Drivers of Global Meat Demand

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Economic Research into the Canadian Agriculture and Food Industry

Independent:
- Financially
- Structurally
- Research Perspective

Areas of Activity:
- Contract Research
- Market Analysis
- Education

What does Market Analyst Do?

- Information gathering
- Analysis
- Statistical relationships
- Trends
- Weighting factors
- Projections and Forecasts
- Competitive Intelligence (Action)

Technology

Practices: doing it better through science

Products: using new and better tools, equipment

Genetics: improving plants and animals that we grow

Science and Technology…in the supply chain

Consumers
Retailers and Food Services
Packers
Producers
Animal and Meat Science

Much more than an industry supplier:

Integral, pervasive and leading role within the livestock and meat industry

Purpose...

Illustrate the drivers of global meat markets and the demonstrate the central role of science and technology.

Outline...

Determinants of demand

Main Drivers of Food Demand

Population is growing

• World population is expected to reach 9.1 B by year 2050

Source: United Nations World Population Prospects Database
Each year...

...there is additional 75 million people to feed

| About 2 Canada(s) | About 75 Saskatchewan(s) |

Source: United Nations after Potash Corp

And, each year...

...there is a greater need for agricultural products

Dietary shift is real

Source: FAO, UN World Population Estimates

When Incomes Rise...

... demand for different types of food increases (e.g., meat)

Demand for (more) meat

Source: FAO, IMF

Meat Consumption Growth Since 1995

Global

Developing Countries
Think...

...Markets and Technology

Constraints of Resources

12% (AT MOST) more arable land available worldwide

Land is a huge constraint...

...in areas with high demand

With diet shift...

...greater land demand
Water is limiting, too…

Source: International Water Management Institute, 2009

Agriculture uses

>70% of all fresh water use

Pacific Water Inst.

With diet shift…

Liters of water per kilogram of product

...greater water demand

Pollution

With agricultural intensification has come disease and pollution

Think…

...Markets and Technology

Power of Technology
Why technology?

Technology increases efficiency...
Efficiency drives abundance and affordability.

With limited and or “shrinking” resources...

… and with INEVITABLE Demand growth...

Food and feed demand will require an increase of global food production of 70% by 2050.

FAO projection

In the year

World population will require

More food, and

Of this food must come from efficiency-improving technology

Technology...

Since 1997, due to technology...

Water
• 14% less per pound of beef
• 65% less per gallon of milk

Feed
• 34% less for beef and 90% less for milk

Land
• 20% less for beef and 75% less for milk

Resulting in...

Smaller carbon footprint:
• 18% for beef
• 63% for milk

Sources:

High-yielding agriculture …

Think...

…Markets and Technology

What about Canada, Canadian Meat Industry and…

The Role of Animal and Meat Science

Canada and Resources

Abundance

Animal Health

- Absence of common problems...a MAJOR strength for Canada

Has spared 7 million square miles of wildlife habitat; equal to…
Animal density and human contact

* a non-issue in Canada

Other North American Strengths

Extraordinary Base to grow and prosper relative to the ROW

Feed grains
Access to and adoption of technology
Logistics and Infrastructure
Relatively free markets

Trade and Exports Are Crucial

Canada: Stable, not growing

Ample Meat and Poultry Supplies

USA: high but not growing
North American Pork Demand: Struggling

![Graph showing North American Pork Demand: Struggling](image)

**Production and Price: Theory**

* Higher production, lower prices

Price of meat: What is with the theory?

![Graph showing Price of meat: What is with the theory?](image)

* Production is high AND prices are high

US Beef Pricing: An Exceptional Story

![Graph showing US Beef Pricing: An Exceptional Story](image)

How can there be high prices, huge production yet weak domestic demand?

Global Exports are the driver of industry pricing, growth and profit
Global Economic Growth and Demand

- And Growing demands from a hungry world

Important...

- Large, efficient industry responding to global demand
- Aided by a depreciating currency

The unknown cards

- Will domestic demand hold up with increasing consumer prices?
- Will global demand and the weak USD continue to be the pricing engine?

But where is the Meat Industry going?

Meat industry has exhibited an uncanny ability to hurt itself

Canadian differentiation...

Different...

Different...
Majority of Consumers Trust the Food Production Process

Activists: Tiny fraction
Lifestyle buyers of local, gourmet, organic/local: Small minority
General Population that buys based on taste, cost and nutrition: Overwhelming majority

Yet Industry Reacts to Fringe

And Seeks to Differentiate Based on the Lifestylers
Evolution of Society and Industry creates new problems

Solution...

• Do not abandon advancements
• Build trust, instead

Transparency and Technology

North American Meat industry needs to embrace and extol the virtues of technology

Extraordinarily positive message and the only hope for a hungry world

Consumers will be satisfied if we are transparent

The Need in the Future

Reduce stress on environment
Address food safety concerns
Double the food production in 50 years
Enhance disease control

TECHNOLOGY

Request

Please get the taste back into the chops

Summary

Growing global demand for meat
Canada is uniquely positioned to prosper
Technology and Science are the only ways for Canada to meet that demand
Huge reasons to be open and transparent about meat science and technology
Thank You