

# ***A comprehensive environmental management program***

## **Australian Country Choice – Cannon Hill, QLD**

### **Background**

Australian Country Choice Pty Ltd (ACC) has embarked on an ambitious corporate strategy that will constitute world best practice for environmental management in the Australian livestock production and meat processing industries. This will demonstrate to the Australian agribusiness community the commercial benefits to be gained by implementing and maintaining the highest international standards in environmental management performance.

ACC is an integrated agri-chain enterprise including cattle production properties, cattle feedlots and a 'single roof solution' central beef processing facility. The company is a Coles Myer – Food & Liquor Division dedicated supplier and processor providing a cohesive supply chain incorporating livestock supply, slaughtering, boning, value adding and retail ready meat products for Australia-wide distribution.

ACC has successfully established a comprehensive environmental management program (EMP) for its food-processing facility and is rolling this out to their farm and feedlot operations.

The ACC EMP has not been undertaken alone. It has involved the formation of partnerships with the Queensland Environmental Protection Agency (QEPA) and Meat and Livestock Australia (MLA), with the support of the United Nations Environment Program (UNEP) Working Group for Cleaner Production and expert input from a variety of environmental professionals.

### **Initiative & Innovation**

ACC's charter and vision is to conduct operations in accordance with defined world's best industry practices underpinned by certified international standards for environmental management (ISO 14001).

To achieve eco-efficiency and sustainability ACC have deployed a number of business tools including environmental management systems, life cycle assessment techniques, cleaner production methods and environmental labelling mechanisms.

### **Environmental Management System (EMS) – Factory / Feedlot / Farm modules**

ACC achieved ISO 14001 certification for their central processing facility (factory) at Cannon Hill, Brisbane, Queensland, in August 2001. In June of 2003 stage 2 of the plan was completed with the 'World First' tri-certification of the Brisbane Valley Feedlot for ISO 9001 Quality, ISO 14001 Environment and HACCP 9000 Food Safety. The final stage of the working model for through chain implementation includes the tri-certification of Babbiloorra station in March 2004, completing the development of modular generic EMS templates for farm, feedlot and factory business units in the ACC group.



ACC's Brisbane Valley feedlot



ACC's Babbiloorra Station

### Cleaner Production

A Cleaner Production Implementation Plan (CPI plan) was developed following a cleaner production assessment completed at the Cannon Hill central processing facility which identified a number of eco-efficiency opportunities in water, energy, wastewater and waste solids management. The CPI plan requires a range of simple, through to complex, processing modifications to deliver potential economic and efficiency benefits over a ten-year term. These benefits will equate to target resource and waste reductions of:

- total water use by 37% (10 year target)
- total greenhouse gas emissions by 8,027 tonnes (CO<sub>2</sub>) from reduced energy use
- total coal use by 36%
- biosolids by 84%
- waste water by 36%

The staged approach of the plan will commence with simple initiatives in energy, water and waste management that require minimal capital expense. Examples include fitting efficient spray nozzles to hoses, minimising water flow rates, reusing treated wastewater in non-critical applications, and introducing practices that reduce heat ingress into refrigerated spaces.

This will be followed by steps to implement plant alterations that require an intermediate level of capital expenditure without major process redesign. This includes initiatives such as replacement of sensor and timer controls on hand wash stations and insulated knife sterilisers, replacing refrigeration condensers, converting red offal wash to sensor-operation and recovering heat from boiler blowdown for preheating the boiler feed water.

Stages 3 & 4 require process redesign to allow for alternative sources of energy and water including:

- Rainwater harvesting as mains water replacement in non food contact areas (cleaning, ablutions, irrigation)
- Heat recovery from refrigeration compressors
- Anaerobic digestion of waste water and manure to produce biogas (methane) and the reduction of biosolids production from the wastewater treatment system
- Utilisation of biogas to supplement coal in the existing boiler.

**Life Cycle Assessment**

As a vertically integrated “plate-to-paddock” demand chain organisation (demand driven as opposed to supply driven), ACC is in a unique position to complete a Product Life Cycle Assessment to identify and quantify environmental impacts throughout the entire product life cycle. An inventory of product life cycle data was completed for the Cannon Hill central processing facility in July 2001, with an entire agri-chain life cycle assessment being considered from farm through to factory.

**Extension, Promotion & Presentation**

The core philosophy of the ACC EMP is to attain a ‘beyond compliance’ position, be proactive to community environmental values and derive a commercial benefit in the process. To meet the challenge ACC must remain tuned to the issues of the day and the future.

Industry extension and dissemination initiatives are a critical component of ACC partnership arrangements with the program stakeholders and therefore strategies for wider communication and application of ACC’s activities is assured.