



NUFARM LIMITED 2001 ANNUAL REPORT



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## Facts in brief

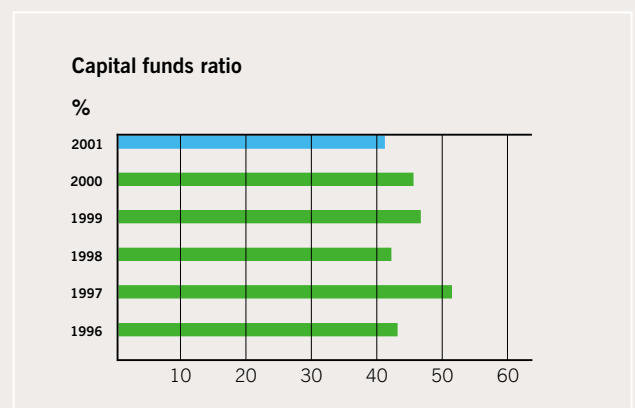
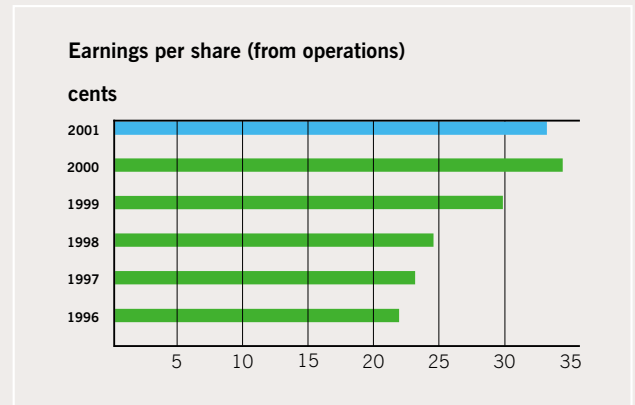
	2001	2000
<b>Trading results</b>	<b>\$000</b>	<b>\$000</b>
Operating profit after tax (12 months to 31 July)	51,138	51,984
Net (loss) profit attributable to members of the parent entity (12 months to 31 July 2001/ 14 months to 31 July 2000)	(4,526)	52,834
Sales revenue	1,323,232	1,369,974
<b>Ratios</b>		
Earnings per ordinary share (weighted average, excluding non-operating and extra-ordinary items,) for 12 months to 31 July	33.1	34.4
Operating profit after tax (for 12 months to 31 July) to average shareholder equity	13.8%	14.0%
Net tangible assets per ordinary share	\$1.42	\$1.81
<b>Distribution to shareholders</b>		
Dividend per ordinary share	18¢	17¢
<b>Staff employed</b>	<b>2,203</b>	<b>2,215</b>

△ NUFARM'S wholly owned subsidiary, Chicago-based Riverdale Chemical Company, is a major manufacturer and supplier of turf and specialty chemicals for use on golf courses, home lawns and gardens, municipal parks, rights-of-way and in the forestry market.

**Nufarm Limited** is an Australian-based company with core capabilities in chemical synthesis, marketing and sales. Through a global network of manufacturing and formulation facilities, the company operates in two key areas of business activity: crop protection; and industrial, fine and performance chemicals.

Nufarm employs more than 2,200 people at its various locations in Australia, New Zealand, Asia, Africa, Europe and North America. Products manufactured and supplied by the company are used to help farmers protect crops from damage caused by weeds, insects and disease, as well as in a variety of other industries such as manufacturing, pharmaceuticals and consumer products.

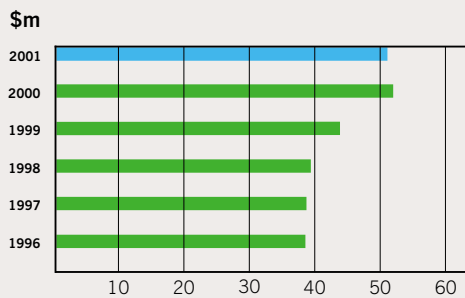
Nufarm is listed on the Australian Stock Exchange (symbol NUF). Its head office is located at Laverton in Melbourne.



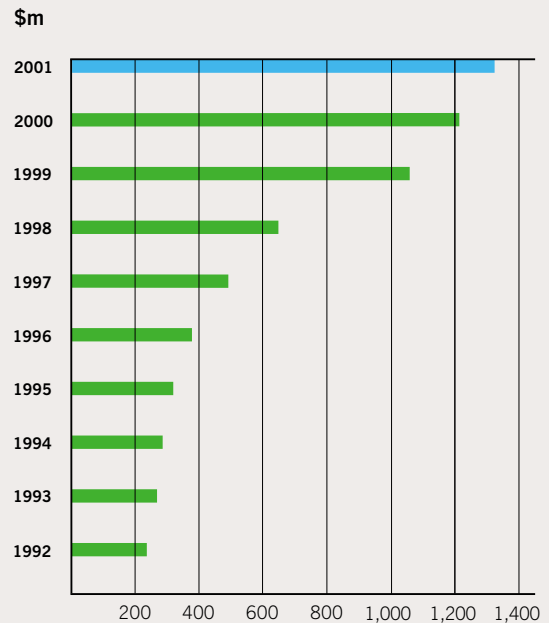
## Key events

- Operating profit of \$51.1 million for the 12 months ended 31 July 2001
- Record group sales of \$1.32 billion, up 9% on previous 12 months
- Strong growth in North American crop protection operations
- Poor result from Australian crop protection business
- Acquisition of Agtrol International fungicides business
- Write-off of loss making Sulfer Works business in Canada (\$59.2m)

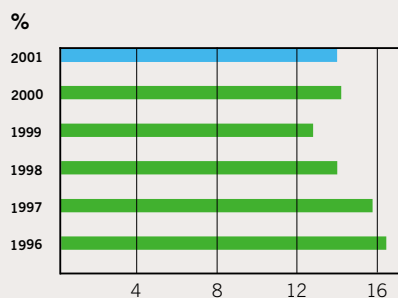
Operating profit after tax

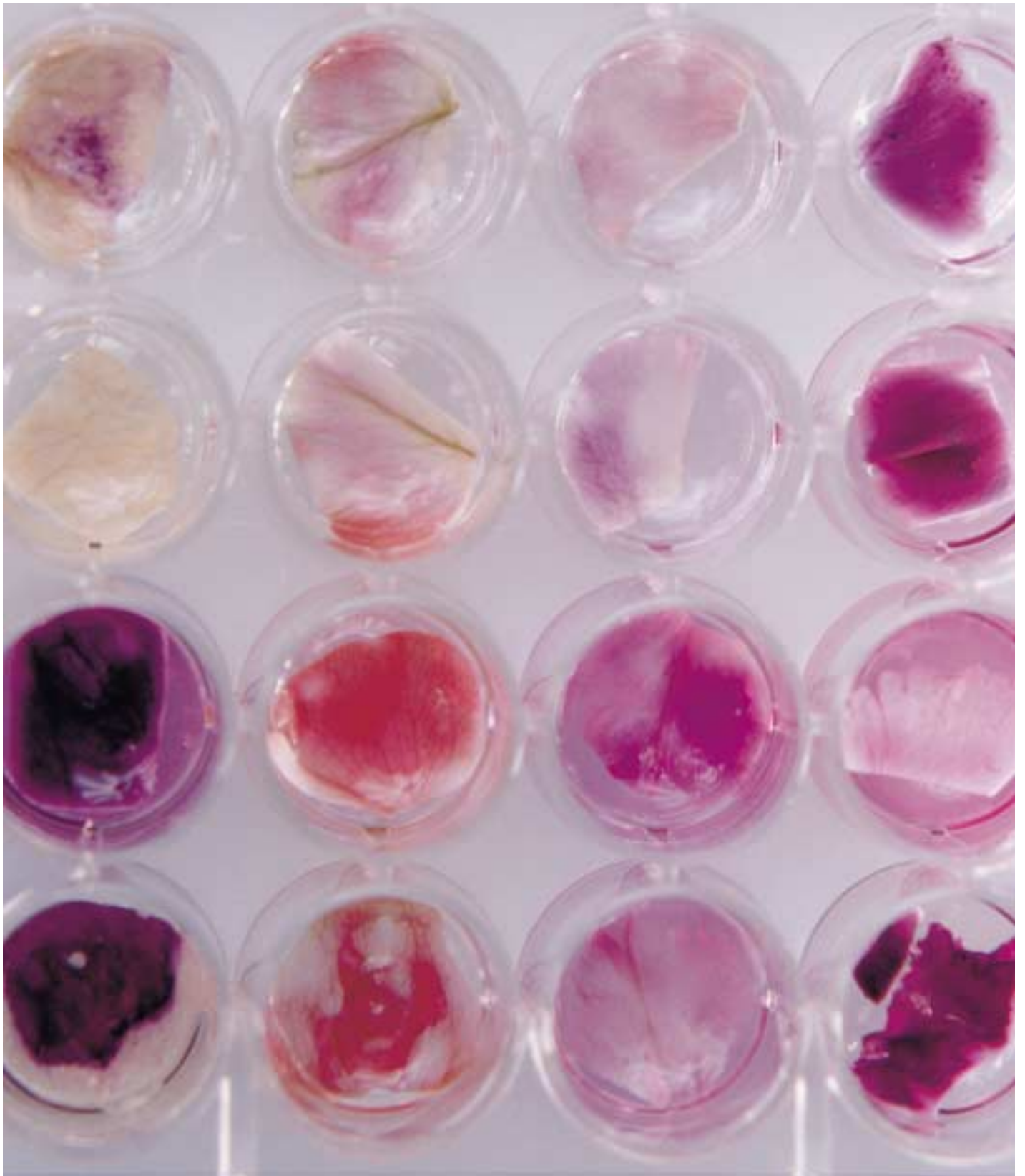


Global sales growth



Return on shareholders' equity





△ The genetic modification (GM) of plants is a controversial area of research and development as the community debates the pros and cons of GM, particularly GM food. Nufarm's Melbourne-based subsidiary, Florigene, uses GM technology to develop novel coloured flowers which are sold into markets in the US, Japan and Australia.

# Managing director's review

The key business challenge is clear: we must rebuild the profitability of our Australian crop protection business...

Doug Rathbone



Nufarm Limited manufactures and markets a wide range of quality crop protection, industrial, fine and performance chemicals.

Our mission is to meet the interests of all stakeholders in a manner that shows we care

- about the growth and success of the business
- about the wellbeing of our employees
- about the environment and the communities in which we operate
- about our customers and suppliers and
- about the reputation and performance of our products and service.

Nufarm Limited generated a group operating profit of \$51.1 million for the 12 months ended 31 July 2001. Non-operating items, including a \$59.2 million write-off associated with the Canadian-based Sulfer Works business and a \$3.6 million gain, primarily the sale of the timber treatment business, resulted in a reported audited group loss of \$4.5 million for the period.

The 2001 group operating profit is in line with the comparable operating result reported for the previous period.

Due to a change in balance date last year, the company's statutory accounts reflect 12 months for the current year compared to 14 months in the previous period. To enable a relevant comparison of year-to-year performance, the financial statements in this report include additional financial data relating to the operating results of the company over the two comparable 12-month periods ending 31 July.

The remainder of the comment in this report compares the financial and operational performance in the two 12-month periods.

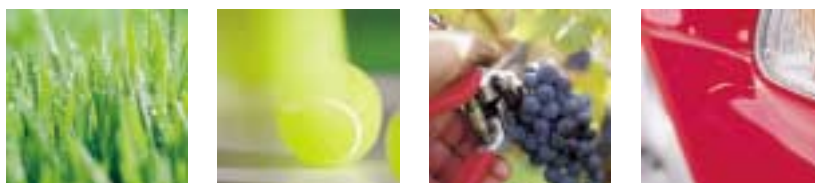
Group sales amounted to \$1.32 billion compared to \$1.21 billion achieved in the previous year (up by nine per cent). The year 2000 sales, however, included revenues from two businesses – construction chemicals and timber treatment chemicals – that have since been sold. Comparing the same business base and excluding foreign exchange impacts, sales increased by 4.4 per cent in the 2001 reporting period.

Australasia accounted for 46 per cent of total group sales, with 26 per cent of sales generated in Europe and 28 per cent in North America. This is the first year in which the revenues generated by Nufarm's overseas businesses have exceeded those of the Australia and New Zealand operations and reflects the increasingly global nature of the group.

Nufarm's Australian-based crop protection business was down significantly on its performance for the previous year and was the principal factor responsible for a flat 2001 profit result for the group. The other major operating divisions reported increased profit contributions.



# Managing director's review



In the statement of financial position, current interest bearing liabilities include the company's capital notes on issue, which are due to be repaid in the 2002 year. The year before, these notes were shown as non-current liabilities.

## Sulfer Works Canada

In July 2001, the board informed the market of a decision to write off the investment in the Sulfer Works business in the year ended 31 July 2001. The total write off associated with this business is \$59.2 million. This includes a complete write off of the operations, a write down of the fixed assets to a conservative, realisable value and a write back of tax losses previously recognised in the accounts. Negotiations with potential purchasers are nearing completion but any recovery will be small and is recognised in the written down value of the fixed assets.

This business has been plagued with difficulties since the fire that occurred during the original commissioning of the plant in 1998. The subsequent capital investment in rebuilding the plant – including an extensive safety redesign – proved unsustainable and required production and sales levels that the business has not achieved. While some progress has been made in addressing various production and product development issues, the best estimate is that it would take at least two to three years before sales could increase to a level where continuing cash losses could cease.

Given this situation, the board is not prepared to allow the adverse results from this business to have an impact on the company going forward, nor for management to be distracted from the challenges and opportunities presented by the core business.

## Operations

An overview of the 12-month performance and general outlook in the two key operating divisions – crop protection and industrial, fine and performance chemicals – is included as a separate section in this report. Also, commentary on the important areas of research and development and health, safety and environment performance is included.

The key business challenge facing the company is clear: we must rebuild the profitability of our Australian crop protection business. We have taken a number of measures to meet this challenge and I have a strong expectation that we will see an improved result from this part of the business in 2002.

Elsewhere, the crop protection operations showed positive growth. The increased market share we achieved in North America is particularly pleasing as we invested a substantial effort and resources in building awareness of the *Nufarm* brand and strengthening our distribution relationships in this market in the first half of the year.

The industrial, fine and performance chemicals division returned creditable results, given the depressed nature of some of the key markets serviced by these businesses. While market conditions will continue to be difficult, our focus on expanding high value synthesis activity, such as the development and manufacture of pharmaceutical intermediates, should see further growth from these operations.

## New Zealand delisting

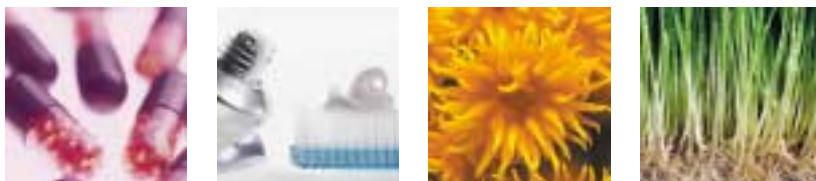
In August, after the end of our 2001 financial year, shareholders approved a proposal to cease trading of the company's shares on the New Zealand Stock Exchange. Directors recommended the delisting as a means of maximising the trading volume of Nufarm shares on the Australian Stock Exchange (ASX). The liquidity of the company's stock helps determine index rankings that, in turn, can influence investment decisions by larger fund managers. The company is seeking to satisfy criteria that will see it returned to the top 200 companies index.

## New capital notes issue

The existing capital notes, issued in 1996 at a total value of NZ\$170 million, are due for renewal in April 2002. The company has retained CS First Boston and UBS Warburg as joint managers of a new notes issue to be launched in November 2001. The new programme will seek to raise NZ\$210 million (A\$170 million). Shareholders will receive a prospectus outlining details of the offer.



# Managing director's review



## Dividend

Directors have approved a final dividend for 2001 of 11 cents per share. The dividend will carry full franking credits for Australian shareholders and will be paid on 9 November 2001 to the holders of all fully paid shares in the company as at the close of business on 26 October 2001. This brings the total dividend payment for 2001 to 18 cents per share (17 cents paid in 2000).

## Management and staff

As in previous years, Nufarm employees have shown a strong commitment to the company and their efforts have directly contributed to the growth achieved in various parts of the business.

During the review period, we offered a number of new training and development programmes and these were welcomed enthusiastically by both management and staff. Also, we launched a new international global share plan and now more than 30 per cent of employees have direct ownership in the company.

We continue to encourage opportunities for our people to work in different global locations and across different areas of the business.

Also a number of new employees joined the company during the year, particularly as a consequence of the acquisition of Agtrol International in the US and France.

## Future prospects

While it is difficult to make future predictions at this time of international uncertainty, directors are confident that the company can – given reasonable trading conditions – return to double digit profit growth for financial year 2002. The company has budgeted for a positive turnaround in the Australian crop protection business and – following a thorough review of these operations – is confident that measures are being implemented to achieve a significantly improved result.

While the Australian market remains extremely competitive, with consequent downward pressure on pricing, Nufarm is focusing on initiatives that secure and expand access to market, eliminate unnecessary costs from the business and facilitate the speedy introduction of new products.

In August, the company announced an agreement with Wesfarmers Landmark to acquire the Victorian-based manufacturing assets of Artfern Limited and establish a 50 per cent joint venture to own and manage the Artfern agricultural chemical supply business.

We are confident of continued growth in both sales and profit contributions from the North American and European crop protection operations as those businesses take advantage of a broader product range (provided by the Agtrol fungicides business acquisition in May 2001,) and increased recognition of and loyalty to the *Nufarm* brand. Also, we are targeting the important growth markets of Asia and Latin America for an increase in sales and we now operate from offices in Japan and Argentina to build Nufarm's presence in these regions.

Current economic conditions are likely to dampen growth prospects in the fine and performance chemicals division. However a strong focus on contract synthesis development for the pharmaceutical industry is expected to provide increased returns from the SEAC operations in France.

In the current year, management's major priority is to operate the business from the lowest possible capital base to reduce the net level of working capital and maximise free cash flow. Also, capital expenditure requirements will be critically reviewed. It is important for the company to strengthen its financial position at a time when there is so much international uncertainty.

The continued growth of the business in the northern hemisphere has accentuated the seasonality of results in the two half years. In the 2002 year, Nufarm expects to generate in excess of 80 per cent of its profit in the second half.

In summary, the future prospects for the Nufarm group are sound and management is confident of, and committed to returning the company to positive profit growth in the current year and beyond.

A handwritten signature in black ink, appearing to read 'D.J. Rathbone'.

DJ Rathbone  
Managing Director  
11 October 2001

# Board of directors

△ The board is the governing body of Nufarm Limited with primary responsibility to oversee all corporate governance matters.



**Kerry Hoggard**  
Chairman



**Doug Rathbone**  
Managing Director and  
Chief Executive



**Doug Curlewis**



**Dr Bruce Goodfellow**



**Graeme McGregor AO**



**Sir Dryden Spring**



**Dr John Stocker AO**



**Richard Warburton**

# Board of directors

## **KM (Kerry) Hoggard**

### **Chairman**

Kerry Hoggard, aged 60 years, joined the board in 1987. He has a financial background, beginning his career with the company in 1957 as office junior and rising, through a number of accounting, financial and commercial promotions to be Chief Executive Officer in 1987. On his retirement in October 1999, he was appointed Chairman of the board.

## **DJ (Doug) Rathbone**

### **Managing Director**

Doug Rathbone, aged 55 years, joined the board in 1987. His background is chemical engineering and commerce and he has worked for Nufarm Australia Ltd for over 25 years. Doug was appointed Managing Director of Nufarm Australia in 1982 and Managing Director of Nufarm Limited in October 1999.

## **GDW (Doug) Curlewis**

Doug Curlewis, aged 60 years, joined the board in January 2000. He has a Master of Business Administration and was formerly Managing Director of National Consolidated Ltd. He is also a director of Pacifica Group Ltd, Hamilton Island Limited, National Foods Ltd and Remunerator Australia Pty Ltd.

## **Dr Bruce Goodfellow**

Bruce Goodfellow, 49, joined the board, representing the holders of the "C" shares, in 1991. Following the conversion of the "C" shares into ordinary shares, he was elected a director in 1999. He has a Doctorate in Chemical Engineering and experience in the chemical trading business. He is a director of Sulkem Co Ltd (Group) and Refrigeration Engineering Co Ltd (Group).

## **GW (Graeme) McGregor, AO**

Graeme McGregor, aged 62 years, joined the board in January 2000. He is a Bachelor of Economics and was formerly an Executive Director with BHP Co Ltd. He is a director of Foster's Group Ltd, Santos Ltd and Were Securities Ltd. Graeme is also on the board of Community Foundation Network Ltd, is National Treasurer of the Australian Institute of Company Directors and a member of The Financial Reporting Council.

## **Sir Dryden Spring**

Sir Dryden Spring, aged 62 years, joined the board in 1981. He has a farming background and is Chairman of Fletcher Challenge Forests Ltd, Wel Energy Ltd and Ericsson Communications (NZ) Ltd, and Deputy Chairman of Goodman Fielder Ltd. He is a director of Ericsson - Synergy Limited, Fletcher Building Ltd, Maersk New Zealand Ltd and The National Bank of New Zealand Ltd. Sir Dryden is also Chairman of the New Zealand delegation to the APEC Business Advisory Council (ABAC).

## **Dr JW (John) Stocker AO**

Dr John Stocker, aged 56 years, joined the board in 1998. He has a medical, scientific and management background and was formerly Chief Scientist of the Commonwealth of Australia. He is a principal of Foursight Associates Pty Ltd and Chairman of Sigma Company Ltd and the Grape and Wine Research and Development Corporation. He is a director of Telstra Corporation Limited, Cambridge Antibody Technology Group plc and Circadian Technologies Ltd.

## **RFE (Richard) Warburton**

Richard Warburton, aged 60 years, joined the board in 1993. He has a business management background and is a member of the board of the Reserve Bank of Australia. He is also Chairman of David Jones Ltd, Caltex Australia Limited, Goldfields Ltd and HIH Claims Support Ltd, as well as a director of Southcorp Ltd and Tabcorp Holdings Ltd. He is Chairman of the Board of Taxation and a past National President of the Australian Institute of Company Directors.

# Corporate governance

The board of directors of Nufarm Limited has adopted the following set of principles for the corporate governance of the company. These principles, together with the following committees, establish the framework of how the board carries out its duties and obligations on behalf of the shareholders.

## Board of directors

The board is the governing body of the company with primary responsibility to oversee all corporate governance matters. It has clearly defined policies detailing its individual and collective responsibilities and describing those responsibilities delegated to management.

The general principles are to ensure that the business of Nufarm Limited is carried out in the best interests of all shareholders and with proper regard to corporate responsibility to other stakeholders.

The board has specific responsibility for adopting all business plans and budgets, approving strategic plans for the company and its business units and approving major capital expenditure, acquisitions, divestments and corporate funding, as well as overseeing audit and compliance.

The board also is responsible for the appointment and remuneration of the managing director and for the remuneration policy of senior executives.

Review of the performance of the board and individual directors is completed regularly.

The board is comprised of individuals with an appropriate range of proficiencies, experience and skills to ensure that all governance responsibilities are completed in a manner consistent with the best possible management of the business.

Profiles of each board member are set out on page 9 of this report.

The company's constitution specifies that:

- the number of directors may be not less than three, nor more than 11;
- at each annual general meeting, one third of directors (other than the managing director and directors who have been appointed to fill casual vacancies since the previous annual general meeting) are required to retire and may stand for re-election;
- directors who have filled casual vacancies are required to be elected at the first annual general meeting following their appointment by the board.

At present there are seven non-executive directors and one executive director. The board has currently determined that, apart from the incumbent managing director, no other company executive will be invited to join the board.

Annually the board reviews the composition and terms of reference for the board, chairman, board committees and managing director. The chairman annually assesses the effectiveness of the board and its committees.

The board supports the separation of the roles of chairman and managing director.

The processes by which the board operates and aims to achieve best practice in matters of governance, include:

- monthly reports by senior executives covering the financial standing, operating results and business risks of the group;
- a continuous disclosure protocol detailing the company's disclosure obligations. This is communicated to business unit managers and requires them to provide regular reports pursuant to the protocol. The audit committee periodically monitors the reporting and review procedure;
- formal policies and charters on issues such as:
  - treasury activities;
  - dealing in company securities;
- board committees.

## Board committees

The board has three sub-committees: the audit committee, the remuneration committee and the scientific review committee. All directors are entitled to attend any meetings of the sub-committees.

The company does not have a nominations committee as this function is deemed to be the responsibility of the board. Any action required is delegated to the chairman of the board, the chairman of the remuneration committee and the managing director.

Details of the attendances at meetings of board and committees of the board are detailed on page 34 of this report.



# Corporate governance

## Audit committee

The audit committee operates under a formal charter from the board. Its principal task is to ensure that all financial statements released to shareholders, lenders or any regulatory body comply with accounting standards, are true and fair and not misleading. Conducting its duties, the committee:

- considers the accounting effect of major transactions;
- reviews systems of internal control;
- reviews audit systems in group companies;
- reviews the significant risks facing the company and determines the controls and procedures in place to mitigate those risks;
- reviews the taxation position of the group is in compliance with relevant tax law;
- reviews management's dividend recommendations to ensure compliance with board guidelines;
- reviews with the chief financial officer and external auditors, the group's audit plan and budget for the ensuing year; and
- periodically monitors the procedures contained in the company's continuous disclosure protocol.

The committee also annually reviews the audit committee charter.

At the date of this report, GW McGregor (committee chairman), KM Hoggard and Sir Dryden Spring are members of the audit committee.

## Remuneration committee

The functions of the remuneration committee are:

- to define the levels at which the managing director must make recommendations to the committee on proposed changes to remuneration and employee benefit policies; and
- remuneration (including incentive schemes and any other forms of reward) for the managing director and his direct reports and annual review of those arrangements.

The committee reports to the board on all matters and all decisions are made by the board, except when power to act is delegated expressly to the committee.

At the date of this report, RFE Warburton (committee chairman), GDW Curlewis and KM Hoggard, are members of the remuneration committee.

## Scientific review committee

The scientific review committee reviews all research and development programmes, testing each project for scientific application, progress against objectives and potential commercial viability.

At the date of this report, Dr JW Stocker (committee chairman), Dr WB Goodfellow and KM Hoggard are members of the scientific review committee.

## Remuneration of non-executive directors

The board determines the fees payable to non-executive directors, within the aggregate amount of \$750,000 approved by shareholders at the Nufarm Limited 2000 Annual General Meeting. Fees paid to a director are \$50,000 per annum and for the chairman, \$150,000 per annum.

Non-executive directors are entitled to retirement benefits, with an escalating scale of benefits up to a maximum – after 10 years of service – of three times average annual emoluments in the three years preceding retirement.

## Remuneration of directors and executives

The board remuneration committee reviews the total remuneration reward for the managing director and senior executives, and engages external human resource consultants to assist in the review of strategies and frameworks that reflect and support Nufarm's values and business direction.

The company has a fully integrated global reward strategy. It establishes specific frameworks and principles – across all reward components – to apply in deciding individual reward levels. This ensures Nufarm is well positioned, from a reward perspective, to attract and retain the talent needed to achieve its business objectives.

Reward is structured in three components:

- fixed reward – of cash and benefits that reflects local market conditions and individual contribution. The level of reward for the role is set relative to relevant and prevailing executive employment market conditions for high calibre talent in the respective geographies in which the company operates;
- short-term variable reward – reflects performance over specific business outcomes over six to 12 month periods and is paid in cash. Variable reward opportunity levels are set with reference to relevant market conditions;
- long-term variable reward – reflects increases in the returns on funds employed in the business in excess of the cost of those funds over a three year timeframe. This reward is delivered through shares or a mixture of shares and options.

The remuneration levels of the managing director and other senior executives are recommended by the remuneration committee and approved by the board, having taken advice from independent external advisors. Each year the board establishes performance hurdles for the short-term and long-term variable reward programmes. These hurdles reflect targets for specific objectives and increasing company value consistent with the business and investment strategies.

The company has implemented various employee share plans. An employee share plan applies to all staff globally.

# Corporate governance

The executive share plan provides for annual offers of shares or a mixture of shares and options to senior executives, including the managing director. Such shares or options vest, subject to performance indicators linked to meeting the company's financial targets.

The board has also approved a bonus match share plan, but currently no offers have been made under this plan.

The purpose of Nufarm's reward strategies and philosophies is to more closely align individual rewards with corporate performance and increased shareholder value. This purpose is achieved through the sharing of rewards from good commercial performance with the executive managers and staff – throughout Nufarm – who created that performance.

## Risk identification and management

The company is committed to identifying, monitoring and managing risks associated with its business activities. It has a number of management procedures to deal with risks including financial, business, interest rate, foreign exchange, regulatory and environmental. Nufarm also closely monitors international risks associated with its global activities.

## Management limits of authority

The board has set specific limits to management's ability to incur expenditure, enter contracts or acquire or dispose of assets or businesses without full board approval. Reporting procedures ensure that the full board reviews these limits monthly.

## Treasury policy

Exposure to foreign exchange and interest rate risks is managed in accordance with a comprehensive board-approved treasury policy, which sets limits of management authority. Derivative instruments are used by the company to manage specific business risk. They are not used for speculative purposes.

## Environment, health and safety

The board receives management reports covering compliance with environmental policy and health and safety issues. Any variance with legislative or corporate policy is reported to the board immediately. Corporate policy and compliance are audited regularly with a full report to the board.

## Ethical standards

All directors and employees are required to adopt standards of business conduct which are ethical and comply with all legislative requirements.

Where there are no legislative requirements the company endeavours to ensure appropriate standards through policy statements as they relate to stakeholders in the business and by careful selection and promotion of employees.

The board endorses the principles of the Code of Conduct for Directors issued by the Australian Institute of Company Directors.

## Conflicts of interest

Board members are required to identify any conflict of interest they may have in dealing with the company's affairs and subsequently to refrain from participating in any discussion or voting on these matters. Directors and senior executives are required to disclose in writing any related party transactions.

Executives are obliged to disclose to an executive director any activities in which they are involved that might be in conflict with the company's activities or interests.

## Purchase and sale of company shares

The company has a share trading policy that prohibits directors and management from dealing in the company's shares at any time the directors or employees are aware of unpublished, price-sensitive information.

In addition, directors and senior management may only buy or sell shares during the six (6) week period commencing 48 hours after the respective release of the company's half-year and annual results to the Australian Stock Exchange.

## Political activities

The company maintains a position of political impartiality except in circumstances where there is deemed to be an obligation to make a statement because of major impact on the company's stakeholders.

Nufarm operates in accordance with the social and cultural beliefs appropriate in each country of operation. It does not fund any political group.

## Directors' access to independent advice

Directors have the right, with the approval of the chairman or by resolution of the board, to seek independent legal or financial advice at the company's expense.

## Shareholder relations

The company's shareholders are responsible for voting on the appointment of directors. The board seeks to inform shareholders of all major developments affecting the company by:

- preparing half-yearly financial reports and making these available to all shareholders;
- advising shareholders of the key issues affecting the company;
- submitting proposed major changes in the company's affairs to a vote of shareholders, as required by the Corporations Act; and
- holding an annual general meeting each year to enable shareholders to receive reports by the board of the company's activities. All shareholders who are unable to attend these meetings are encouraged to communicate issues or ask questions by writing to the company.

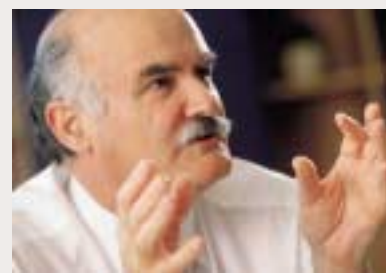
# Management team



**John Allen**  
Group General Manager  
Crop Protection  
Joined 1984



**Brian Benson**  
Group General Manager Marketing  
Joined 2000



**Dr Mike Dalling**  
Group General Manager  
Research and Development  
Joined 1999



**Rodney Heath**  
Group General Manager Corporate  
Services and Company Secretary  
Joined 1980



**Kevin Martin**  
Chief Financial Officer  
Joined 1994



**Bob Ooms**  
Group General Manager Chemicals  
Joined 1999



**David Pullan**  
Group General Manager Operations  
Joined 1985



**Robert Reis**  
Group General Manager  
Corporate Affairs  
Joined 1991

# Organisation

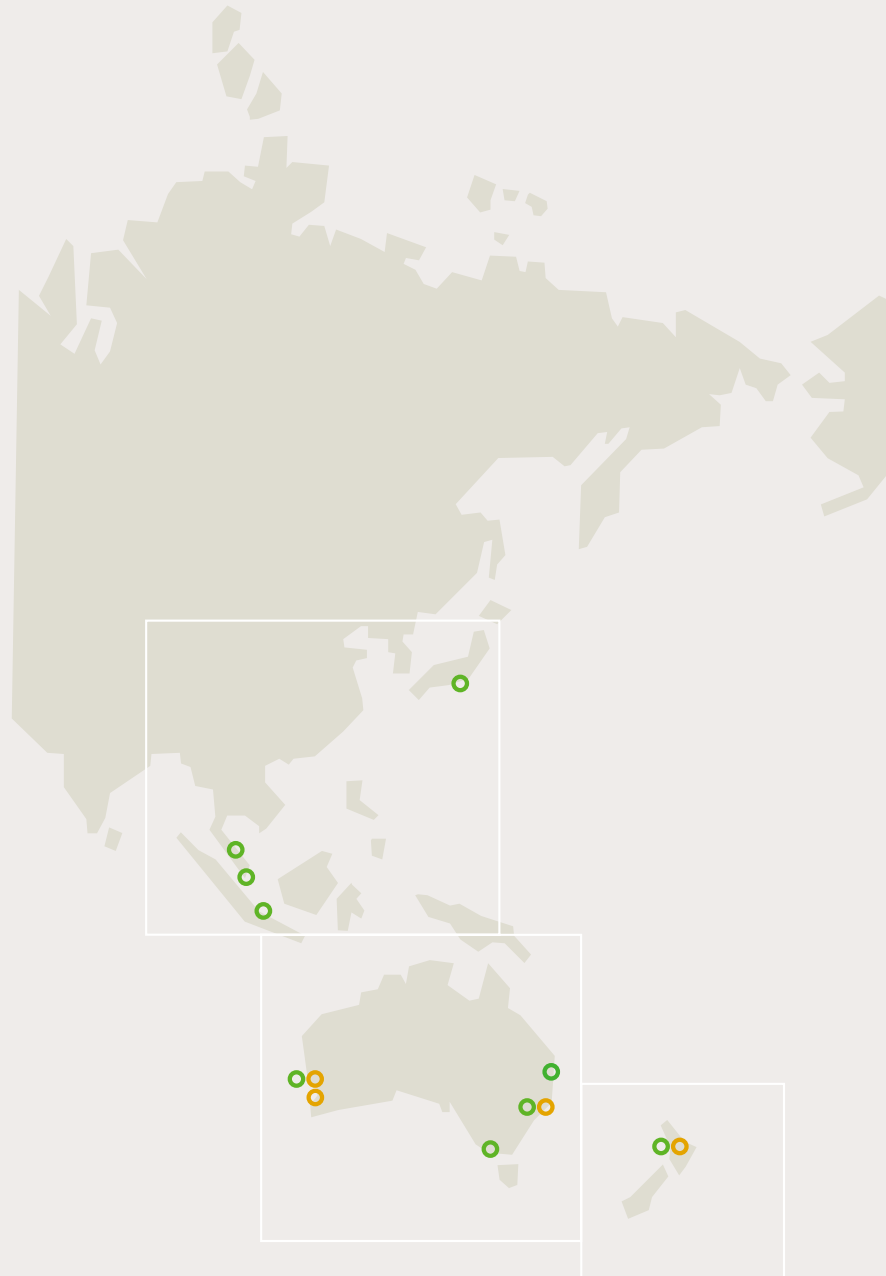
▷ Nufarm operates manufacturing and formulation facilities in 13 countries and employs 2,200 people. It provides customers with a networked production capability to supply the many markets around the world.

Similarly Nufarm's global sales and marketing operations are based strategically to service those markets and provide the necessary technical support to our customers.

- CROP PROTECTION
- INDUSTRIAL CHEMICALS
- FINE & PERFORMANCE CHEMICALS

Nufarm has manufacturing operations in:

- Australia
- Austria
- Canada
- Egypt
- France
- Indonesia
- Malaysia
- Netherlands
- New Zealand
- South Africa
- Spain
- UK
- USA



## SOUTH-EAST ASIA



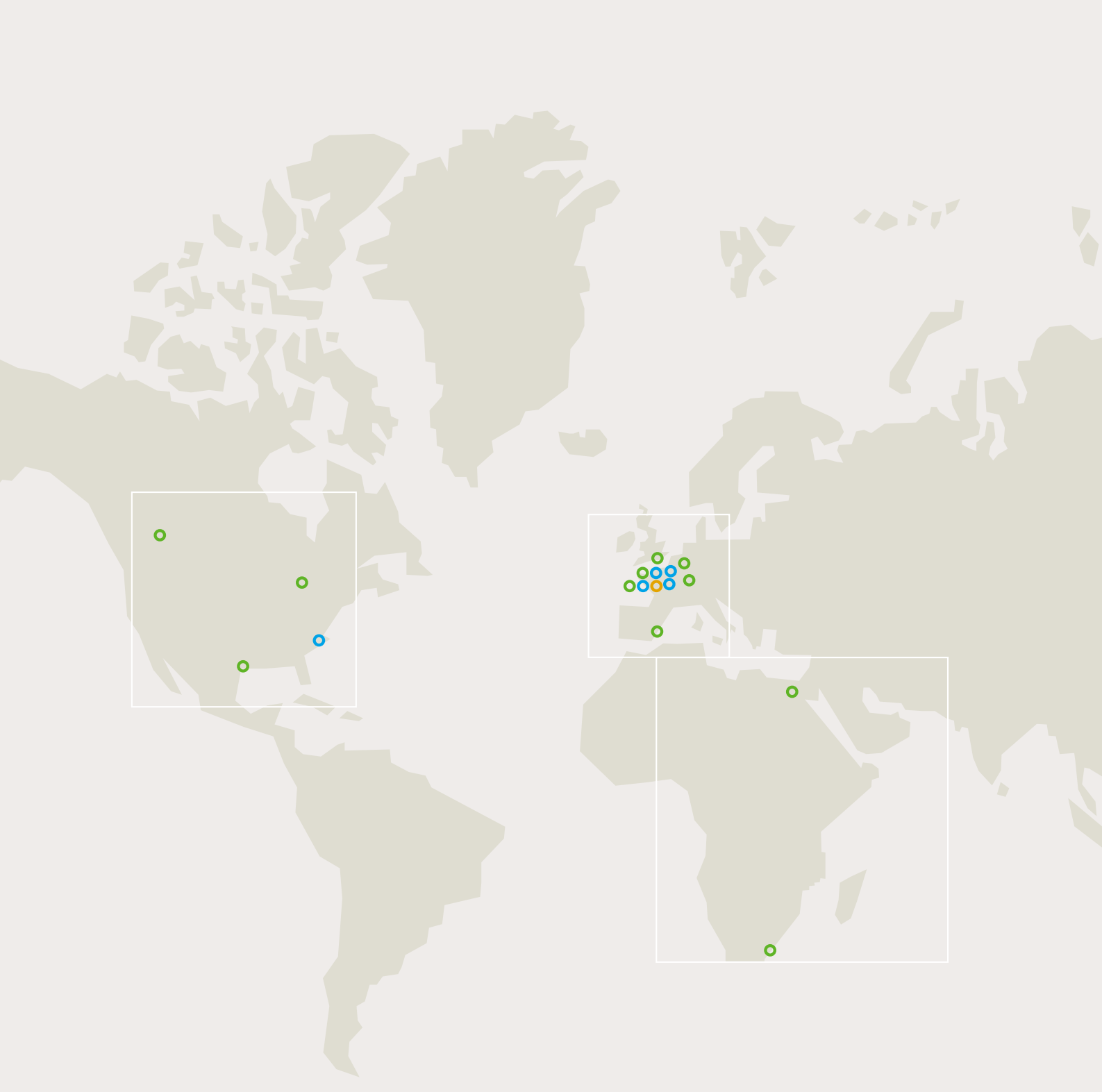
## AUSTRALIA



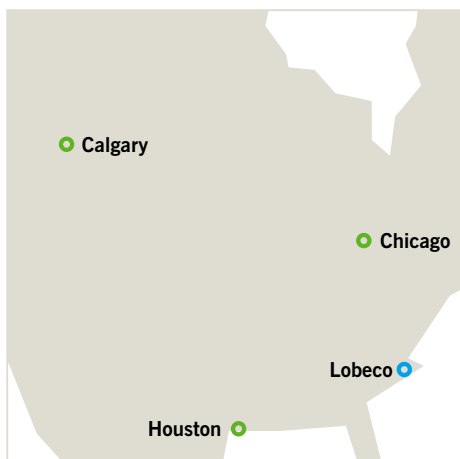
## NEW ZEALAND



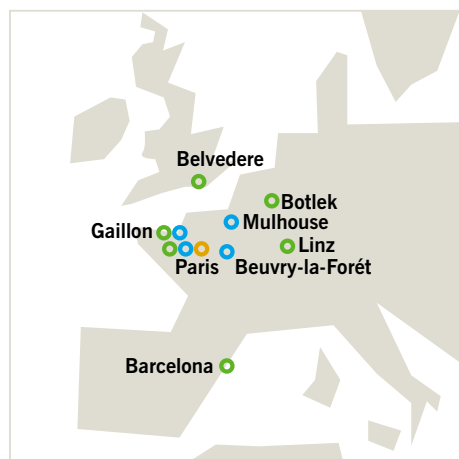




NORTH AMERICA



EUROPE



AFRICA

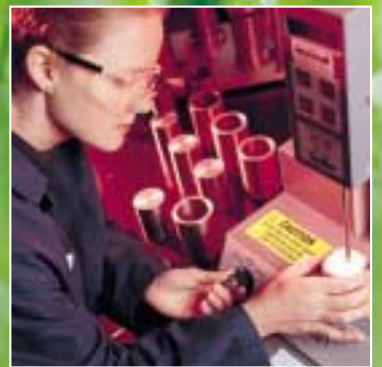


# Business review



## Crop protection

△ Nufarm has extensive global operations producing and supplying a range of agricultural chemicals that help farmers protect their crops against damage caused by weeds, pests and disease.



# Crop protection

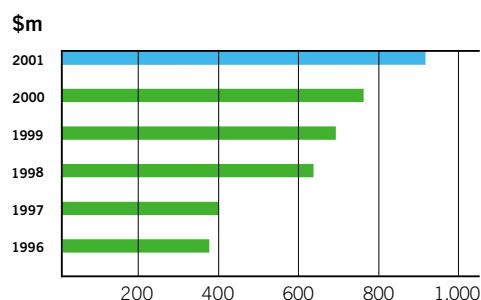
The pre-tax operating result for the crop protection business was \$52.0 million, down on the previous year's \$57.7 million. This was achieved on sales to outside customers of \$919.2 million (\$762.8 million in 2000), an increase of just over 20 per cent.

**Nufarm is a major producer of agricultural chemicals used by farmers to protect their crops from damage caused by weeds, insects and disease. The company is a global leader in the manufacture, supply and marketing of 'phenoxies', a class of herbicides used to control and eradicate broad-leaved weeds. These products are manufactured in plants in Australia (Melbourne), England (Belvedere), Austria (Linz) and the Netherlands (Botlek).**

**A range of other crop protection products is produced at facilities in Australia, France, New Zealand, Asia, South Africa, Europe and North America.**

**The Chicago-based Riverdale operations produce a range of products that are sold into the turf and specialty markets, including lawn care, golf courses, municipal parks, rights-of-way and the forestry sector. The Chicago facility also manufactures agricultural chemicals for the North American crop protection market, where *Nufarm* branded product is achieving increased market share.**

**Global sales**



The overall result from this part of the business was affected adversely by a poor performance in Australia. While sales and market share were maintained, the Australian business suffered from significantly lower margins. Strong competition, industry rationalisation, a lower exchange rate on the Australian dollar and drought conditions in Western Australia during the reporting period had a combined impact on profitability.

Growth in North America was excellent with an overall increase in sales of 22 per cent. Both the agricultural chemicals business and the turf and specialty business (Riverdale Chemicals) increased sales and profitability. We have invested considerable effort in establishing the *Nufarm* brand in the United States and in securing access to market through a strengthening of distribution relationships. These measures helped achieve an increase in both branded phenoxy herbicide sales and glyphosate sales in a very competitive market.

The Riverdale business, based in Chicago, was again a very strong performer with increased product sales into the turf (golf courses, home lawns, municipal parks) and specialty (railways, forestry, aquatic) sectors.

There was also substantial progress on upgrading the Chicago manufacturing facilities that produce product for both the crop and non-crop sectors.

Latin America was the focus of substantial registration and marketing activity during the 12-month period and remains an excellent prospect for future growth. Nufarm's 2,4-D acid, which is the technical material for one of the company's key herbicides, received a regulatory approval in Brazil – now the world's second largest agricultural chemical market behind the US. A number of additional product registrations were progressed in Latin American markets and the company acquired a distribution company, Marman, through which product is supplied to Central America.

In Europe, all operations recorded good results. The UK, Netherlands and Austrian businesses increased sales and profit contributions, as did the French-based crop protection business, in spite of difficult market conditions.



# Crop protection



Flooding, particularly in the UK and France, affected the timing and extent of overall industry sales. The Austrian operations, based in Linz, turned around strongly after the previous year's prolonged shutdown of the manufacturing facility.

The European business benefited from an improved sales performance in a number of regional markets such as Spain, several new product registrations and the launch of a strong branding strategy in the important German market.

In Asia, our crop protection sales increased by 34 per cent, which translated into a higher profit contribution from this expanding part of the business. Sales into the Indonesian plantation market were particularly strong. We also opened a new office in Japan to assist with Nufarm's business development in that important, high value market.

The May 2001 acquisition of Agtrol International, a US-based fungicides business, facilitates Nufarm's entry into a valuable new sector of the global crop protection business. We now offer a broader product range and service new industry sectors such as horticulture. The Agtrol business has been integrated into Nufarm's management and sales and marketing structure.



**Nufarm acquired the US-based Agtrol International fungicides business in May, 2001. The acquisition facilitated Nufarm's entry into the valuable fungicides sector of the crop protection industry and allows the company to offer a broader product range in a number of important geographic markets.**

**Agtrol's products have strong market positions in the global grape and apple markets, as well as growing sales in the citrus, potato and general fruit and vegetable markets in the US.**

**While sales are predominantly in North America and Europe, Latin America – where Agtrol has established a presence in Argentina and Mexico – and Asia are seen as key growth regions for the company's products.**

## Business review

A close-up photograph of a car's wheel and body panel. The wheel is on the left, and the red body panel is on the right. The image is slightly blurred, emphasizing the texture and color of the car's components.

### Industrial, fine and performance chemicals

△ Businesses owned by Nufarm make and market a wide range of products and chemical intermediates used in other industries. Nufarm's Lobeco Products Inc subsidiary in South Carolina manufactures special red pigments which, when used in automotive paints, retain shine and lustre and prevent colour fading.





# Industrial, fine and performance chemicals

The industrial, fine and performance chemicals division increased pre-tax operating profit by some 33 per cent.



**Nufarm's performance chemical division is a global leader in the development, manufacture and supply of additives and coatings to combat physical product deficiencies. These innovative products are sold into the explosives and fertiliser industries where they help prevent caking, dust emissions and moisture pick up. Sold under the *Galoryl* brand, they draw on Nufarm's core strengths in chemical synthesis and formulation.**

**The company operates two chlor alkali plants in Western Australia, feeding chlorine to titanium dioxide producers.**

**The Lobeco operations in North America (South Carolina) and the SEAC subsidiary in France (Beuvry-la-Forêt) have multi-step synthesis capabilities and meet customers' needs from bench top and pilot batch scale through to full scale commercial production.**

This was achieved on lower sales (\$403.3 million in 2001 compared to \$450.1 million in 2000), due to the divestment of both the construction chemicals business at the end of the year 2000 reporting period and the timber treatment chemicals business in January 2001.

The Western Australian chlor alkali plants generated excellent results, benefiting from strong world pricing for caustic soda. The chemicals trading businesses (Australia and New Zealand) and the New Zealand health and sciences division all improved performance, the latter from a substantial increase in the production of the *Captec* controlled release animal health product.

The South Carolina-based Lobeco Products subsidiary also performed well, with higher sales of its fine and performance chemicals and an increased profit contribution. This was in spite of difficult trading conditions for the fine and performance chemicals market, with high US energy costs and other general economic factors that depressed demand from industries we supply.

Lobeco secured new business in South America and benefited from an upturn in the low density ammonium nitrate market to support coal exploration in the US. Overall demand for high nitrogen fertilisers dropped but the company's *Galoryl* brand is now established as a market leader and is positioned strongly to take advantage of future growth in this sector.

US-based fine chemical sales were down as a number of key customers cut orders in response to weak market conditions for the end products in which Lobeco's intermediates are used. In particular, the dyestuff and pigment intermediate markets suffered intense price pressure from Asian-based competitors.

Progress was achieved on the development of a number of new water-soluble fertiliser and anti-caking products and urea processing additives.

The European-based fine and performance chemicals operations were down on their year 2000 results. Deferral of key orders for high value pharmaceutical intermediates affected the French-based SEAC subsidiary,



# Industrial, fine and performance chemicals



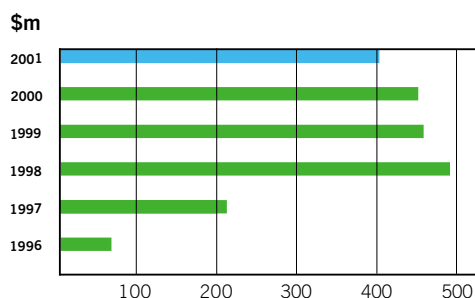
while downturns in the construction and fertiliser industries meant lower demand for intermediates by those sectors.

The Lobeco plant was expanded during the year with the installation of a new multi-staged reactor train. The new plant has increased production capacity and has added flexibility in terms of product and synthesis mix. We also made major improvements to the site's waste water treatment plant, increasing the operational efficiency and accommodating a broader range of product manufacturing processes.

Capital investment at SEAC included the commissioning of a new multi-purpose pilot synthesis plant with capacity for making kilogram product batches for the pharmaceutical industry. This plant is GMP (Good Manufacturing Practice) approved to the highest international standards and has synthesis capability under a wide variety of process conditions. Already the new plant is producing extensive pilot scale batches of pharmaceutical intermediates

A number of pilot synthesis projects were secured by SEAC in the second half of the year and these facilities are now working at full capacity, with increased revenue and profit contributions expected to be evident in the 2002 year as these projects continue. Also the specialist capabilities of SEAC were marketed to potential new customers in the US and a strengthened commercial presence in that market will result in increased business in ensuing years.

## Global sales



**Nufarm's health and science division, in New Zealand, performs contract manufacturing for some of the world's largest animal health companies. In 2001, we produced in excess of 10 million units of *Captex* controlled release capsules for the first time.**

**A new sterile injectable facility was also commissioned during the year and the first product order was delivered in July. The plant uses modern technology and equipment and will be audited for European and USA Good Manufacturing Practice (GMP) accreditation to take advantage of export potential into those key markets.**

**The new plant has an annual capacity of 50,000 litres of injectable product, with room for future expansion if required.**

## Research and development

△ Working with James Cook University in Northern Queensland and the Australian Institute of Marine Science, Nufarm has identified natural herbicides by screening organisms living on the Great Barrier Reef. Now work is proceeding to synthesise these molecules in the hope of developing a novel class of important new weed killers.





# Research and development

With more and more proprietary crop protection products coming off patent, companies are turning their attention to development programmes that allow generic products to be differentiated in an increasingly competitive market.



**Pharmaceutical intermediates are a key growth business for Nufarm's fine chemicals subsidiary, SEAC, based in France. SEAC has been contracted by a number of major pharmaceutical companies to synthesise new molecules and has the facilities to take potential new products from laboratory scale development work, through pilot projects and into commercial production. Increasingly, large pharma companies are contracting out this highly specialised component of product development and SEAC is well positioned to take advantage of that trend.**

**The principal focus of Nufarm's research and development (R&D) effort is on new product development and improving manufacturing efficiencies. Nufarm has strong capabilities in formulation technology and innovative packaging design and the company successfully leverages these skills to add value to existing products.**

Nufarm has developed strong, innovative capabilities in formulation and packaging that respond to the needs of end users and provide the opportunity to compete on improved product benefits rather than just price.

A number of new mixtures, incorporating Nufarm's key range of phenoxy herbicides and various other actives, were released commercially during the year. These products allow farmers to achieve broad and effective weed control with fewer applications.

Several new actives – which have recently come off patent or are soon scheduled to do so – entered synthesis and manufacturing development.

Two new fungicide products were released onto the market via the Agtrol research and development pipeline. *Champ Dry Prill* is produced by a unique process, which results in a particle that eliminates dust, yet disperses readily. This eliminates clogging and improves loading, mixing and spraying characteristics.

The advanced copper technology of *Champ Dry Prill* provides the highest level of disease control while reducing the amount of metallic copper applied per hectare.

*Phostrol* is also an original formulation which provides systemic protection against *Phytophthora* species and encourages the plant's own defense mechanisms against disease organisms.

Important progress was also made on a large number of new formulations that will provide efficacy, safety or environmental improvements.



# Research and development



## Florigene Ltd

Nufarm's 90 per cent owned subsidiary, Florigene Ltd, is concerned with the genetic enhancement of plants, with a particular focus on the development of novel coloured flowers. This business was acquired in January 2000. The 2001 financial year saw the rebuilding of Florigene's research and development team and the successful launch of several new products.

Three new standard carnations were released commercially in Australia, North America and Japan. These flowers have singular colours that have been received enthusiastically by the market. The colour modification programme was also extended to gerbera, one of the world's most popular cut flowers.

Florigene's GM capabilities will be applied to other plants, including food crops, as public acceptance of the technology increases and the benefits are more widely understood.

## Registration activity

The Agtrol acquisition included 271 product registrations in Europe, the Americas, Africa/Middle East and Australasia. Nufarm now has more than 2,000 product registrations in some 100 countries.

A number of important new registrations were approved during the year in review, including Nufarm's herbicide 2,4-D acid in Brazil, the world's second largest market for 2,4-D. Regulatory approval of other products also progressed in Latin America and there are currently some 60 product registration projects underway in these regional markets including Brazil, Argentina, Chile, Mexico, and Ecuador.

Product development and registration activity in Europe focused on formulation development, new label extensions and residue studies. Some eight new product registrations were initiated in Germany to support Nufarm's commercial expansion into that market.



**In August 2000, Nufarm began a research and development collaboration with the James Cook University and the Australian Institute of Marine Science to discover new herbicides. Thousands of marine micro-organisms and extracts from other marine species are being screened to try to identify those with natural herbicidal activity.**

**Researchers determined that the absence of weeds on Queensland's Great Barrier Reef – where high nutrient levels and warm, shallow water provide an ideal environment for weed growth – could be attributable to the natural weed killing properties of marine organisms.**

**Preliminary results are very encouraging. The most promising candidate molecules so far identified are in synthesis development at Nufarm's French laboratories and indicate that these organisms could be a rich source of novel crop protection products.**

**Nufarm has secured funding from the Australian Government's R&D Start Programme to support this project.**

# Business review



## Health, safety and environment policy

Nufarm is committed to ensure that its activities present a high level of protection for the health and safety of its employees, customers, the public and the environment.

A personal commitment from all employees is essential in promoting and achieving this objective.

The company will ensure it has safe working conditions, define safe work practices, train its employees and provide information for the control of hazards in the workplace and for the protection of the environment.

Supervisors and managers will be held accountable for the safety and occupational health of their people and for the environment protection measures in activities over which they have control.

The company's objective is to carry out its business with no adverse effect on its people, the community and the environment, and to strive for sustainable development and continual improvement.

## Health, safety and environment

△ Nufarm makes special pigments which help produce the fluorescent properties in a range of products including highlighting pens, tennis balls and safety signs.



# Health, safety and environment

Like all employers, Nufarm has a fundamental responsibility to provide a workplace where high standards of safety exist across all operations of the company. Every Nufarm employee who arrives at work healthy should also return home healthy.

## Key indicators

- Lost time injury frequency rate up to 13.8 (1999:13.0)
- Medical treatment injury frequency rate 29.9 (1999:29.1)
- Severity rate increases to 0.180 (1999:0.081)
- Seven manufacturing sites free of lost time injuries for a year (1999: nine)
- Safety expenditure increases to \$A8.68 million (1999:\$A4.9 million)
- Total estimated CO<sub>2</sub> release decreases to 261,280 equivalent tonnes (1999:264 097 tonnes)
- Total waste generated increases to 50,018 tonnes (1999:44,600 tonnes)
- Total waste excluding salt decreases to 18,075 tonnes (1999:19,017 tonnes)
- Environmental complaints 35 (1999:36)

## Safety is a fundamental workplace requirement

The most recent reporting period indicates the need for further improvement in several key indicators of health, safety (HSE) and environment performance

HSE data is collected and reviewed on a calendar year basis. In the year 2000, the lost time injury frequency rate increased to 13.8, the severity rate to 0.180 and the number of lost time and medical treatment injuries to 29.9.

We are working hard to embed a strong culture of safety among all employees and contractors and to ensure that this responsibility also extends to the safety of our products, plants, equipment, and the environment.

To help set the direction for this improvement, the company is setting new targets for Nufarm to achieve by 2003. Using the year 2000 figures as a base, we are targeting:

- a 50 per cent reduction in the frequency of serious injury by 2003; and
- a 50 per cent reduction in severity of injuries by 2003.

Nufarm is focused on continued global expansion and a return to strong profit growth. Health, safety and environment performance is a key indicator of the success of our expansion.

With acquisitions in different countries, it is vital that we set and achieve appropriate standards and that we collect and publish reliable information to give a fair picture of our performance. We do this through the annual Health, Safety and Environment Report (available at [www.nufarm.com](http://www.nufarm.com)) and the individual reports published for most sites (available from individual Nufarm locations).

Increasingly governments are taking initiatives to control major hazard facilities. Eight of Nufarm's sites, three in Australia and five in Europe, are included in this classification and we are working hard to prepare the detailed safety cases for those facilities. Year 2000 saw an increase in investment in expenditure on health, safety and environment, a trend continuing into 2001.

## Using instant information capabilities of technology to improve

Nufarm has installed a global communications system that enables better management of HS&E matters. Injuries and unusual incidents (near misses, unplanned events) are reported on the system and investigations and actions to prevent future occurrences are being managed through the system.

## Responsible Care®

Nufarm is a foundation member of the international chemical industry's Responsible Care® commitment which now operates in 46 countries. Details of the Responsible Care®, guiding principles are available on the website of the International Council of Chemical Associations: [www.icca-chem.org](http://www.icca-chem.org)

## Spending to improve safe working conditions

Of Nufarm's expenditure of \$23.3 million for safety related matters since 1998, 54 per cent went to capital investment such as improving plant. Spending on training, guidance and monitoring has increased.

We are committed strongly to continual improvement, and we aim to have every plant in the group, whether a new acquisition or not, operating at high standards as soon as is practicable.



# Health, safety and environment



In some cases this means upgrading plant and equipment, in others changing attitudes and operating systems.

## Safety related expenditure 1998-2000

1998-2000	
Total	\$23.3 million
Capital	54.0%
Workers insurance	11.5%
Monitoring	4.2%
Equipment and people	24.1%
Training	5.9%

## How we are managing the environment

### Environment related expenditure 1998-2000

1998-2000	
Total	\$A36.1 million
Capital	72.5%
Capital for rehabilitation	5.8%
Clean-up costs	0.8%
Monitoring costs internal	7.7%
Monitoring costs external	6.6%
Environment training	1.8%
Licences	3.3%
Other	1.5%

Protecting our environment is high on our list of priorities and we audit our operations regularly to measure our progress and define areas for improvement. As well as the \$36.1 million Nufarm has spent on environmental matters since 1998, largely for capital improvement to sites, plant and equipment, our employees have made a substantial contribution by using their creativity, ingenuity and knowledge of their work to ensure that there are always other improvements happening.

Rehabilitation of some of the plants acquired by Nufarm has been essential, such as the \$US 1.2 million spent at Riverdale in 2000, with further work authorised for 2001.

### Prosecutions and penalties

In England, during maintenance on an old reactor at Belvedere, contractors removing glass fibre insulation uncovered older insulation that was found to be asbestos.

## Reducing greenhouse gas emissions

Around the world Nufarm uses large amounts of electricity, principally to produce chlorine and, to a lesser extent, for chemical processing.

Our three chlorine plants account for 62 per cent of the total energy consumed, mostly electricity. The plant design is highly energy efficient and we keep abreast of developments in energy efficiency, incorporating them whenever possible.

Most Nufarm plants are working to minimise energy use, sometimes in association with government as in Australia. Nufarm is a partner with the Australian Government to abate greenhouse gas emissions through the Greenhouse Challenge. The Challenge has been effective in achieving lower greenhouse gas emissions and in building on the capacity of both Government and industry to identify, monitor, manage and report greenhouse gas emissions.

### Total estimated CO<sub>2</sub> released

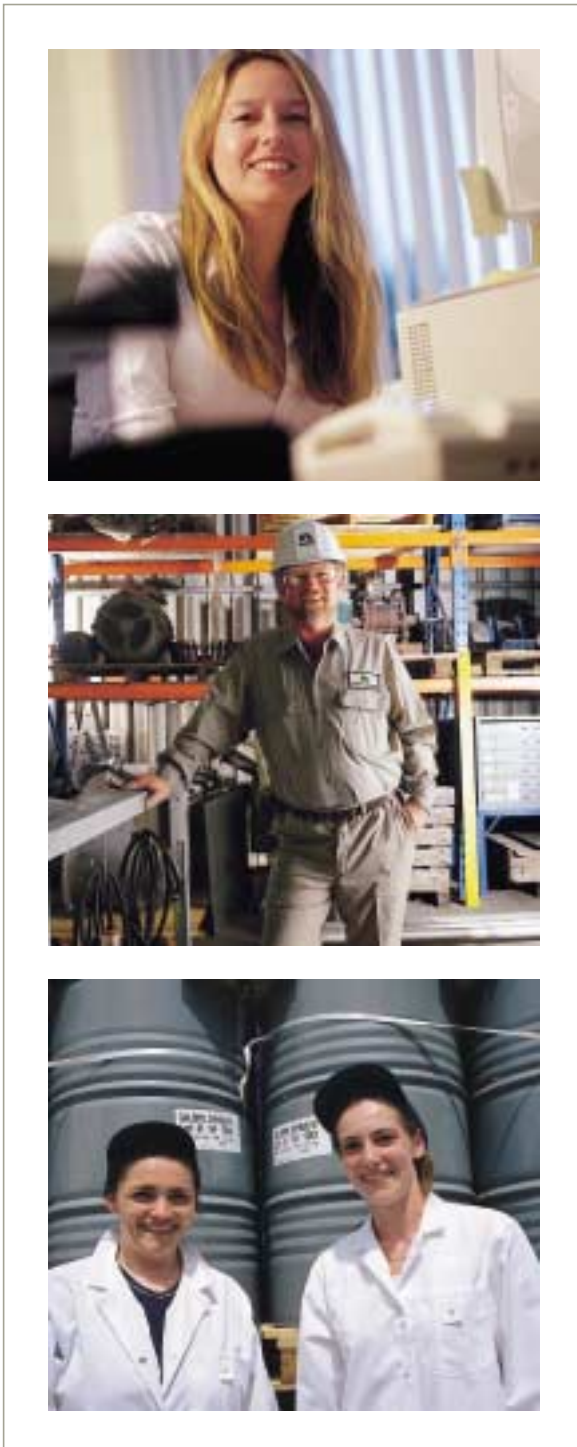
	2000	1999	1998
Total Nufarm tonnes	261 280	264 097	245 964
From processes	0.5%	1.0%	1.2%
From fuel combustion	15.4%	21.0%	16.8%
Electricity equivalent	84.1%	78.0%	81.9%

Nufarm was prosecuted by the Health and Safety Executive (HSE) in relation to this incident and fined £26,000 with £9,526 costs (\$A88,800).

In Irricana, Canada, our Fernz Sulfer Works management overlooked the requirement to analyse and report stormwater release. The result was an administrative penalty of C\$8,500 (\$A9,900). After the incident, we hired an environmental coordinator for the plant to ensure that all of our environmental measurement and reporting obligations are met.

# Measuring corporate performance

Nufarm uses a number of measurements to assess the company's corporate and financial performance over a 12-month period. The performance goals are tied to specific objectives relating to the various stakeholders identified in Nufarm's mission statement on page 5.



A number of these assessments are based on objective financial and economic outcomes, while others relate to areas such as the health, safety and environment performance of the company. Like a number of companies, Nufarm is increasingly focused on triple bottom line performance (economic, social and environmental) and is looking at appropriate ways to report this performance.

The company also looks to its industry peers, the broader industries in which we operate, our employees and commentary from the business community, market analysts and shareholders to form views on where certain aspects of our operations and communication can be improved.

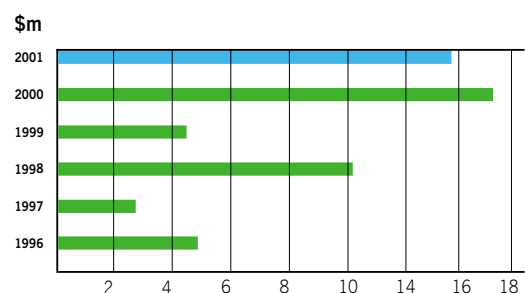
It was encouraging to receive a highly commended certificate in the independently-judged Australian Investor Relations Awards (best overall investor relations for a non-ASX 100 company) for the 2001 financial year.

Nufarm uses the economic value added (EVA) concept to measure the financial performance of its various businesses, and to evaluate new acquisition opportunities. EVA is defined as the corporate return on capital less the charge for the cost of that capital provided by shareholders and lenders. EVA measures the annual progress in adding value to the total capital invested in the business.

In 2001, as shown on the graph below, the EVA from operations (excluding non-operating items) was A\$15.8 million compared to \$17.7 million for the 12 months to 31 July 2000. The slight decrease is due to higher capital usage than the prior year. The company is addressing this as a matter of priority in the 2002 year.

The directors and management are confident that the business is soundly positioned and will achieve further improvements in the current year.

## Economic value added



Source: Ireland, Wallace & Associates Limited