



Global and Domestic Feed Prospects

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First - a Disclaimer

- This presentation and its contents are the personal opinions of the author and do not represent the corporate policy or opinion of Tegel Foods



Whats going up in price? Looks like everything!

- An average NZ supermarket trolley of food costs 29.7% more this week than a year ago!
- Oil (crude) is up 61% vs last year
- Petrol is up 48%
- Wheat (USA) is up 55%
- Corn (USA) is up 92%
- Cheese is up 60%, butter is up 92%!



What should you do?





Current Markets

- The following slides are CBOT Wheat, Corn and Soybean Meal market graphs from Thursday 17 July.
- There are 3 take-home messages in these slides for consumers of these products:
 1. We are in a very different world (price-wise) today than any time in the past 20 years
 2. Be aware of Volatility and the sheer magnitude of price risk
 3. No one can afford to simply be a 'price-taker' in these markets – we need to be active 'price-setters' through good management of our purchasing decisions.



World Markets Wheat (last 18 months)





World Markets Wheat (last 20 years)





World Markets Corn (last 18 months)





World Markets Corn (last 20 Years)





World Markets

Soybean Meal (last 18 months)





World Markets

Soybean Meal (last 20 Years)





Whats happening?

- World Food Demand is up, supply is down.
 - Changing World Consumption
 - People in China and India are eating more grain, meat and dairy products (increasing demand)
 - Biofuels
 - Huge amounts of grain and oilseeds are being used as fuels (ethanol and bio-diesel) which both increases demand and reduces the supply of grain for Food.
 - Climate
 - Several of the worlds important grain crops have been drought-affected, reducing world supplies.



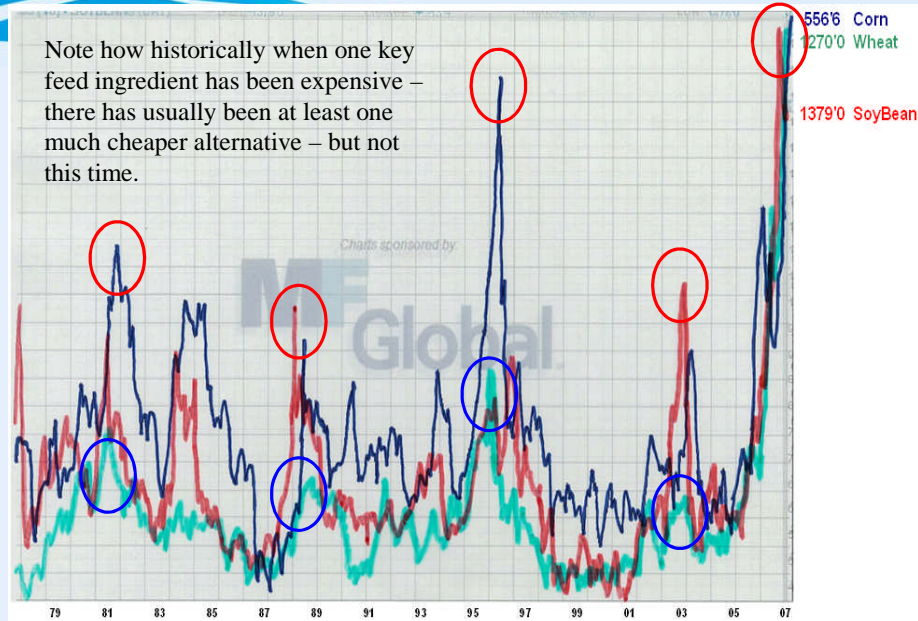
Why is pricing so high?

- For the past 30+ years, there have been abundant global stocks of grain.
- But Global grain stocks are at record low levels due to increasing demand.
- When droughts occur (like Aussie, 2 x 100 year droughts in past 2 years) the global grain supply tightens and there isn't much spare grain to make up the gap.
- Plus, the worlds traditional “backstop” plentiful and cheap food source has been US corn – which is now being used for ethanol.



The Perfect Storm

Note how historically when one key feed ingredient has been expensive – there has usually been at least one much cheaper alternative – but not this time.





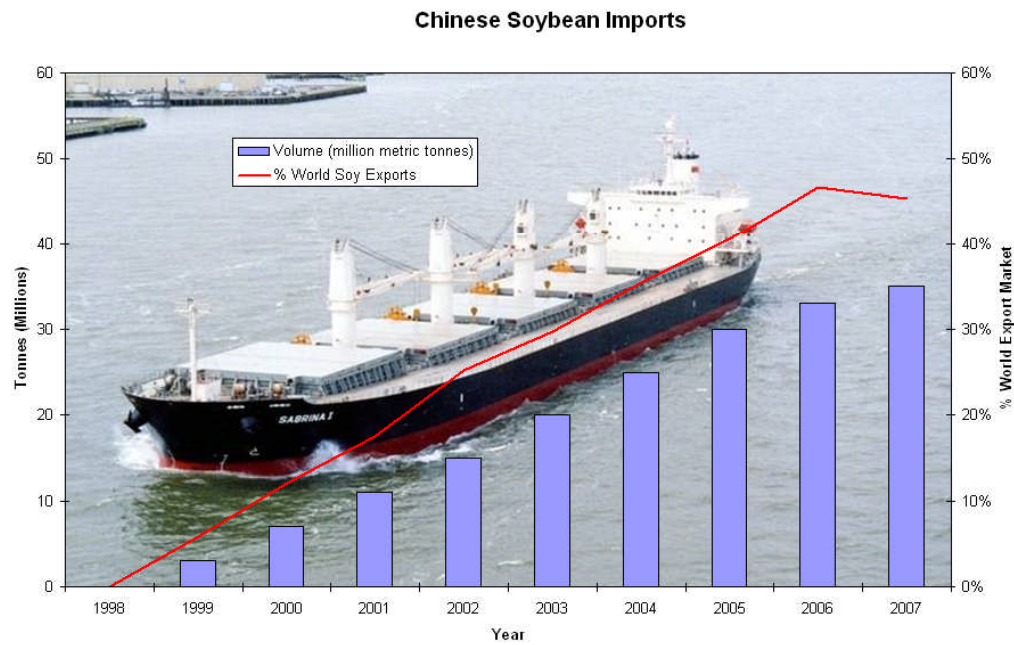
Changing World Consumption

- In 2003 China imported bulk foods / grains with a value of \$12 billion or 42 million tonnes
- In 2005 it was \$25 billion or 83 million tonnes
- In 2007 it was \$40 billion or 120 million tonnes
- It is forecast to reach **\$100 billion** in 2010 or 200 million tonnes.

- This isn't going away.....



Chinese Soybean Imports





Biofuels / Ethanol

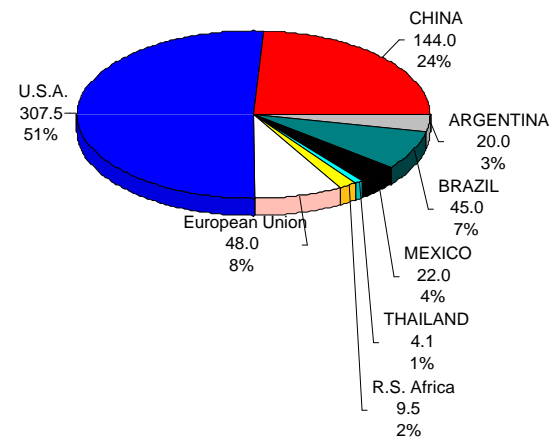
- Until a few years ago, most ethanol in the world was produced from sugar cane.
- Basically the US (and a few other countries) have decided to use food grains (e.g. Corn and sorghum) to produce Ethanol. So the grain that used to supply the world with 'cheap food' is now priced at gasoline-relative values.
- At the same time, bio-diesel has driven up demand for vege oils, tallows etc.
- This isn't going away, and by itself probably means the end to 'cheap' food.
- Why? The consumption is massive already and will just get bigger.....



How big is the Ethanol Issue?

The US is about ½ of Total World Corn Production and is the largest corn exporter by far – so is a hugely influential grain ‘price setter’

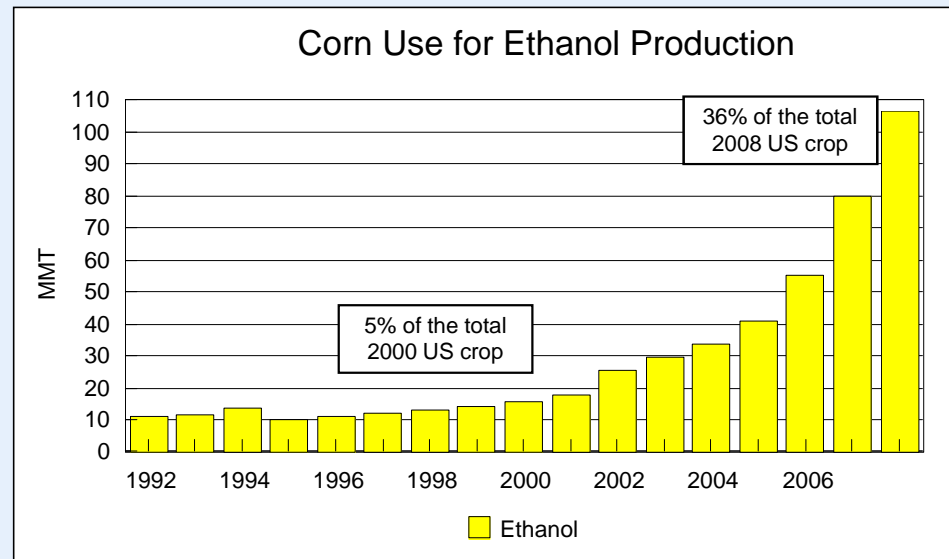
Major World Corn Producers - 2007/08 - MMT





Biofuels

At the same time as this huge increase in new 'Food demand' corn use for Ethanol in the US is exploding and using 'Food for Fuel'





Biofuels – it gets worse

- The US alone is forecast to use more than 150 million tonnes by 2010 (50% of US Corn and 26% of World Corn)
- To fill an average car in the US with ethanol takes the same amount of corn as could feed 1 person for 1 year.
- The US total corn consumption for Ethanol in 2008 could feed 400 million people for 1 year.



Climate hasn't helped

- Aussie have had 2 x 100 year droughts in a row.....Australian Wheat production was down by 15 million tonnes last year!
- Europe and Ukraine also had poor crops last year.
- And just to cap it all off – the Brazilians are busy burning down the Amazon to grow corn for the world to eat so people in the US can use corn as biofuel for their cars!

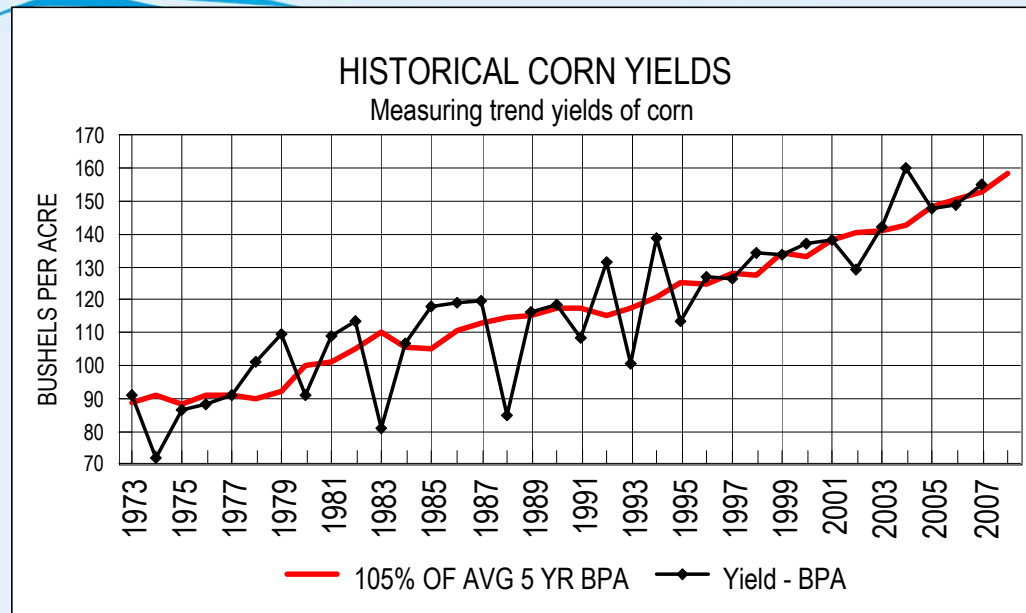


Climate – could get worse

- Given our historic low Global stock levels – any hiccup in the supply side due to drought, strikes (recently in Argentina) etc will just send price even higher.
- Interestingly, GE crops are shown to have helped due to increased drought tolerance.....average yields are up due to fewer 'bad years'



Climate – GE Crops





The NZ Market

WHY has the NZ market changed?

- Domestic Demand for NZ Grains has increased hugely.
- Supply has not been able to match demand.
- Large areas of very productive crop land have been lost to dairy conversions.
- AT THE SAME TIME we have seen record international grain prices
- And Competition for 'acres' planted in NZ from a wide variety of crops (arable crops, small seeds, vegetable crops, dairy grazing etc)



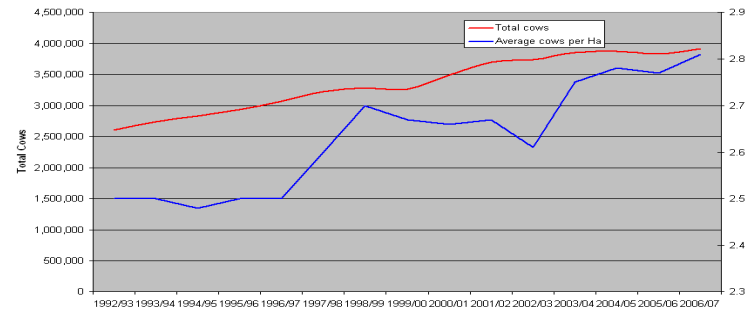
NZ Supply and Demand

- The NZ grain and feed market has a new major user, dairy.
- With dairy prices well over \$7.00 per kg ms, it is cost effective to run large supplementary feeding programmes (grains, palm kernel, etc)
- We estimate that dairy will consume in the next 12 month period approx 1.5 million tonnes of supplementary feeds:
 - grains (wheat, barley, maize)
 - Palm Kernel Meal
 - Maize silage
 - compound dairy feeds / blends

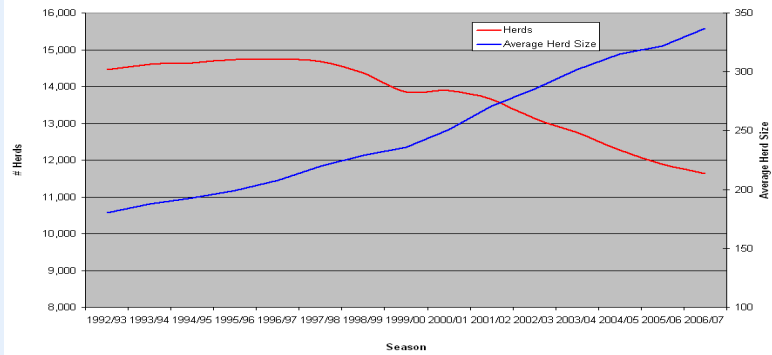


NZ Dairy Industry Growth

NZ Dairy Industry Stats



NZ Dairy Industry Stats





NZ Dairy Industry

- What factors are driving the trend of increased supplementary feeding?
 - High milk solid returns (\$7+)
 - Higher land values per Ha
 - Fewer herds
 - Larger average herd size
 - Increased stocking rates
 - Increased milk solids target per cow
 - Fonterra 3% year-on-year growth target



World Markets and NZ

- Remember - In an average year, NZ imports more than 50% of its total grain consumption.
- Internal Freight in NZ is very inefficient (and therefore expensive) relative to the rest of the world
 - It still costs more to ship from Canterbury to Auckland than from Australia to Auckland.
 - If Aussie gets a decent wheat crop, import pricing will be extremely attractive.



NZ Grains

- 'Best' contract prices have increased \$150/T over last 2 years (~60%)
- 'Spot' market contracts have increased \$250/T over last 2 years (~95%)
- Large companies (like Tegel) and our long-term customers haven't seen the full impact of these prices yet due to our buying patterns – **so unfortunately, there's more to come.**



Where to from here?

- All markets move in cycles – we will see price stabilisation at levels below 'peak prices' but when?
- Developing country demand is here to stay – and is only likely to decrease if there is a major global recession.
- Given the extent of investment to date and political leverage the of biofuel industries, biofuel strategies are unlikely to change much soon.
- **Prices are very unlikely to return to historic levels – we are in a 'new world' as far as grain / food prices are concerned.**
- **If any major world crop (esp US corn) fails anytime soon, the prices today will look cheap.**



World and NZ Markets

- Why are these markets relevant to the NZ Pork Industry?
 - Historically, 'most' of the NZ Pork Industry's grain usage has been NZ Wheat, NZ Barley, NZ Maize and other by-products (whey, vegetable waste etc).
 - Many other large users of NZ Grains switch in and out of Imports and NZ grains depending on price.
 - Poultry (Imported Wheat / Sorghum vs NZ Wheat / Barley and Maize)
 - Flour Millers (Imported milling wheats vs NZ varieties)
 - And more recently, Dairy (Palm etc vs NZ grains / silages)
 - This flexibility is critical in managing RM price risk.



What can we all do?

- Use Alternative Raw Materials
 - Basically – spread your risk across a wider range of raw materials. Not every commodity has got more expensive.....how can we use the cheap ones?
 - Aggressively test / try new raw materials (establish viable alternatives as fast as possible to move us away from our reliance on high priced historic grain mixes)
 - Some may need work / investment for grind size, but they will pay back quickly.
 - Important examples that are cost-effective in pig rations today are: Sorghum, Canola meal, DDGS.
 - Other longer-term opportunities are: Tapioca, sunseed meal.



What can we all do?

- Risk-manage FX and Grain Pricing.
 - Put NZD:USD FX protection in place for the future (either as an industry initiative or as individuals).
 - Use NZD:USD exchange rate hedges to protect your business against cost of imported ingredients, future Pork Imports and / or dairy prices.
 - Dairy payout is \$7.30 based on historic high NZD:USD what happens @ 65c? They will be more profitable and will drive more demand
 - OTC swaps and options for FX and grains are available to anyone from major banks.



What can we all do?

- Know what you're going to pay.
 - As consumers – there are 2 big risks:
 1. Knowing what your raw material costs are going to be in advance – locking in profit potential.
 2. Making sure you're not substantially more expensive than your competition (don't lock in a price that seems very high).



Manage your Risks

- OTC swaps and options are available to anyone from the major trading banks.
 - Grains (wheat, Corn)
 - Proteins (Soybeans etc)
 - FX
 - Diesel, Crude Oil etc
- They can be structured so there is ZERO up-front cost



An example of an OTC Swap



March 2007

United States Dollar (USD) Wheat Swap

What is a USD Wheat Swap?

A USD Wheat Swap is a type of commodity swap where there is an agreement to exchange a floating price for a fixed price for an underlying commodity. Commodity swaps allow both producers and consumers with exposure to variable commodity prices to protect themselves against adverse future price movements. Producers can use commodity swaps to protect themselves against declining commodity prices that will reduce revenue. Consumers can use commodity swaps to protect themselves from increases in commodity prices that will increase their costs.

A USD Wheat Swap is not a Physical Delivery contract. It does not involve any actual exchange of wheat grain with Westpac. Any contractual arrangements for the physical sale or purchase of wheat are separate to the USD Wheat Swap transaction.

Suitability

A USD Wheat Swap may be suitable for those wishing to manage exposure to wheat prices, and:

- are a producer of wheat;
- are a consumer of large quantities of wheat; or
- otherwise has exposure to wheat price movements

How does a USD Wheat Swap work?

A USD Wheat Swap is an agreement where one party agrees to pay the other (in cash) the difference between a fixed wheat price (Fixed Swap Price) and a variable wheat price (Floating Reference Price).

The USD Wheat Swap will be based on an agreed notional tonnage of wheat. Westpac will require a minimum tonnage of 136 tonnes per USD Wheat Swap (equating to 5,000 bushels) and for the notional tonnage to be set in increments of 136 tonnes thereafter.

On the Settlement Date, unless the Floating Reference Price and the Fixed Swap Price are equal, an amount will become payable under the USD Wheat Swap.

In all other cases, the amount payable will be due on the Settlement Date for the USD Wheat Swap.

Worked example

Current position – consumer of wheat

A consumer of wheat seeks to manage the risk of rising wheat prices early next year (that is, the consumer pays the Fixed Swap Price at maturity). The hedge is for 136 tonnes of wheat for this period.

Transaction – 15 June

The Fixed Swap Price quoted by Westpac, for a maturity of 28 February the following year with reference to March CHOT Wheat Futures Contract is USD128.00 per tonne. The notional amount for the transaction is 136 tonnes of wheat. Payments under the USD Wheat Swap are generally made in USD. Any hedging of NZD/USD exchange rate risk is done separately.

Maturity – 28 February

The most recent close-of-business settlement price for



Is this market here to stay?

- No – all commodity markets move in cycles. It is the function of the market to use price to modify supply and demand.
- What will change the fundamental Supply and Demand issue? Possibilities include:
 - Large reduction in global oil price (reducing cost-effectiveness of biofuels)
 - A global economic event....recession in the US??
 - New technology in Biofuels
 - Change of biofuel subsidy structures
 - Significant increase in crop sizes
- **Everyone is guessing how long it will last.....but grains and feeds are going to remain relatively expensive for the foreseeable future.**



And Finally.....
Remember, always ask for Tegel

