

Bendigo Region Poultry Cluster: Newsletter

Poultry Cluster Feasibility Study Completed

The Bendigo region poultry cluster feasibility study, supported by Regional Development Victoria was completed in early December 2005. Here is an extract from the Executive Summary.

"The feasibility assessment has found that the Bendigo Region Poultry Cluster is viable and worthy of financial support from Regional Development Victoria for the implementation of a range of initiatives. The poultry cluster is

- *strongly supported by a majority of the 38 businesses in the agreed cluster region, including all of the major processing and value adding companies in the regional poultry sector*
- *there is a clear direction for the cluster, in enhancing the region's attractiveness and capacity for investment*
- *six important cluster projects have been identified, and implementation work has commenced on most of these projects as part of the cluster feasibility assessment*

During the Feasibility Study there were a series of meetings and workshops with representatives of businesses, local government authorities, state and commonwealth agencies, research and development organisations, and training institutions. A cluster steering group has been formed (and has met on several occasions) together with six working groups; one for each of the proposed cluster implementation projects.

The overall objective of the Bendigo Region Poultry Cluster is

"to enhance the long term sustainability of poultry production, processing and value-adding in the Bendigo region, and to maximise the attractiveness of the region as a location for investment in sustainable and biologically secure poultry business operations"

All of the six active cluster projects are expected to contribute to the achievement of this objective".

Regional Development Victoria is now considering funding support for implementation of the cluster. To receive a complete summary report, contact the Cluster Feasibility Project Manager, Wayne Street (Street Ryan and Associates Pty Ltd) by phone on 5428 1488 or email wayne.street@streetryan.com.au or Bryan McEwan at Regional Development Victoria on 5442 4100 or bryan.mcewan@rdv.vic.gov.au.

INSIDE THIS ISSUE:

Poultry Cluster Feasibility Study Completed **1**

Regional Poultry Industry Worth Over \$215 million per annum **2**

Market Growth Continues for Poultry Meat **2**

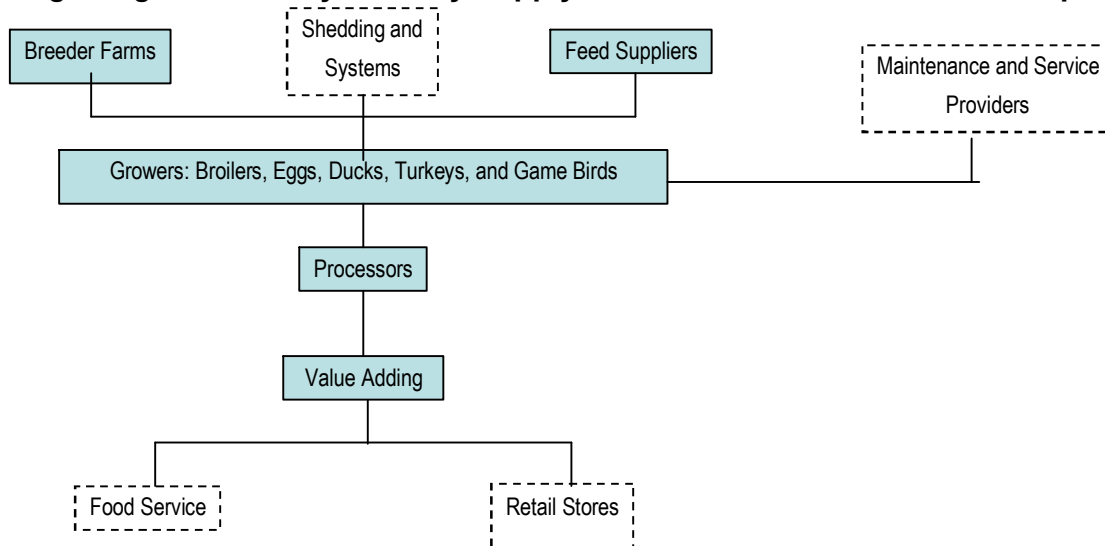
Successful Workshop held in December **2**

Progress with Bio-Energy Technical Assessment **3**

CLUSTER IMPLEMENTATION PROJECTS – A REMINDER

- Project 1: *Biowaste Facility: A joint waste processing facility (for fertiliser and power products)*
- Project 2: *Planning Controls: Coordinated and common planning controls and approaches across the region*
- Project 3: *Strategic partnerships in stockfeed*
- Project 4: *Alternative litter product development*
- Project 5: *Commercial value adding directions: development of cooked branded product and retail programs*
- Project 6: *Shedding and systems for smaller growers*

Bendigo Regional Poultry Industry Supply Chain: Direct and Indirect Participants



\$215 MILLION CONTRIBUTION TO REGIONAL ECONOMY

The Bendigo Poultry Cluster Feasibility assessment estimated that the region's poultry industry includes 38 businesses and supports 902 direct (full time and part time) jobs and generates an estimated \$168.5 million in direct sales income per annum. The total estimated direct and indirect economic contribution to the regional economy is 1,203 jobs and \$215.6 million per annum. Along the supply chain there are

Stockfeed Sector

- 52 jobs
- \$46.8 million per annum direct income
- 190,000 tonnes of manufactured product per annum.

Breeding and Growing Sector

- 32 businesses (including 4 grower/processors)
- 268 jobs
- \$25.9 million per annum direct income
- 6 million breeders and layers produced
- 17.2 million birds for processing per annum
- 2.9 million dozen eggs produced per annum.

Processing and Value Adding Sector

- 6 businesses
- 582 jobs
- \$95.8 million per annum direct income
- 18.3 million birds processed per annum
- 2,800 tonnes of value added product produced per annum.

NATIONAL MARKET GROWTH CONTINUES FOR POULTRY MEAT¹

IBISWorld estimates that the poultry meat processing industry generated \$4.0739 billion in revenue in 2004/05 and contributed \$1.0686 billion to gross domestic product. In the five years to 2004/05, industry revenue grew at an average rate of 6.9% per annum. During the year, the industry was composed of an estimated 190 establishments, which employed 18,554 people.

Domestic demand for poultry products, in 2004/05 was \$4.049 billion. The volume of production of poultry meat increased from 602,000 tonnes in 1997/98 to 726,000 tonnes in 2002/03². Factors affecting the demand for Australian poultry meat include the following.

- Rapid growth in the consumption of poultry meat was achieved by declining real prices. This was the result of competition, technological change and increased efficiency in the growing and processing of poultry. Poultry sector consultant Dr Peter Scott estimates that there has been a 46% real decrease in poultry meat prices over the past decade through technology and efficiencies.

- Higher average disposable incomes have facilitated the ability to purchase healthier sources of protein, higher quality rather than greater quantities of meat, and more food services (eg greater pre-cooking preparation of raw foods, more take-away meals, more restaurant meals). Chicken has featured prominently on take-away and restaurant menus and in pre-prepared meat retailing.
- To date, increasing consumer awareness of nutritional issues in diet has favoured poultry and fish, to the detriment of red meat. Consumers have become increasingly aware of the link between foods and diseases such as cancer and heart disease.
- Population trends have also favoured poultry. Immigrants to Australia have dietary cultures that include less red meat and more pork, poultry and fish. Duck is an Asian delicacy. Furthermore, the changing ethnic structure (together with higher real incomes and altered lifestyles) has helped to increase the proportion of meals eaten/prepared outside the home.
- Seasonal factors also affect demand for poultry. Turkey consumption has been strong during Christmas festivities for many years. However, the lean and healthy reputation of turkey meat is improving its year round consumption.

SUCCESSFUL POULTRY CLUSTER WORKSHOP HELD IN DECEMBER

The Bendigo Region Poultry Cluster pre-Christmas workshop, held at the Victorian Business Centre, Bendigo, was attended by 25 people from industry and regional organisations. Wayne Street provided a summary of the outcomes of the Poultry Cluster Feasibility Assessment and to thank participants for their enthusiastic contributions.

Two guest presenters were informative and thought provoking on key issues facing the industry. Greg Underwood (from Broiler Breeders Australia and BioProperties) outlined world and regional biosecurity facts, and Ian Farran (Agribiz Engineering) introduced the Australian Poultry Cooperative Research Centre and its activities. Among the many messages from these presentations, were the following summary points made by Greg Underwood.

- *"Biosecurity is a critical aspect of sustainable and profitable poultry production"*
- *Biosecurity is the best insurance policy against disease outbreaks*
- *Biosecurity is essential in all poultry enterprises, regardless of status or level in the production pyramid*
- *The cluster concept should be progressed with inter-enterprise biosecurity measures in mind".*

¹ Largely derived from IBISWorld 2005

² ABARE, Australian Commodities, 2004

BIO-ENERGY TECHNICAL ASSESSMENT PROGRESS

The Poultry Cluster Group, in partnership with Sustainability Victoria, has appointed engineering consulting group BEST (Biomass Energy Services and Technology Pty Ltd) to undertake a technical assessment for establishing a world-class bio-energy facility within Loddon Shire, utilising waste product (predominantly used litter) from the region's poultry industry.

The Bendigo Region Poultry Cluster Feasibility Assessment calculated that there is about 127,000 tonnes of poultry waste generated each year in the region; sufficient to provide feedstock for a substantial bio-energy operation.

BEST has identified six possible processes for producing energy and by-products from poultry litter, namely

- Anaerobic Digestion
- Combustion of Waste
- Pyrolysis
- Gasification
- Liquefaction Using Supercritical Water
- Hydrolysis.

Of these processes, BEST has suggested pyrolysis may have the greatest potential. Pyrolysis will produce char as a by-product. Char produced from chicken litter has a high nutrient content and high carbon content. It typically has

- Nitrogen of 3.52%
- Phosphorous of 4.4%
- Potassium of 3.8%
- Carbon of 39%
- Silicon of 5.8%
- Trace elements minerals (including Boron, Manganese, Iron, Magnesium, Copper).

Other features of char production are

- transportation of the dry high carbon product is cheaper than wet organic matter
- Char has millions of tiny pores that hold water and soluble salts (high water holding capacity)
- Nutrients such as trace elements and inorganic NPK can be infused into the pores
- Char is odourless and sterile.

There may be potential to use tallow from dead birds and other bird processing waste as a further energy source.

Poultry cluster businesses have provided a wide range of waste samples for analysis, and the project team conducted meetings and site visits at Hazeldene's, Goldfields Turkeys and Loddon Valley Eggs early in December under the direction of the Cluster Bio-Waste Working Group: Peter Hazeldene, Peter Mitchell, Tony Nesci, Michael Cox (Sustainability Victoria) and Wayne Street.

An initial technical report is expected by the end of February and, subject to the results, the project will proceed, over the next twelve months, to

- detailed design, equipment selection, final feasibility
- Cluster Working Group to decide on the organisation structure and equity holders in the venture, and incorporation of entity
- negotiations with energy authority to join grid or supply industrial estate
- arrange supplier contracts or agreements with growers and processors
- pilot plant development
- full implementation of the bio-energy plant.

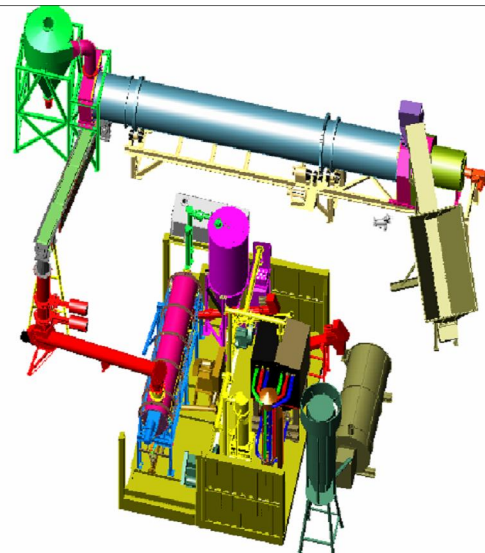


Photo and Figure: Layout of a Pyrolysis Energy and Char Generation Test Plant at BEST's Facility in New South Wales