FARM SUCCESSION AND EQUITY GROWTH

An Alternative

Abstract

Succession is a growing issue facing New Zealand land owners. Those wanting to own their own business are finding the road is getting longer. New ideas and groups are emerging to help facilitate these problems. This report looks into the viability of several alternative ideas the author has on these issues.

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Introduction

Having been involved in dairying for half my career. I have worked closely on a personal level with both sharemilking and equity partnerships in Dairy farming in New Zealand. Although both of these business models have a place in the industry, I think there are still some situations involving either current owners or those looking to grow their equity, where these two models and others currently available, are not an option or are unlikely to work.

Currently, I believe many ageing farm owners in New Zealand feel limited in their options in respect of retirement and succession planning. Often many of these owners have worked hard all of their lives to own a farming business of their own or the business has been in the family for several generations. Currently the average age of the New Zealand farm owner is 58 years old.

Although the focus of this report is primarily dairying, the problems discussed are found throughout New Zealand's rural communities and it may be possible for some of the ideas discussed and mentioned to be manipulated to work in other industries. My expertise is in the dairy industry and for this reason I will focus the report on the dairy industry.

The average age of the New Zealand land owners is a big problem (see appendix one news article from stuff.co.nz). Succession planning is a major focus amongst industry groups, banks, rural accounting and law firms and has already led to several companies emerging and filling gaps. These include MyFarm, Farmright, Rural Business Solutions and several others which all offer good and attractive opportunities for various groups within the farming community. However, I believe they do not offer solutions to all of the farming community looking for options around succession and growth.

Below is a brief overview of why I have found some of the current business model options offered could be problematic for existing farm owners:

Leasing: If the driver for an alternative business model is to free up capital, then this option does not generally provide for this. It can also often lead to problems with insufficient housing if the land owner wants to remain on the land. Further, some landowners simply may find it difficult to relinquish all of the control and find it hard to see someone else running things differently. This can lead to conflict. This view is backed up by the survey results presented later in the report.

Sharemilking: Can provide capital, however reduces the landowner's income significantly,sometimes too much for the landowner to live comfortably and to do the things they have worked hard for. Seeing the person running your property getting big returns while you receive very little compared to the value of the business is often a sore point. Due to the imbalance in the returns this model is becoming less popular than it once was when land and stock values and returns were on a more level playing field.

Equity Partnerships: This is an effective way to get capital and reduce the worry of having to run the property while still keeping a finger on the pulse. It allows you to continue to get similar returns to the value of your share in the business. It is also a very effective way to get onto the ownership ladder if you are trying to grow your business but do not have the funds to purchase a farm outright.

Several problems arise however. The first being the business owners often end up with an equity partner that they do not really know very well and with whom they have conflict. They then become stuck with this partner if there is no buy back clause in the Partnership Agreement and do not have sufficient capital to buy the equity partner out if things turn sour. An equity partner could be the beginning of a path of no return to selling the business outright.

Selling the business: If this was done reluctantly it can often be a cause of huge regret within a family at a later stage. Children often take longer to show interest in the business than their parents expected and it is very common to hear that the children developed an interest in the business too late and lost the opportunity.

Methodology

In researching this topic I sent a questionnaire out to a small catchment of just over 80 East Waikato dairy farmers. Unfortunately, I only received 40 responses to this survey and if I was going to research this topic in more depth I would rework some of the questions and distribute it to a larger pool. A copy of the questionnaire can be found in Appendix One.

Due to the small pool and the limited responses the survey may have a large margin of error and may not be taken as a true representation of dairy business owners. However it did throw up a number of interesting responses that go some way towards validating the need for some alternative succession and equity models in the agriculture industry of New Zealand.

The first question was in relation to whether the business owner was planning to sell their business at some stage in the future. 25% of respondents said they were planning to sell their business.

Figure 1

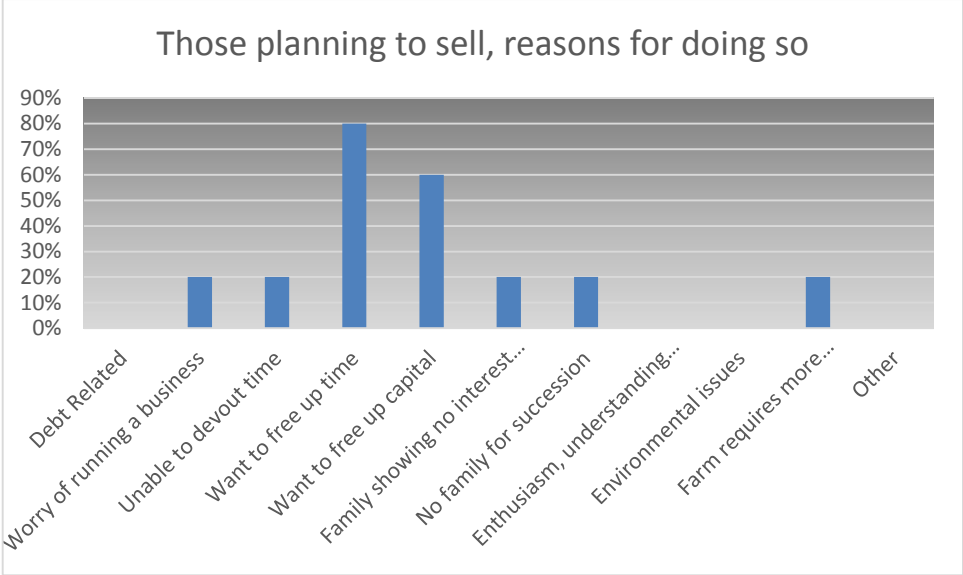

Figure 2

Of those 25% planning to sell, Figure 2 above shows an overwhelming percentage listed wanting to free up time and capital as the reasons for planning to sell the business. Respondents were able to select more than one reason for planning to sell.

Figure 3

As will be discussed later in this report, one of the biggest obstacles I see to the uptake of the ideas I present (which are discussed in further detail later in this report) is the lack of wanting to accept change or the fear of losing control. The lack of ability or want for change is one of the biggest handicaps facing any business in any industry. The results in figure 3 show that the land owners surveyed do not want to lose control of their properties, which could hinder that business's ability to adapt and be as profitable as it could be.

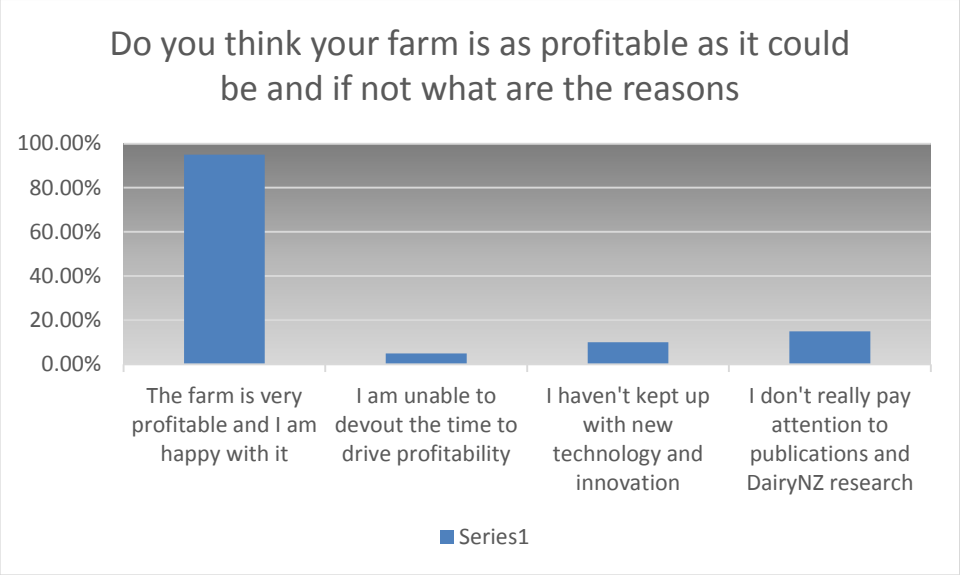

Figure 4

Perhaps the most interesting or concerning response, whichever way you want to look at it, was whether the business owners thought their business was as profitable as it could be. A huge 95% of respondents were happy with the profitability of their business.

This is despite the Dairy Push results in the South Waikato which concluded a number of dairy farms in that area were not operating as efficiently as they could be. Dairy Push began in November 2007 as a farmer driven initiative which ran for 3 years. The project was led by a group of motivated dairy farmers in the South Waikato District. The broader goals of the programme were to improve profitability of dairy farms in the district, and thus improve the profitability and economic wealth of the district as a whole. The group meet during the year and also have one on one visits with a farm advisor for strategic planning.

The Dairy Push project was able to improve the on farm profitability of those farms involved by an average of approximately $110,000 per farms per year after three years. That was an increase of more than $500/ha for each farm involved in the project

Opportunities – Succession and equity growth

In my opinion several opportunities currently exist, that are not widely used, that would suit different groups who currently feel lost for options. These opportunities exist for, land owners, up and comers looking to grow and rural professional groups looking for a point of difference. I believe the three best opportunities are as follows:

1. Long term leasing with the lessee providing capital up front

I propose that this model of long term leasing with the lessee providing capital upfront, would suit a specific group of people who have an emotional attachment to their property. I believe that this specific group are the group which are least catered for by the current market models which struggle to meet their needs and for this reason, I have chosen to focus this report on this leasing model The model can be tweaked depending on the situation of the individual landowners. The specific group includes those:

- Urban based people who have inherited property, maybe multi-generational property that have emotional ties.

- Wanting to retire/ not have to worry so they can focus on hobbies i.e. golf, travel.
- Wanting to free up capital for investment opportunity, family or travel etc. while retaining an income.
- People too old or not physically able to keep on top of the property.
- Maori trust land, traditionally there has been no money to develop the land. The lessee could develop the land into the full working farming business in exchange for a long term lease.

  The Maori Trust could provide capital if they are able to use the land as security, our model could lease the land back at their interest rate indexed so that they have security against upside in rates. Often the Trusts involved treat the land as sacred and have a very long term view and don't want cash from it other than to service debt and cover running costs in the short term to medium.

2. Sharemilking arrangements targeting 10% return to incentivise the land owner

Sharemilking in New Zealand has been a very well received and widely used model over the past 50 years. However, as land values have increased more rapidly than herd values the returns of this model have swung so much in favour of the sharemilker that land owners have drifted away from this model as a viable option for their business.

I submit that the sharemilking model needs a shake up and should be tailored to suit different situations between land owners and sharemilkers.

There is still a place for the sharemilking model in the industry and I believe there are opportunities around the make-up of this model. Currently, this model pays the normal 50/50 sharemilker expenses but takes a lower milk cheque percentage to obtain a minimum return of 10%. [Through cash return Plus stock gains.]

Sharemilkers have averaged approximately 17% returns for the past 3-4 seasons. Successful sharemilkers are receiving 25-30% returns. Such returns have deterred landowners from getting sharemilkers.

This model is now only used in the market place in a limited capacity. Groups such as Dairy holdings have been known to use a similar model.

3. Total farm equity growth/succession solutions consultancy

There are number of farm consultancy companies in New Zealand that offer varying services including amongst other things:

- Consultancy
- Business assessment and planning
- Management
- Supervision
- Recruitment
- Succession planning
- Equity options etc.

However, I believe there are more opportunities in the field of total business solutions for succession and/or growth in Agriculture.

Technology these days would allow for live nationwide databases to better place suitable managers/partners with existing landowners under varying circumstances.

Although the likes of rural business solutions and others are thinking outside the square and offering more and more solutions, I believe there is still more opportunity, especially if you can control the internet space in the market. Combining the options One and Two above as well as the others listed below, a total solution business opportunity exists. One consultancy business could potentially offer all of the following options and variations thereof:

- Long term lease options with or without capital up front (20 – 100 years, currently not really known about in NZ, very common overseas.)
- Short term lease (up to 10years, currently model used in NZ), maybe this model could have higher return rates?
- Lease to own
- Sharemilking
- Equity partnerships depending on circumstances i.e. opportunity for 100% ownership in near future.
- As well as other equity options already in the market.

The business could have an offshoot business that acts as an agent/consultant that links landowners to young farmers wanting to grow their business/equity, dependant on the circumstances and desires of the landowner who may not necessarily want an equity partner. Potentially a big driver for those land owners not wanting to sell their property to corporates?

This may be achieved by providing a centralised database containing information on those looking to grow and their equity and desired situation. Also those landowners looking for the right people to fit their requirements. Currently finding the right job or people to manage the property is facilitated disjointedly through various consultants, farm advisors and rural recruitment companies through advertisements in the paper or on Fencepost. Whilst these methods can be effective for general employment situations they may not necessarily be reaching the right people when equity resources are required. Using the technology available today to better effect and to create a portal such as a centralised database would provide a way of linking the right candidates to each unique situation.

Summarising option 3 above: A total solution farm succession and equity growth consulting and management business. Offering a service to landowners, of analysing the individual landowner's situation and tailoring attractive solutions that enable the landowner to retain ownership, attractive to those that have emotional attachment to the property.

Offering a service to young farmers looking to grow their business, but who are not yet in a position to buy a business outright, by identifying what a particular owner is after and what a particular young farmer has to offer we could match the right people to the right property.

Adding to this there currently is not a facilitator in the market that is able to connect the best caretaker or partner to the business and its owner, beyond the farm consultant. The only portal for the farm consultant to find an appropriate partner is currently through advertising on Fencepost (the Fonterra job website) and in the local media. Often this only attracts people who think that the option proposed is their only option, but they may in fact be better suited to a different option, owner and or area.

A total solution farm succession company with the willingness to identify exactly what the needs of the existing owners are and the knowledge to tailor a package to suitwould offer a portal where these landowners can go to get the right advice and get outcomes that they currently may not be aware off.

Due to their experience with hands on farming they would have an advantage over accountants in that they can go onto these properties and see if there are operational improvements that can be made, that would enable the landowner to consider other options. These options may be ones that they previously considered unviable.

Introduction Summary

So far in this report I have touched on what I think are some of the issues facing the New Zealand Agricultural industries. Models for relinguishing control and freeing up capital are in the New Zealand market, however there is growing population of land business owners for whom the current options do not work.

Although there has been a emergence of farm solution/ management consultancy groups, who are introducing new ideas into the industry to capture untapped groups. I believe there are still opportunities to capture more of the market.

Through market research I have identified a trend that is prominent in all industries, that is the fear to relinguish control and also the inability to adapt to change or recognise when some may not be as competitive as they once were.

I have mentioned three ideas which I believe to be untapped opportunities in New Zealand. These opportunities are around sharemilking, leasing and farm solution consulting. The rest of the report will be dedicated to investigating a long term lease model further.

Section 1 will delve into the theory of the topic in more detail and the background to my idea.

Section 2 provides SWAT analysis on the model.

Section 3 provides analysis through modelling different scenarios of a case study.

Section 4 provides conclusions on the model.

1. Project topic in more depth – Long Term Leasing with capital provided up front.

If you were to offer an existing land owner, who is struggling to find a succession or farm management model in the current market, the following:

- The ability to not have to worry about their business
- Cash up front to do with what they please, along with education around the present value of cash
- Retained ownership of their business which may or may not have huge sentimental value to the family
- Guaranteed continual income with no ongoing business commitments

Would there be anyone interested?

I have chosen to look further at a farm leasing model, where the lessee provides the land owner with significant capital up front and in return the lessee gets an extended term of the lease and potentially an initial reduced lease rate to enable them to make inroads on the capital paid and gives security over the lessee's future. This may be very important for the lessee when dealing with banks in this model.

The model I have chosen to focus on is one that will not fit all groups of land owners within the dairy industry, but would work with a group that is growing with the aging population. Again some people looking to grow will fit the model and others would not.

A large number of farm owners are often guilty of their own success and have been able to send their children through university. This has led to their children taking up employment in the city and often showing no desire to return to the farm and have no knowledge of how to run the business if they were to inherit it.

I believe an opportunity exists to provide a service for both the land owners who the previously mentioned models do not fit. Or the children who either are not ready to come back to the farm, will not come back to the farm and/or have inherited a property that has a lot of emotional value but they do not know how to manage it.

Despite New Zealand's large rural debt, the debt is actually spread over a small number of farmers in relation to total farmers. There are a large number of farmers who are close to debt free.

To elaborate, my view is these land owners want to do one or more of the following things:

- Help their children into a first home or business
- Want to retire or purchase a retirement home
- Focus more on hobbies
- Not have to worry about the business anymore
- Are tired and can't wait any longer for family to take over the business
- Retain ownership, but may have inherited property and do not have the knowledge or time to oversee the business.

The business owners that fall into the above category currently have limited options in relation to stepping away from their business, whle retaining ownership. They may feel that they only have the option to lease their property, employ an overseer at considerable cost (often with poor results) or if they require capital they can get a sharemilker, equity partner or sell the business. Often they do not have the knowledge to run through the numbers properly to work out which option is best and they run with an

option that is hard to reverse. This can be only a few years before their children begin to show an interest in the business.

Sometimes the business has been in the family for generations and parents feel they are too tired to continue to wait for children to show an interest or do not think that perhaps their grandchildren may one day show an interest.

Beyond straight leasing their isn't really an option in the market that: 1.provides someone else with a caretaker role of the business. 2.That does not require a potentially significant amount of capital in the future when family may be ready to take control again or maintains a decent income for the business owner.

As mentioned the business owners often lack the skills required to accurately run the numbers and weigh up their options. Currently they have the bank manager, their accountant and farm consultant who they can approach for advice. Due to the limited options on the table the advisethey receive may not always be the best to suit the needs of the landowner and his/her individual circumstances. In other words there is currently no real facilitator out there that land owners can approach to assess their individual needs and to tailor an option that best suits them and their situation.

One of the main points of difference is potentially providing equity up front for a long-term lease, this is a model currently not used in New Zealand and however it is a model used internationally for property leasing.

Without going into too much detail, the concept would follow normal procedures for any person looking to buy a business.

Full due diligence would need to be taken by the lessee so that they feel comfortable that they will be able to meet their obligations and required returns. There would be dozens of items that may need to be discussed between the two parties and added to the official contract all of which would affect the term of the lease. Things that stand out:

- The amount of capital upfront
- Reduced lease rate initially depending on capital invested
- Variable lease arrangement based on the pay-out, higher pay-out = higher lease rate.
- Options around the main homestead on the property, people may want the ability to live on farm or visit etc. Just factor in the cost of building another house into the calculations.
- Options around owners access to the land etc.
- The agreed condition of the property upon the end of the lease i.e. development, condition of plant.

This due diligence process would need to result in realistic budgets that would give the land owner confidence their property will be well run if they relinquish control, while all the while knowing that they maintain ownership for their family and future generations and have an ongoing income to live off.

The key to the model is the ability to borrow funds from a bank against the term of the lease. For instance, globally it is not uncommon to find 100 year leases or longer on land, houses and commercial buildings. Banks have been known to value these leases at up to 98% of the values of the building.

2. Long-term lease SWOT Analysis

Strengths

- Currently not used in the New Zealand market. Though globally long term leases are very common, particularly in commercial property. If we look around the world in highly developed economies with growing populations land leases are common due to high entry and emotional historical ties to those exiting, UK is a good example of this. Particular regions in NZ could be well suited to this model.…
- The model may not initially seem as profitable as a straight 10year lease, however long term leases can hold a value which the banks can loan against – amortisation I imagine would need to be part of the basis of this model. If you are able to negotiate a reduced initial lease rate, due to the leaser having the present value of capital, you should be able to make quick inroads into recovering the equity and getting to a position to borrow against the remaining lease.
- Potentially lower capital outlay for larger cash returns, focus is a cash-flow business.

Weaknesses

- Old school mentality of NZ land owners, they may not be willing to try something new – I think once this model got some runs on the board it could be self-feeding.
- No physical non depreciating assets except the lease? - This would only create a problem with offset against profits, any farms developed could own those improvements until hand back to capture development capital and depreciation, a straight forward lease on an operating property would be tax deductible not exempt, as bank interest would be so this may offset no depreciating assets.

Opportunities

- This is a new model, if you were able to come in under the radar you may be able to get some runs on the board before the big companies take control of the market. If done right it is an opportunity to capture a market that is definitely emerging.
- Model could work across agribusiness industries. Particularly sheep and beef properties, more isolated and unlikely to have their kids come home. If we give them a model that allows them to keep their house there could be big opportunities. Some of these properties probably have potential for a portion to be converted.
- Be a front manager for International funds, no OIO obligations to get involved in NZ agriculture. This is a huge opportunity that has so far gone untapped.
  Chinese funds and companies in particular. These are mainly interested in securing supply and having safe NZ products. They are not necessarily concerned about returns from the farms. Particular opportunity from those starting dairy factories in NZ. They could fund the business for guaranteed supply to their factory.

  If we are able to get some runs on the board with this model it is something that could become very attractive to international companies looking to secure supply of New Zealand produce.

Threats

- MyFarm, Farm Right, Rural Business Solutions, AgFirst etc.
- Other corporate or groups with access to large funds getting established and developing a name/brand.
- Economy

3. Modelling

When writing this report I was unable to get regional comparable data for the 2012/2013 dairy season. Instead I have based my models on the Waikato regional 2011/2012 data from dairybase for the top 50% of farmers. I have made the assumption that someone the bank is willing to lend the level of debt this model requires is someone who will also be capable of being in the top 50% of farmers.

I have chosen to base my analysis on a case study of a typical scenario where this model may be applicable.

Case Study

Background

A farm has been in a family for three generations. The last family to own it consisted of a fifth generation dairy farmer, their partner and three children. The business is relatively low in debt/debt free, as the majority of New Zealand farms are. There is a large degree of emotional attachment within the family to the farm and family home.

The children are all over 40 and have been working in the city for their entire working careers. They have young families and are settled. They have not been involved with the dairy business since leaving home. Although they have been visiting the family home regularly on weekends.

The parents have recently passed away and the three children have inherited the business. They all feel that some cash at this stage in their lives would be beneficial. They also feel that they do not have the time, energy and knowledge to continue to oversee the farm. They are hesitant to sell the farm as it has been in the family so long and they grew up there.

For the purpose of the case study the property details are:

Region: Waikato

Value of land: $50,000/ha

Area: 100ha

Farming system: System 3 – inputs at either end of the season.

There are dozens of different permutations that could be agreed upon between the land owners and the lessee. As mentioned this scenario based on the dairybase data for top 50% Waikato farmers running system 3 farms. As a way of conducting sensitivity analyses I have broken the analysis into different scenarios. I have assumed an inflation factor of 2%.

Scenario One: In the initial analysis I propose the family will be given $1,000,000 up front. The lessee will buy the stock and shares. This means the family will initially have approximately $2,500,000 cash split

between them. The lease rate will be reduced to $1,500/ha initially, down from market rates of between $1,800 and $2,000.

The lessees will benefit from any gains in share price and growing equity through stock as well. I have assumed a 2%/annum Fonterra share price increase.

I have used the Actual Fonterra pay-out for the 2012/2013 season and the forecast pay-out for the 2013/2014 season.

This gives each child more than $800,000 upfront to do with as they please and $50,000 income each per year.

The lessee has $500,000 equity to contribute to this case, with the bank lending the rest.

Production is constant for the all years of this scenario.

The initial data and 5 year cash flows for this scenario can be found in Appendix Two

Results for a top 50% Waikato Farmer

Lease Equity requirements

Cash payment	$ 1,000,000
Fonterra Shares	$ 892,860
Additional Fonterra shares	$ -
Development	$ -
Management Fees	$ -
Stock	$ 634,415.60
Support block	$ -
Total excluding plant	**$ 2,527,276**
Plant	$ 121,200
Total setup cost	**$ 2,648,476**
Setup less stock, shares and plant	$ 1,634,416
Funding	
Equity	$ 500,000
Debt	$ 2,148,476

Summary of returns									
Fonterra share price	2%	$ 6.90	$ 7.04	$ 7.18	$ 7.32	$ 7.47	$ 7.62
Fonterra share value	0%	$ 892,860	$ 907,902	$ 926,060	$ 944,581	$ 963,473	$ 982,742
Support block	3%	$ -	$ -	$ -	$ -	$ -	$ -
Stock	3%	$ 634,416	$ 652,095	$ 686,304	$ 715,675	$ 742,855	$ 763,788
Plant	-10%	$ -	$ 121,200	$ 109,080	$ 98,172	$ 88,355	$ 79,519
Total Assets excluding lease		**$ 1,527,276**	**$ 1,681,197**	**$ 1,721,444**	**$ 1,758,428**	**$ 1,794,683**	**$ 1,826,050**
Ebit on total assets excluding lease		8%	27%	14%	11%	17%	0%
Debt	$ 2,148,476		$ 2,196,449	$ 1,883,108	$ 1,763,753	$ 1,701,239	$ 1,525,738
Debt/kgMS			$ 17	$ 15	$ 14	$ 13	$ 12
Equity Invested			$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000
Capital plus Debt	**-$ 2,648,476**		**-$ 2,696,449**	**-$ 2,383,108**	**-$ 2,263,753**	**-$ 2,201,239**	**-$ 2,025,738**
Growth on investment excluding assets			-$ 47,973	$ 265,368	$ 384,722	$ 447,236	$ 622,738
			-2%	10%	15%	17%	24%
Equity	-$ 1,121,200		-$ 1,015,251	-$ 661,664	-$ 505,325	-$ 406,556	-$ 199,688
Growth including assets			$105,949	$459,536	$615,875	$714,644	$921,512
			9%	41%	55%	64%	82%
Cash Returns to Shareholders			$ -	$ -	$ -	$ -	$ -
Total return		**-$1,121,200**	**$ 105,949**	**$ 459,536**	**$ 615,875**	**$ 714,644**	**$ 921,512**

IRR	**30%**
NPV at 4% discount rate	**$1,270,525.61**
NPV at 5% discount rate	**$1,179,523.24**
NPV at 6% discount rate	**$1,093,876.38**
NPV at 7% discount rate	**$1,013,228.38**
NPV at 8% discount rate	**$937,249.54**
NPV at 9% discount rate	**$865,634.81**
NPV at 10% discount rate	**$798,101.73**

Lease as a percentage of the cost of the property		3.00%				
Extra equity that could be funded from amount paid for lease annually		$ 2,500,000	$ 2,500,000	$ 1,923,077	$ 1,875,000	$ 1,875,000

1 Scenario One: Top 50% Waikato farmer

Cashflow	Discounted cashflow	Cumulative discounted cashflow	Year
-$ 47,973.26	$ -	$ -	1.00
$ 313,340.78	$ 240,317.01	$ 240,317.01	2.00
$ 119,354.86	$ 91,539.32	$ 331,856.32	3.00
$ 62,513.89	$ 47,945.09	$ 379,801.41	4.00
$ 175,501.35	$ 134,600.92	$ 514,402.33	5.00
$ 167,677.72	$ 128,600.58	$ 643,002.92	6.00
$ 167,677.72	$ 128,600.58	$ 771,603.50	7.00
$ 167,677.72	$ 128,600.58	$ 900,204.09	8.00
$ 167,677.72	$ 128,600.58	$ 1,028,804.67	9.00
$ 167,677.72	$ 128,600.58	$ 1,157,405.25	10.00
$ 167,677.72	$ 128,600.58	$ 1,286,005.84	11.00
$ 167,677.72	$ 128,600.58	$ 1,414,606.42	12.00
$ 167,677.72	$ 128,600.58	$ 1,543,207.00	13.00
$ 167,677.72	$ 128,600.58	$ 1,671,807.59	14.00
$ 167,677.72	$ 128,600.58	$ 1,800,408.17	15.00
$ 167,677.72	$ 128,600.58	$ 1,929,008.75	16.00
$ 167,677.72	$ 128,600.58	$ 2,057,609.34	17.00
$ 167,677.72	$ 128,600.58	$ 2,186,209.92	18.00
$ 167,677.72	$ 128,600.58	$ 2,314,810.50	19.00
$ 167,677.72	$ 128,600.58	$ 2,443,411.09	20.00
$ 167,677.72	$ 128,600.58	$ 2,572,011.67	21.00

Average profitable years of cashflow	**$ 167,677.72**
Maximum invested	**$ 2,696,449**
Discounted Payback Period for max investmen	**22 years**

Minimum period for lease to double money based on expected rate of return	**25 years**

Initial Debt minus Assets	**$1,121,200**
	9 Years

Minimum period for lease	**12 Years**

2 Minimum lease term required

Scenario One Conclusions.

The results show that under this scenario the lessee can get significant returns with a higher debt to equity ratio than a bank may normally lend to purchase a farm outright.

The land owners enjoy a significant amount of cash up front and a continuous income as well.

Based on a discounted payback period the lease would need to run for 22years for the lessee to make back the total invested, without selling any stock or shares. However this is not necessarily the right period to be looking at.

I think the discounted payback period on the debt alone, is a better measure of the minimum period the lease needs to be. As the lessee is still gaining value in the equity side of the business. In this scenario the minimum period for the lease to be worthwhile would be 12 years.

The actual lease term would then need to be at least doubled or tripled to give the lease enough value for a bank to back the scenario. While preparing this report, within the time lines allowed, I have been unable to allocate the resources to investigate this further or to get full validation of my model.

Sensitivity analysis

- Appendix Three shows the results can be considerably different just by using the average Waikato dairy farmer's figures under the same conditions. Production per cow is considerably less and the stocking rate is lower.

Summary of returns									
Fonterra share price	5%	$ 6.90	$ 7.25	$ 7.61	$ 7.99	$ 8.39	$ 8.81
Fonterra share value	0%	$ 702,420	$ 738,990	$ 775,940	$ 814,736	$ 855,473	$ 898,247
Support block	3%	$ -	$ -	$ -	$ -	$ -	$ -
Stock	3%	$ 612,539	$ 629,609	$ 662,638	$ 690,996	$ 717,240	$ 737,451
Plant	-10%	$ -	$ 121,200	$ 109,080	$ 98,172	$ 88,355	$ 79,519
Total Assets excluding lease		**$ 1,314,959**	**$ 1,489,799**	**$ 1,547,658**	**$ 1,603,905**	**$ 1,661,068**	**$ 1,715,217**
Ebit on total assets excluding lease		-3%	15%	4%	2%	7%	0%
Debt	$ 1,936,159		$ 2,123,247	$ 2,039,930	$ 2,130,706	$ 2,286,308	$ 2,372,428
Debt/kgMS			$ 21	$ 20	$ 21	$ 22	$ 23
Equity Invested			$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000
Capital plus Debt	**-$ 2,436,159**		**-$ 2,623,247**	**-$ 2,539,930**	**-$ 2,630,706**	**-$ 2,786,308**	**-$ 2,872,428**
Growth on investment excluding assets			-$ 187,088	-$ 103,771	-$ 194,547	-$ 350,149	-$ 436,269
			-8%	-4%	-8%	-14%	-18%
Equity	-$ 1,121,200		-$ 1,133,448	-$ 992,273	-$ 1,026,801	-$ 1,125,241	-$ 1,157,211
Growth including assets			-$12,248	$128,927	$94,399	-$4,041	-$36,011
			-1%	11%	8%	0%	-3%
Cash Returns to Shareholders			$ -	$ -	$ -	$ -	$ -
Total return		**-$1,121,200**	**-$ 12,248**	**$ 128,927**	**$ 94,399**	**-$ 4,041**	**-$ 36,011**

IRR	**#NUM!**
NPV at 4% discount rate	**-$925,873.78**
NPV at 5% discount rate	**-$919,922.50**
NPV at 6% discount rate	**-$914,019.85**
NPV at 7% discount rate	**-$908,165.56**
NPV at 8% discount rate	**-$902,359.39**
NPV at 9% discount rate	**-$896,601.15**
NPV at 10% discount rate	**-$890,890.69**

As can be seen the return is negative except for in the years when the Fonterra pay-out is at $8.30. However the model would work, even for an average farmer, if the equity put forward at the start is less.

- In the final analysis, found in Appendix Four, I have put the stocking rate up to 3.3 cows/ha. A common system 3 stocking rate found in the Morrinsville – Matamata area. I have also modelled a top performer increasing production by 2% per year. In this scenario I have modelled the lessee having to build a house as the land owners have negotiated the continued use of the main home.

Summary of returns								
Fonterra share price	2%	$ 6.90	$ 7.04	$ 7.18	$ 7.32	$ 7.47	$ 7.62	
Fonterra share value	0%	$ 892,860	$ 985,320	$ 1,005,026	$ 1,025,127	$ 1,045,629	$ 1,066,542	
Support block	3%	$ -	$ -	$ -	$ -	$ -	$ -	
Stock	3%	$ 721,921	$ 742,040	$ 780,967	$ 814,388	$ 845,318	$ 869,138	
Plant	-10%	$ -	$ 121,200	$ 109,080	$ 98,172	$ 88,355	$ 79,519	
Total Assets excluding l	**$ -**	**$ 1,614,781**	**$ 1,848,560**	**$ 1,895,073**	**$ 1,937,687**	**$ 1,979,302**	**$ 2,015,200**	
Ebit on total assets excluding lease		7%	26%	15%	13%	19%	0%	
Debt	$ 2,635,981	$ -	$ 2,709,764	$ 2,428,327	$ 2,342,695	$ 2,300,359	$ 2,128,513	
Debt/kgMS	$ -	$ -	$ 21	$ 18	$ 17	$ 17	$ 15	
Equity Invested			$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000	
Capital plus Debt	**-$ 3,135,981**	**$ -**	**-$ 3,209,764**	**-$ 2,928,327**	**-$ 2,842,695**	**-$ 2,800,359**	**-$ 2,628,513**	
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Growth on investment excluding assets			-$ 73,783	$ 207,654	$ 293,287	$ 335,623	$ 507,468	
			-2%	7%	9%	11%	16%	
Equity	-$ 1,521,200	$0	-$ 1,361,205	-$ 1,033,254	-$ 905,007	-$ 821,056	-$ 613,313	
Growth including assets			$159,995	$487,946	$616,193	$700,144	$907,887	
			11%	32%	41%	46%	60%	
				$ -	$ -	$ -	$ -	
Cash Returns to Shareholders			$ -	$ -	$ -	$ -	$ -	
Total return		**-$1,521,200**	**$ 159,995**	**$ 487,946**	**$ 616,193**	**$ 700,144**	**$ 907,887**	

IRR	**20%**
NPV at 4% discount rate	**$938,721.99**
NPV at 5% discount rate	**$850,868.05**
NPV at 6% discount rate	**$768,284.70**
NPV at 7% discount rate	**$690,619.80**
NPV at 8% discount rate	**$617,547.80**
NPV at 9% discount rate	**$548,767.51**
NPV at 10% discount rate	**$484,000.08**

Lease as a percentage of the cost of the property	**3.00%**					
Extra equity that could be funded from amount paid for lease annually	$ 2,500,000	$ 2,500,000	$ 1,923,077	$ 1,875,000	$ 1,875,000	

The proposed model, even with the construction of a house would provide the lessee with an internal rate of return of 20% on the equity.

Cashflow	Discounted cashflow	Cumulative discounted cashflow	Year
-$ 73,782.93	$ -	$ -	1.00
$ 281,437.16	$ 234,062.06	$ 234,062.06	2.00
$ 85,632.36	$ 71,217.62	$ 305,279.69	3.00
$ 42,336.04	$ 35,209.49	$ 340,489.18	4.00
$ 171,845.59	$ 142,918.34	$ 483,407.53	5.00
$ 145,312.79	$ 120,851.88	$ 604,259.41	6.00
$ 145,312.79	$ 120,851.88	$ 725,111.29	7.00
$ 145,312.79	$ 120,851.88	$ 845,963.17	8.00
$ 145,312.79	$ 120,851.88	$ 966,815.05	9.00
$ 145,312.79	$ 120,851.88	$ 1,087,666.93	10.00
$ 145,312.79	$ 120,851.88	$ 1,208,518.81	11.00
$ 145,312.79	$ 120,851.88	$ 1,329,370.70	12.00
$ 145,312.79	$ 120,851.88	$ 1,450,222.58	13.00
$ 145,312.79	$ 120,851.88	$ 1,571,074.46	14.00
$ 145,312.79	$ 120,851.88	$ 1,691,926.34	15.00
$ 145,312.79	$ 120,851.88	$ 1,812,778.22	16.00
$ 145,312.79	$ 120,851.88	$ 1,933,630.10	17.00
$ 145,312.79	$ 120,851.88	$ 2,054,481.98	18.00
$ 145,312.79	$ 120,851.88	$ 2,175,333.86	19.00
$ 145,312.79	$ 120,851.88	$ 2,296,185.75	20.00
$ 145,312.79	$ 120,851.88	$ 2,417,037.63	21.00

Average profitable years of cashflow	**$ 145,312.79**
Maximum invested	**$ 3,209,764**
Discounted Payback Period for max investmen	**22 years**

Minimum period for lease to double money based on expected rate of return	**27 years**

Initial Debt minus Assets	**$1,521,200**
	13 Years

Minimum period for lease	**18 Years**

Under this model the minimum period for the lease to be worthwhile would be 13 years. In this example I would probably push for a lease of 30years, however the model shows anything over 13years is worth a crack.

4. Conclusions

The issues facing the agribusiness industry will not be solved overnight and there is not one quick fix that suits everybody. The three ideas presented in this report are ideas I have thought a lot about due to my involvement in the industry. Also from my firsthand experience with some of the issues facing agribusiness under the present known options.

Some of the issues in the industry are the same as any industry, an inability to move with changing times and a lack of understanding of what the potential of a business may be. People become nonchalant in the good times and fail to see their neighbours moving ahead. The small survey I conducted, as well as the Dairy Push results, highlights this.

There will be many more solutions presented as differing groups emerge with differing needs. This applies both to succession and to equity growth. My ideas may fill a small gap that I believe is emerging in the market. As already mentioned, despite the constant attention put onto New Zealands agricultural debt. The majority of land owners actually have very little debt.

The long term leasing model I have put my focus on fits this group of low debt land owners and those up and comers lacking equity to purchase a block.

There are two keys to this model, the first is getting the landowner to understand the present value of the capital provided and how they can use that money. Also the future value of the business to that landowner or their off spring, if they can retain the ownership.

The second is the term of the lease and the banks willingness to value and loan against the lease. Although I believe the first is the most critical, as the second can be done as long as you have enough equity to get a loan to cover the herd. Even this doesn't matter so much as another scenario would be to only provide capital to lease the business and for the land owners to retain ownership of the herd and or shares.

The capital provided up front would work in conjunction with the required income from the farm lease. Can the capital if used wisely offset the need for full market lease rates initially versus the peace of mind that the business will be looked after and returned in the agreed state in the contract.

Although a lot of work is still required to validate this idea, I firmly believe that it can and would work. That there is a growing audience for this model along with the other ideas mentioned earlier in this report.

Appendix One

Fears neglect on the rise as young fail to work the land

Starving, neglected sheep and cattle threaten to become an increasing problem as ageing farmers struggle to move off their land.

The average age of a cattle and sheep farmer is now 58.

Federated Farmers president Bruce Wills said the lack of young farmers was deeply concerning for the industry.

More than half of New Zealand's income came from agriculture exports, he said.

"It is what runs our hospitals and educates our kids. We have nothing that can replace the agriculture industry."

The high cost of buying a farm was preventing young people from entering farming.

Economists say the average deposit needed to buy a farm has soared to $1 million, forcing many farmers to hang on to their farms as the younger generation bows out.

Meanwhile, the Ministry of Agriculture and Forestry is having to kill animals neglected by farmers too old to look after them.

About 90 malnourished and worm-infested cattle were removed from a Manawatu farm in September last year after the elderly owner inadvertently let his stock suffer. Maf put down a third of the cattle.

Farming insiders said at the time that the potential for ageing farmers to neglect their animals was a growing concern.

Wills said the country had to make farming more attractive to young people to stop it becoming a bigger problem. "We want these young, smart kids coming out of university saying `we like the look of farming'.

"It's what pays the bills of this nation, we can make a decent living and we don't have to rely on welfare to support the family."

ANZ issued a stark warning in November of a "lost generation" of New Zealand farmers. Bank economists estimated a new farmer would need more than a $1m deposit to purchase a dairy farm, or up to $2m for a sheep or beef farm. ANZ commercial and agriculture managing director Graham Turley said young people no longer saw farming as a fulfilling career and looked for opportunities elsewhere.

Although most farms remained family-run, Wills said there was a growing trend toward corporate ownership. Farmers were forced to open farms to overseas buyers because local buyers did not have the capital.

Lifting pay, increasing rural broadband speed and moving away from an undeserved "dirty farming" image could attract more young people, he said.

"We're forced to bring offshore workers to our farms.

"We have to do that because we can't find enough Kiwis to work on our farms."

But he said there was hope for the future and ANZ had launched a $60m fund for farmers hoping to step up in agriculture.

Maf has received almost 2000 complaints of alleged animal cruelty over the past three years.

The vast majority of farmers investigated for cruelty escaped conviction.

Just 13 were prosecuted in the same period.

The figures were released to the Sunday Star-Times under the Official Information Act.

Farmers can be issued with a notice to prevent the suffering of animals and Maf issued 37 such notices in the first 10 months of last year.

If they continued to mistreat animals, Maf could take them to court, but it said prosecutions were low because of a lack of evidence.

Canterbury farmers received the most notices – 11 were issued in the region in 2011.

SPCA Canterbury manager Barry Helem said that was most likely because of the region's high number of farms.

http://www.stuff.co.nz/sunday-star-times/latest-edition/6205578/Fears-neglect-on-the-rise-as-young-fail-to-work-the-land

Appendix Two

Agribusiness owner succession planning questionnaire.

1. **What age group do you belong to?**

- ☐ Under 50
- ☐ 51 – 55
- ☐ 56 – 60
- ☐ 61 - 65
- ☐ 66 – 70
- ☐ 71 – 75
- ☐ 76 – 80
- ☐ 81 – 85
- ☐ Over 85

2. **What is the size of your farm and herd?**

3. **Are you selling or planning to sell your business? If so what is the reason behind this sale?** (select as many as required)

- ☐ Debt related
- ☐ The worry about running my business has become too much of a worry
- ☐ I am unable to devote enough time and effort to the business anymore
- ☐ I want to free up my time
- ☐ I want to free up some capital
- ☐ Family is showing no interest in succession/ going farming.
- ☐ No family for succession
- ☐ Enthusiasm , understanding modern practise in changing environment
- ☐ Environmental issues
- ☐ more capital required to keep farm maintained / developed.
- ☐ Other _____
- ☐

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4. **If you answered that capital is a driver affecting your decision. What do you plan to do with the capital?**

- ☐ Pay off debt
- ☐ Help family
- ☐ Buy a retirement home
- ☐ I have another investment
- ☐ Unsure
- ☐ Other i.e. _____

5. **Would you consider leasing your agribusiness?**

- ☐ Yes

☐ No

6. If you answered no to question 5, what are your reasons for not leasing your property?

☐ I want capital
☐ Without moving there is not enough housing on the property to lease it
☐ I do not think I would make enough from the lease to live off?
☐ I think leasing is too profitable for the lessee (person leasing the property)
☐ I hadn't considered that leasing was an option
☐ I wouldn't know how to run a budget to see if it was viable
☐ Other people running my property

7. Have you considered a sharemilker? What are the reasons you would not put a sharemilker on your property?

☐ I would not have enough income to live of
☐ I could live of the income but think the sharemilker is getting too much.
☐ We would have to move due to housing
☐ I would consider it, I haven't done the numbers
☐ I would consider it, but am not sure I know how to run the numbers
☐ I have employed a sharemilker in the past and it didn't work.
☐ I would still have to devote time and effort to ensure it was managed properly

8. Do you think your farm is as profitable as it could be and if not what are the reasons?

☐ The farm is very profitable and I am happy with it.
☐ I am unable to devote the time and energy I used to, to drive profitability
☐ I haven't kept up with new technology and innovation
☐ I don't really pay attention to publications and DairyNZ research.

9. What do you want to get out of your farm or to achieve with your agribusiness in the next 10 years?

Appendix Three

Waikato 2011/2012 dairy season, Dairybase Top 50% system 3 financial data

DairyBase

Financial Detail

Training - Farm A (Farm ID: 851625)
Dairy Season ended: 2012
Printed: 3 November 2013

Number in Benchmark Group:	23	
Benchmark Group Selected by:	Full financial analysis Region : Waikato	Farm business type : 1- Owner operator Low/medium/High feed input : Medium Input (System 3)
Benchmark Group Ranked by:	Top 50% in Dairy Operating Profit $ Per Ha	

	Total $		$ Per kg MS		$ Per Ha		$ Per Cow	
GROSS FARM REVENUE (GFR)	**Farm**	**% of GFR**	**Farm**	**Benchmark**	**Farm**	**Benchmark**	**Farm**	**Benchmark**
Net Milk Sales	2,116,281	91.1%	6.41	6.80	8,299	7,947	2,899	2,646
Net Dairy Livestock Sales	102,240	4.4%	0.31	0.37	401	430	140	143
Value of Change in Dairy Livestock	101,525	4.4%	0.31	0.16	398	191	139	64
Other Dairy Revenue	2,110	0.1%	0.01	0.06	8	72	3	24
DAIRY GROSS FARM REVENUE	2,322,156	100.0%	7.04	7.39	9,106	8,640	3,181	2,877
Non-Dairy Cash Income	0	0.0%	0.00	0.03	0	36	0	12
Value of Change in Non-dairy livestock	0	0.0%	0.00	0.00	0	0	0	0
Total Gross Farm Revenue	2,322,156	100.0%	7.04	7.42	9,106	8,676	3,181	2,888
OPERATING EXPENSES								
Labour Expenses								
Wages	190,000	8.2%	0.58	0.74	745	868	260	289
Labour Adjustment - Unpaid	13,600	0.6%	0.04	0.04	53	44	19	15
Labour Adjustment - Management	81,780	3.5%	0.25	0.21	321	242	112	80
Total Labour Expenses	285,380	12.3%	0.86	0.99	1,119	1,154	391	384
Stock Expenses								
Animal Health	89,865	3.9%	0.27	0.23	352	273	123	91
Breeding & Herd Improvement	31,453	1.4%	0.10	0.09	123	111	43	37
Farm Dairy	33,699	1.5%	0.10	0.05	132	54	46	18
Electricity (Farm Dairy, Water Supply)	31,453	1.4%	0.10	0.09	123	107	43	36
Total Stock Expenses	186,470	8.0%	0.57	0.47	731	546	255	182
Feed Expenses								
Supplement Expenses								
Net Made,Purchased,Cropped	324,528	14.0%	0.98	0.95	1,273	1,110	445	369
Less Feed Inventory Adjustment	0	0.0%	0.00	0.05	0	60	0	20
Calf Feed	53,919	2.3%	0.16	0.02	211	26	74	9
Total Supplement Expenses	378,447	16.3%	1.15	0.92	1,484	1,075	518	358
Grazing & Run Off Expenses								
Young & Dry Stock Grazing	172,991	7.4%	0.52	0.28	678	325	237	108
Winter Cow Grazing	0	0.0%	0.00	0.03	0	40	0	13
Support block Lease	0	0.0%	0.00	0.04	0	51	0	17
Owned Support block Adjustment	54,000	2.3%	0.16	0.05	212	61	74	20
Total Grazing & Support block expenses	226,991	9.8%	0.69	0.41	890	478	311	159
Total Feed Expenses	605,438	26.1%	1.83	1.33	2,374	1,553	829	517
Other Working Expenses								
Fertiliser	157,264	6.8%	0.48	0.38	617	444	215	148
Nitrogen	0	0.0%	0.00	0.11	0	124	0	41
Irrigation	0	0.0%	0.00	0.00	0	1	0	0
Regrassing	44,933	1.9%	0.14	0.04	176	47	62	16
Weed & Pest	3,370	0.1%	0.01	0.02	13	23	5	8
Vehicles	15,726	0.7%	0.05	0.14	62	166	22	55
Fuel	20,220	0.9%	0.06	0.03	79	30	28	10
R & M - land & buildings	38,193	1.6%	0.12	0.23	150	273	52	91
R & M - plant and equipment	15,726	0.7%	0.05	0.07	62	80	22	27
Freight and General	6,740	0.3%	0.02	0.05	26	55	9	18
Total Other Working Expenses	302,172	13.0%	0.92	1.06	1,185	1,243	414	414
Overheads								
Administration	22,466	1.0%	0.07	0.09	88	107	31	36
Insurance	8,987	0.4%	0.03	0.04	35	50	12	17
ACC	11,233	0.5%	0.03	0.03	44	36	15	12
Rates	15,726	0.7%	0.05	0.13	62	150	22	50
Depreciation	110,085	4.7%	0.33	0.25	432	297	151	99
Total Overheads	168,497	7.3%	0.51	0.55	661	641	231	213
TOTAL DAIRY OPERATING EXPENSES	1,547,957	66.7%	4.69	4.39	6,070	5,137	2,120	1,710
Non-Dairy Operating Expenses	0	0.0%	0	0.02	0	19	0	6
Total Operating Expenses	1,547,957	66.7%	4.69	4.41	6,070	5,156	2,120	1,717
OPERATING PROFIT								
DAIRY OPERATING PROFIT	774,199	33.3%	2.35	3.00	3,036	3,503	1,061	1,166
Non-Dairy Operating Profit	0	0.0%	0.00	0.01	0	17	0	6
Total Operating Profit	774,199	33.3%	2.35	3.01	3,036	3,520	1,061	1,172

Farm Stats		Financial stats	
Total Purchase Price including runoff $	$ 5,000,000	Equity	$ 500,000
Upfront cash payment for long term lease	$ 1,000,000	Value of Fonterra shares	$ 6.90
Market lease rate/ha	$ 1,800		
Runoff cost if purchasing	$ -	Fonterra Shares (shared MS curren	129400.00
		Value of shares held	$ 892,860
		Current cows milked	290
Physical information		Current budgeted production/cow (kgMS)	446
Farm Area (ha)	100.00		
Runnoff (ha)	0.00	Proposed peak cows milked	290.00
Waste Land (ha)	0.00	Cows wintered	301.60
Effective area (ha)	100.00	Stocking rate (Cows/ha)	3.02
Cups in cowshed	40.00	Proposed production per peak cow	446.21
Forecast Production (kgMS)	129400.00	Proposed production per ha	1,294.00

Forecast payout	Final	Advance
Current	$ 6.14	
2012/13	$ 6.30	$ 5.36
2013/14	$ 8.30	$ 7.06
2014/15	$ 6.15	$ 5.23
2015/16	$ 6.15	$ 5.23
2016/17	$ 6.15	$ 5.23

Previous production	kgMS
2009/10	129400.00
2010/11	129400.00
2011/12	129400.00

Forecast Production	Estimate Increase	kgMS	kgMS/ha
2012/13		129400	1294
2013/14	100%	129400	1294
2014/15	100%	129400	1294
2015/16	100%	129400	1294
2016/17	100%	129400	1294

Equity required					
				$/ha	**$/kgMS**
Purchase Price			$ 5,000,000	$ 50,000	$ 38.64
Fonterra Shares	129,400		$ 892,860		
Additional Fonterra shares			**$ -**		
Total including shares			**$ 5,892,860**	$ 58,929	$ 45.54
Development					
Cowshed					
Cowshed automation					
Meal feeder					
Race and Tanker track					
Effluent					
Irrigation development					
Housing			$ -		
Calf/implement shed					
Fencing and water					
Regrassing & Fertiliser					
River protection					
Contingency					
Project management fee					
Legal, valuation, independents					
Other					
			$ -	$ -	$ -
Management Fees					
Fee for setup/ due diligence			$ -		
If Leasing will we be purchasing the stock?			Yes		
Stock	Number	Price			
Cows	232	$ 2,000.00	$ 464,464		
Heifers	69	$ 1,800.00	$ 124,862		
Calves	69	$ 650.00	$ 45,089		
			$ 634,416		
Plant	Number	Price			
Tractor	1	$ 60,000	$ 60,000		
Silage Wagon	1	$ 20,000	$ 20,000		
Sprayer		$ 200	$ -		
Mower			$ -		
Trailer	1	$ 4,000	$ 4,000		
Knapsacks	1	$ 200	$ 200		
Grader Blade			$ -		
Yard Scraper			$ -		
Fertiliser spreader	1	$ 5,000	$ 5,000		
Motorbikes	3	$ 8,000	$ 24,000		
Calf feeding gear	2	$ 1,500	$ 3,000		
Roller			$ -		
Bale feeder			$ -		
Miscellaneous	1	$ 5,000	$ 5,000		
Total plant			**$ 121,200**	$ 1,212.00	$ 0.94
TOTAL SETUP COST			**$ 6,648,476**		
			25		
To be funded as		Equity	$ 4,000,000	60%	
		Debt	$ 2,648,476	40%	

SUMMARY STATISTICS			**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Milksolids Production			129,400	129,000	129,000	129,000	129,000
Effective Area (ha)			100	100	100	100	100
Cow Numbers	-Winter		302	309	314	317	317
	-December		290	297	301	304	304
Replacements Reared			69	69	69	69	69
Stocking Rate (Cows/ha)			3.02	3.09	3.14	3.17	3.17
Milksolids Per Cow			446	435	428	424	424
Milksolids Per Ha			1,294	1,290	1,290	1,290	1,290
Milk Price ($/kgMS)	-advance to June		$5.36	$7.06	$5.23	$5.23	$5.23
	-previous year final			$0.95	$1.25	$0.92	$0.92
Fonterra payout			$6.30	$8.30	$6.15	$6.15	$6.15
Dairy Trust							
total payout in season			$5.36	$8.00	$6.47	$6.15	$6.15
OPERATING BUDGET FORECASTS							
INCOME							
Milk Income			$692,937	$1,032,378	$834,953	$793,350	$793,350
Share dividend on "dry shares"			$0	$0	$0	$0	$0
Cattle Sales	2%		$23,745	$24,825	$25,702	$26,478	$27,007
Other							
Farm Income			**$716,682**	**$1,057,203**	**$860,654**	**$819,828**	**$820,357**
EXPENSES	Inflation factor	$/ha					
Wages	2.0%		$120,000	$119,629	$119,629	$119,629	$119,629
Lease/Ha	**Agreed rate**	**$1,500**	$150,000	$150,000	$150,000	$150,000	$150,000
Farm Working	2.0%		$64,700	$65,994	$67,314	$68,660	$70,033
Feed	2.0%		$161,400	$164,628	$167,921	$171,279	$174,705
Fertiliser	2.0%		$44,524	$45,414	$46,323	$47,249	$48,194
R&M	2.0%		$35,300	$36,006	$36,726	$37,461	$38,210
Vehicles	2.0%		$19,600	$19,992	$20,392	$20,800	$21,216
General	2.0%		$4,011	$4,194	$4,342	$4,473	$4,563
First year feed adjustment							
Operating Costs			**$599,535**	**$605,857**	**$612,646**	**$619,551**	**$626,549**
			$4.63	$4.70	$4.75	$4.80	$4.86
Farm Surplus			$117,146	$451,346	$248,008	$200,277	$312,811
Administration	2.0%		$0	$0	$0	$0	$0
Standing Charges	2.0%		$0	$0	$0	$0	$0
Total Costs			**$599,535**	**$605,857**	**$612,646**	**$619,551**	**$626,549**
Costs/kg ms			$4.63	$4.70	$4.75	$4.80	$4.86
EBIT			**$117,146**	**$451,346**	**$248,008**	**$200,277**	**$312,811**
EBIT/kgMS			$0.91	$3.50	$1.92	$1.55	$2.42
Return on total capital (before debt servicing)			1.8%	6.8%	3.7%	3.0%	4.7%
FUNDING	Interest Rate		6.00%	6.00%	7.80%	8.00%	8.00%
Interest			$158,909	$134,665	$122,442	$131,552	$131,098
OD interest (estimated)			$6,211	$6,211	$6,211	$6,211	$6,211
Net Returns ($)			-$47,973	$310,469	$119,355	$62,514	$175,501
Net Returns (%)			**-9.6%**	**62.1%**	**23.9%**	**12.5%**	**35.1%**
RETURNS							
Planned return on shareholder equity (%)			0.0%	0.0%	0.0%	0.0%	0.0%
Return on shareholder equity ($)			$ -	$ -	$ -	$ -	$ -
Surplus			-$47,973	$310,469	$119,355	$62,514	$175,501
Total return			-9.6%	62.1%	23.9%	12.5%	35.1%
Debt reduction			$0	$313,341	$119,355	$62,514	$175,501
Break even price			$5.91	$5.79	$5.75	$5.87	$5.92
Capital Expenditure			**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Capital Improvements				$0	$0	$0	$0
Fonterra shares			$0	-$2,872	$0	$0	$0
Cowshed							
Housing & sheds							
Proposed New Borrowings			**$ 47,973**	**$ -**	**$ -**	**$ -**	**$ -**

Appendix Four

Waikato 2011/2012 dairy season, Dairybase average system 3 financial data

DairyBase

Financial Detail

Training - Farm A (Farm ID: 851625)
Dairy Season ended: 2012
Printed: 3 November 2013

Number in Benchmark Group: 46
Benchmark Group Selected by: Full financial analysis
Region : Waikato
Farm business type : 1- Owner operator
Low/medium/High feed input : Medium input (System 3)
Benchmark Group Ranked by:

	Total $		$ Per kg MS		$ Per Ha		$ Per Cow	
GROSS FARM REVENUE (GFR)	**Farm**	**% of GFR**	**Farm**	**Benchmark**	**Farm**	**Benchmark**	**Farm**	**Benchmark**
Net Milk Sales	2,116,281	91.1%	6.41	6.71	8,299	6,830	2,899	2,432
Net Dairy Livestock Sales	102,240	4.4%	0.31	0.40	401	405	140	144
Value of Change in Dairy Livestock	101,525	4.4%	0.31	0.13	398	127	139	45
Other Dairy Revenue	2,110	0.1%	0.01	0.05	8	54	3	19
DAIRY GROSS FARM REVENUE	2,322,156	100.0%	7.04	7.29	9,106	7,417	3,181	2,641
Non-Dairy Cash Income	0	0.0%	0.00	0.02	0	23	0	8
Value of Change in Non-dairy livestock	0	0.0%	0.00	-0.00	0	-0	0	-0
Total Gross Farm Revenue	2,322,156	100.0%	7.04	7.31	9,106	7,440	3,181	2,649
OPERATING EXPENSES								
Labour Expenses								
Wages	190,000	8.2%	0.58	0.70	745	713	260	254
Labour Adjustment - Unpaid	13,600	0.6%	0.04	0.05	53	56	19	20
Labour Adjustment - Management	81,780	3.5%	0.25	0.24	321	243	112	86
Total Labour Expenses	285,380	12.3%	0.86	0.99	1,119	1,012	391	360
Stock Expenses								
Animal Health	89,865	3.9%	0.27	0.24	352	245	123	87
Breeding & Herd Improvement	31,453	1.4%	0.10	0.12	123	120	43	43
Farm Dairy	33,699	1.5%	0.10	0.06	132	61	46	22
Electricity (Farm Dairy, Water Supply)	31,453	1.4%	0.10	0.10	123	104	43	37
Total Stock Expenses	186,470	8.0%	0.57	0.52	731	529	255	188
Feed Expenses								
Supplement Expenses								
Net Made,Purchased,Cropped	324,528	14.0%	0.98	1.00	1,273	1,017	445	362
Less Feed Inventory Adjustment	0	0.0%	0.00	0.05	0	53	0	19
Calf Feed	53,919	2.3%	0.16	0.03	211	26	74	9
Total Supplement Expenses	378,447	16.3%	1.15	0.97	1,484	990	518	352
Grazing & Run Off Expenses								
Young & Dry Stock Grazing	172,991	7.4%	0.52	0.27	678	271	237	97
Winter Cow Grazing	0	0.0%	0.00	0.04	0	44	0	16
Support block Lease	0	0.0%	0.00	0.06	0	57	0	20
Owned Support block Adjustment	54,000	2.3%	0.16	0.05	212	50	74	18
Total Grazing & Support block expenses	226,991	9.8%	0.69	0.42	890	423	311	151
Total Feed Expenses	605,438	26.1%	1.83	1.39	2,374	1,413	829	503
Other Working Expenses								
Fertiliser	157,264	6.8%	0.48	0.53	617	539	215	192
Nitrogen	0	0.0%	0.00	0.09	0	91	0	33
Irrigation	0	0.0%	0.00	0.00	0	0	0	0
Regrassing	44,933	1.9%	0.14	0.04	176	38	62	13
Weed & Pest	3,370	0.1%	0.01	0.04	13	37	5	13
Vehicles	15,726	0.7%	0.05	0.16	62	166	22	59
Fuel	20,220	0.9%	0.06	0.05	79	49	28	17
R & M - land & buildings	38,193	1.6%	0.12	0.25	150	250	52	89
R & M - plant and equipment	15,726	0.7%	0.05	0.08	62	85	22	30
Freight and General	6,740	0.3%	0.02	0.05	26	48	9	17
Total Other Working Expenses	302,172	13.0%	0.92	1.28	1,185	1,302	414	464
Overheads								
Administration	22,466	1.0%	0.07	0.12	88	118	31	42
Insurance	8,987	0.4%	0.03	0.05	35	52	12	18
ACC	11,233	0.5%	0.03	0.03	44	33	15	12
Rates	15,726	0.7%	0.05	0.11	62	113	22	40
Depreciation	110,085	4.7%	0.33	0.33	432	335	151	119
Total Overheads	168,497	7.3%	0.51	0.64	661	650	231	231
TOTAL DAIRY OPERATING EXPENSES	1,547,957	66.7%	4.69	4.82	6,070	4,905	2,120	1,746
Non-Dairy Operating Expenses	0	0.0%	0	0.01	0	8	0	3
Total Operating Expenses	1,547,957	66.7%	4.69	4.83	6,070	4,913	2,120	1,749
OPERATING PROFIT								
DAIRY OPERATING PROFIT	774,199	33.3%	2.35	2.47	3,036	2,512	1,061	894
Non-Dairy Operating Profit	0	0.0%	0.00	0.01	0	15	0	5
Total Operating Profit	774,199	33.3%	2.35	2.48	3,036	2,526	1,061	899

Farm Stats		Financial stats	
Total Purchase Price including runoff $	$ 5,000,000	Equity	$ 500,000
Upfront cash payment for long term lease	$ 1,000,000	Value of Fonterra shares	$ 6.90
Market lease rate/ha	$ 1,500		
Runoff cost if purchasing	$ -	Fonterra Shares (shared MS curren	101800.00
		Value of shares held	$ 702,420
		Current cows milked	280
Physical information		Current budgeted production/cow (kgMS)	364
Farm Area (ha)	100.00		
Runnoff (ha)	0.00	Proposed peak cows milked	280.00
Waste Land (ha)	0.00	Cows wintered	291.20
Effective area (ha)	100.00	Stocking rate (Cows/ha)	2.91
Cups in cowshed	40.00	Proposed production per peak cow	363.57
Forecast Production (kgMS)	101800.00	Proposed production per ha	1,018.00

Forecast payout	Final	Advance
Current	$ 6.14	
2012/13	$ 6.30	$ 5.36
2013/14	$ 8.30	$ 7.06
2014/15	$ 6.15	$ 5.23
2015/16	$ 6.15	$ 5.23
2016/17	$ 6.15	$ 5.23

Previous production	kgMS
2009/10	
2010/11	
2011/12	

Forecast Production	Estimate Increase	kgMS	kgMS/ha
2012/13		101800	1018
2013/14	100%	101800	1018
2014/15	100%	101800	1018
2015/16	100%	101800	1018
2016/17	100%	101800	1018

Lease Equity requirements

Cash payment	$ 1,000,000
Fonterra Shares	$ 702,420
Additional Fonterra shares	$ -
Development	$ -
Management Fees	$ -
Stock	$ 612,539.20
Support block	$ -
Total excluding plant	**$ 2,314,959**
Plant	$ 121,200
Total setup cost	**$ 2,436,159**
Setup less stock, shares and plant	$ 1,612,539
Funding	
Equity	$ 500,000
Debt	$ 1,936,159

SUMMARY STATISTICS			**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Milksolids Production			101,800	102,000	102,000	102,000	102,000
Effective Area (ha)			100	100	100	100	100
Cow Numbers	-Winter		291	298	303	306	306
	-December		280	287	291	294	294
Replacements Reared			67	67	67	67	67
Stocking Rate (Cows/ha)			2.91	2.98	3.03	3.06	3.06
Milksolids Per Cow			364	356	351	347	347
Milksolids Per Ha			1,018	1,020	1,020	1,020	1,020
Milk Price ($/kgMS)	-advance to June		$5.36	$7.06	$5.23	$5.23	$5.23
	-previous year final			$0.95	$1.25	$0.92	$0.92
Fonterra payout			$6.30	$8.30	$6.15	$6.15	$6.15
Dairy Trust							
total payout in season			$5.36	$8.00	$6.47	$6.15	$6.15
OPERATING BUDGET FORECASTS							
INCOME							
Milk Income			$545,139	$815,811	$660,195	$627,300	$627,300
Share dividend on "dry shares"			$0	$0	$0	$0	$0
Cattle Sales	2%		$22,885	$23,926	$24,771	$25,519	$26,029
Other							
Farm Income			**$568,024**	**$839,737**	**$684,966**	**$652,819**	**$653,329**
EXPENSES	Inflation factor	$/ha					
Wages	2.0%		$101,200	$101,399	$101,399	$101,399	$101,399
Lease/Ha	Agreed rate	$1,500	$150,000	$150,000	$150,000	$150,000	$150,000
Farm Working	2.0%		$61,500	$62,730	$63,985	$65,264	$66,570
Feed	2.0%		$150,400	$153,408	$156,476	$159,606	$162,798
Fertiliser	2.0%		$63,000	$64,260	$65,545	$66,856	$68,193
R&M	2.0%		$33,500	$34,170	$34,853	$35,550	$36,261
Vehicles	2.0%		$21,500	$21,930	$22,369	$22,816	$23,272
General	2.0%		$3,156	$3,299	$3,416	$3,519	$3,589
First year feed adjustment							
Operating Costs			**$584,256**	**$591,196**	**$598,043**	**$605,010**	**$612,083**
			$5.74	$5.80	$5.86	$5.93	$6.00
Farm Surplus			-$16,232	$248,541	$86,923	$47,808	$135,341
Administration	2.0%		$0	$0	$0	$0	$0
Standing Charges	2.0%		$19,800	$20,196	$20,196	$20,806	$21,222
Total Costs			**$604,056**	**$611,392**	**$618,239**	**$625,816**	**$633,305**
Costs/kg ms			$5.93	$5.99	$6.06	$6.14	$6.21
EBIT			**-$36,032**	**$228,345**	**$66,727**	**$27,002**	**$114,119**
EBIT/kgMS			-$0.35	$2.24	$0.65	$0.26	$1.12
Return on total capital (before debt servicing)			-0.6%	3.5%	1.0%	0.4%	1.8%
FUNDING	Interest Rate		6.00%	6.00%	7.80%	8.00%	8.00%
Interest			$146,170	$138,620	$152,616	$177,718	$195,353
OD interest (estimated)			$4,886	$4,886	$4,886	$4,886	$4,886
Net Returns ($)			-$187,088	$84,838	-$90,775	-$155,603	-$86,120
Net Returns (%)			**-37.4%**	**17.0%**	**-18.2%**	**-31.1%**	**-17.2%**
RETURNS							
Planned return on shareholder equity (%)			0.0%	0.0%	0.0%	0.0%	0.0%
Return on shareholder equity ($)			$ -	$ -	$ -	$ -	$ -
Surplus			-$187,088	$84,838	-$90,775	-$155,603	-$86,120
Total return			-37.4%	17.0%	-18.2%	-31.1%	-17.2%
Debt reduction			$0	$83,317	$0	$0	$0
Break even price			$7.42	$7.40	$7.61	$7.93	$8.17
Capital Expenditure			**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Capital Improvements				$0	$0	$0	$0
Fonterra shares			$0	$1,521	$0	$0	$0
Cowshed							
Housing & sheds							
Proposed New Borrowings			**$ 187,088**	**$ -**	**$ 90,775**	**$ 155,603**	**$ 86,120**

Appendix Five

Farm Stats		
Total Purchase Price including runoff $	$	5,000,000
Upfront cash payment for long term lease	$	1,000,000
Market lease rate/ha	$	1,800
Runoff cost if purchasing	$	-

Financial stats		
Equity	$	500,000
Value of Fonterra shares	$	6.90
Fonterra Shares (shared MS curren		129400.00
Value of shares held	$	892,860
Current cows milked		330
Current budgeted production/cow (kgMS)		392

Physical information	
Farm Area (ha)	100.00
Runnoff (ha)	0.00
Waste Land (ha)	0.00
Effective area (ha)	100.00
Cups in cowshed	40.00
Forecast Production (kgMS)	129400.00

Proposed peak cows milked	330.00
Cows wintered	343.20
Stocking rate (Cows/ha)	3.43
Proposed production per peak cow	392.12
Proposed production per ha	1,294.00

Forecast payout	Final		Advance	
Current	$	6.15		
2012/13	$	6.30	$	5.36
2013/14	$	8.30	$	7.06
2014/15	$	6.15	$	5.23
2015/16	$	6.15	$	5.23
2016/17	$	6.15	$	5.23

Previous production	**kgMS**
2009/10	129400.00
2010/11	129400.00
2011/12	129400.00

Forecast Production	**Estimate Increase**	**kgMS**	**kgMS/ha**
2012/13		129400	1294
2013/14	102%	131988	1320
2014/15	102%	134628	1346
2015/16	102%	137320	1373
2016/17	102%	140067	1401

Equity required					
				$/ha	**$/kgMS**
Purchase Price			$ 5,000,000	$ 50,000	$ 38.64
Fonterra Shares	129,400		$ 892,860		
Additional Fonterra shares			**$ -**		
Total including shares			**$ 5,892,860**	$ 58,929	$ 45.54
Development					
Cowshed					
Cowshed automation					
Meal feeder					
Race and Tanker track					
Effluent					
Irrigation development					
Housing			$ 400,000		
Calf/implement shed					
Fencing and water					
Regrassing & Fertiliser					
River protection					
Contingency					
Project management fee					
Legal, valuation, independents					
Other					
			$ 400,000	$ 4,000	$ 3.09
Management Fees					
Fee for setup/ due diligence			$ -		
If Leasing will we be purchasing the stock?			Yes		
Stock	Number	Price			
Cows	264	$ 2,000.00	$ 528,528		
Heifers	79	$ 1,800.00	$ 142,085		
Calves	79	$ 650.00	$ 51,308		
			$ 721,921		
Plant	Number	Price			
Tractor	1	$ 60,000	$ 60,000		
Silage Wagon	1	$ 20,000	$ 20,000		
Sprayer		$ 200	$ -		
Mower			$ -		
Trailer	1	$ 4,000	$ 4,000		
Knapsacks	1	$ 200	$ 200		
Grader Blade			$ -		
Yard Scraper			$ -		
Fertiliser spreader	1	$ 5,000	$ 5,000		
Motorbikes	3	$ 8,000	$ 24,000		
Calf feeding gear	2	$ 1,500	$ 3,000		
Roller			$ -		
Bale feeder			$ -		
Miscellaneous	1	$ 5,000	$ 5,000		
Total plant			**$ 121,200**	$ 1,212.00	$ 0.94
TOTAL SETUP COST			**$ 7,135,981**		
			32		
To be funded as		Equity	$ 4,000,000	56%	
		Debt	$ 3,135,981	44%	

SUMMARY STATISTICS			**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Milksolids Production			129,400	132,000	135,000	137,000	140,000
Effective Area (ha)			100	100	100	100	100
Cow Numbers	-Winter		343	352	357	361	361
	-December		330	338	343	346	346
Replacements Reared			79	79	79	79	79
Stocking Rate (Cows/ha)			3.43	3.52	3.57	3.61	3.61
Milksolids Per Cow			392	391	394	396	404
Milksolids Per Ha			1,294	1,320	1,350	1,370	1,400
Milk Price ($/kgMS)	-advance to June		$5.36	$7.06	$5.23	$5.23	$5.23
	-previous year final			$0.95	$1.25	$0.92	$0.92
Fonterra payout			$6.30	$8.30	$6.15	$6.15	$6.15
Dairy Trust							
total payout in season			$5.36	$7.98	$6.44	$6.14	$6.13
OPERATING BUDGET FORECASTS							
INCOME							
Milk Income			$692,937	$1,053,543	$870,053	$840,705	$858,233
Share dividend on "dry shares"			$0	$0	$0	$0	$0
Cattle Sales	2%		$27,186	$28,422	$29,426	$30,314	$30,921
Other							
Farm Income			**$720,123**	**$1,081,965**	**$899,478**	**$871,019**	**$889,153**
EXPENSES	Inflation factor	$/ha					
Wages	2.0%		$120,000	$122,411	$125,193	$127,048	$129,830
Lease/Ha	**Agreed rate**	**$1,500**	$150,000	$150,000	$150,000	$150,000	$150,000
Farm Working	2.0%		$64,700	$65,994	$67,314	$68,660	$70,033
Feed	2.0%		$161,400	$164,628	$167,921	$171,279	$174,705
Fertiliser	2.0%		$44,524	$45,414	$46,323	$47,249	$48,194
R&M	2.0%		$35,300	$36,006	$36,726	$37,461	$38,210
Vehicles	2.0%		$19,600	$19,992	$20,392	$20,800	$21,216
General	2.0%		$4,011	$4,194	$4,342	$4,473	$4,563
First year feed adjustment							
Operating Costs			**$599,535**	**$608,640**	**$618,210**	**$626,970**	**$636,750**
			$4.63	$4.61	$4.58	$4.58	$4.55
Farm Surplus			$120,587	$473,326	$281,268	$244,050	$381,553
Administration	2.0%		$0	$0	$0	$0	$0
Standing Charges	2.0%		$0	$0	$0	$0	$0
Total Costs			**$599,535**	**$608,640**	**$618,210**	**$626,970**	**$636,750**
Costs/kg ms			$4.63	$4.61	$4.58	$4.58	$4.55
EBIT			**$120,587**	**$473,326**	**$281,268**	**$244,050**	**$381,553**
EBIT/kgMS			$0.93	$3.59	$2.08	$1.78	$2.73
Return on total capital (before debt servicing)			1.7%	6.6%	3.9%	3.4%	5.3%
FUNDING	Interest Rate		6.00%	6.00%	7.80%	8.00%	8.00%
Interest			$188,159	$167,013	$167,457	$180,565	$180,642
OD interest (estimated)			$6,211	$6,211	$6,211	$6,211	$6,211
Net Returns ($)			-$73,783	$300,102	$107,599	$57,274	$194,700
Net Returns (%)			**-14.8%**	**60.0%**	**21.5%**	**11.5%**	**38.9%**
RETURNS							
Planned return on shareholder equity (%)			0.0%	0.0%	0.0%	0.0%	0.0%
Return on shareholder equity ($)			$ -	$ -	$ -	$ -	$ -
Surplus			-$73,783	$300,102	$107,599	$57,274	$194,700
Total return			-14.8%	60.0%	21.5%	11.5%	38.9%
Debt reduction			$0	$281,437	$85,632	$42,336	$171,846
Break even price			$6.14	$5.92	$5.87	$5.94	$5.88
Capital Expenditure			**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Capital Improvements				$0	$0	$0	$0
Fonterra shares			$0	$18,665	$21,967	$14,938	$22,854
Cowshed							
Housing & sheds							
Proposed New Borrowings			**$ 73,783**	**$ -**	**$ -**	**$ -**	**$ -**