



# Lincoln University

*Te Whare Wānaka o Aoraki*

AOTEAROA • NEW ZEALAND

New Zealand's specialist land-based university



# Coproducts: Animal Feed to Human Nutrition

Jim Morton

**Feed the world**

**Protect the future**

**Live Well**

- Components of livestock
- Coproduct Industry
- Role of public sector
- Case study in dairy food safety

# Co-Products of Cattle and Sheep

- 28 million animals slaughtered a year in NZ
- Carcass 55% for beef and 45% for lamb.
- 760,000 tonnes of “waste”

# Co-Products

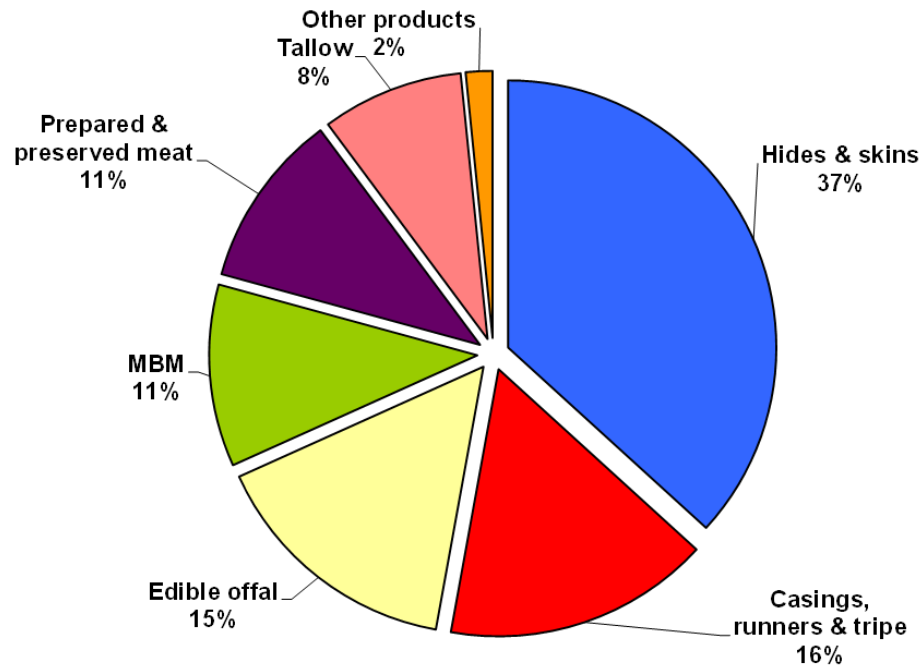
- Inedible components such as hides

Also

- Organs
- Blood
- Fat
- Bones

# Valuable Export Industry

NZ exports of co-products for the year ended 30 June 2015



\$1.4 billion

# Edible Coproducts

- Edible Offal valuable component  
\$211 million/66401 tonnes
- Casings: intestines for sausages, etc.  
\$173 million

# Rendering

Rendering turns what is left and converts it into valuable products.

- Fat into Tallow
- Protein into Meat and Bone meal  
(lowers environmental impact)



# Use of Tallow

- Soap



- Candles



- Lubricant-steel rolling

- Biodiesel



# Use of Meat and Bone Meal (MBM)

- Animal Feed
    - Fish
    - Poultry
- (non- ruminants)
- Disease-free status



# Food or MBM

- FAO preference that as much of the food produced get to people directly.
- Food uses higher value than animal feed
- However
  - Often market access issues with offal
  - Potential for contamination and disease
  - Often low nutritional value

# Role of Public Sector

- Funding research
- Market access
- Regulator

# Primary Growth Partnership

- 17 Partnership, 5 in meat
- 50:50
- Red Meat Profit Partnership
  - \$64 million
  - Nine partners
  - Around farm gate



# Facilitating Market Access

- Offal products often more difficult for countries to understand therefore higher risk.
- Sometimes transport problems.
- Changes in acceptance e.g. casings in 2014

# Dairy Regulatory Study Programme

New Zealand exporting knowledge in dairy supply chain.

Government to government but with on-farm food safety focus.

Regulations so dairy processors receive raw milk of suitable quality

- Standards adapted to meet the current needs of the economy.



- Government and farmers working to achieve a common goal