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Te Whare Wānaka o Aoraki

CHRISTCHURCH•NEW ZEALAND

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Lincoln University, Lincoln, New Zealand

New Zealand's specialist land-based university

What food should we eat? Local, safe or environmentally sustainable food.

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Case Study of Waitrose supermarket's Welsh and New Zealand seasonal agri-food supply chain

by Nic J. Lees

Background Issues

- How do consumers define product quality and value
- Does food security mean food self sufficiency?
- What is the best way to pursue climate change mitigation in agriculture?
- Should localisation of food and avoiding food miles be used for food purchase decisions?
- What does this mean for New Zealand agri-food exports to Europe

Food Quality

- Search
- Experience
- Credence

Introduction

- The New Zealand economy is still highly dependent of agri-food exports
- Despite growing importance of Asia, Europe is still important for some products.
- Europe still takes 56% of New Zealand lamb

Introduction

New Zealand has a strong competitive advantage in the export of high quality meat and dairy products.

Due To:

- **Favourable climate** that enables an **efficient**, **seasonal, pasture based** production system
- **Low population** (large food surplus and clean environment)
- **Geographic isolation** (high animal health status)

Introduction

- However, New Zealand is **vulnerable** to changes in **government policy** and **consumer demand** in importing countries
- Especially with the growing interest in **localised food systems** and national concerns about **food security**.

Challenges for NZ

- **Environmental Footprint** - Worlds longest export supply chains (18,000 km).
- **EU Common Agricultural Policy** seeks to increase food security and support rural economies

Issues

- New Zealand must address the European Union concerns of **food security** and the **welfare of local producers**.

Issues

- New Zealand must also address issues regarding **environmental sustainability** and especially **Greenhouse Gas Emissions** perceived to be associated with imported food.

Issues

- In addition New Zealand exports must meet European Union consumers demand's for a **consistent supply** of **high quality**, **safe food** at a **competitive price**

Issues

- New Zealand must meet these **consumer demands** within the constraints of a **pasture based** agricultural production systems. This requires the development **long term cooperative** supply chain partnerships

Issues

- Agribusiness supply chains tend to exhibit **short term opportunistic behaviour.**

Problem Statement

- How can New Zealand ensure a **consistent year round supply of high quality, safe food** and addresses issues of **animal welfare, environmental stewardship** and **local farmer economic and social welfare.**

Research Questions

1. How can New Zealand deliver a **consistent year round supply** of **high quality**, **safe food**.
2. How can New Zealand exports addresses these issues of **animal welfare**, **environmental stewardship** and **farmer economic** and **social welfare**.

Case Study

- This paper looks at the case study of Waitrose supermarket's **Welsh** and **New Zealand** seasonal agri-food supply chain for **fresh chilled lamb**.

Case Study

- Waitrose are able to ensure that their customers have a **twelve-month supply** of **quality lamb** meeting the highest standards of **animal welfare** and **environmental sustainability.**

- Waitrose support the **livelihood of their farmer suppliers** through **premium prices** and **improvements in farm productivity**.

- This is achieved in the **highly com**petitive United Kingdom supermarket environment and this strategy provides Waitrose with a **sustainable competitive advantage**.

Research project

- Analyse the supply chains of the **high value NZ meat exporters** and the **relationships** with their **retailers** in the European Union.
- Identify the ways that **supply chain participants** address **consumer** and **society needs** through **long term, collaborative** supply chain **partnership**s.

Methodology

- An initial exploratory study using semi structured interviews with key wholesaler/retailer personnel in the European market to develop an understanding of the supply chains and the key factors in the supply chain relationships

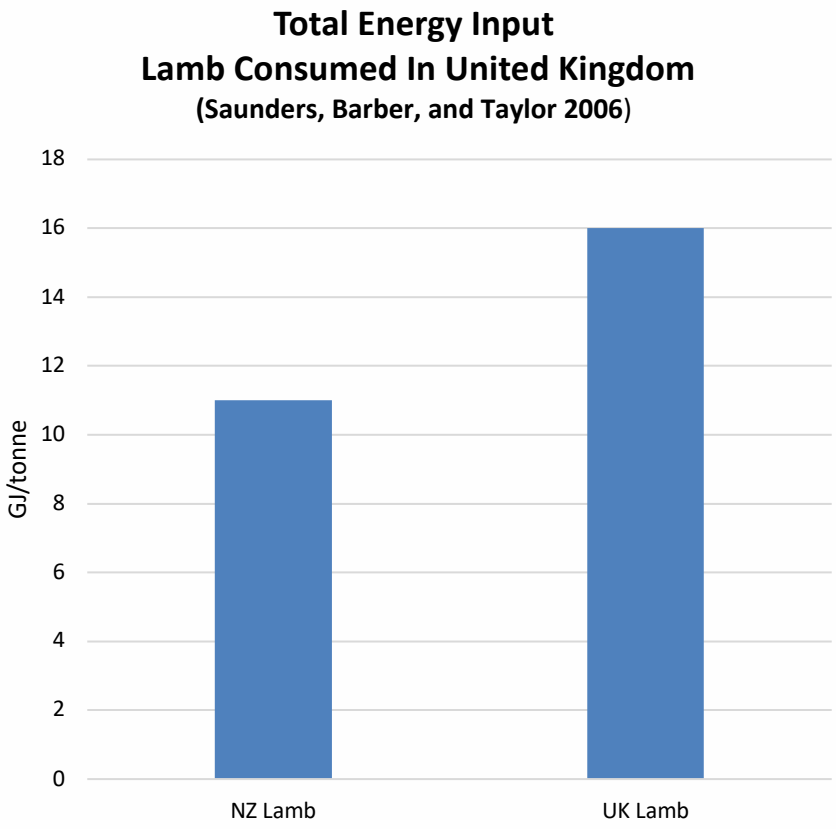
Best in Season – Best for the Environment

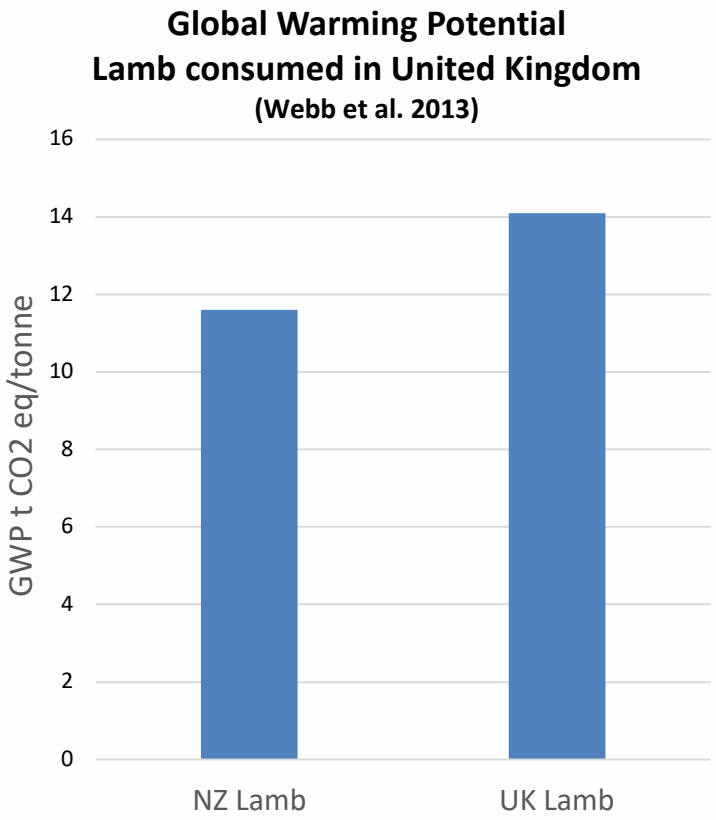
- As well as providing a **high quality product** this policy also minimises the **impact on the environment.**
- The lower feed conversion rate of **ruminant animals** such a sheep mean that when fed on feed supplements their emissions per kilogram are higher than monogastric animals such as **pigs** and **poultry**.
- However, ruminant production in **extensive grazing systems** on land unsuitable for crop cultivation helps reduce emissions (Garnett, 2009).

Best in Season – Best for the Environment

- The extensive pasture based lamb production systems in New Zealand have been shown to have **lower carbon emission** even when long distance sea transport is taken into account (Saunders & Barber, 2008).

Best in Season – Best for the Environment





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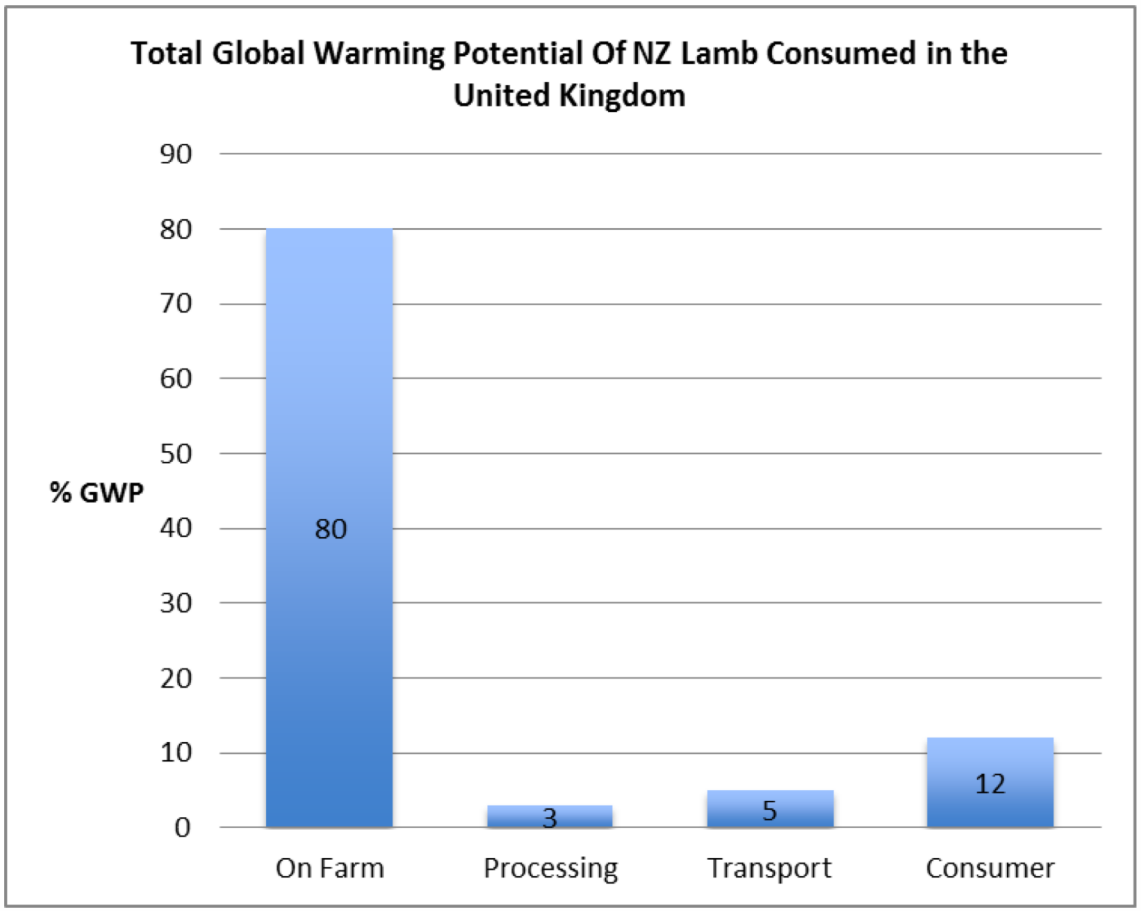
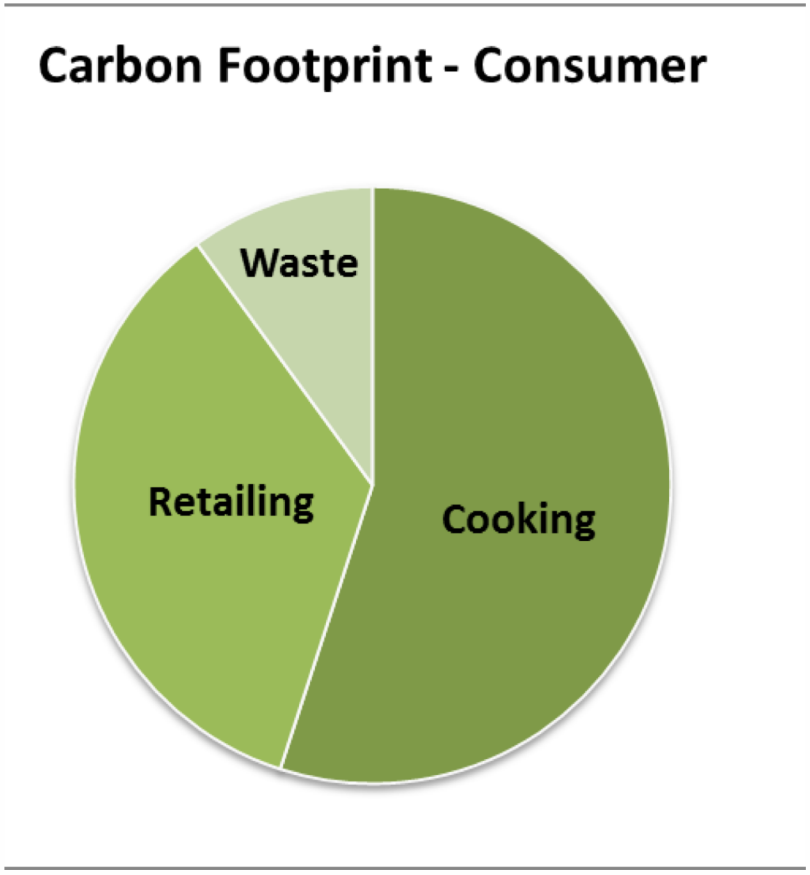


- Largest contribution to greenhouse gases occurs behind the farm gate (methane)
- Feed conversion to meat has highest impact on methane/kg meat

Reduce on Farm Emissions

- Greater amounts of fertiliser applied to UK pastures
- Faster growth rates of NZ systems
- Lower use of feeding supplements
- Indoor lambing systems in UK with straw bedding

Consumer



- Consumer can make a big difference on the carbon footprint
- Driving 2.5 km to buy 500 gms meat adds 1 t CO2 eq/tonne (additional 10% to carbon footprint)

Requires Supply Chain partnerships

- **Relationships**: "The key to developing the relationship would be the operational people, its all about people, they have got a very good team, we have got a very good relationship with them and communication".
- **Trust:** "**We have absolute trust in Waitrose**, I believe they have absolute trust in us, they would always from a commercial point of view would want to know they are being treated fairly, but they put a lot of trust in us".
- **Interdependence:** "We have got to work to make **Waitrose very successful**, they have a huge **impact on our business** so we have a huge responsibility to make sure that Waitrose are treated fairly on a commercial basis.

What makes the system work?

- **Reciprocity:** “The relationship with Dalehead is very much a transparent one. We have a margin aspiration. We work closely with them and that’s where some of the flexibility there allows us to do another promotion”.
- “So we work together and take a bit from either party”.

Results

- **Market share growth** - Despite the recession this year has been a record-breaking period for Waitrose, posting its highest ever share of 4.7% (Grocery News 2012) . UK's fastest growing supermarket last year.
- **Oversell in meat category** - Waitrose has only a 5 % market share but has nearly 10% market share of lamb sales
- **Trusted brand** - When Avian Influenza came 3-4 years ago sales of chicken went down everywhere except for Waitrose where it went up. Sales have lifted 11% during the horsemeat scandal.
- **Shared benefits** – All supply chain participants benefit from farmer to consumers. Other stakeholders benefit through improved environmental and economic performance

The Future

- Increased collaboration between NZ and UK farmers can improve the efficiency and sustainability of UK lamb production.

MAXIMISING RETURNS THROUGH REDUCING METHANE EMISSIONS - AN OPPORTUNITY FOR THE UK SHEEP SECTOR

5 Dec 2012

Compared to 1990, the New Zealand flock produces slightly more meat from 43% fewer ewes due to increases in the number of lambs reared and average carcass weight. This has led to a 17% reduction in the carbon footprint of their lamb. Similar gains could be achieved here. Arguments in support of sheep production are needed to counter those who use climate change as a to turn consumers against the consumption of red meat. These include - most of the land farmed for sheep is unsuitable for other forms of food production; alternative sources of protein which are considered to produce less GHGs often use cereals and grassland stores carbon.

Thank you

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