copper-based products and personal care ingredients and lower volumes of chemical catalyst products.

***Gross profit***

Gross profit of \$239.0 million for the year ended June 30, 2016 increased \$5.8 million, or 2%, as compared to the year ended June 30, 2015. Gross profit increased to 31.8% of net sales for the year ended June 30, 2016 as compared to 31.2% for the year ended June 30, 2015. Animal Health gross profit increased \$6.8 million due to volume growth, lower unit costs from improved operating efficiencies and favorable currency movements. Current year Animal Health gross profit was reduced by \$2.6 million of acquisition-related cost of goods sold, unfavorable vaccine manufacturing costs related to production interruptions, \$1.2 million of acquisition-related intangible amortization and \$1.1 million of increased depreciation expense due to recent capital expenditures. Excluding the prior year \$8.0 million of vaccine licensing milestone revenue and gross profit and excluding the current year \$2.6 million of acquisition-related cost of goods sold, Animal Health gross profit increased \$17.4 million, or 9%. Mineral Nutrition gross profit increased \$0.3 million due to lower material costs, partially offset by lower average selling price. Performance Products gross profit decreased \$1.3 million due to lower average selling prices of copper-based products and personal care ingredients, partially offset by lower material costs.

Excluding the prior year \$8.0 million of vaccine licensing milestone revenue and gross profit, the current year \$2.6 million of acquisition-related cost of goods sold and acquisition-related amortization for each year, gross profit increased \$17.6 million, or 8%.

***Selling, general and administrative expenses***

SG&A expenses of \$153.3 million for the year ended June 30, 2016 increased \$7.7 million, or 5%, as compared to the year ended June 30, 2015. Animal Health accounted for \$4.9 million of the increase, driven by increased acquisition-related accrued compensation and increased sales force and product development costs. Performance Products account for \$0.6 of the increase due to higher environmental remediation costs. Corporate expenses accounted for \$2.4 million of the increase, due to acquisition-related transaction costs and increased compensation and office-related costs.

Excluding acquisition-related intangible amortization, accrued compensation and transaction costs for each year, SG&A increased \$6.4 million, or 4%.

***Interest expense, net***

Interest expense, net of \$16.6 million for the year ended June 30, 2016, increased \$2.3 million or 16%, compared to the year ended June 30, 2015. The increase is due to interest on increased borrowings under our Revolver and increased acquisition-related accrued interest of \$0.9 million.

Excluding acquisition-related accrued interest for each year, interest expense, net increased \$1.4 million or 10%.

***Foreign currency (gains) losses, net***

Foreign currency (gains) losses, net for the year ended June 30, 2016 amounted to net gains of \$7.6 million, as compared to \$5.4 million in net gains for the year ended June 30, 2015. Foreign currency gains in the year ended June 30, 2016 were primarily due to the movement of Brazil, Mexico, South Africa and Argentina currencies relative to the U.S. dollar. Foreign currency gains and losses primarily arise from intercompany balances.

***Provision for income taxes***

The provision for income taxes was an income tax benefit of \$(6.0) million for the year ended June 30, 2016, as compared to a provision of \$18.5 million for the year ended June 30, 2015. The effective income tax rates for the years ended June 30, 2016 and 2015, were (7.8)% and 23.5%, respectively. The provision for income taxes for the year ended June 30, 2016, included a benefit of \$19.6 million from the release of the valuation allowance for all domestic deferred income taxes and a benefit of \$3.5 million from the exercise of employee stock options. The provisions for income taxes for the years ended June 30, 2016 and 2015, included benefits of \$4.8 million and \$1.2 million from the recognition of previously unrecognized tax benefits, respectively. Without these benefits, the effective income tax rates for the years

ended June 30, 2016 and 2015, would have been 28.6% and 25.0%, respectively. The effective income tax rate for the year ended June 30, 2016, compared with the prior year, increased primarily because there was no domestic income tax provision for the year ended June 30, 2015, due to the change in the domestic valuation allowance related to the utilization of deferred tax assets.

***Net income (loss)***

Net income of \$82.7 million for the year ended June 30, 2016, increased \$22.4 million, compared to net income of \$60.3 million for the year ended June 30, 2015, as a result of the factors described above.

***Adjusted EBITDA***

Adjusted EBITDA of \$114.1 million for the year ended June 30, 2016 increased \$4.0 million, or 4%, as compared to the year ended June 30, 2015. Animal Health adjusted EBITDA increased \$7.2 million, or 6%, due to sales growth and increased gross profit, partially offset by increased SG&A expenses. Excluding the prior year \$8.0 million of vaccine licensing milestone revenue, Animal Health adjusted EBITDA increased \$15.2 million, or 14%. Mineral Nutrition increased \$0.5 million, or 4%, due to improved operating margins from lower material costs, partially offset by lower average selling prices. Performance Products decreased \$1.7 million, or 63%, due to lower average selling prices and higher SG&A costs. Corporate expenses increased \$2.0 million due to increased compensation and office-related costs.

Excluding the prior year \$8.0 million of vaccine licensing milestone revenue, adjusted EBITDA increased \$12.0 million, or 12%.

**Analysis of financial condition, liquidity and capital resources**

Net increase (decrease) in cash and cash equivalents was:

For the Years Ended June 30	2017	2016	2015 (in thousands)	Change	
				2017/2016	2016/2015
Cash provided by/(used in):					
Operating activities	\$ 98,385	\$ 37,218	\$ 68,704	\$ 61,167	\$(31,486)
Investing activities	(21,942)	(82,791)	(34,464)	60,849	(48,327)
Financing activities	(53,738)	50,380	(15,351)	(104,118)	65,731
Effect of exchange-rate changes on cash and cash equivalents	(227)	(418)	(1,494)	191	1,076
Net increase/(decrease) in cash and cash equivalents	<u>\$ 22,478</u>	<u>\$ 4,389</u>	<u>\$ 17,395</u>	\$ 18,089	\$(13,006)

Net cash provided (used) by operating activities was comprised of:

For the Years Ended June 30	2017	2016	2015	Change	
				2017/2016	2016/2015
			(in thousands)		
EBITDA	\$121,450	\$116,805	\$114,672	\$ 4,645	\$ 2,133
Adjustments					
Acquisition-related cost of goods sold	—	2,566	—	(2,566)	2,566
Acquisition-related accrued compensation	1,680	1,680	747	—	933
Acquisition-related transaction costs	1,274	618	—	656	618
Acquisition-related other, net	(972)	—	—	(972)	—
Pension settlement cost	1,702	—	—	1,702	—
Recovery of insurance claim	(7,500)	—	—	(7,500)	—
Foreign currency (gains) losses, net	(113)	(7,609)	(5,400)	7,496	(2,209)
Loss on extinguishment of debt	2,598	—	—	2,598	—
Interest paid	(14,600)	(14,215)	(12,912)	(385)	(1,303)
Income taxes paid	(14,762)	(16,828)	(10,780)	2,066	(6,048)
Changes in operating assets and liabilities and other items	1,402	(45,181)	(12,337)	46,583	(32,844)
Cash provided by (used for) gain (loss) on insurance settlement (claim)	7,500	—	(5,286)	7,500	5,286
Cash used for acquisition-related transaction costs	(1,274)	(618)	—	(656)	(618)
Net cash provided (used) by operating activities	<u>\$ 98,385</u>	<u>\$ 37,218</u>	<u>\$ 68,704</u>	\$ 61,167	\$(31,486)

Certain amounts may reflect rounding adjustments.

#### *Operating activities*

For the year ended June 30, 2017, net cash provided by operating activities was \$98.4 million, primarily attributable to operating income of \$97.9 million and increases in changes in operating assets and liabilities of \$1.4 million. Decreased inventories provided \$5.4 million of cash due to timing of purchases and reduced production. Accounts payable and accrued expenses provided \$3.2 million of cash primarily due to timing of purchases. Prepaid expenses and other current assets used \$3.0 million of cash due to timing of payments for insurance premiums and other receivables.

For the year ended June 30, 2016, net cash provided by operating activities was \$37.2 million, primarily attributable to operating profit of \$85.7 million. Increased inventories used \$16.4 million of cash due to timing of purchases and production. Accounts receivable used \$13.1 million due to sales growth, the proportion of international sales and the timing of customer orders. Other assets used \$6.5 million mainly due to an increase in long-term deposits. Accrued expenses and other liabilities used \$7.2 million principally due to funding of retirement plans.

#### *Investing activities*

For the year ended June 30, 2017, net cash used in investing activities was \$21.9 million. Capital expenditures were \$20.9 million as we continued to invest in our existing asset base and for capacity expansion and productivity improvements. Other investing activities used \$1.1 million of cash.

For the year ended June 30, 2016, net cash used in investing activities was \$82.8 million. Capital expenditures were \$36.4 million as we continued to invest in our existing asset base and for capacity expansion and productivity improvements. The MVP acquisition used \$46.6 million of cash.

*Financing activities*

For the year ended June 30, 2017, net cash used by financing activities was \$53.7 million. We paid \$38.2 million in net reductions of our debt, including the revolving credit facility and term loans. We received \$5.5 million from the issuance of common shares related to the exercise of stock options. We paid \$15.8 million in dividends to holders of our Class A and Class B common stock. We paid \$3.9 million in deferred financing cost relating to the refinancing and paid \$1.3 million in payments for contingent consideration.

For the year ended June 30, 2016, net cash provided by financing activities was \$50.4 million. We had net borrowings from our Revolving Credit Facility of \$66.0 million. We received \$4.0 million from the issuance of common shares related to exercise of stock options. Partially offsetting the cash provided were \$2.9 million in scheduled payments on our Term B Loan, \$1.0 million in payments for contingent consideration and \$15.7 million in dividends paid to holders of our Class A and Class B common stock.

*Liquidity and capital resources*

We believe our cash on hand, our operating cash flows and our financing arrangements, including the availability of borrowings under the Revolver and foreign credit lines, will be sufficient to support our future cash needs. Our operating plan projects adequate liquidity throughout the year. However, we can provide no assurance that our liquidity and capital resources will be adequate for future funding requirements. We believe we will be able to comply with the terms of the covenants under the Credit Facilities and foreign credit lines based on our operating plan. In the event of adverse operating results and/or violation of covenants under the facilities, there can be no assurance we would be able to obtain waivers or amendments. Other risks to our meeting future funding requirements include global economic conditions and macroeconomic, business and financial disruptions that could arise. There can be no assurance that the challenging economic environment or an economic downturn would not impact our liquidity or our ability to obtain future financing. In addition, our debt covenants may restrict our ability to invest. During fiscal year 2017, we spent approximately \$20.1 million on capital expenditures, primarily on the expansion of our production capacity. We expect our capital expenditures will total approximately \$28.0 million in fiscal year 2018, primarily for the expansion of production capacity and manufacturing efficiencies in our Animal Health segment.

Certain relevant measures of our liquidity and capital resources follow:

As of June 30	2017	2016	2015	Change	
				2017/2016	2016/2015
				(in thousands, except ratios)	
Cash and cash equivalents	\$ 56,083	\$ 33,605	\$ 29,216	\$ 22,478	\$ 4,389
Working capital	\$198,036	\$203,356	\$175,988	\$ (5,320)	\$ 27,368
Ratio of current assets to current liabilities	2.81:1	2.92:1	2.62:1		

We define working capital as total current assets (excluding cash and cash equivalents) less total current liabilities (excluding current portion of long-term debt). We calculate the ratio of current assets to current liabilities based on this definition.

At June 30, 2017, we had \$65.0 million in outstanding borrowings under the 2017 Revolving Credit Facility. We had outstanding letters of credit and other commitments of \$6.0 million, leaving \$179.0 million available for borrowings and letters of credit. In addition, we had availability totaling \$13.6 million under our Israeli loan agreements.

We currently intend to pay quarterly dividends, representing \$16.0 million annually on our Class A and Class B common stock, subject to approval from the Board of Directors. Our Board of Directors has declared a cash dividend of \$0.10 per share on Class A common stock and Class B common stock that is payable on September 27, 2017. Our future ability to pay dividends will depend upon our results of operations, financial condition, capital requirements, our ability to obtain funds from our subsidiaries and other factors that our Board of Directors deems relevant. Additionally, the terms of our current and any future agreements governing our indebtedness could limit our ability to pay dividends or make other distributions.

At June 30, 2017, our cash and cash equivalents included \$55.2 million held by our international subsidiaries. There are no restrictions on cash distributions to PAHC from our international subsidiaries. Based on our operating plan, we consider these funds to be indefinitely reinvested in our international operations. Should our plans change and we decide to repatriate some or all of the remaining cash held by our international subsidiaries, the amounts repatriated would be subject to federal and state income taxes at statutory rates, with the potential for partial offsetting credits for taxes paid to international jurisdictions.

#### Analysis of the consolidated balance sheets

As of June 30	2017	2016	2015	Change	
				2017/2016	2016/2015
			(in thousands)		
Accounts receivable—trade	\$125,847	\$123,790	\$111,099	\$ 2,057	\$ 12,691
DSO	58	59	54		

Payment terms outside the U.S. are typically longer than in the United States. We regularly monitor our accounts receivable for collectability, particularly in countries where economic conditions remain uncertain. We believe that our allowance for doubtful accounts is appropriate. Our assessment is based on such factors as past due history, historical and expected collection patterns, the financial condition of our customers, the robust nature of our credit and collection practices and the economic environment. We calculate DSO based on a 360-day year and compare accounts receivable with sales for the quarter ending at the balance sheet date.

As of June 30	2017	2016	2015	Change	
				2017/2016	2016/2015
			(in thousands)		
Inventories	\$161,233	\$167,691	\$149,786	\$ (6,458)	\$ 17,905

Inventory decreased by \$6.5 million in 2017, primarily due to decreases in the Animal Health segment from the timing of purchases and production.

#### Contractual obligations

Payments due under contractual obligations as of June 30, 2017, were:

	Years				Total
	Within 1	Over 1 to 3	Over 3 to 5	Over 5	
					(in thousands)
Long-term debt (including current portion)	\$ 6,250	\$ 25,000	\$218,750	\$ —	\$250,000
Revolving credit facility	—	—	65,000	—	65,000
Interest payments	10,765	20,649	18,769	—	50,183
Lease commitments	5,363	8,556	6,263	2,607	22,789
Contingent consideration on acquisitions	70	140	15,452	3,214	18,876
Total contractual obligations	<u>\$22,448</u>	<u>\$ 54,345</u>	<u>\$324,234</u>	<u>\$5,821</u>	<u>\$406,848</u>

For purposes of estimating interest payments, we assumed long term debt will decrease in accordance with the scheduled payments and the Revolver continues unchanged at the June 30, 2017, balance. We assumed the interest rate swap will be effective for \$150 million of debt and the floating interest rate and the applicable interest rate are equal to the rates at June 30, 2017.

Excluded from the contractual obligations table is the liability for unrecognized tax benefits totaling \$6.8 million. This liability for unrecognized tax benefits has been excluded because we cannot make a reliable estimate of the periods in which the liability will be realized.

Our Board of Directors declared a cash dividend of \$0.10 per share on Class A common stock and Class B common stock, representing \$4.0 million, payable on September 27, 2017.



The Company expects to contribute approximately \$4.1 million to the domestic pension plan during 2018.

***Off-balance sheet arrangements***

We do not currently use off-balance sheet arrangements for the purpose of credit enhancement, hedging transactions, investment or other financial purposes.

In the ordinary course of business, we may indemnify our counterparties against certain liabilities that may arise. These indemnifications typically pertain to environmental matters. If the indemnified party were to make a successful claim pursuant to the terms of the indemnification, we would be required to reimburse the loss. These indemnifications generally are subject to certain restrictions and limitations.

**Selected Quarterly Financial Data (Unaudited)**

To facilitate quarterly comparisons, the following unaudited information presents the quarterly results of operations, including segment data, for the years ended June 30, 2017 and 2016. This quarterly financial data was prepared on the same basis as, and should be read in conjunction with, the audited consolidated financial statements and related notes included herein.

For the Periods Ended	Quarters				Year
	September 30, 2016	December 31, 2016	March 31, 2017	June 30, 2017	June 30, 2017
	(in thousands)				
Net sales					
Animal Health	\$ 124,501	\$ 123,673	\$ 120,976	\$ 128,595	\$ 497,745
Mineral Nutrition	51,592	56,699	57,169	52,838	218,298
Performance Products	11,894	11,226	11,716	13,402	48,238
Total net sales	187,987	191,598	189,861	194,835	764,281
Cost of goods sold	126,988	128,100	129,241	131,709	516,038
Gross profit	60,999	63,498	60,620	63,126	248,243
Selling, general and administrative expenses	39,186	40,870	30,646	39,607	150,309
Operating income	21,813	22,628	29,974	23,519	97,934
Interest expense, net	3,907	3,872	3,929	3,198	14,906
Foreign currency (gains) losses, net	334	(548)	(403)	504	(113)
Loss on extinguishment of debt	—	—	—	2,598	2,598
Income before income taxes	17,572	19,304	26,448	17,219	80,543
Provision (benefit) for income taxes	5,395	5,887	2,805	1,841	15,928
Net income	\$ 12,177	\$ 13,417	\$ 23,643	\$ 15,378	\$ 64,615
Net income per share					
basic	\$ 0.31	\$ 0.34	\$ 0.60	\$ 0.39	\$ 1.63
diluted	\$ 0.31	\$ 0.34	\$ 0.59	\$ 0.38	\$ 1.61
Adjusted EBITDA					
Animal Health	\$ 32,619	\$ 34,609	\$ 31,806	\$ 31,227	\$ 130,261
Mineral Nutrition	3,988	4,741	4,343	4,354	17,426
Performance Products	742	260	446	609	2,057
Corporate	(7,524)	(8,416)	(6,859)	(6,826)	(29,625)
Adjusted EBITDA	\$ 29,825	\$ 31,194	\$ 29,736	\$ 29,364	\$ 120,119
Reconciliation of net income to Adjusted EBITDA					
Net income	\$ 12,177	\$ 13,417	\$ 23,643	\$ 15,378	\$ 64,615
Interest expense, net	3,907	3,872	3,929	3,198	14,906
Provision (benefit) for income taxes	5,395	5,887	2,805	1,841	15,928
Depreciation and amortization	6,318	6,444	6,842	6,397	26,001
EBITDA	27,797	29,620	37,219	26,814	121,450
Acquisition-related accrued compensation	420	420	420	420	1,680
Acquisition-related transaction costs	1,274	—	—	—	1,274
Acquisition-related other, net	—	—	—	(972)	(972)
Pension settlement cost	—	1,702	—	—	1,702
Gain on insurance claim	—	—	(7,500)	—	(7,500)
Foreign currency (gains) losses, net	334	(548)	(403)	504	(113)
Loss on extinguishment of debt	—	—	—	2,598	2,598
Adjusted EBITDA	\$ 29,825	\$ 31,194	\$ 29,736	\$ 29,364	\$ 120,119

For the Periods Ended	Quarters				Year
	September 30, 2015	December 31, 2015	March 31, 2016	June 30, 2016	June 30, 2016
	(in thousands)				
Net sales					
Animal Health	\$ 120,134	\$ 121,504	\$ 118,328	\$ 126,174	\$ 486,140
Mineral Nutrition	54,469	58,853	53,029	50,334	216,685
Performance Products	12,517	11,416	12,104	12,664	48,701
Total net sales	187,120	191,773	183,461	189,172	751,526
Cost of goods sold	127,913	130,311	124,671	129,599	512,494
Gross profit	59,207	61,462	58,790	59,573	239,032
Selling, general and administrative expenses	37,349	38,841	37,619	39,479	153,288
Operating income	21,858	22,621	21,171	20,094	85,744
Interest expense, net	3,819	3,967	4,265	4,541	16,592
Foreign currency (gains) losses, net	(5,453)	2,557	(2,243)	(2,470)	(7,609)
Income before income taxes	23,492	16,097	19,149	18,023	76,761
Provision (benefit) for income taxes	4,739	(14,081)	572	2,803	(5,967)
Net income	\$ 18,753	\$ 30,178	\$ 18,577	\$ 15,220	\$ 82,728
Net income per share					
basic	\$ 0.48	\$ 0.77	\$ 0.47	\$ 0.39	\$ 2.11
diluted	\$ 0.47	\$ 0.75	\$ 0.46	\$ 0.38	\$ 2.07
Adjusted EBITDA					
Animal Health	\$ 31,476	\$ 32,351	\$ 32,151	\$ 31,464	\$ 127,442
Mineral Nutrition	3,160	4,189	4,012	3,610	14,971
Performance Products	86	(8)	490	402	970
Corporate	(7,015)	(8,098)	(6,987)	(7,223)	(29,323)
Adjusted EBITDA	\$ 27,707	\$ 28,434	\$ 29,666	\$ 28,253	\$ 114,060
Reconciliation of net income to Adjusted EBITDA					
Net income	\$ 18,753	\$ 30,178	\$ 18,577	\$ 15,220	\$ 82,728
Interest expense, net	3,819	3,967	4,265	4,541	16,592
Provision (benefit) for income taxes	4,739	(14,081)	572	2,803	(5,967)
Depreciation and amortization	5,429	5,393	5,856	6,774	23,452
EBITDA	32,740	25,457	29,270	29,338	116,805
Acquisition-related cost of goods sold	—	—	1,601	965	2,566
Acquisition-related accrued compensation	420	420	420	420	1,680
Acquisition-related transaction costs	—	—	618	—	618
Foreign currency (gains) losses, net	(5,453)	2,557	(2,243)	(2,470)	(7,609)
Adjusted EBITDA	\$ 27,707	\$ 28,434	\$ 29,666	\$ 28,253	\$ 114,060

#### General description of non-GAAP financial measures

##### Adjusted EBITDA

Adjusted EBITDA is an alternative view of performance used by management as our primary operating measure, and we believe that investors' understanding of our performance is enhanced by disclosing this performance measure. We report Adjusted EBITDA to portray the results of our operations prior to considering certain income statement elements. We have defined EBITDA as net income (loss) plus (i) interest expense, net, (ii) provision for income taxes or less benefit for income taxes, and (iii) depreciation and amortization. We have defined Adjusted EBITDA as EBITDA plus (a) (income) loss from, and disposal of, discontinued operations, (b) other expense or less other income, as separately reported on our

consolidated statements of operations, including foreign currency gains and losses and loss on extinguishment of debt, and (c) certain items that we consider to be unusual, non-operational or non-recurring. The Adjusted EBITDA measure is not, and should not be viewed as, a substitute for GAAP reported net income.

The Adjusted EBITDA measure is an important internal measurement for us. We measure our overall performance on this basis in conjunction with other performance metrics. The following are examples of how our Adjusted EBITDA measure is utilized:

- senior management receives a monthly analysis of our operating results that is prepared on an Adjusted EBITDA basis;
- our annual budgets are prepared on an Adjusted EBITDA basis; and
- other goal setting and performance measurements are prepared on an Adjusted EBITDA basis.

Despite the importance of this measure to management in goal setting and performance measurement, Adjusted EBITDA is a non-GAAP financial measure that has no standardized meaning prescribed by GAAP and, therefore, has limits in its usefulness to investors. Because of its non-standardized definition, Adjusted EBITDA, unlike GAAP net income, may not be comparable to the calculation of similar measures of other companies. Adjusted EBITDA is presented to permit investors to more fully understand how management assesses performance.

We also recognize that, as an internal measure of performance, the Adjusted EBITDA measure has limitations, and we do not restrict our performance management process solely to this metric. A limitation of the Adjusted EBITDA measure is that it provides a view of our operations without including all events during a period, such as the depreciation of property, plant and equipment or amortization of purchased intangibles, and does not provide a comparable view of our performance to other companies.

#### ***Certain significant items***

Adjusted EBITDA is calculated prior to considering certain items. We evaluate such items on an individual basis. Such evaluation considers both the quantitative and the qualitative aspect of their unusual or non-operational nature. Unusual, in this context, may represent items that are not part of our ongoing business; items that, either as a result of their nature or size, we would not expect to occur as part of our normal business on a regular basis. An example of an unusual item is the loss on extinguishment of debt incurred in fiscal year 2017. We consider foreign currency gains and losses to be non-operational because they arise principally from intercompany transactions and are largely non-cash in nature.

#### **New accounting standards**

For discussion of new accounting standards, see “Notes to Consolidated Financial Statements—Summary of Significant Accounting Policies and New Accounting Standards.”

#### **Significant accounting policies and application of critical accounting estimates**

In presenting our financial statements in conformity with GAAP, we are required to make estimates and assumptions that affect the reported amounts of assets, liabilities, net sales, costs and expenses and related disclosures.

We believe that the following accounting policies are critical to an understanding of our consolidated financial statements as they require the application of the most difficult, subjective and complex judgments and, therefore, could have the greatest impact on our financial statements.

#### ***Acquisitions, Intangible Assets and Goodwill***

Our consolidated financial statements reflect the operations of an acquired business beginning as of the date of acquisition. Assets acquired and liabilities assumed are recorded at their fair values at the date of acquisition; goodwill is recorded for any excess of the purchase price over the fair values of the net assets acquired. Significant judgment is required to determine contingent consideration on acquisition, if

any, and the fair value of certain tangible and intangible assets and in assigning their respective useful lives. Accordingly, we typically obtain the assistance of third-party valuation specialists for significant tangible and intangible assets. The fair values are based on available historical information and on future expectations and assumptions deemed reasonable by management, but are inherently uncertain. We typically use an income method to measure the fair value of intangible assets, which is based on forecasts of the expected future cash flows attributable to the respective assets. Significant estimates and assumptions inherent in the valuations reflect a consideration of other marketplace participants, and include the amount and timing of future cash flows (including expected growth rates and profitability), the underlying product or technology life cycles, economic barriers to entry and the discount rate applied to the cash flows. Unanticipated market or macroeconomic events and circumstances could affect the accuracy or validity of the estimates and assumptions. Determining the useful life of an intangible asset also requires judgment. Our estimates of the useful lives of intangible assets are primarily based on a number of factors including competitive environment, underlying product life cycles, operating plans and the macroeconomic environment of the countries in which the products are sold. Intangible assets are amortized over their estimated lives. Intangible assets associated with acquired in-process research and development activities ("IPR&D") are not amortized until a product is available for sale and regulatory approval is obtained.

#### ***Long-Lived Assets and Goodwill***

We periodically review our long-lived and amortizable intangible assets for impairment and assess whether significant events or changes in business circumstances indicate that the carrying value of the assets may not be recoverable. Such circumstances may include a significant decrease in the market price of an asset, a significant adverse change in the manner in which the asset is being used or in its physical condition or a history of operating or cash flow losses associated with the use of an asset. We recognize an impairment loss is recognized when the carrying amount of an asset exceeds the anticipated future undiscounted cash flows expected to result from the use of the asset and its eventual disposition. The amount of the impairment loss is the excess of the asset's carrying value over its fair value. In addition, we periodically reassess the estimated remaining useful lives of our long-lived and amortizable intangible assets. Changes to estimated useful lives would affect the amount of depreciation and amortization recorded in the consolidated statements of operations. During the three months ended June 30, 2017, we determined that certain intangible assets related to technology within the Animal Health segment were impaired, based on changes to future product sales assumptions, and recorded an impairment charge of approximately \$0.7 million as a component of selling, general and administrative expenses in our consolidated statements of operations. There were no significant asset impairments or changes in estimated remaining useful lives of our long-lived or amortizable intangible assets in the periods included in the consolidated financial statements prior to 2017.

We periodically review our indefinite life intangible assets associated with acquired IPR&D for impairment and assess whether significant events or changes in business circumstances indicate that the carrying value of the assets may not be recoverable. We recognize an impairment loss when the carrying amount of an asset exceeds the anticipated future discounted cash flows expected to result from the use of the asset and its eventual disposition. The amount of the impairment loss is the excess of the asset's carrying value over its fair value. During the fourth quarter of each year, or more frequently if impairment indicators exist, we perform an annual impairment assessment. During the three months ended June 30, 2017, we determined that certain IPR&D within the Animal Health segment was impaired, based on changes to future product sales assumptions, and recorded an impairment charge of approximately \$1.6 million as a component of selling, general and administrative expenses in our consolidated statements of operations. We did not record any impairment charges related to indefinite-lived intangible assets in 2016 and 2015.

Goodwill represents the excess of the purchase price over the fair value of the identifiable net assets acquired in a business combination. We assess goodwill for impairment annually during the fourth quarter, or more frequently if impairment indicators exist. Impairment exists when the carrying amount of goodwill exceeds its implied fair value. We may elect to assess our goodwill for impairment using a qualitative or a quantitative approach, to determine whether it is more likely than not that the fair value of goodwill is greater than its carrying value. During the three months ended June 30, 2017, we tested goodwill

using a quantitative approach, which involved calculating fair values of reporting units using a discounted cash flow method. We determined that goodwill was not impaired. We have not recorded any goodwill impairment charges in the periods included in the consolidated financial statements.

We evaluate our investments in equity method investees for impairment if circumstances indicate that the fair value of the investment may be impaired. The assets underlying a \$3.7 million equity investment are currently idled; we have concluded the investment is not currently impaired, based on expected future operating cash flows and/or disposal value.

#### ***Environmental Liabilities***

Our operations and properties are subject to extensive federal, state, local and foreign environmental, health and safety laws and regulations, including those governing pollution; protection of the environment; the use, management and release of hazardous materials, substances and wastes; air emissions; greenhouse gas emissions; water use, supply and discharge; the investigation and remediation of contamination; the manufacture, distribution, and sale of regulated materials, including pesticides; the importing, exporting and transportation of products; and the health and safety of our employees and the public. As such, the nature of our current and former operations and those of our subsidiaries expose us and our subsidiaries to the risk of claims with respect to such matters, including fines, penalties and remediation obligations that may be imposed by regulatory authorities. We record accruals for contingencies when it is probable that a liability has been incurred and the amount can be reasonably estimated. These accruals are adjusted periodically as assessments change or additional information becomes available.

#### ***Pension Liabilities***

The measurement of our pension and postretirement benefit obligations are dependent on a variety of assumptions determined by management and used by our actuaries. These assumptions affect the amount and timing of future contributions and expenses. The Company reassesses its benefit plan assumptions on a regular basis. The discount rate is evaluated on measurement dates and modified to reflect the prevailing market rate of a portfolio of high-quality fixed-income debt instruments that would provide the future cash flows needed to pay the benefits included in the benefit obligation as they come due. At June 30, 2017, the discount rate for the Company's U.S. pension plan benefit obligations was 3.9% compared to 3.9% at June 30, 2016. The expected rate of return on plan assets of 6.1% represents the average rate of return expected to be earned on plan assets over the period the benefit obligations are expected to be paid. In developing the expected rate of return, the Company considers long-term compound annualized returns of historical market data as well as actual returns on the Company's plan assets.

#### ***Revenue Recognition***

We recognize revenue for sales of our goods upon transfer of title and when risk of loss passes to the customer. Certain of our businesses have terms where title and risk of loss transfer on shipment. Certain of our businesses have terms where title and risk of loss transfer on delivery. Recognition of revenue also requires that persuasive evidence of an arrangement exists, the selling price is fixed or determinable, the collection of sales proceeds is reasonably assured and that we have no further performance obligations. We record reductions to revenue for the estimated costs of customer programs and incentive offerings, including pricing arrangements and other volume-based incentives, at the time the sale is recorded. Net sales include royalty and licensing income from licensing agreements when all performance obligations have been met. Net sales include shipping and handling fees billed to customers. Delivery costs to our customers are included in cost of goods sold in the consolidated statements of operations. Net sales exclude value-added and other taxes based on sales.

#### ***Income Taxes***

The provision for income taxes includes U.S. federal, state, and foreign income taxes and foreign withholding taxes. Our annual effective income tax rate is determined based on our income, statutory tax rates and tax planning opportunities available in the various jurisdictions in which we operate and the tax

impacts of items treated differently for tax purposes than for financial reporting purposes. Tax law requires certain items be included in the tax return at different times than the items are reflected in the financial statements. Some of these differences are permanent, such as expenses that are not deductible in our tax return, and some differences are temporary, reversing over time, such as depreciation expense. These temporary differences give rise to deferred tax assets and liabilities. Deferred tax assets generally represent the tax effect of items that can be used as a tax deduction or credit in future years for which we have already recorded the tax benefit in our income statement. Deferred tax liabilities generally represent the tax effect of items recorded as tax expense in our income statement for which payment has been deferred, the tax effect of expenditures for which a deduction has already been taken in our tax return but has not yet been recognized in our income statement or the tax effect of assets recorded at fair value in business combinations for which there was no corresponding tax basis adjustment.

Significant judgment is required in determining our income tax provision and in evaluating our tax positions. The recognition and measurement of a tax position is based on management's best judgment given the facts, circumstances and information available at the reporting date. Inherent in determining our annual effective income tax rate are judgments regarding business plans, planning opportunities and expectations about future outcomes. Realization of certain deferred tax assets, primarily net operating loss carryforwards, is dependent upon generating sufficient future taxable income in the appropriate jurisdiction prior to the expiration of the carryforward periods. We establish valuation allowances for deferred tax assets when the amount of expected future taxable income is not likely to support the use of the deduction or credit.

We operate in multiple jurisdictions with complex tax policy and regulatory environments. In certain of these jurisdictions, we may take tax positions that management believes are supportable, but are potentially subject to successful challenge by the applicable taxing authority. We evaluate our tax positions and establish liabilities in accordance with the applicable accounting guidance on uncertainty in income taxes. We review these tax uncertainties in light of changing facts and circumstances, such as the progress of tax audits, and adjust them accordingly.

We account for income tax contingencies using a benefit recognition model. If our initial assessment does not result in the recognition of a tax benefit, we regularly monitor our position and subsequently recognize the tax benefit if: (i) there are changes in tax law or there is new information that sufficiently raise the likelihood of prevailing on the technical merits of the position to "more likely than not;" (ii) the statute of limitations expires; or (iii) there is a completion of an audit resulting in a favorable settlement of that tax year with the appropriate agency. We regularly re-evaluate our tax positions based on the results of audits of federal, state and foreign income tax filings, statute of limitations expirations, and changes in tax law or receipt of new information that would either increase or decrease the technical merits of a position relative to the "more-likely-than-not" standard.

Our assessments concerning uncertain tax positions are based on estimates and assumptions that have been deemed reasonable by management, but our estimates of unrecognized tax benefits and potential tax benefits may not be representative of actual outcomes, and variation from such estimates could materially affect our financial statements in the period of settlement or when the statutes of limitations expire, as we treat these events as discrete items in the period of resolution. Finalizing audits with the relevant taxing authorities can include formal administrative and legal proceedings, and, as a result, it is difficult to estimate the timing and range of possible changes related to our uncertain tax positions, and such changes could be significant.

Because there are a number of estimates and assumptions inherent in calculating the various components of our income tax provision, certain future events such as changes in tax legislation, geographic mix of earnings, completion of tax audits or earnings repatriation plans could have an impact on those estimates and our effective income tax rate.

We have not provided for United States or additional foreign taxes on certain undistributed earnings of foreign subsidiaries, which earnings have been or are intended to be indefinitely reinvested.

For more information regarding our significant accounting policies, estimates and assumptions, see "Notes to Consolidated Financial Statements—Summary of Significant Accounting Policies and New Accounting Standards."



**Contingencies*****Legal matters***

We are subject to numerous contingencies arising in the ordinary course of business, such as product liability and other product-related litigation, commercial litigation, environmental claims and proceedings and government investigations. Certain of these contingencies could result in losses, including damages, fines and/or civil penalties, and/or criminal charges, which could be substantial. We believe that we have strong defenses in these types of matters, but litigation is inherently unpredictable and excessive verdicts do occur. We do not believe that any of these matters will have a material adverse effect on our financial position. However, we could incur judgments, enter into settlements or revise our expectations regarding the outcome of certain matters, and such developments could have a material adverse effect on our results of operations or cash flows in the period in which the amounts are paid and/or accrued.

We have accrued for losses that are both probable and reasonably estimable. Substantially all of these contingencies are subject to significant uncertainties and, therefore, determining the likelihood of a loss and/or the measurement of any loss can be complex. Consequently, we are unable to estimate the range of reasonably possible loss in excess of amounts accrued. Our assessments are based on estimates and assumptions that have been deemed reasonable by management, but the assessment process relies heavily on estimates and assumptions that may prove to be incomplete or inaccurate, and unanticipated events and circumstances may occur that might cause us to change those estimates and assumptions.

***Environmental***

Our operations and properties are subject to Environmental Laws and regulations. As such, the nature of our current and former operations exposes us to the risk of claims with respect to such matters, including fines, penalties, and remediation obligations that may be imposed by regulatory authorities. Under certain circumstances, we might be required to curtail operations until a particular problem is remedied. Known costs and expenses under Environmental Laws incidental to ongoing operations, including the cost of litigation proceedings relating to environmental matters, are generally included within operating results. Potential costs and expenses may also be incurred in connection with the repair or upgrade of facilities to meet existing or new requirements under Environmental Laws or to investigate or remediate potential or actual contamination and from time to time we establish reserves for such contemplated investigation and remediation costs. In many instances, the ultimate costs under Environmental Laws and the time period during which such costs are likely to be incurred are difficult to predict.

While we believe that our operations are currently in material compliance with Environmental Laws, we have, from time to time, received notices of violation from governmental authorities, and have been involved in civil or criminal action for such violations. Additionally, at various sites, our subsidiaries are engaged in continuing investigation, remediation and/or monitoring efforts to address contamination associated with historic operations of the sites. We devote considerable resources to complying with Environmental Laws and managing environmental liabilities. We have developed programs to identify requirements under, and maintain compliance with Environmental Laws; however, we cannot predict with certainty the impact of increased and more stringent regulation on our operations, future capital expenditure requirements, or the cost of compliance.

The nature of our current and former operations exposes us to the risk of claims with respect to environmental matters and we cannot assure we will not incur material costs and liabilities in connection with such claims. Based upon our experience to date, we believe that the future cost of compliance with existing Environmental Laws, and liabilities for known environmental claims pursuant to such Environmental Laws, will not have a material adverse effect on our financial position, results of operations, cash flows or liquidity.

For additional details, see “Notes to Consolidated Financial Statements—Commitments and Contingencies.”

For additional details, see “Business—Environmental, Health and Safety.”

**Item 7A. Quantitative and Qualitative Disclosures about Market Risk*****Foreign exchange risk***

Portions of our net sales and costs are exposed to changes in foreign exchange rates. Our products are sold in more than 65 countries and, as a result, our revenues are influenced by changes in foreign exchange rates. As we operate in multiple foreign currencies, changes in those currencies relative to the U.S. dollar may impact our revenue and expenses, and consequently, net income. Exchange rate fluctuations may also have an impact beyond our reported financial results and directly impact operations. These fluctuations may affect the ability to buy and sell our goods and services in markets affected by significant exchange rate variances.

Our primary foreign currency exposures are the Brazilian and Israeli currencies. From time to time, we manage foreign exchange risk through the use of foreign currency derivative contracts. These contracts are used to offset the potential earnings effects from exposure to foreign currencies.

Our foreign currency derivative contracts at June 30, 2017, were analyzed to determine their sensitivity to foreign exchange rate changes. The fair values of these instruments were determined using observable, Level 2, inputs. As of June 30, 2017, the sensitivity analysis of changes in the fair value of all foreign currency derivative contracts indicates that if the U.S. dollar were to appreciate or depreciate by 10%, the fair value of these contracts would, decrease by \$1.0 million or increase by \$1.3 million. For additional details, see “Notes to Consolidated Financial Statements—Derivatives.”

***Interest rate risk***

Substantially all of our outstanding debt is floating rate debt. Our Credit Facilities carry floating interest rates that are tied to LIBOR and the Prime Rate; therefore, our profitability and cash flows are exposed to interest rate fluctuations. Based on our outstanding debt balances as of June 30, 2017, a 100 basis point increase in LIBOR would increase annual interest expense and decrease cash flows by \$3.2 million. For additional details, see “Notes to the Consolidated Financial Statements—Debt.”

**Item 8. Financial Statements and Supplementary Data**

**PHIBRO ANIMAL HEALTH CORPORATION**

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders of Phibro Animal Health Corporation:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, comprehensive income, changes in stockholders' equity and cash flows present fairly, in all material respects, the financial position of Phibro Animal Health Corporation and its subsidiaries as of June 30, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended June 30, 2017 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 2 to the consolidated financial statements, in the year ended June 30, 2016 the Company changed the manner in which it accounts for employee share-based payments.

/s/ PricewaterhouseCoopers LLP

Florham Park, New Jersey

August 30, 2017

**PHIBRO ANIMAL HEALTH CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
	(in thousands, except per share amounts)		
Net sales	\$764,281	\$751,526	\$748,591
Cost of goods sold	516,038	512,494	515,311
Gross profit	248,243	239,032	233,280
Selling, general and administrative expenses	150,309	153,288	145,612
Operating income	97,934	85,744	87,668
Interest expense, net	14,906	16,592	14,305
Foreign currency (gains) losses, net	(113)	(7,609)	(5,400)
Loss on extinguishment of debt	2,598	—	—
Income before income taxes	80,543	76,761	78,763
Provision (benefit) for income taxes	15,928	(5,967)	18,483
Net income	<u>\$ 64,615</u>	<u>\$ 82,728</u>	<u>\$ 60,280</u>
Net income per share			
basic	\$ 1.63	\$ 2.11	\$ 1.55
diluted	\$ 1.61	\$ 2.07	\$ 1.51
Weighted average common shares outstanding			
basic	39,524	39,254	38,969
diluted	40,042	39,962	39,815
Dividends per share	\$ 0.40	\$ 0.40	\$ 0.40

The accompanying notes are an integral part of these consolidated financial statements

**PHIBRO ANIMAL HEALTH CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
	(in thousands)		
Net income	<u>\$64,615</u>	<u>\$ 82,728</u>	<u>\$ 60,280</u>
Change in fair value of derivative instruments	31	4,197	(1,928)
Foreign currency translation adjustment	(1,652)	(9,181)	(31,314)
Unrecognized net pension gains (losses)	12,918	(11,093)	(3,221)
(Provision) benefit for income taxes	(4,949)	5,892	4,923
Other comprehensive income (loss)	6,348	(10,185)	(31,540)
Comprehensive income	<u>\$70,963</u>	<u>\$ 72,543</u>	<u>\$ 28,740</u>

The accompanying notes are an integral part of these consolidated financial statements

**PHIBRO ANIMAL HEALTH CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**

<u>As of June 30</u>	<u>2017</u>	<u>2016</u>
	(in thousands, except share and per share amounts)	
<b>ASSETS</b>		
Cash and cash equivalents	\$ 56,083	\$ 33,605
Accounts receivable, net	125,847	123,790
Inventories, net	161,233	167,691
Other current assets	20,502	17,745
Total current assets	363,665	342,831
Property, plant and equipment, net	127,351	127,323
Intangibles, net	54,602	60,095
Goodwill	23,982	21,121
Other assets	53,797	56,465
Total assets	<u>\$ 623,397</u>	<u>\$ 607,835</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current portion of long-term debt	\$ 6,250	\$ 2,907
Accounts payable	56,894	60,167
Accrued expenses and other current liabilities	52,652	45,703
Total current liabilities	115,796	108,777
Revolving credit facility	65,000	69,000
Long-term debt	241,891	278,265
Other liabilities	49,553	61,313
Total liabilities	472,240	517,355
Commitments and contingencies (Note 12)		
Common stock, par value \$0.0001 per share; 300,000,000 Class A shares authorized, 19,249,132 and 18,519,757 shares issued and outstanding at June 30, 2017, and June 30, 2016, respectively; 30,000,000 Class B shares authorized, 20,626,836 and 20,887,811 shares issued and outstanding at June 30, 2017, and June 30, 2016, respectively	4	4
Preferred stock, par value \$0.0001 per share; 16,000,000 shares authorized, no shares issued and outstanding	—	—
Paid-in capital	123,840	118,299
Retained earnings	82,750	33,962
Accumulated other comprehensive income (loss)	(55,437)	(61,785)
Total stockholders' equity	151,157	90,480
Total liabilities and stockholders' equity	<u>\$ 623,397</u>	<u>\$ 607,835</u>

The accompanying notes are an integral part of these consolidated financial statements



## PHIBRO ANIMAL HEALTH CORPORATION AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
	(in thousands)		
<b>OPERATING ACTIVITIES</b>			
Net income	\$ 64,615	\$ 82,728	\$ 60,280
Adjustments to reconcile net income to net cash provided (used) by operating activities:			
Depreciation and amortization	26,001	23,452	21,604
Amortization of debt issuance costs and debt discount	1,015	989	967
Acquisition-related cost of goods sold	—	2,566	—
Acquisition-related accrued compensation	1,680	1,680	747
Acquisition-related accrued interest	1,373	1,476	613
Acquisition-related other, net	(972)	—	—
Pension settlement cost	1,702	—	—
Deferred income taxes	(28)	(22,244)	4,761
Foreign currency (gains) losses, net	(867)	(7,725)	(3,376)
Other	765	354	61
Loss on extinguishment of debt	2,598	—	—
Changes in operating assets and liabilities:			
Accounts receivable, net	(2,765)	(13,086)	(1,877)
Inventories, net	5,432	(16,439)	(19,354)
Other current assets	(3,012)	457	7,416
Other assets	(1,504)	(6,547)	(4,236)
Accounts payable	(3,119)	(3,245)	4,796
Accrued expenses and other liabilities	5,471	(7,198)	(3,698)
Net cash provided (used) by operating activities	<u>98,385</u>	<u>37,218</u>	<u>68,704</u>
<b>INVESTING ACTIVITIES</b>			
Capital expenditures	(20,880)	(36,352)	(20,058)
Business acquisition	—	(46,576)	(10,377)
Other, net	(1,062)	137	(4,029)
Net cash provided (used) by investing activities	<u>(21,942)</u>	<u>(82,791)</u>	<u>(34,464)</u>
<b>FINANCING ACTIVITIES</b>			
Revolving credit facility borrowings	230,500	255,500	38,000
Revolving credit facility repayments	(234,500)	(189,500)	(35,000)
Proceeds from long-term debt	250,000	—	—
Payments of long-term debt, capital leases and other	(285,527)	(3,929)	(4,090)
Debt issuance costs	(3,925)	—	—
Proceeds from common shares issued	5,541	4,017	1,334
Dividends paid	(15,827)	(15,708)	(15,595)
Net cash provided (used) by financing activities	<u>(53,738)</u>	<u>50,380</u>	<u>(15,351)</u>
Effect of exchange rate changes on cash	(227)	(418)	(1,494)
Net increase (decrease) in cash and cash equivalents	22,478	4,389	17,395
Cash and cash equivalents at beginning of period	33,605	29,216	11,821
Cash and cash equivalents at end of period	<u>\$ 56,083</u>	<u>\$ 33,605</u>	<u>\$ 29,216</u>
<b>Supplemental cash flow information</b>			
Interest paid	\$ 14,600	\$ 14,215	\$ 12,912
Income taxes paid, net	14,762	16,828	10,780
<b>Non-cash investing and financing activities</b>			
Business acquisition	—	—	4,156
Property, plant and equipment and capital lease additions	1,550	1,438	1,193

The accompanying notes are an integral part of these consolidated financial statements

**PHIBRO ANIMAL HEALTH CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY**

	Shares of Common Stock	Common Stock	Preferred Stock	Paid-in Capital	Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income (Loss)	Total
(in thousands, except share amounts)							
<b>As of June 30, 2014</b>	38,791,553	\$ 4	\$ —	\$132,453	\$ (97,248)	\$ (20,060)	\$ 15,149
Comprehensive income (loss)	—	—	—	—	60,280	(31,540)	28,740
Exercise of stock options and warrant	276,515	—	—	1,334	—	—	1,334
Dividends paid	—	—	—	(15,595)	—	—	(15,595)
<b>As of June 30, 2015</b>	39,068,068	\$ 4	\$ —	\$118,192	\$ (36,968)	\$ (51,600)	\$ 29,628
Comprehensive income (loss)	—	—	—	—	82,728	(10,185)	72,543
Exercise of stock options	339,500	—	—	4,017	—	—	4,017
Dividends paid	—	—	—	(3,910)	(11,798)	—	(15,708)
<b>As of June 30, 2016</b>	39,407,568	\$ 4	\$ —	\$118,299	\$ 33,962	\$ (61,785)	\$ 90,480
Comprehensive income (loss)	—	—	—	—	64,615	6,348	70,963
Exercise of stock options	468,400	—	—	5,541	—	—	5,541
Dividends paid	—	—	—	—	(15,827)	—	(15,827)
<b>As of June 30, 2017</b>	39,875,968	\$ 4	\$ —	\$123,840	\$ 82,750	\$ (55,437)	\$151,157

The accompanying notes are an integral part of these consolidated financial statements

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)**

**1. Description of Business**

Phibro Animal Health Corporation (“Phibro” or “PAHC”) and its subsidiaries (together, the “Company”) is a diversified global developer, manufacturer and marketer of a broad range of animal health and mineral nutrition products for food animals including poultry, swine, cattle, dairy and aquaculture. The Company is also a manufacturer and marketer of performance products for use in the personal care, automotive, industrial chemical and chemical catalyst industries. Unless otherwise indicated or the context requires otherwise, references in this report to “we,” “our,” “us,” and similar expressions refer to Phibro and its subsidiaries.

**2. Summary of Significant Accounting Policies and New Accounting Standards**

*Principles of Consolidation and Basis of Presentation*

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) and include the accounts of Phibro and its consolidated subsidiaries. Intercompany balances and transactions have been eliminated from the consolidated financial statements. The decision whether or not to consolidate an entity requires consideration of majority voting interests, as well as effective control over the entity.

We present our financial statements on the basis of our fiscal year ending June 30. All references to years in these consolidated financial statements refer to the fiscal year ending or ended on June 30 of that year.

*Risks, Uncertainties and Liquidity*

The issue of the potential for increased bacterial resistance to certain antibiotics used in certain food-producing animals is the subject of discussions on a worldwide basis and, in certain instances, has led to government restrictions on or banning of the use of antibiotics in food-producing animals. The sale of antibiotics and antibacterials is a material portion of our business. Should product bans or restrictions, public perception, competition or other developments result in restrictions on the sale of such products, it could have a material adverse effect on our financial position, results of operations and cash flows.

The testing, manufacturing, and marketing of certain of our products are subject to extensive regulation by numerous government authorities in the United States and other countries.

We have significant assets in Israel, Brazil and other locations outside of the United States and a significant portion of our sales and earnings are attributable to operations conducted abroad. Our assets, results of operations and future prospects are subject to currency exchange fluctuations and restrictions, energy shortages, other economic developments, political or social instability in some countries, and uncertainty of, and governmental control over, commercial rights, which could result in a material adverse effect on our financial position, results of operations and cash flows.

We are subject to environmental laws and regulations governing the use, storage, handling, generation, treatment, emission, release, discharge and disposal of certain materials and wastes, the remediation of contaminated soil and groundwater, the manufacture, sale and use of regulated materials, including pesticides, and the health and safety of employees. As such, the nature of our current and former operations and those of our subsidiaries expose Phibro and our subsidiaries to the risk of claims with respect to such matters.

*Use of Estimates*

Preparation of the consolidated financial statements requires management to make certain estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. Actual results could differ from these estimates. Significant estimates include valuation of intangible assets, depreciation and amortization periods of long-lived and intangible assets,

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

recoverability of long-lived and intangible assets and goodwill, realizability of deferred income tax and value-added tax assets, legal and environmental matters and actuarial assumptions related to our pension plans. We regularly evaluate our estimates and assumptions using historical experience and other factors. Our estimates are based on complex judgments, probabilities and assumptions that we believe to be reasonable.

*Revenue Recognition*

We recognize revenue for sales of our goods upon transfer of title and when risk of loss passes to the customer. Certain of our businesses have terms where title and risk of loss transfer on shipment. Certain of our businesses have terms where title and risk of loss transfer on delivery. Recognition of revenue also requires that persuasive evidence of an arrangement exists, the selling price is fixed or determinable, the collection of sales proceeds is reasonably assured and that we have no further performance obligations. We record reductions to revenue for the estimated costs of customer programs and incentive offerings, including pricing arrangements and other volume-based incentives, at the time the sale is recorded. Net sales include royalty and licensing income from licensing agreements when all performance obligations have been met. Net sales include shipping and handling fees billed to customers. Delivery costs to our customers are included in cost of goods sold in the consolidated statements of operations. Net sales exclude value-added and other taxes based on sales.

*Cash and Cash Equivalents*

Cash equivalents include highly liquid investments with maturities of three months or less when purchased. Cash and cash equivalents held at financial institutions may at times exceed federally insured amounts. We believe we mitigate such risk by investing in or through major financial institutions.

*Accounts Receivable and Allowance for Doubtful Accounts*

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. We grant credit terms in the normal course of business and generally do not require collateral or other security to support credit sales. Our ten largest customers represented, in aggregate, approximately 21% and 27% of accounts receivable at June 30, 2017 and 2016, respectively.

The allowance for doubtful accounts is our best estimate of the probable credit losses in existing accounts receivable. We monitor the financial performance and creditworthiness of our customers so that we can properly assess and respond to changes in their credit profile. We also monitor domestic and international economic conditions for the potential effect on our customers. Past due balances are reviewed individually for collectability. Account balances are charged against the allowance when we determine it is probable the receivable will not be recovered.

*Inventories*

Inventories are valued at the lower of cost or market. Cost is determined principally under weighted average and standard cost methods, which approximate first-in, first-out (FIFO) cost. Obsolete and unsalable inventories, if any, are reflected at estimated net realizable value. Inventory costs include materials, direct labor and manufacturing overhead.

*Property, Plant and Equipment*

Property, plant and equipment are stated at cost.

Depreciation is charged to results of operations using the straight-line method based upon the assets' estimated useful lives ranging from two to 30 years for buildings and improvements, and one to 10 years for machinery and equipment.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

We capitalize costs that extend the useful life or productive capacity of an asset. Repair and maintenance costs are expensed as incurred. In the case of disposals, the assets and related accumulated depreciation are removed from the accounts, and the net amounts, less proceeds from disposal, are included in the consolidated statements of operations.

*Capitalized Software Costs*

We capitalize costs to obtain, develop and implement software for internal use. Amounts paid to third parties and costs of internal employees who are directly associated with the software project are also capitalized, depending on the stage of development. We expense software costs that do not meet the capitalization criteria. Capitalized software costs are included in property, plant and equipment on the consolidated balance sheets and are amortized on a straight-line basis over 3 to 7 years.

*Deferred Financing Costs*

Costs and original issue discounts or premiums related to issuance or modification of our debt are deferred on the consolidated balance sheet and amortized over the lives of the respective debt instruments. Amortization of deferred financing costs is included in interest expense in the consolidated statements of operations. During the three months ended September 30, 2016, we adopted the provisions of FASB Accounting Standards Update (“ASU”) 2015-03, *Interest—Imputation of Interest (Subtopic 835-30)*, and applied the guidance retrospectively. Prior periods were adjusted to reflect the retrospective application of this guidance. For further discussion, see “—New Accounting Standards.”

*Acquisitions, Intangible Assets and Goodwill*

Our consolidated financial statements reflect the operations of an acquired business beginning as of the date of acquisition. Assets acquired and liabilities assumed are recorded at their fair values at the date of acquisition; goodwill is recorded for any excess of the purchase price over the fair values of the net assets acquired.

Significant judgment is required to determine the fair value of certain tangible and intangible assets and in assigning their respective useful lives. Accordingly, we typically obtain the assistance of third-party valuation specialists for significant tangible and intangible assets. The fair values are based on available historical information and on future expectations and assumptions deemed reasonable by management, but are inherently uncertain. We typically use an income method to measure the fair value of intangible assets, which is based on forecasts of the expected future cash flows attributable to the respective assets. Significant estimates and assumptions inherent in the valuations reflect a consideration of other marketplace participants, and include the amount and timing of future cash flows (including expected growth rates and profitability), the underlying product or technology life cycles, economic barriers to entry and the discount rate applied to the cash flows. Unanticipated market or macroeconomic events and circumstances could affect the accuracy or validity of the estimates and assumptions. Determining the useful life of an intangible asset also requires judgment. Our estimates of the useful lives of intangible assets are based on factors including competitive environment, underlying product life cycles, operating plans and the macroeconomic environment of the countries in which the products are sold. Intangible assets are amortized over their estimated lives. Intangible assets associated with acquired in-process research and development activities (“IPR&D”) are not amortized until a product is available for sale.

*Long-Lived Assets and Goodwill*

We periodically review our long-lived and amortizable intangible assets for impairment and assess whether significant events or changes in business circumstances indicate that the carrying value of the assets may not be recoverable. Such circumstances may include a significant decrease in the market price of an asset, a significant adverse change in the manner in which the asset is being used or in its physical condition or a history of operating or cash flow losses associated with the use of an asset. We recognize an impairment loss when the carrying amount of an asset exceeds the anticipated future undiscounted cash flows expected to result from the use of the asset and its eventual disposition. The amount of the

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

impairment loss is the excess of the asset's carrying value over its fair value. In addition, we periodically reassess the estimated remaining useful lives of our long-lived and amortizable intangible assets. Changes to estimated useful lives would affect the amount of depreciation and amortization recorded in the consolidated statements of operations. During the three months ended June 30, 2017, we determined that certain intangible assets related to technology within the Animal Health segment were impaired, based on changes to future product sales assumptions, and recorded an impairment charge of \$713 as a component of selling, general and administrative expenses in our consolidated statements of operations. There were no significant asset impairments or changes in estimated remaining useful lives of our long-lived or amortizable intangible assets in the periods included in the consolidated financial statements prior to 2017.

We periodically review our indefinite-lived intangible assets associated with acquired IPR&D for impairment and assess whether significant events or changes in business circumstances indicate that the carrying value of the assets may not be recoverable. We recognize an impairment loss when the carrying amount of an asset exceeds the anticipated future discounted cash flows expected to result from the use of the asset and its eventual disposition. The amount of the impairment loss is the excess of the asset's carrying value over its fair value. During the fourth quarter of each year, or more frequently if impairment indicators exist, we perform an annual impairment assessment. During the three months ended June 30, 2017, we determined that certain IPR&D within the Animal Health segment was impaired, based on changes to future product sales assumptions, and recorded an impairment charge of \$1,579 as a component of selling, general and administrative expenses in our consolidated statements of operations. We did not record any impairment charges related to indefinite-lived intangible assets in 2016 and 2015.

Goodwill represents the excess of the purchase price over the fair value of the identifiable net assets acquired in a business combination. We assess goodwill for impairment annually during our fourth quarter, or more frequently if impairment indicators exist. Impairment exists when the carrying amount of goodwill exceeds its implied fair value. We may elect to assess our goodwill for impairment using a qualitative or a quantitative approach, to determine whether it is more likely than not that the fair value of goodwill is greater than its carrying value. During the three months ended June 30, 2017, we tested goodwill using a quantitative approach, which involved estimating fair values of reporting units using the discounted cash flow method. We determined goodwill was not impaired. We have not recorded any goodwill impairment charges in the periods included in the consolidated financial statements.

*Foreign Currency Translation*

We generally use local currency as the functional currency to measure the financial position and results of operations of each of our international subsidiaries. We translate assets and liabilities of these operations at the exchange rates in effect at the balance sheet date. We translate income statement accounts at the average rates of exchange prevailing during the period. Translation adjustments that arise from the use of differing exchange rates from period to period are included as a component of accumulated other comprehensive income (loss) in stockholders' equity.

Certain of our Israeli operations have designated the U.S. dollar as their functional currency. Gains and losses arising from remeasurement of local currency accounts into U.S. dollars are included in determining net income.

*Comprehensive Income*

Comprehensive income consists of net income and the changes in: (i) the fair value of derivative instruments that qualify for hedge accounting; (ii) foreign currency translation adjustments; (iii) unrecognized net pension gains (losses); and (iv) the related (provision) benefit for income taxes.

*Derivative Financial Instruments*

We record all derivative financial instruments on the consolidated balance sheets at fair value. Changes in the fair value of derivatives are recorded in results of operations or accumulated other comprehensive income (loss), depending on whether a derivative is designated and effective as part of a

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

hedge transaction and, if so, the type of hedge transaction. Gains and losses on derivative instruments reported in accumulated other comprehensive income (loss) are included in the results of operations in the periods in which operations are affected by the underlying hedged item.

From time to time, we use certain derivative instruments to mitigate the risk associated with certain economic factors, such as exchange rates and interest rates, which may potentially affect our future cash flows. As of June 30, 2017, we used foreign currency option contracts to mitigate certain exposures related to changes in foreign currency exchange rates, and as a means of hedging forecasted inventory purchases. In July 2017, we entered into an interest rate swap agreement on \$150 million of notional principal. To qualify a derivative as a hedge, we document the nature and relationships between hedging instruments and hedged items, the prospective effectiveness of the hedging instrument as well as the ultimate effectiveness, the risk-management objectives, the strategies for undertaking the various hedge transactions and the methods of assessing hedge effectiveness. We do not engage in trading or other speculative uses of financial instruments.

*Environmental Liabilities*

Expenditures for ongoing compliance with environmental regulations are expensed or capitalized as appropriate. We capitalize expenditures made to extend the useful life or productive capacity of an asset, including expenditures that prevent future environmental contamination. Other expenditures are expensed as incurred and are recorded in selling, general and administrative expenses in the consolidated statements of operations. We record the expense and related liability in the period an environmental assessment indicates remedial efforts are probable and the costs can be reasonably estimated. Estimates of the liability are based upon currently available facts, existing technology and presently enacted laws and regulations taking into consideration the likely effects of inflation and other societal and economic factors. All available evidence is considered, including prior experience in remediation of contaminated sites, other companies' experiences and data released by the U.S. Environmental Protection Agency and other organizations. The estimated liabilities are not discounted. We record anticipated recoveries under existing insurance contracts if probable.

*Income Taxes*

The provision for income taxes includes U.S. federal, state, and foreign income taxes and foreign withholding taxes. Our annual effective income tax rate is determined based on our income, statutory tax rates and tax planning opportunities available in the various jurisdictions in which we operate and the tax effects of items treated differently for tax purposes than for financial reporting purposes. Tax law requires certain items be included in the tax return at different times than the items are reflected in the financial statements. Some of these differences are permanent, such as expenses that are not deductible in our tax return, and some differences are temporary, reversing over time, such as depreciation expense. These temporary differences give rise to deferred tax assets and liabilities. Deferred tax assets generally represent the tax effect of items that can be used as a tax deduction or credit in future years for which we have already recorded the tax benefit in our income statement. Deferred tax liabilities generally represent the tax effect of items recorded as tax expense in our income statement for which payment has been deferred, the tax effect of expenditures for which a deduction has already been taken in our tax return but has not yet been recognized in our income statement, and the tax effect of assets recorded at fair value in business combinations for which there was no corresponding tax basis adjustment.

Significant judgment is required in determining our income tax provision and in evaluating our tax positions. The recognition and measurement of a tax position is based on management's best judgment given the facts, circumstances and information available at the reporting date. Inherent in determining our annual effective income tax rate are judgments regarding business plans, planning opportunities and expectations about future outcomes. Realization of certain deferred tax assets, primarily net operating loss carryforwards, is dependent upon generating sufficient future taxable income in the appropriate jurisdiction prior to the expiration of the carryforward periods. We establish valuation allowances for deferred tax assets



**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

when the amount of expected future taxable income is not likely to support the use of the deduction or credit, and release these allowances when it is more likely than not that these deductions or credits will be used.

We operate in multiple jurisdictions with complex tax policy and regulatory environments. In certain of these jurisdictions, we may take tax positions that management believes are supportable, but are potentially subject to successful challenge by the applicable taxing authority. We evaluate our tax positions and establish liabilities in accordance with the applicable accounting guidance on uncertainty in income taxes. We review these tax uncertainties in light of changing facts and circumstances, such as the progress of tax audits, and adjust them accordingly.

Because there are a number of estimates and assumptions inherent in calculating the various components of our income tax provision, future events such as changes in tax legislation, the geographic mix of earnings, completion of tax audits or earnings repatriation plans could have an effect on those estimates and our effective income tax rate.

*Advertising*

Advertising and marketing costs are expensed as incurred and are reflected in selling, general and administrative expenses.

*Research and Development Expenditures*

Research and development expenditures are expensed as incurred and are recorded in selling, general and administrative expenses in the consolidated statements of operations. Most of our manufacturing facilities have chemists and technicians on staff involved in product development, quality assurance, quality control and providing technical services to customers. Research, development and technical service efforts are conducted at various facilities. Our animal health research and development activities relate to: fermentation development and microbiological strain improvement; vaccine development; chemical synthesis and formulation development; nutritional specialties development; and ethanol-related products.

*Stock-Based Compensation*

All stock-based compensation to employees, including grants of stock options, is expensed over the requisite service period based on the grant date fair value of the awards. We determine the fair value of stock-based awards using the Black-Scholes option-pricing model that uses both historical and current market data to estimate the fair value. This method incorporates various assumptions such as the risk-free interest rate, expected volatility, expected dividend yield and expected life of the options.

*Net Income per Share and Weighted Average Shares*

Basic net income per share is calculated by dividing net income by the weighted average number of common shares outstanding during the reporting period.

Diluted net income per share is calculated by dividing net income by the weighted average number of common shares outstanding during the reporting period after giving effect to potential dilutive common shares resulting from the assumed exercise of stock options. For the years ended June 30, 2017, 2016 and 2015, all common share equivalents were included in the calculation of diluted net income per share.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Net income	\$64,615	\$82,728	\$ 60,280
Weighted average number of shares—basic	39,524	39,254	38,969
Dilutive effect of stock options	518	708	846
Weighted average number of shares—diluted	40,042	39,962	39,815
Net income per share			
basic	\$ 1.63	\$ 2.11	\$ 1.55
diluted	\$ 1.61	\$ 2.07	\$ 1.51

*New Accounting Standards*

ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*, supersedes the current guidance by establishing a one-step goodwill impairment test. This new guidance requires an entity to compare the fair value of a reporting unit to its carrying amount, and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. We elected early application of this guidance in fiscal year 2017. The adoption of this guidance did not have an effect on our consolidated financial statements.

ASU 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*, amends the current guidance for determining whether a transaction represents the acquisition of a business or assets. This guidance provides updated criteria to make the determination and clarifies the definitions of key terms. During the three months ended March 31, 2017, we elected early application of this guidance and it did not have a material effect on our consolidated financial statements.

ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, provides specific guidance for the classification of certain transactions within the statement of cash flows. The issues addressed by this guidance include, but are not limited to, debt prepayments or debt extinguishment costs, contingent consideration payments made after a business combination and proceeds from the settlement of insurance claims. This ASU is effective for annual reporting periods beginning after December 15, 2017. Early application is permitted, as long as all provisions under the guidance are applied simultaneously. The provisions of this guidance are to be applied using a retrospective transition approach. We do not expect adoption of this guidance to have a material effect on our consolidated financial statements.

ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting*, amends *Compensation—Stock Compensation (Topic 718)*. This new standard simplified the accounting for share-based payments. The ASU requires that excess income tax benefits/deficiencies associated with share-based payments be recognized in the provision for income taxes rather than in additional paid-in capital as previously required. The ASU also requires accounting for minimum statutory tax withholding requirements and forfeitures. We adopted this guidance in our 2016 consolidated statement of operations on a modified retrospective basis.

ASU 2016-02, *Leases (Topic 842)*, supersedes the current lease accounting guidance, requires an entity to recognize assets and liabilities for both financing and operating leases on the balance sheet and requires additional qualitative and quantitative disclosures regarding leasing arrangements. This ASU is effective for annual reporting periods beginning after December 15, 2018. We are evaluating the effect of adoption of this guidance on our consolidated financial statements.

ASU 2015-11, *Inventory (Topic 330)*, requires entities to measure inventory at the lower of cost and net realizable value ("NRV"). NRV is defined as "the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation." The guidance is effective for annual periods beginning after December 15, 2016, and interim periods within those years. We do not expect adoption of this guidance to have a material effect on our consolidated financial statements.

ASU 2015-05, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40)*, provides guidance regarding the treatment of cloud computing arrangements and if an arrangement

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

includes a software license. We adopted this guidance during the three months ended September 30, 2016, and it did not have a material effect on our consolidated financial statements.

ASU 2015-03, *Interest—Imputation of Interest (Subtopic 835-30)*, requires debt issuance costs to be presented as a reduction of the related liability. These costs were previously included in other assets. Debt issuance costs associated with line-of-credit arrangements may continue to be included in other assets. We adopted this guidance during the three months ended September 30, 2016, and applied the guidance retrospectively. Debt issuance costs of \$2,538 as of June 30, 2016, have been presented as a reduction in long-term debt on our consolidated balance sheets.

ASU 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern (Subtopic 205-40)*, requires management to assess an entity's ability to continue as a going concern within one year after the issuance date of the financial statements, and to provide related footnote disclosures in certain circumstances. Management will need to consider relevant conditions that are known and reasonably knowable at the issuance date. Substantial doubt exists if it is probable that the entity will be unable to meet its obligations within one year after the issuance date. Under the new standard, the definition of substantial doubt incorporates a likelihood threshold of "probable" similar to the current use of that term in GAAP for loss contingencies. ASU 2014-15 is effective for annual periods ending after December 15, 2016, and for annual periods and interim periods thereafter. The adoption of this guidance had no effect to our consolidated financial statements or the disclosures herein.

ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, establishes principles for the recognition of revenue from contracts with customers. The underlying principle is to identify the performance obligations of a contract, allocate the revenue to each performance obligation and then to recognize revenue when the company satisfies a specific performance obligation of the contract. ASU 2014-09 and its amendments are effective for our consolidated financial statements beginning July 1, 2018. We expect to apply the new standard using the modified retrospective method. We continue to evaluate the effect that the adoption of this guidance may have on our consolidated financial statements.

## 3. Statements of Operations—Additional Information

For the Years Ended June 30	2017	2016	2015
<b>Interest expense, net</b>			
Term loan	\$11,482	\$11,631	\$ 11,717
Revolving credit facility	2,897	2,257	918
Amortization of debt issuance costs and debt discount	1,015	989	967
Acquisition-related accrued interest	1,373	1,476	613
Other	105	495	339
Interest expense	<u>16,872</u>	<u>16,848</u>	<u>14,554</u>
Interest (income)	<u>(1,966)</u>	<u>(256)</u>	<u>(249)</u>
	<u>\$14,906</u>	<u>\$16,592</u>	<u>\$ 14,305</u>
<b>Depreciation and amortization</b>			
Depreciation of property, plant and equipment	\$19,916	\$17,659	\$ 16,813
Amortization of intangible assets	5,950	5,559	4,560
Amortization of other assets	135	234	231
	<u>\$26,001</u>	<u>\$23,452</u>	<u>\$ 21,604</u>

Depreciation of property, plant and equipment includes amortization of capitalized software costs of \$2,199, \$2,915 and \$2,905 during 2017, 2016 and 2015, respectively.

Amortization of intangible assets is expected to be \$5,521; \$5,522; \$5,397; \$5,023; \$5,025 and \$26,314 for 2018, 2019, 2020, 2021, 2022 and thereafter, respectively.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

For the Years Ended June 30	2017	2016	2015
Research and development expenditures	<u>\$ 9,442</u>	<u>\$ 11,029</u>	<u>\$ 9,511</u>

## 4. Balance Sheets—Additional Information

As of June 30	2017	2016
<b>Accounts receivable, net</b>		
Trade accounts receivable	\$132,275	\$128,743
Allowance for doubtful accounts	(6,428)	(4,953)
	<u>\$125,847</u>	<u>\$123,790</u>

As of June 30	2017	2016	2015
<b>Allowance for doubtful accounts</b>			
Balance at beginning of period	\$ 4,953	\$ 3,378	\$ 1,235
Provision for bad debts	1,412	1,774	2,587
Effect of changes in exchange rates	159	(132)	(218)
Bad debt write-offs (recovery)	(96)	(67)	(226)
Balance at end of period	<u>\$ 6,428</u>	<u>\$ 4,953</u>	<u>\$ 3,378</u>

As of June 30	2017	2016
<b>Inventories</b>		
Raw materials	\$ 54,861	\$ 51,369
Work-in-process	12,402	8,074
Finished goods	93,970	108,248
	<u>\$161,233</u>	<u>\$167,691</u>

As of June 30	2017	2016
<b>Property, plant and equipment, net</b>		
Land	\$ 9,584	\$ 9,612
Buildings and improvements	65,958	64,265
Machinery and equipment	212,589	196,480
	288,131	270,357
Accumulated depreciation	(160,780)	(143,034)
	<u>\$ 127,351</u>	<u>\$ 127,323</u>

Certain facilities in Israel are on leased land. The leases expire in 2023, 2035 and 2062.

Property, plant and equipment, net includes internal-use software costs, net of accumulated depreciation, of \$3,558 and \$5,180 at June 30, 2017 and 2016, respectively.

Machinery and equipment includes construction-in-progress of \$2,690 and \$5,595 at June 30, 2017 and 2016, respectively.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

<u>As of June 30</u>	<u>Weighted- Average Useful Life (Years)</u>	<u>2017</u>	<u>2016</u>
<b>Intangibles, net</b>			
<b>Cost</b>			
Medicated feed additive product registrations	10	\$ 10,400	\$ 11,744
Amprolium international marketing rights	10	4,292	4,292
Customer relationships	13	10,616	10,606
Technology	13	67,907	66,960
Distribution agreements	4	3,222	3,275
Trade names, trademarks and other	5	2,740	2,740
In-process research and development		1,800	1,579
		<u>100,977</u>	<u>101,196</u>
<b>Accumulated amortization</b>			
Medicated feed additive product registrations		(10,400)	(10,846)
Amprolium international marketing rights		(4,292)	(4,292)
Customer relationships		(6,995)	(6,303)
Technology		(18,776)	(13,877)
Distribution agreements		(3,222)	(3,275)
Trade names, trademarks and other		(2,690)	(2,508)
		<u>(46,375)</u>	<u>(41,101)</u>
		<u>\$ 54,602</u>	<u>\$ 60,095</u>
<u>As of June 30</u>		<u>2017</u>	<u>2016</u>
<b>Goodwill roll-forward</b>			
Balance at beginning of period		\$ 21,121	\$ 12,613
Purchase price allocation correction		2,861	—
MVP acquisition		—	8,508
Balance at end of period		<u>\$ 23,982</u>	<u>\$ 21,121</u>

During the three months ended June 30, 2017, the Company determined goodwill and a liability for contingent consideration on acquisitions, initially recorded in the year ended June 30, 2015, were understated by \$2,861. The Company corrected the error during the three months ended June 30, 2017, by adjusting goodwill, the liability and acquisition-related interest accrued subsequent to the acquisition date. We evaluated the effect of the error quantitatively and qualitatively, and concluded the error was not material to the current or any previously issued financial statements.

<u>As of June 30</u>	<u>2017</u>	<u>2016</u>
<b>Other assets</b>		
Acquisition-related note receivable	\$ 5,000	\$ 5,000
Equity method investments	4,235	4,580
Insurance investments	5,097	4,833
Deferred financing fees	2,552	1,064
Deferred income taxes	23,269	28,019
Deposits	7,074	5,992
Other	6,570	6,977
	<u>\$ 53,797</u>	<u>\$ 56,465</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

We evaluate our investments in equity method investees for impairment if circumstances indicate that the fair value of the investment may be impaired. The assets underlying a \$3,719 equity investment are currently idled; we have concluded the investment is not currently impaired, based on expected future operating cash flows and/or disposal value.

<u>As of June 30</u>	<u>2017</u>	<u>2016</u>
<b>Accrued expenses and other current liabilities</b>		
Employee related	\$ 26,553	\$ 21,712
Commissions and rebates	6,443	3,722
Insurance related	1,515	1,780
Professional fees	3,823	3,573
Income and other taxes	3,035	1,910
Contingent consideration on acquisitions	—	1,250
Other	11,283	11,756
	<u>\$ 52,652</u>	<u>\$ 45,703</u>

<u>As of June 30</u>	<u>2017</u>	<u>2016</u>
<b>Other liabilities</b>		
U.S. pension plan	\$ 6,150	\$ 21,371
International retirement plans	5,257	5,600
Supplemental retirement benefits, deferred compensation and other	9,783	8,984
Long term and deferred income taxes	8,946	8,205
Contingent consideration on acquisitions	11,751	9,172
Other long term liabilities	7,666	7,981
	<u>\$ 49,553</u>	<u>\$ 61,313</u>

Contingent consideration on acquisitions includes \$4,107 of accrued compensation related to the service of a key employee.

<u>As of June 30</u>	<u>2017</u>	<u>2016</u>
<b>Accumulated other comprehensive income (loss)</b>		
Derivative instruments	\$ 2,686	\$ 2,655
Foreign currency translation adjustment	(43,556)	(41,904)
Unrecognized net pension gains (losses)	(18,059)	(30,977)
(Provision) benefit for income taxes on derivative instruments	(1,553)	(1,548)
(Provision) benefit for incomes taxes on long-term intercompany investments	8,166	8,166
(Provision) benefit for income taxes on pension gains (losses)	(3,121)	1,823
	<u>\$(55,437)</u>	<u>\$ (61,785)</u>

## 5. Acquisition

In January 2016, we purchased the assets of MVP Laboratories, Inc. (“MVP”). MVP was a developer, manufacturer and marketer of livestock vaccines, adjuvants and other products. We acquired all of the assets and assumed certain liabilities used in MVP’s business, including working capital, intellectual property, manufacturing equipment, real property and facilities. The purchase price of approximately \$46,576 was paid in cash primarily at closing. We incurred \$618 in transaction expenses in connection with the acquisition, which were included in selling, general and administrative expenses.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The acquisition was accounted for as a business combination in accordance with ASC 805, *Business Combinations*. Pro forma information giving effect to the acquisition has not been provided because the results are not material to the consolidated financial statements. The fair values of the acquired assets and liabilities as of the acquisition date were:

Working capital, net	\$ 4,914
Property, plant and equipment	4,774
Definite-lived intangible assets	28,380
Goodwill	8,508
Net assets acquired	<u>\$46,576</u>

The definite-lived intangible assets relate to developed products and will be amortized over an estimated useful life of 15 years. The business is included in the Animal Health segment and the goodwill is deductible for tax purposes.

## 6. Debt

### *Term Loans and Revolving Credit Facilities*

In June 2017, we entered into a new credit agreement (the “Credit Agreement”). Under the Credit Agreement, lenders extended credit to us in the form of a Term A loan, with an aggregate principal amount of \$250,000 (the “Term A Loan”) and a revolving credit facility, with an aggregate principal amount of \$250,000 (the “Revolver,” and together with the Term A Loan, the “Credit Facilities”). We used the proceeds of \$314,138 from the Credit Facilities to repay all debt outstanding under the previous credit facilities as of the closing date and to pay fees and expenses of the transaction. We recorded a \$2,598 loss on extinguishment of debt for certain unamortized debt issuance costs and debt discount related to the retired debt.

Borrowings under the Credit Facilities bear interest at rates based on the ratio of the Company and its subsidiaries’ net consolidated first lien indebtedness to the Company and its subsidiaries’ consolidated EBITDA (the “First Lien Net Leverage Ratio”). The interest rate per annum applicable to the loans under the Credit Facilities is based on a fluctuating rate of interest equal to the sum of an applicable rate and, at the Company’s election from time to time, either (1) a Eurodollar rate determined by reference to LIBOR with a term as selected by the Company, or (2) a base rate determined by reference to the highest of (a) the rate as publicly announced from time to time by Bank of America as its “prime rate,” (b) the federal funds effective rate plus 0.50% and (c) the LIBOR daily floating rate plus 1.00%.

In the case of LIBOR and Eurodollar rate loans, if the First Lien Net Leverage Ratio is (i) greater than 3.00:1.00; (ii) less than 3.00:1.00 but greater than or equal to 2.25:1.00; or, (iii) less than 2.25:1.00, the Credit Facilities have applicable rates equal to 2.00%; 1.75%; and, 1.50%, respectively. In the case of base rate loans, if the First Lien Net Leverage Ratio is (i) greater than 3.00:1.00; (ii) less than 3.00:1.00 but greater than or equal to 2.25:1.00; or, (iii) less than 2.25:1.00, the Credit Facilities have applicable rates equal to 1.00%; 0.75%; and, 0.50%, respectively.

Pursuant to the terms of the Credit Agreement, the Credit Facilities are subject to various covenants that, among other things and subject to the permitted exceptions described therein, restrict us and our subsidiaries with respect to: (i) incurring additional debt; (ii) making certain restricted payments or making optional redemptions of other indebtedness; (iii) making investments or acquiring assets; (iv) disposing of assets (other than in the ordinary course of business); (v) creating any liens on our assets; (vi) entering into transactions with affiliates; (vii) entering into merger or consolidation transactions; and (viii) creating guarantee obligations; provided, however, that we are permitted to pay distributions to stockholders out of available cash subject to certain annual limitations and so long as no default or event of default under the Credit Facilities shall have occurred and be continuing at the time such distribution is



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

declared. Indebtedness under the Credit Facilities is collateralized by a first priority lien on substantially all assets of Phibro and certain of our domestic subsidiaries. The Credit Agreement contains an acceleration clause should an event of default (as defined in the agreement) occur. The Credit Facilities mature on June 29, 2022.

The Credit Agreement requires, among other things, compliance with financial covenants that permit: (i) a maximum First Lien Net Leverage Ratio of 4.00:1.00 and, (ii) a minimum interest coverage ratio of 3.00:1.00, each calculated on a trailing four-quarter basis. As of June 30, 2017, we were in compliance with the financial covenants.

As of June 30, 2017, we had \$65,000 in borrowings under the Revolver and had outstanding letters of credit of \$5,957, leaving \$179,043 available for borrowings and letters of credit under the Revolver. We obtain letters of credit in connection with certain regulatory and insurance obligations, inventory purchases and other contractual obligations. The terms of these letters of credit are all less than one year.

As of June 30, 2017, the interest rates for the Revolver and the Term A Loan were 2.97% and 3.05%, respectively. The weighted-average interest rate for the previously outstanding revolver was 3.48% and 3.04% for the years ended June 30, 2017 and 2016, respectively. The weighted-average interest rate for the previously outstanding Term B Loan was 4.06% and 4.00% for the years ended June 30, 2017 and 2016, respectively.

In July 2017, we entered into an interest rate swap agreement on \$150 million of notional principal that effectively converts the floating LIBOR or base rate portion of our interest obligation on that amount of debt, to a fixed interest rate of 1.8325% plus the applicable rate. The agreement matures concurrent with the Credit Agreement.

*Foreign Credit Facilities*

Our Israel subsidiaries have aggregate credit facilities available of approximately \$13.6 million (the "Israel Credit Facilities"). As of June 30, 2017, we had no outstanding borrowings or other commitments outstanding under the Israel Credit Facilities. Interest rate elections under the Israel Credit Facilities are LIBOR plus 2.25% or Prime Rate plus 0.50%. The Israel Credit Facilities mature in March 2018 and April 2018.

*Long-Term Debt*

<u>As of June 30</u>	<u>2017</u>	<u>2016</u>
Term A Loan due June 2022	\$250,000	\$ —
Term B Loan due April 2021	—	284,200
Capitalized lease obligations	—	7
	<u>250,000</u>	<u>284,207</u>
Unamortized debt issuance costs and debt discount	<u>(1,859)</u>	<u>(3,035)</u>
	248,141	281,172
Less: current maturities	<u>(6,250)</u>	<u>(2,907)</u>
	<u>\$241,891</u>	<u>\$278,265</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

*Aggregate Maturities of Long-Term Debt*

<u>For the Years Ended June 30</u>	
2018	\$ 6,250
2019	12,500
2020	12,500
2021	18,750
2022	<u>200,000</u>
Total	<u>\$250,000</u>

**7. Common Stock, Preferred Stock and Dividends**

Preferred stock and common stock at June 30, 2017 and 2016 were:

<u>As of June 30</u>	<u>2017</u>		<u>2016</u>	
	<u>Authorized Shares</u>	<u>Par value</u>	<u>Issued and outstanding shares</u>	<u>2016</u>
Preferred stock	16,000,000	\$0.0001	—	—
Common stock—Class A	300,000,000	\$0.0001	19,249,132	18,519,757
Common stock—Class B	30,000,000	\$0.0001	20,626,836	20,887,811

***Common Stock****General*

Except as otherwise provided by our amended and restated certificate of incorporation or applicable law, the holders of our Class A common stock and Class B common stock shall vote together as a single class. There are no cumulative voting rights.

Holders of our Class A common stock and Class B common stock are entitled to receive dividends when and if declared by our Board of Directors out of funds legally available therefore, subject to any statutory or contractual restrictions on the payment of dividends and to any restrictions on the payment of dividends imposed by the terms of any outstanding preferred stock.

Upon our dissolution or liquidation or the sale of all or substantially all of our assets, after payment in full of all amounts required to be paid to creditors and to the holders of preferred stock having liquidation preferences, if any, the holders of our Class A common stock and Class B common stock will be entitled to receive our remaining assets available for distribution.

*Class A Common Stock*

Holders of our Class A common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders.

Holders of our Class A common stock do not have preemptive, subscription or conversion rights. Our Class A common stock is not convertible and there are no redemption or sinking fund provisions applicable to our Class A common stock. Unless our Board of Directors determines otherwise, we will issue all of our capital stock in uncertificated form.

*Class B Common Stock*

Holders of our Class B common stock are entitled to 10 votes for each share held of record on all matters submitted to a vote of stockholders. BFI holds all of our outstanding Class B common stock.

Holders of our Class B common stock do not have preemptive or subscription rights. There are no redemption or sinking fund provisions applicable to our Class B common stock.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

Each share of Class B common stock is convertible at any time at the option of the holder into one share of Class A common stock. In addition, each share of Class B common stock will convert automatically into one share of Class A common stock upon any transfer, whether or not for value, except for certain transfers by and among BFI, its affiliates and certain Bendheim family members, as described in the amended and restated certificate of incorporation. Once transferred and converted into Class A common stock, the Class B common stock will not be reissued. In addition, all shares of Class B common stock will automatically convert to shares of Class A common stock when the outstanding shares of Class B common stock and Class A common stock held by BFI, its affiliates and certain Bendheim family members, together, is less than 15% of the total outstanding shares of Class A common stock and Class B common stock, taken as a single class.

Holders of our Class B common stock have the right to require us to register the sales of their shares under the Securities Act, under the terms of an agreement between us and the holders.

***Preferred Stock***

We do not have any preferred stock outstanding. Our Board of Directors has the authority to issue shares of preferred stock from time to time on terms it may determine, to divide shares of preferred stock into one or more series and to fix the designations, preferences, privileges, and restrictions of preferred stock, including dividend rights, conversion rights, voting rights, terms of redemption, liquidation preference, sinking fund terms, and the number of shares constituting any series or the designation of any series to the fullest extent permitted by the General Corporation Law of the State of Delaware.

***Dividends***

We declared and paid quarterly cash dividends totaling \$15,827 for the year ended June 30, 2017, to holders of our Class A common stock and Class B common stock.

**8. Stock Option Plan**

In March 2008, our Board of Directors and stockholders adopted the 2008 Incentive Plan (the “Incentive Plan”). The Incentive Plan provides directors, officers, employees and consultants to the Company with opportunities to purchase common stock pursuant to options that may be granted, and receive grants of restricted stock and other stock-based awards granted, from time to time by the Board of Directors or a committee approved by the Board. The Incentive Plan provides for grants of stock options, stock awards and other incentives for up to 6,630,000 shares. There were 5,131,620 Class A shares available for grant pursuant to the Incentive Plan as of June 30, 2017.

There was no compensation expense recognized related to employee stock options for all periods presented in the consolidated financial statements. The following table details stock option activity for 2017:

	<b>Option Shares</b>	<b>Weighted- Average Exercise Price Per Share</b>
Outstanding, June 30, 2016	1,046,040	\$11.83
Exercised	(468,400)	\$11.83
Outstanding, June 30, 2017	577,640	\$11.83
Exercisable, June 30, 2017	577,640	\$11.83

At June 30, 2017, exercisable options had a weighted-average remaining contractual life of 1.7 years and had a \$14,568 aggregate intrinsic value, based on the closing market price at that date.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

**9. Related Party Transactions**

Certain relatives of Jack C. Bendheim, our Chief Executive Officer, provided services to us as employees or consultants and received aggregate compensation and benefits of approximately \$1,735, \$1,910 and \$1,927 during 2017, 2016 and 2015. Mr. Bendheim has sole authority to vote shares of our stock owned by BFI Co., LLC, an investment vehicle of the Bendheim family.

**10. Employee Benefit Plans**

The Company maintains a noncontributory defined benefit pension plan for all domestic nonunion employees employed on or prior to December 31, 2013, who meet certain requirements of age, length of service and hours worked per year. Plan benefits are based upon years of service and average compensation, as defined. The measurement dates for the pension plan were as of June 30, 2017, 2016 and 2015.

In July 2016, we amended the domestic noncontributory defined benefit pension plan to eliminate credit for future service and compensation increases, effective as of September 30, 2016. The amendment resulted in a curtailment of the pension plan. During the three months ended September 30, 2016, we recorded a pension curtailment gain of \$6,822 in other comprehensive income and an offsetting reduction in the liability for pension benefits included in other liabilities.

Separately, we offered a lump sum payment option to certain pension plan participants. During the three months ended December 31, 2016, we recognized a partial settlement of the pension plan with respect to the lump sum settlement, which resulted in a charge to the consolidated statement of operations of \$1,702, which we recorded as a component of selling, general and administrative expenses.

Changes in the projected benefit obligation, plan assets and funded status of the domestic noncontributory defined benefit plan were:

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>
<b>Change in projected benefit obligation</b>		
Projected benefit obligation at beginning of year	\$ 75,664	\$ 62,605
Service cost	845	2,939
Interest cost	2,045	2,893
Benefits paid	(1,521)	(1,271)
Actuarial (gain) loss	(1,448)	8,498
Liability (gain) loss due to curtailment	(6,822)	—
Settlement payments	(5,503)	—
Projected benefit obligation at end of year	<u>\$ 63,260</u>	<u>\$ 75,664</u>
<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>
<b>Change in plan assets</b>		
Fair value of plan assets at beginning of year	\$ 54,293	\$ 44,032
Actual return on plan assets	5,647	(1,202)
Employer contributions	4,194	12,734
Benefits paid	(1,521)	(1,271)
Settlement payments	(5,503)	—
Fair value of plan assets at end of year	<u>\$ 57,110</u>	<u>\$ 54,293</u>
<b>Funded status at end of year</b>	<u>\$ (6,150)</u>	<u>\$ (21,371)</u>

The funded status is included in other liabilities in the consolidated balance sheets.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The Company expects to contribute approximately \$4,109 to the pension plan during 2018. We seek to maintain an asset balance that meets the long-term funding requirements identified by actuarial projections while also satisfying ERISA fiduciary responsibilities.

Accumulated other comprehensive (income) loss related to the pension plan was:

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>
<b>Accumulated Other Comprehensive (Income) Loss Related to Pension Plan</b>		
Balance at beginning of period	\$ 30,977	\$ 19,884
Amortization of net actuarial loss and prior service costs	(9,213)	(1,784)
Current period net actuarial (gain) loss	(3,705)	12,877
Net change	<u>(12,918)</u>	<u>11,093</u>
Balance at end of period	<u>\$ 18,059</u>	<u>\$ 30,977</u>

Amortization of unrecognized net actuarial loss and prior service costs will be approximately \$407 during 2018.

Net pension expense was:

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Service cost—benefits earned during the year	\$ 845	\$ 2,939	\$ 2,954
Interest cost on benefit obligation	2,045	2,893	2,618
Expected return on plan assets	(3,389)	(3,177)	(2,828)
Amortization of net actuarial loss and prior service costs	672	1,784	1,405
Curtailment expense	16	—	—
Settlement expense	1,702	—	—
Net pension expense	<u>\$ 1,891</u>	<u>\$ 4,439</u>	<u>\$ 4,149</u>

Significant actuarial assumptions for the plan were:

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Discount rate for service cost	4.0%	4.6%	4.5%
Discount rate for interest cost	3.2%	4.6%	4.5%
Expected rate of return on plan assets	6.1%	6.1%	6.7%
Discount rate for year-end benefit obligation	3.9%	3.9%	4.6%

The plan used the Aon Hewitt AA Bond Universe as a benchmark for its discount rate as of June 30, 2017, 2016 and 2015. The discount rate is determined by matching the pension plan's timing and amount of expected cash outflows to a bond yield curve constructed from a population of AA-rated corporate bond issues that are generally non-callable and have at least \$250 million par value outstanding. From this, the discount rate that results in the same present value is calculated. During fiscal 2017, the plan was re-measured July 31 and October 31 to recognize a plan freeze and lump sum window, respectively. The discount rate for 2017 service cost and interest cost noted above was determined as the weighted average of the discount rates used for each portion of the fiscal year in effect.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Estimated future benefit payments, including benefits attributable to future service, are:

**For the Years Ended June 30**

2018	\$ 2,156
2019	2,388
2020	2,612
2021	2,815
2022	3,014
2023–2027	17,073

The plan's target asset allocations for 2018 and the weighted-average asset allocation of plan assets as of June 30, 2017 and 2016 are:

For the years ended June 30	Target Allocation	Percentage of Plan Assets	
	2018	2017	2016
Debt securities	48%–68%	33%	19%
Equity securities	20%–40%	38%	43%
Global asset allocation/risk parity <sup>(1)</sup>	2%–22%	17%	26%
Other	0%–10%	12%	12%

(1) The global asset allocation/risk parity category consists of a variety of asset classes including, but not limited to, global bonds, global equities, real estate and commodities.

The expected long-term rate of return for the plan's total assets is generally based on the plan's asset mix. In determining the rate to use, we consider the expected long-term real returns on asset categories, expectations for inflation, estimates of the effect of active management and actual historical returns.

The investment policy and strategy is to earn a long-term investment return sufficient to meet the obligations of the plans, while assuming a moderate amount of risk in order to maximize investment return. In order to achieve this goal, assets are invested in a diversified portfolio consisting of equity securities, debt securities, and other investments in a manner consistent with ERISA's fiduciary requirements.

The fair values of the Company's plan assets by asset category were:

As of June 30, 2017	Fair Value Measurements Using			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 3,023	\$ —	\$ —	\$ 3,023
Common-collective funds				
Global large cap equities	—	12,385	7,132	19,517
Fixed income securities	—	16,850	1,136	17,986
Global asset allocations/risk parity	—	5,822	—	5,822
Mutual funds				
Global Equities	1,972	—	—	1,972
Fixed income securities	1,099	—	—	1,099
Global asset allocations/risk parity	—	—	—	—
Other				
Global asset allocations/risk parity	—	—	4,103	4,103
Other	—	—	3,588	3,588
	<u>\$ 6,094</u>	<u>\$ 35,057</u>	<u>\$ 15,959</u>	<u>\$ 57,110</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

As of June 30, 2016	Fair Value Measurements Using			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 713	\$ —	\$ —	\$ 713
Common-collective funds				
Global large cap equities	—	11,963	6,596	18,559
Fixed income securities	—	7,583	—	7,583
Global asset allocations/risk parity	—	4,878	—	4,878
Mutual funds				
Global Equities	4,611	—	—	4,611
Fixed income securities	1,366	—	—	1,366
Global asset allocations/risk parity	2,667	—	—	2,667
Other				
Fixed income securities	—	—	1,434	1,434
Global asset allocations/risk parity	—	—	6,554	6,554
Other	—	—	5,929	5,929
	<u>\$ 9,357</u>	<u>\$ 24,424</u>	<u>\$ 20,513</u>	<u>\$ 54,294</u>

The table below provides a summary of the changes in the fair value of Level 3 assets:

Change in Fair Value Level 3 assets	2017	2016
Balance at beginning of period	\$20,513	\$ 8,989
Redemptions	(9,353)	(3,656)
Purchases	2,533	15,695
Change in fair value	2,266	(515)
Balance at end of period	<u>\$15,959</u>	<u>\$ 20,513</u>

The following outlines the valuation methodologies used to estimate the fair value of our pension plan assets:

- Cash and cash equivalents are valued at \$1 per unit;
- Common-collective funds are determined based on current market values of the underlying assets of the fund;
- Mutual funds and foreign currency deposits are valued using quoted market prices in active markets; and
- For Level 3 managed assets, business appraisers use a combination of valuations and appraisal methodologies, as well as a number of assumptions to create a price that brokers evaluate. For Level 3 non-managed assets, pricing is provided by various sources, such as issuer or investment manager.

Our consolidated balance sheets include other liabilities of \$15,139 and \$14,898 as of June 30, 2017 and 2016, respectively, for other employee benefits, including international retirement plans, supplemental retirement benefits and long term incentive arrangements. Expense under these plans was \$4,304, \$5,239, and \$3,286 for 2017, 2016 and 2015, respectively.

We provide a 401(k) retirement savings plan, under which United States employees may make pre-tax and post-tax contributions. We make a matching contribution equal to 100% of the first 1% of an employee's contribution and make a matching contribution equal to 50% of the next 5% of an employee's contribution. Effective January 1, 2014, for domestic employees hired on or after that date and effective October 1, 2016, for all domestic employees, such employees receive a non-elective Company contribution of 3% of compensation and are eligible to receive an additional discretionary contribution of up to 4% of

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

compensation, depending on the employee's age and years of service, provided that such payments comply with mandatory non-discrimination testing. Participants are fully vested in employer contributions after two years of service. Our contribution expense was \$4,154, \$2,309, and \$1,583, in 2017, 2016 and 2015, respectively.

**11. Income Taxes**

Income (loss) before income taxes was:

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Domestic	\$18,015	\$ 2,027	\$ 15,937
Foreign	62,528	74,734	62,826
Income (loss) before income taxes	<u>\$80,543</u>	<u>\$76,761</u>	<u>\$ 78,763</u>

Components of the provision for income taxes were:

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
<b>Current provision (benefit):</b>			
Federal	\$ 383	\$ (2,889)	\$ (468)
State and local	724	(474)	(48)
Foreign	14,839	20,168	13,868
Total current provision	<u>15,946</u>	<u>16,805</u>	<u>13,352</u>
<b>Deferred provision (benefit):</b>			
Federal	4,675	(2,985)	6,157
State and local	251	911	1,311
Foreign	(833)	(989)	5,933
Change in valuation allowance—domestic	—	(19,588)	(7,468)
Change in valuation allowance—foreign	<u>(4,111)</u>	<u>(121)</u>	<u>(802)</u>
Total deferred provision	<u>(18)</u>	<u>(22,772)</u>	<u>5,131</u>
Provision (benefit) for income taxes	<u>\$15,928</u>	<u>\$ (5,967)</u>	<u>\$ 18,483</u>

During 2017, based on continued profitability, we concluded that it was more likely than not that the value of certain foreign deferred tax assets would be realized, and it was no longer necessary to maintain a related valuation allowance. Accordingly, we released the valuation allowance related to these foreign deferred tax assets. We review the realizability of our deferred tax assets when circumstances indicate a review is required.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Reconciliations of the federal statutory rate to the Company's effective tax rate were:

<b>For the Years Ended June 30</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
Federal income tax rate	35.0%	35.0%	35.0%
State and local taxes, net of federal benefit	0.9	0.2	0.2
Change in federal valuation allowance	—	(27.8)	(7.8)
Change in foreign valuation allowance	(5.1)	—	—
Foreign income tax rates	(6.8)	(5.5)	(2.2)
Foreign withholding tax	0.1	0.1	0.3
Foreign incentive tax rates	(3.1)	(4.5)	(4.1)
Domestic tax on foreign income	2.7	2.7	0.9
Change in liability for uncertain tax positions	1.6	(4.9)	1.5
Permanent items	(0.9)	1.5	(0.6)
Exercise of employee stock options	(3.8)	(4.6)	—
Other	(0.8)	—	0.3
Effective tax rate	<u>19.8%</u>	<u>(7.8)%</u>	<u>23.5%</u>

We have not provided for United States or additional foreign taxes on approximately \$211,631 of undistributed earnings of foreign subsidiaries, which earnings have been or are intended to be indefinitely reinvested. It is not practicable at this time to determine the amount of income tax liability that would result should such earnings be repatriated. Taxes are not provided for foreign currency translation adjustments relating to investments in international subsidiaries that will be held indefinitely.

The tax effects of significant temporary differences that comprise deferred tax assets and liabilities were:

<b>As of June 30</b>	<b>2017</b>	<b>2016</b>
Deferred tax assets:		
Employee related accruals	\$ 7,146	\$ 12,603
Inventory	4,851	2,573
Environmental remediation	2,280	2,208
Net operating loss carry forwards—domestic	4,893	13,768
Net operating loss carry forwards—foreign	4,023	4,346
Other	11,139	7,566
	<u>34,332</u>	<u>43,064</u>
Valuation allowance	(438)	(4,614)
	<u>33,894</u>	<u>38,450</u>
Deferred tax liabilities:		
Property, plant and equipment and intangible assets	(9,671)	(9,725)
Other	(2,004)	(1,956)
	<u>(11,675)</u>	<u>(11,681)</u>
Net deferred tax asset	<u>\$ 22,219</u>	<u>\$ 26,769</u>

Deferred taxes are included in the consolidated balance sheets as follows:

<b>As of June 30</b>	<b>2017</b>	<b>2016</b>
Other assets	\$ 23,269	\$ 28,019
Other liabilities	(1,050)	(1,250)
	<u>\$ 22,219</u>	<u>\$ 26,769</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The valuation allowances for deferred tax assets were:

<u>As of June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Balance at beginning of period	\$ 4,614	\$ 26,622	\$32,892
Provision for income taxes	(4,111)	(19,709)	(6,270)
Net operating loss utilization	(65)	(2,299)	—
Balance at end of period	<u>\$ 438</u>	<u>\$ 4,614</u>	<u>\$26,622</u>

The valuation allowance for deferred tax assets as of June 30, 2017, is solely related to foreign jurisdictions.

The Company has approximately \$9,191 of domestic federal net operating loss carry forwards that expire in 2028 through 2036 and approximately \$32,555 of state net operating loss carry forwards that will expire in 2017 through 2036. In addition, the Company has approximately \$11,915 of foreign net operating loss carry forwards, most of which are in jurisdictions that have no expiration.

As tax law is complex and often subject to varied interpretations, it is uncertain whether some of our tax positions will be sustained upon examination. Tax liabilities associated with uncertain tax positions represent unrecognized tax benefits, which arise when the estimated benefit recorded in our financial statements differs from the amounts taken or expected to be taken in a tax return because of the uncertainties described above. Substantially all of these unrecognized tax benefits, if recognized, would benefit our effective income tax rate. The reconciliation of the beginning and ending amounts of gross unrecognized tax benefits follows:

<u>As of June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Unrecognized tax benefits—beginning of period	\$4,946	\$ 8,078	\$7,420
Tax position changes—prior periods	—	188	(24)
Tax position changes—current period	1,490	472	1,945
Lapse of statute of limitations	(391)	(3,700)	(907)
Translation	508	(92)	(356)
Unrecognized tax benefits—end of period	6,553	4,946	8,078
Interest and penalties—end of period	449	308	1,326
Total liabilities related to uncertain tax positions	<u>\$7,002</u>	<u>\$ 5,254</u>	<u>\$9,404</u>

We recognize interest and penalties associated with uncertain tax positions as a component of the provision for income taxes. We recognized interest and penalties expense (income) of \$116, \$(980) and \$66 for 2017, 2016 and 2015, respectively.

During 2018, we potentially will reverse \$300 of uncertain tax positions as a result of the lapse of the statute of limitations, with a corresponding benefit to the provision for income taxes.

One of our international subsidiaries is undergoing an income tax examination for the years 2013 and 2014. The examination is ongoing and is expected to be completed during 2018. We are unable to determine the effect, if any, of the results of the examination on the provision for income taxes.

Income tax returns for the following periods are no longer subject to examination by the relevant tax authorities:

- U.S. federal and significant states, through June 30, 2007;
- Brazil, through December 31, 2011;
- Israel, through June 30, 2012 for certain subsidiaries and through June 30, 2013 for certain subsidiaries.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

## 12. Commitments and Contingencies

*Leases*

We lease land and office, warehouse and manufacturing equipment and facilities for minimum annual rentals, plus certain cost escalations. We record rent expense on a straight-line basis over the term of the lease. At June 30, 2017, we had the following future minimum lease commitments:

<u>For the Years Ended June 30</u>	<u>Non-cancellable operating leases</u>
2018	\$ 5,363
2019	4,584
2020	3,972
2021	3,430
2022	2,833
Thereafter	2,607
Total minimum lease payments	<u>\$ 22,789</u>

Rent expense under operating leases was \$7,715, \$8,131, and \$7,240 for 2017, 2016 and 2015, respectively.

*Environmental*

Our operations and properties are subject to extensive federal, state, local and foreign laws and regulations, including those governing pollution; protection of the environment; the use, management, and release of hazardous materials, substances and wastes; air emissions; greenhouse gas emissions; water use, supply and discharges; the investigation and remediation of contamination; the manufacture, distribution, and sale of regulated materials, including pesticides; the importing, exporting and transportation of products; and the health and safety of our employees (collectively, “Environmental Laws”). As such, the nature of our current and former operations exposes us to the risk of claims with respect to such matters, including fines, penalties, and remediation obligations that may be imposed by regulatory authorities. Under certain circumstances, we might be required to curtail operations until a particular problem is remedied. Known costs and expenses under Environmental Laws incidental to ongoing operations, including the cost of litigation proceedings relating to environmental matters, are included within operating results. Potential costs and expenses may also be incurred in connection with the repair or upgrade of facilities to meet existing or new requirements under Environmental Laws or to investigate or remediate potential or actual contamination and from time to time we establish reserves for such contemplated investigation and remediation costs. In many instances, the ultimate costs under Environmental Laws and the time period during which such costs are likely to be incurred are difficult to predict.

While we believe that our operations are currently in material compliance with Environmental Laws, we have, from time to time, received notices of violation from governmental authorities, and have been involved in civil or criminal action for such violations. Additionally, at various sites, our subsidiaries are engaged in continuing investigation, remediation and/or monitoring efforts to address contamination associated with historic operations of the sites. We devote considerable resources to complying with Environmental Laws and managing environmental liabilities. We have developed programs to identify requirements under, and maintain compliance with Environmental Laws; however, we cannot predict with certainty the effect of increased and more stringent regulation on our operations, future capital expenditure requirements, or the cost of compliance.

The nature of our current and former operations exposes us to the risk of claims with respect to environmental matters and we cannot assure we will not incur material costs and liabilities in connection with such claims. Based upon our experience to date, we believe that the future cost of compliance with existing Environmental Laws, and liabilities for known environmental claims pursuant to such Environmental Laws, will not have a material adverse effect on our financial position, results of operations, cash flows or liquidity.

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

The United States Environmental Protection Agency (the “EPA”) is investigating and planning for the remediation of offsite contaminated groundwater that has migrated from the Omega Chemical Corporation Superfund Site (“Omega Chemical Site”), which is upgradient of Phibro-Tech’s Santa Fe Springs, California facility. The EPA has named Phibro-Tech and certain other subsidiaries of PAHC as potentially responsible parties (“PRPs”) due to groundwater contamination from Phibro-Tech’s Santa Fe Springs facility that has allegedly commingled with contaminated groundwater from the Omega Chemical Site. In September 2012, the EPA notified approximately 140 PRPs, including Phibro-Tech and the other subsidiaries, that they have been identified as potentially responsible for remedial action for the groundwater plume affected by the Omega Chemical Site and for EPA oversight and response costs. Phibro-Tech contends that groundwater contamination at its site is due to historical operations that pre-date Phibro-Tech and/or contaminated groundwater that has migrated from upgradient properties. In addition, a successor to a prior owner of the Phibro-Tech site has asserted that PAHC and Phibro-Tech are obligated to provide indemnification for its potential liability and defense costs relating to the groundwater plume affected by the Omega Chemical Site. Phibro-Tech has vigorously contested this position and has asserted that the successor to the prior owner is required to indemnify Phibro-Tech for its potential liability and defense costs. Furthermore, a nearby property owner has filed a complaint in the Superior Court of the State of California against many of the PRPs allegedly associated with the groundwater plume affected by the Omega Chemical Site (including Phibro-Tech) for alleged contamination of groundwater underneath its property, and a group of companies that sent chemicals to the Omega Chemical Site for processing and recycling has filed a complaint under CERCLA, RCRA and the common law public nuisance doctrine in the United States District Court for the Central District of California against many of the PRPs allegedly associated with the groundwater plume affected by the Omega Chemical Site (including Phibro-Tech) for contribution toward past and future costs associated with the investigation and remediation of the groundwater plume affected by the Omega Chemical Site. Due to the ongoing nature of the EPA’s investigation and Phibro-Tech’s dispute with the prior owner’s successor, at this time we cannot predict with any degree of certainty what, if any, liability Phibro-Tech or the other subsidiaries may ultimately have for investigation, remediation and the EPA oversight and response costs associated with the affected groundwater plume.

Based upon information available, to the extent such costs can be estimated with reasonable certainty, we estimated the cost for further investigation and remediation of identified soil and groundwater problems at operating sites, closed sites and third-party sites, and closure costs for closed sites, to be approximately \$7,211 and \$7,024 at June 30, 2017 and 2016, respectively, which is included in current and long-term liabilities on the consolidated balance sheets. However, future events, such as new information, changes in existing Environmental Laws or their interpretation, and more vigorous enforcement policies of regulatory agencies, may give rise to additional expenditures or liabilities that could be material. For all purposes of the discussion under this caption and elsewhere in this report, it should be noted that we take and have taken the position that neither PAHC nor any of our subsidiaries is liable for environmental or other claims made against one or more of our other subsidiaries or for which any of such other subsidiaries may ultimately be responsible.

*Claims and Litigation*

During 2017, we recorded a \$7,500 gain in selling, general and administrative expenses resulting from a payment to us by an insurance carrier. The payment reflected the settlement of our claims against the carrier under our liability insurance policies, which arose from damages incurred in 2010 by certain customers resulting from the use of one of our animal health products.

PAHC and its subsidiaries are party to a number of claims and lawsuits arising out of the normal course of business including product liabilities, payment disputes and governmental regulation. Certain of these actions seek damages in various amounts. In many cases, such claims are covered by insurance. We believe that none of the claims or pending lawsuits, either individually or in the aggregate, will have a material adverse effect on our financial position, results of operations, cash flows or liquidity.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

*Employment and Severance Agreements*

We have entered into employment agreements with certain executive management and other employees that specify severance benefits of up to 15 months of the employee's compensation.

**13. Derivatives**

We monitor our exposure to foreign currency exchange rates and interest rates and from time-to-time use derivatives to manage certain of these risks. The foreign currency derivatives generally have an expiration or maturity of two years or less and are intended to hedge cash flows related to the purchase of inventory. We designate derivatives as a hedge of a forecasted transaction or of the variability of the cash flows to be received or paid in the future related to a recognized asset or liability (cash flow hedge). We record the portion of the changes in the value of the derivative, related to a hedged asset or liability (the effective portion), in accumulated other comprehensive income (loss). As the hedged item is sold, we recognize the gain or loss recorded in accumulated other comprehensive income (loss) to the consolidated statements of operations on the same line where the hedged item is charged when released/sold. We immediately recognize in the consolidated statements of operations in the same line as the hedged item, the portion of the changes in fair value of derivatives used as cash flow hedges that is not offset by changes in the expected cash flows related to a recognized asset or liability (the ineffective portion).

We routinely assess whether the derivatives used to hedge transactions are effective. If we determine a derivative ceases to be an effective hedge, we discontinue hedge accounting in the period of the assessment for that derivative, and immediately recognize any unrealized gains or losses related to the fair value of that derivative in the consolidated statements of operations.

We record derivatives at fair value in the consolidated balance sheets. For additional details regarding fair value, see "—Fair Value Measurements."

The following table details the Company's outstanding derivatives that are designated and effective as cash flow hedges as of June 30, 2017:

Instrument	Hedge	Notional amount at June 30, 2017	Fair value as of June 30,	
			2017	2016
Options	Brazilian Real calls	R\$ 39,000	\$2,686	\$3,027
Options	Brazilian Real puts	R\$ 39,000	\$ —	\$ (372)

The fair values as of June 30, 2017, are unrealized and will fluctuate based on future exchange rates until the derivative contracts mature. Other comprehensive income (loss) included \$31 of unrecognized gains for the twelve months ended June 30, 2017. Accumulated other comprehensive income (loss) at June 30, 2017 included \$2,686 of net unrecognized gains on derivative instruments; we estimate that \$1,759 of those gains will be recognized in earnings within the next twelve months. At June 30, 2017, realized gains of \$1,011 related to matured contracts were recorded as a component of inventory. We anticipate these gains will be recognized as an offset to cost of goods sold within the next twelve months. At June 30, 2016, realized losses of \$1,528 related to matured contracts were recorded as a component of inventory and subsequently recognized in cost of goods sold during 2017. We recognize gains (losses) related to these derivative instruments as a component of cost of goods sold at the time the hedged item is sold.

**14. Fair Value Measurements**

Fair value is defined as the exit price that would be received to sell an asset or paid to transfer a liability. Fair value is a market-based measurement that should be determined using assumptions that market participants would use in pricing an asset or liability. Financial assets and liabilities are measured at fair value using the three-level valuation hierarchy for disclosure of fair value measurements. The determination of the applicable level within the hierarchy of a particular asset or liability depends on the inputs used in the valuation as of the measurement date, notably the extent to which the inputs are market-based (observable) or internally derived (unobservable). Observable inputs are inputs that market

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**

participants would use in pricing the asset or liability developed based on market data obtained from independent sources. Unobservable inputs are inputs based on a company's own assumptions about market participant assumptions developed based on the best information available in the circumstances. The hierarchy is broken down into three levels based on the reliability of inputs as follows:

Level 1—Quoted prices in active markets for identical assets or liabilities.

Level 2—Significant observable inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly through corroboration with observable market data.

Level 3—Unobservable inputs for which there is little or no market data available, and that are significant to the overall fair value measurement, are employed that require the reporting entity to develop its own assumptions.

In assessing the fair value of financial instruments at June 30, 2017 and 2016, we used a variety of methods and assumptions that were based on estimates of market conditions and risks existing at the time.

*Current Assets and Liabilities*

We consider the carrying amounts of current assets and current liabilities to be representative of their fair value because of the current nature of these items.

*Letters of Credit*

We obtain letters of credit in connection with certain regulatory and insurance obligations, inventory purchases and other contractual obligations. The carrying values of these letters of credit are considered to be representative of their fair values because of the nature of the instruments.

*Debt*

We record debt, including term loans and revolver balances, at book value in our consolidated financial statements. We believe the carrying value of the debt is approximately equal to its fair value, due to the variable nature of the instruments.

*Contingent Consideration on Acquisitions*

We determine the fair value of contingent consideration on acquisitions based on contractual terms, our current forecast of performance factors related to the acquired business and an applicable discount rate.

*Derivatives*

We determine the fair value of derivative instruments based upon pricing models using observable market inputs for these types of financial instruments, such as spot and forward currency translation rates.

<u>As of June 30</u>	2017			2016		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Derivatives asset	\$ —	\$2,686	\$ —	\$ —	\$2,655	\$ —
Contingent consideration on acquisitions	\$ —	\$ —	\$(7,644)	\$ —	\$ —	\$(6,745)

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

*Fair Value of Level 3 Assets (Liabilities)*

The table below provides a summary of the changes in the fair value of Level 3 assets (liabilities):

	<u>2017</u>	<u>2016</u>
Balance, June 30, 2016	\$(6,745)	\$(5,465)
Adjustment to contingent consideration	404	—
Acquisition-related accrued interest	(1,373)	(1,476)
Payment	70	196
Balance, June 30, 2017	<u>\$(7,644)</u>	<u>\$(6,745)</u>

For a detailed discussion on the fair value of our pension plan assets, see “—Employee Benefit Plans.”

**15. Business Segments**

The Animal Health segment manufactures and markets a broad range of products for food animals, including poultry, swine, cattle, dairy and aquaculture. The business includes net sales of medicated feed additives and other related products, nutritional specialty products and vaccines. The Mineral Nutrition segment manufactures and markets a broad range of trace minerals for food animals. The Performance Products segment manufactures and markets a variety of products for use in the personal care, automotive, industrial chemical and chemical catalyst industries.

We evaluate performance and allocate resources based on the Animal Health, Mineral Nutrition and Performance Products segments. Certain of our costs and assets are not directly attributable to these segments and we refer to these items as Corporate. We do not allocate Corporate costs or assets to the segments because they are not used to evaluate the segments’ operating results or financial position. Corporate costs include certain costs related to executive management, business technology, legal, finance, human resources and business development. Corporate assets include cash and cash equivalents, certain debt issue costs, income tax related assets and certain other assets.

We evaluate performance of our segments based on Adjusted EBITDA. We define Adjusted EBITDA as income before income taxes plus (a) interest expense, net, (b) depreciation and amortization, (c) (income) loss from, and disposal of, discontinued operations, (d) other expense or less other income, as separately reported on our consolidated statements of operations, including foreign currency gains and losses and loss on extinguishment of debt, and (e) certain items that we consider to be unusual, non-operational or non-recurring.

The accounting policies of our segments are the same as those described in the summary of significant accounting policies included herein.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

For the Years Ended June 30	2017	2016	2015
<b>Net sales</b>			
MFAs and other	\$321,430	\$339,916	\$335,735
Nutritional Specialties	111,282	94,084	81,702
Vaccines	65,033	52,140	53,363
Animal Health	497,745	486,140	470,800
Mineral Nutrition	218,298	216,685	227,102
Performance Products	48,238	48,701	50,689
Total segments	<u>\$764,281</u>	<u>\$751,526</u>	<u>\$748,591</u>
<b>Depreciation and amortization</b>			
Animal Health	\$ 20,132	\$ 17,149	\$ 15,430
Mineral Nutrition	2,332	2,467	2,468
Performance Products	939	807	577
Total segments	<u>\$ 23,403</u>	<u>\$ 20,423</u>	<u>\$ 18,475</u>
<b>Adjusted EBITDA</b>			
Animal Health	\$130,261	\$127,442	\$120,259
Mineral Nutrition	17,426	14,971	14,429
Performance Products	2,057	970	2,646
Total segments	<u>\$149,744</u>	<u>\$143,383</u>	<u>\$137,334</u>
<b>Reconciliation of income before income taxes to Adjusted EBITDA</b>			
Income before income taxes	\$ 80,543	\$ 76,761	\$ 78,763
Interest expense, net	14,906	16,592	14,305
Depreciation and amortization—Total segments	23,403	20,423	18,475
Depreciation and amortization—Corporate	2,598	3,029	3,129
Corporate costs	29,625	29,323	27,315
Acquisition-related cost of goods sold	—	2,566	—
Acquisition-related accrued compensation	1,680	1,680	747
Acquisition-related transaction costs	1,274	618	—
Acquisition-related other, net	(972)	—	—
Pension settlement cost	1,702	—	—
Gain on insurance settlement	(7,500)	—	—
Foreign currency (gains) losses, net	(113)	(7,609)	(5,400)
Loss on extinguishment of debt	2,598	—	—
Adjusted EBITDA—Total segments	<u>\$149,744</u>	<u>\$143,383</u>	<u>\$137,334</u>

Acquisition-related other, net includes the net effect of adjustments to contingent consideration on acquisitions and impairments of intangible assets.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

<u>As of June 30</u>	<u>2017</u>	<u>2016</u>
<b>Identifiable assets</b>		
Animal Health	\$442,521	\$444,751
Mineral Nutrition	55,184	57,939
Performance Products	23,681	21,557
Total segments	521,386	524,247
Corporate	102,011	83,588
Total	<u>\$623,397</u>	<u>\$607,835</u>

The Animal Health segment includes all goodwill of the Company. The Animal Health segment includes advances to and investment in an equity method investee of \$3,719 and \$4,076 as of June 30, 2017 and 2016, respectively. The Performance Products segment includes an investment in equity method investee of \$516 and \$504 as of June 30, 2017 and 2016, respectively. Corporate assets include cash and cash equivalents, certain debt issuance costs, income tax related assets and certain other assets.

**16. Geographic Information**

The following is information about our geographic operations. Information is attributed to the geographic areas based on the locations of our subsidiaries.

<u>For the Years Ended June 30</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
<b>Net sales</b>			
United States	\$484,148	\$473,247	\$475,942
Israel	92,752	89,999	93,459
Latin America and Canada	96,687	105,667	99,578
Europe and Africa	40,211	36,177	36,397
Asia/Pacific	50,483	46,436	43,215
	<u>\$764,281</u>	<u>\$751,526</u>	<u>\$748,591</u>

<u>As of June 30</u>	<u>2017</u>	<u>2016</u>
<b>Property, plant and equipment, net</b>		
United States	\$56,459	\$56,735
Israel	47,027	46,706
Brazil	22,793	22,720
Other	1,072	1,162
	<u>\$127,351</u>	<u>\$127,323</u>

**Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

**Item 9A. Controls and Procedures****Evaluation of Disclosure Controls and Procedures**

Management of the Company, with the participation of its Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures as of June 30, 2017.

The Company's disclosure controls and procedures are designed to ensure that information required to be disclosed by the issuer in the reports that it files or submits under the Exchange Act of 1934, as amended, is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms, and that such information is accumulated and communicated to management of the Company, including its Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Based on their evaluation, as of the end of the period covered by this Annual Report on Form 10-K, the Company's Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures were not effective because of the material weaknesses in our internal control over financial reporting described below.

**Management's Report on Internal Control over Financial Reporting**

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in the Exchange Act Rule 13a-15(f). Internal control over financial reporting is a process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer and effected by our Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatement. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management has assessed the effectiveness of our internal control over financial reporting as of June 30, 2017. In making its assessment of internal control over financial reporting, we used the criteria described in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim consolidated financial statements will not be prevented or detected on a timely basis.

Based on this assessment, management has concluded that we did not maintain effective internal control over financial reporting as of June 30, 2017, due to the fact that certain material weaknesses previously identified in the 2016 Annual Report on Form 10-K filing on August 29, 2016 continue to exist at June 30, 2017, as discussed below:

- We did not maintain effective internal controls to ensure processing and reporting of valid transactions is complete, accurate, and timely. Specifically, we have not designed and implemented a sufficient level of formal accounting policies and procedures that define how transactions across the business cycles should be initiated, recorded, processed, reported, appropriately authorized and approved.
- We did not maintain effective internal control that restricts access to key financial systems and records to appropriate users and ensures that appropriate segregation of duties is maintained. Certain personnel had access to financial application, programs and data beyond that needed

to perform their individual job responsibilities and without independent monitoring. In addition, certain financial personnel had incompatible duties that allowed for the creation, review and processing of certain financial data without independent review and authorization. This material weakness affects substantially all financial statement accounts.

Each of the control deficiencies described above could result in a misstatement that would result in a material misstatement of the annual or interim consolidated financial statements that would not be prevented or detected. Accordingly, our management has determined that these control deficiencies constitute material weaknesses.

Due to a transition period established by the rules of the SEC for emerging growth companies, this Annual Report on Form 10-K does not include an attestation report of our registered public accounting firm.

**Material Weakness Remediation Efforts**

We are in the process of implementing a broad range of changes to our internal control over financial reporting to remediate the material weaknesses described in this item. Our actions to address material weaknesses have included the design and implementation of additional formal accounting policies and procedures to ensure transactions are properly initiated, recorded, processed, reported, appropriately authorized and approved. Also, our efforts to ensure maintenance of the appropriate level of segregation of duties includes restricting access to key financial systems and records to appropriate users. We are determining the extent it is necessary to limit access by and modify responsibilities of certain personnel, as well as designing and implementing additional user access controls and compensating controls. We will continue to build on the progress we have made in our remediation plan. We cannot determine when our remediation plan will be fully completed, and we cannot provide any assurance that these remediation efforts will be successful or that our internal control over financial reporting will be effective as a result of these efforts.

**Changes in Internal Control over Financial Reporting**

There have been no changes in internal control over financial reporting during the quarter ended June 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**Item 9B. Other Information**

None.

**PART III**

**Item 10. Directors, Executive Officers and Corporate Governance**

The information required by this item is incorporated by reference to our 2017 Proxy Statement to be filed with the SEC within 120 days of the year ended June 30, 2017.

Our Board of Directors has adopted a Code of Business Conduct and Ethics applicable to all officers, directors and employees, which is available on our website ([investors.pahc.com](http://investors.pahc.com)) under “Corporate Governance.”

**Item 11. Executive Compensation**

The information required by this item is incorporated by reference to our 2017 Proxy Statement to be filed with the SEC within 120 days of the year ended June 30, 2017.

**Item 12. Security Ownership of Certain Beneficial Owners and Management Related Stockholder Matters**

The information required by this item is incorporated by reference to our 2017 Proxy Statement to be filed with the SEC within 120 days of the year ended June 30, 2017.

**Item 13. Certain Relationships and Related Transactions, and Director Independence**

The information required by this item is incorporated by reference to our 2017 Proxy Statement to be filed with the SEC within 120 days of the year ended June 30, 2017.

**Item 14. Principal Accounting Fees and Services**

The information required by this item is incorporated by reference to our 2017 Proxy Statement to be filed with the SEC within 120 days of the year ended June 30, 2017.

**PART IV**

**Item 15. Exhibits, Financial Statement Schedules**

We have filed the following documents as part of this Form 10-K:

(1) Consolidated Financial Statements:

Report of Independent Registered Public Accounting Firm

Consolidated Statements of Operations for the fiscal years ended June 30, 2017, 2016 and 2015

Consolidated Statements of Comprehensive Income for the fiscal years ended June 30, 2017, 2016 and 2015

Consolidated Balance Sheets at June 30, 2017 and 2016

Consolidated Statements of Cash Flows for the fiscal years ended June 30, 2017, 2016 and 2015

Consolidated Statements of Changes in Stockholders' Equity for the fiscal years ended June 30, 2017, 2016 and 2015

Notes to Consolidated Financial Statements

(2) Schedules: None

(3) The exhibits filed are listed in the Index to Exhibits immediately following the signature page of this Annual Report on Form 10-K.

**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned thereunto duly authorized.

**Phibro Animal Health Corporation**

August 30, 2017 By: /s/ Jack C. Bendheim  
Jack C. Bendheim  
Chairman, President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

**Phibro Animal Health Corporation**

August 30, 2017 By: /s/ Jack C. Bendheim  
Jack C. Bendheim  
Chairman, President and Chief Executive Officer

August 30, 2017 By: /s/ Richard G. Johnson  
Richard G. Johnson  
Chief Financial Officer

August 30, 2017 By: /s/ Daniel M. Bendheim  
Daniel M. Bendheim  
Director and Executive Vice President,  
Corporate Strategy

August 30, 2017 By: /s/ Gerald K. Carlson  
Gerald K. Carlson  
Director

August 30, 2017 By: /s/ E. Thomas Corcoran  
E. Thomas Corcoran  
Director

August 30, 2017 By: /s/ Sam Gejdenson  
Sam Gejdenson  
Director

August 30, 2017 By: /s/ George Gunn  
George Gunn  
Director

August 30, 2017 By: /s/ Mary Lou Malanoski  
Mary Lou Malanoski  
Director

August 30, 2017 By: /s/ Carol A. Wrenn  
Carol A. Wrenn  
Director

**EXHIBIT INDEX**

Exhibit 10.37*	Credit agreement dated June 29, 2017, among Phibro Animal Health Corporation, Bank of America, N.A., and each lender from time to time party thereto
Exhibit 10.38	Promotion Letter Agreement, dated June 16, 2016, between Phibro Animal Health Corporation and Dean J. Warras
Exhibit 10.39	Retention Letter Agreement, dated August 1, 2016, between Phibro Animal Health Corporation and Dean J. Warras
Exhibit 23	Consent of Independent Registered Public Accounting Firm
Exhibit 31.1	Chief Executive Officer—Certification pursuant to Sarbanes-Oxley Act of 2002 Section 302
Exhibit 31.2	Chief Financial Officer—Certification pursuant to Sarbanes-Oxley Act of 2002 Section 302
Exhibit 32.1**	Chief Executive Officer—Certification pursuant to Sarbanes-Oxley Act of 2002 Section 906
Exhibit 32.2**	Chief Financial Officer—Certification pursuant to Sarbanes-Oxley Act of 2002 Section 906
Exhibit 101.INS***	XBRL Instance Document
Exhibit 101.SCH***	XBRL Taxonomy Extension Schema Document
Exhibit 101.CAL***	XBRL Taxonomy Extension Calculation Linkbase Document
Exhibit 101.DEF***	XBRL Taxonomy Extension Definition Linkbase Document
Exhibit 101.LAB***	XBRL Taxonomy Extension Label Linkbase Document
Exhibit 101.PRE***	XBRL Taxonomy Extension Presentation Linkbase Document

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\* Incorporated by reference to Current Report on Form 8-K dated June 29, 2017.

\*\* This certification is deemed not filed for purposes of section 18 of the Exchange Act, or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act.

\*\*\* Furnished with this Annual Report on Form 10-K. Pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed not filed for purposes of sections 11 or 12 of the Securities Act of 1933 and are deemed not filed for purposes of section 18 of the Securities and Exchange Act of 1934.



Gerald K. Carlson, Chief Operating Officer  
Direct Telephone: 201-329-7330  
Direct Fax: 201-329-7060  
E-mail: Gerald.Carlson@pahc.com

June 16, 2016

Dean J. Warras

\*

\*

Dear Dean:

I am pleased to present you the details regarding your Promotion into the position of President Animal Health and Nutrition, US reporting to Larry Miller, Chief Operating Officer, effective July 1, 2016.

**Compensation:**

Commencing August 1, 2016, your base salary will be increased to \$420,000 per annum and will be subject to annual review according to company policy. You will continue to participate in the Phibro Animal Health Corporation Management Incentive Plan with a target bonus of 50% of your base salary.

**Benefits:**

You will continue to participate in all benefit plans as detailed in plan documents.

**Relocation:**

You will be expected to relocate to the Teaneck, NJ area at an agreed upon date. You will receive assistance to cover reasonable relocation expenses up to a total of \$40,000 according to company policy. These expenses include but are not limited to:

- The reasonable costs of moving your household to the Teaneck, NJ area
- Temporary living
- Reasonable closing costs.

In addition, on or about on Friday, June 17, 2016, the Company will provide you with a \$250,000 relocation bonus with which you can offset costs related to the purchase of a new home (the "Relocation Bonus"). The Relocation Bonus will be subject to clawback by the Company in the event that you resign or are terminated for cause by the Company, in each case, during the 60-month period following the payment thereof; provided, that such clawback obligation shall decrease ratably (on a monthly basis) such that the amount of the Relocation Bonus subject to such clawback at any given time shall be determined by multiplying the Relocation Bonus by a fraction, (x) the numerator of which is 60 minus the number of full months that have elapsed since June 17, 2016 and (y) the denominator of which is 60.

The Company also plans to offer you a Retention Bonus, the terms of which will be presented to you following your relocation to the Teaneck office.

**HEALTHY ANIMALS. HEALTHY FOOD. HEALTHY WORLD.®**

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GlenPointe Centre East, 3rd Floor / 300 Frank W. Burr Blvd., Ste. 21 / Teaneck, NJ 07666-6712  
Direct: 1-201-329-7300 / Fax: 1-201-329-7399



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**Consideration and Employment Status**

Your employment status with the Company will continue to be that of an at-will employee. Nothing in this agreement regarding your employment at-will shall be deemed to create a contract of employment.

Dean, I want to express my congratulations at your Promotion. If you agree to the terms set forth herein, please sign and return a copy of the signature page that follows as soon as possible. We look forward to your continued success in your new role.

This letter replaces and supersedes the prior letter that was provided to you concerning your Promotion.

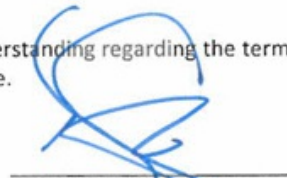
Sincerely,



Gerald K. Carlson

The above terms and conditions accurately reflect our understanding regarding the terms and conditions of my Promotion, and I hereby confirm my agreement to the same.

Dated: June 16, 2016



Dean J. Warras

Copy: Jack C. Bendheim  
Larry Miller  
Daniel Welch

---



August 1, 2016

Dean J. Warras

\*  
\*


Dear Dean:

On behalf of Phibro Animal Health Corporation (the "Company"), I am pleased to provide you with the retention bonuses described in this letter (this "Retention Letter Agreement") such that we may continue to count on your valuable contribution toward the Company's future success. The retention bonuses provided herein are subject to the terms and conditions set forth below.

On or about on each of July 31, 2016, January 31, 2017, July 31, 2017, and July 31, 2018 (each, a "Payment Date"), and subject to your continued employment through the applicable Payment Date, the Company will provide you with a retention bonus of, respectively, \$300,000, \$120,000, \$250,000, and \$250,000 (each, a "Retention Bonus"). Each Retention Bonus will be subject to clawback by the Company in the event that you resign or are terminated for cause by the Company, in each case, during the 60-month period following the applicable Payment Date; provided, that such clawback obligation shall decrease ratably (on a monthly basis) such that the amount of each Retention Bonus subject to such clawback at any given time shall be determined by multiplying the Retention Bonus by a fraction, (x) the numerator of which is 60 minus the number of full months that have elapsed since the relevant Payment Date and (y) the denominator of which is 60.

Dean, I am excited about our future at the Company and the potential of your leadership, and I look forward to working with you. Please indicate your acceptance of this Retention Letter Agreement and these terms by signing and returning a copy to the Company at your earliest convenience.

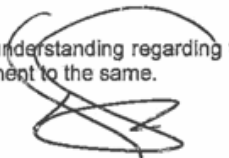
Sincerely,

  
Larry L. Miller  
Chief Operating Officer

Copy: Jack Bendheim  
Dan Welch

The above terms and conditions accurately reflect our understanding regarding the terms and conditions of the Retention Bonuses, and I hereby confirm my agreement to the same.

Dated: August 2, 2016

  
\_\_\_\_\_  
Dean J. Warras

HEALTHY ANIMALS. HEALTHY FOOD. HEALTHY WORLD.®

GlenPointe Centre East, 3rd Floor / 300 Frank W. Burr Blvd., Ste. 21 / Teaneck, NJ 07666-6712  
Direct: 1-201-329-7300 / Fax: 1-201-329-7399

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**EXHIBIT 23**

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-198809) of Phibro Animal Health Corporation of our report dated August 30, 2017 relating to the financial statements, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Florham Park, New Jersey  
August 30, 2017

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## CERTIFICATIONS

I, Jack C. Bendheim, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended June 30, 2017, of Phibro Animal Health Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 30, 2017

/s/ Jack C. Bendheim

\_\_\_\_\_  
Jack C. Bendheim  
Chairman, President and Chief Executive Officer

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## CERTIFICATIONS

I, Richard G. Johnson, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended June 30, 2017, of Phibro Animal Health Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 30, 2017

/s/ Richard G. Johnson

Richard G. Johnson  
Chief Financial Officer

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**EXHIBIT 32.1**

**CERTIFICATION UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned certifies that this periodic report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this periodic report fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Dated: August 30, 2017

/s/ Jack C. Bendheim

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Jack C. Bendheim  
Chairman, President and Chief Executive Officer

**EXHIBIT 32.2**

**CERTIFICATION UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned certifies that this periodic report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this periodic report fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Dated: August 30, 2017

/s/ Richard G. Johnson

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Richard G. Johnson  
Chief Financial Officer

