

***Food Policy & the Environment - Bridging the gap  
an agricultural perspective***





***‘The egg industry’s  
environmental program’***

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# Outline

-  Relevant industry environmental issues
-  Initiatives that industry is involved in & planning
-  Achievements and challenges for the future
-  (Research in the Egg industry is a combined effort with RIRDC chicken meat (Broiler industry) and Poultry CRC)



# Egg industry environmental issues

-  Potential Environmental Threats of Egg Production
  -  Community Amenity and Health
  -  Surface Water
  -  Groundwater
  -  Land, Flora and Fauna
-  Key issues include odour, noise, visual impact, waste water, water supply, vermin control, disease and waste management

# Current framework and initiatives

- 🥚 Aims to provide information to help members of the Australian egg industry to:
  1. Assess the potential environmental threats of their enterprise.
  2. Implement measures to minimise the risk of adverse environmental threats from their enterprise.
  3. Continually improving the environmental performance of their enterprise.
  
- 🥚 Review of legislation
- 🥚 Development of environmental guidelines
- 🥚 Incorporation into Egg Corp. Assured program
- 🥚 ECA Workshop manual for Practical implementation



# Current framework: Key legislation

Key legislation	Environmental licences and/or permits:
Commonwealth	<i>Environment Protection and Biodiversity Conservation Act 1999</i> Caged Hen Code Code of Practice for Biosecurity in the Commercial Egg Industry (2003)
NSW	<i>Environmental Planning and Assessment Act 1979</i> <i>Protection of the Environment Operations Act 1997</i> Local Environmental Plans (LEPs) under Part 3 of the EP&A Act
Queensland	<i>Environmental Protection Act 1994</i> <i>Integrated Planning Act 1997</i>
South Australia	<i>Environment Protection Act 1993</i> <i>Development Act 1993</i> Guidelines for the Establishment and Operation of Poultry Farms Environment Protection Policies
Tasmania	<i>Egg Industry Act 2002</i> <i>Land Use Planning and Approvals Act 1993</i> <i>Environmental Management and Pollution Control Act 1994</i> <i>Tasmanian State Policy on Water Quality Management 1997</i> Environmental Guidelines for Poultry Producers (DPIWE)
Victoria	<i>Environmental Protection Act 1970</i> <i>Environment Effects Act 1978</i> <i>Planning and Environment (Planning Schemes) Act 1996</i> State Environmental Planning Policies (SEPP's) Environment Protection (Proscribed Wastes) Regulation 1998
Western Australia	<i>Environmental Protection Act 1986</i> <i>Health Act 1911</i> <i>Town Planning and Development Act 1928</i> <i>Environmental Code of Practice for Poultry Farms in Western Australia (2004)</i>

# Environmental Guidelines for the Australian Egg Industry

A report for the Australian Egg Corporation Limited  
As part of the DAFF EMS Pathways Program

by Eugene McGahan, Simon Barker and Robyn Tucker  
FSA Consulting

January 2006

AECL Publication No: 0501  
AECL Project No: E MCH

## Environmental Principles for the Egg Industry

### *Participant Training Manual*

Eugene McGahan, Simon Barker, Kolly Baker and Robyn Tucker  
FSA Consulting



June 2006

# Current framework: guidelines

Facilities Location and Planning	Facility Design and Construction	Facility Management
<p>Infrastructure                      Planning Considerations                      Land and Future Development                      Designated Areas                      Traffic and Parking                      Buffer Distances                      Surface Water and Groundwater                      Biosecurity                      Separation Distances                      Property Size</p>	<p>Landscaping and Vegetation                      Erosion Management During Construction                      Shed Design and Orientation                      Ventilation System                      Feeding Systems                      Watering Systems                      Monitoring and Control Systems                      Effluent Treatment and Storage System Design                      Manure and Spent Litter Treatment and Storage Systems</p>	<p>Visual Appearance                      Stocking Density                      Biosecurity                      Energy and Eco-efficiency                      Manure (Egg Production Farms)                      Cracked/Broken Eggs                      Effluent Treatment and Storage Systems Management                      Dead Bird and Cull Management                      Manure and Spent Litter Clean-out  <b>Manure, Spent Litter Storage and Compost Management</b>                      Manure and Spent Litter Utilisation                      Control of Flies, Rats and Mice                      Chemical Storage and Use                      Mass Bird Deaths                      Power and Water Supply Failure                      Dealing with Neighbours and Regulators                      Community Liaison/Handling Complaints  <b>Environmental Monitoring and Recording</b>                      By-products (Soil Analysis – By-product Utilisation Areas / Groundwater and Surface Water / Release of Effluent</p>



# Snapshot of Industry Research, Development and Innovation

## Poultry CRC: Program 3B

Developing strategies to add value to waste litter, and guidelines established on air quality in livestock buildings:

- Odour and dust measurements / reduction technologies / dust dispersion modelling;
- Pathogen transfer and risk assessment;
- Value-adding to waste products;
- Environmental management systems and environmental performance.

## RIRDC Chicken Meat Program “Sustainable production environment”

### Recently completed projects (June 2008)

- Evaluating risks posed by pathogen emissions from meat chicken sheds
- Monitoring mechanical ventilation rates in poultry buildings for application of odour/dust control technologies
- Evaluation of "add-on" technologies for control of odour and dust from chicken sheds
- National Poultry Litter Project: Literature Review, Market Study and Project

### Continuing Projects

- High Value Products from Hatchery Waste
- Piloting chicken litter usage in broadacre cropping: setting research directions
- Avian influenza: improved diagnostics for detecting antibodies to H5N1
- Verification of separation distance methods for meat chicken farms



# Future plans and challenges

- 🥚 Continued development of solutions for environmental guidelines
  - ✳ Waste re-use nutrient/ supplementary power(?)
- 🥚 Site-specific Life Cycle Analysis (LCA)
  - ✳ (DAFF project/ industry collaboration)
- 🥚 Climate change clarification
  - ✳ Site specific information and data
  - ✳ Risk management (The National Climate Change Research Strategy for Primary Industries CCRSPI, LWA)
  - ✳ Considered planning strategies (ultimately within ECA framework)

# Summary

- 🥚 Environmental projects: innovative/practical problem solving
- 🥚 Issues: accuracy of prediction and measurement of change, measurement of benefit.
- 🥚 Site-specific assessment and control, and certifiable ie measurable (the more quantitative the better)
- 🥚 Collaborative approach industry driven by poor resources
- 🥚 In practice the two environmental drivers are:
  - 🌟 increase profits (reuse/reduce waste/market access/commodity dilemma);
  - 🌟 keep out of gaol;
- 🥚 Best driver is realistic approaches to improving business efficiency (1. increased profit; 2. reduced cost with clear ROI)

