

#### Voluntary Initiatives Undertaken by the Fertiliser Industries of New Zealand & Australia (Oceania region)

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### **Codes of Practice**

"Codes of Practice set out best management practices, usually on specific issues or for specific sectors"





# Use and Implementation of Codes of Practice

- Usually voluntary
- Basis for standards
- Basis for regulation
- Incorporation into Environmental Management Systems
- Incorporation into Quality Assurance Programmes



#### **New Zealand Situation**

- Legal, regulatory framework
  - RMA (1991)
  - Enabling legislation
  - Effects based
  - Devolution to regions
- Economics and Trade
  - Agriculture 40% of export income
  - Primary Industry 8.6% GDP
- Environmental
  - "Clean Green" image
  - Sustainability
  - Public expectations

- Farmers
  - Efficiency
  - Effective
- Fertiliser industry
  - Co-operative industry
  - Field staff provide advice on fertiliser use and BMPs
  - Undertake Nutrient Budgets
  - Provide Nutrient Management Plans





### Consultation and Development

- Used external consultation for impartiality/credibility
- Consulted with some 150 organisations
  - Government Ministries
  - Regional Authorities
  - Farmer Organisations
  - Producer Organisations
  - Environmental Groups

- Revised after 4 years to include
  - Nutrient budgets
  - Spreading developments
  - Nitrate management
  - Cadmium
  - Fertiliser choices
- Major review after 9 years against a background of
  - Intensification
  - Increased fertiliser consumption
  - Water Quality concerns
  - Climate change issues
  - Market signals
  - Public expectations





### **Objectives**

- To provide farmers with a practical document enabling them to select BMPs to suit their particular circumstances
- To provide Regulatory Authorities with sufficient certainty that farmers have BMP tools and are implementing them to manage fertiliser use in sustainable ways





#### Code of Practice for Nutrient Management

(with emphasis on fertiliser use)

- Fertiliser use is considered within the broader context of nutrient management
- Nutrient budget is the basis for developing a nutrient management plan
  - within the context of farm management system
- Guide for nutrient advisers and consultants
  - Also useful for farmers and growers who want to know more about nutrient management planning and the best nutrient management practices (BMP) for their production system
- Demonstrate environmental care as land managers undertake production activities and aim to run a profitable business
  - Helps land managers, consultants, Regional Councils and the public to have confidence in nutrients management practices throughout New Zealand's primary production sector





# Best management practices for nitrogen (N) fertiliser use

Activity	Best management practice	Fact sheets
Choice of fertiliser		
Rate of fertiliser application		
Application technique		
Frequency of application		
Timing of application		
Fertiliser use and management measures		





### Timing of application

- Nitrogen application is matched to times of high plant growth.
- Pasture is at least 25mm high (approx. 1000 kg DM/ha) before nitrogen is applied.
- In the case of border-dyke irrigation fertiliser is applied afterwards, provided the soil is not saturated. If the soil is saturated fertiliser application is delayed until ground conditions are suitable.
- Nitrogen is not applied when the 10cm soil temperature at 9am is less than 6°C and falling (at these low soil temperatures plant nitrogen uptake is slow and there is greater risk of leaching loss).
- Nitrogen is not applied after a dry (drought) period until sufficient regrowth has occurred after rain.
- Where possible, fertiliser N application is adjusted to complement the release of soil mineralisable N.
- N fertiliser is not applied in mid to late autumn to fallow land unless there is a cover crop.
- N fertiliser is not applied when the ground is saturated and/or when tile drains are running.
- N fertiliser is applied 4-6 weeks before the feed is required.





# Role of the fertiliser industry in promotion and uptake of the Code (BMPs)

- Create awareness
- Provide training
- Advocate incorporation into regulations
- Advocate incorporation into Quality Assurance Programmes
- Review and update





#### Success of the Code/BMPs

- Incorporated into Regional Council Plans
  - Fertiliser use is a permitted activity if the Code is complied with
- Incorporated into Quality Assurance Programmes
  - Contributes to retaining market access
- Incorporated into fertiliser recommendations
  - Integrated into OVERSEER® Nutrient Budgets 2
- Incorporated into training programmes
  - Integrated into "Sustainable Nutrient management in New Zealand Agriculture" – Massey University













# **Fertcare**

Incorporating BMP into stewardship for the Australian Fertilizer Industry

Fertcare® - Promoting Productivity - Caring for the Environment



#### Australian Government Department of Agriculture,





### The Issues

- Fertilizers can have a positive environmental impact as well as being vital to productive farming.
- Fertilizers can also have negative environmental impact, particularly if misused.
- Impurities in fertilizers can present a food safety risk.





### **Real Issues - Real Pressure**









- Great Barrier Reef
- Peel Estuary
- Swan River
- Gippsland Lakes
- Murray Darling
- •85% of Waterways at risk.

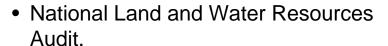






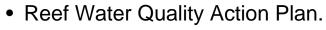
### On the record







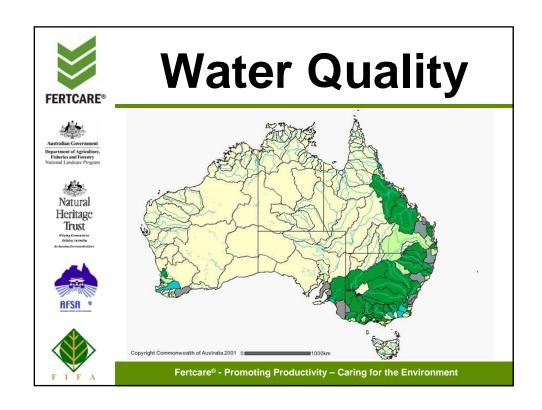
• State of the Environment Reports.





- National Cadmium Minimization Strategy.
- Publicly available, highly reputable.

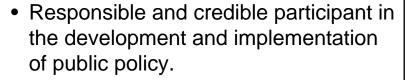




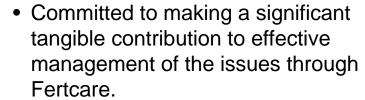


### **Industry Approach**













Fertcare® - Promoting Productivity – Caring for the Environment



#### FERTCARE









### **Fertcare®**

- A training, quality assurance and certification program, focused on food safety and environmental issues associated with fertilizers and soil ameliorants.
- Balanced approach to productivity.
- National and open.
- Developed with reputable independent expertise and Government support.
- Training delivered to national competencies under the ANTA framework.
- Intent is for all industry personnel to provide best management practice advice.









### **Industry Commitment**



• By 2008



100% of eligible staff trained/quality assured



- 100% of contract spreaders certified.
- 100% of premises audited.



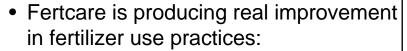
- To Date
  - 1100 staff trained out of 3000
  - 200 spreaders certified out of 1000





### **Progress**







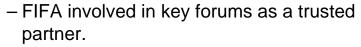
- Less environmental risk.



Greater use efficiency.



 Effective participation in public policy development and implementation.





– 3000 staff to help with implementation.

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### **Success Factors**

- Clear credible public statement of issues.
- Positive implications.
- Successful history.
- Funding support for development.
- Collective agreement to assume costs.
- Comprehensive coverage.
- Unimpeachable credibility (stakeholder involvement)



### **Success Factors**











- Value for participants.
- Resources for promotion to a range of stakeholders.
- Regular reinforcement.



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#### BMP's

- Fertcare is a comprehensive approach to providing users with best practice advice.
- It incorporates first principle BMP's and specific industry or local BMP's where those are available.
- It is a highly effective approach to ensuring that all industry advice in Australia is based on best

management practice underpinned by



### FBMPs: Success or failure?

- Need a champion
- Consult with key stakeholders
- Practical approach with BMPs that are compatible with current farming systems
- Economically viable
- BMPs must deliver demonstratable change/improvement
- Non-prescriptive and allow farmers to select/apply most appropriate BMPs for their situation
- Review and update regularly and include the latest scientific findings



