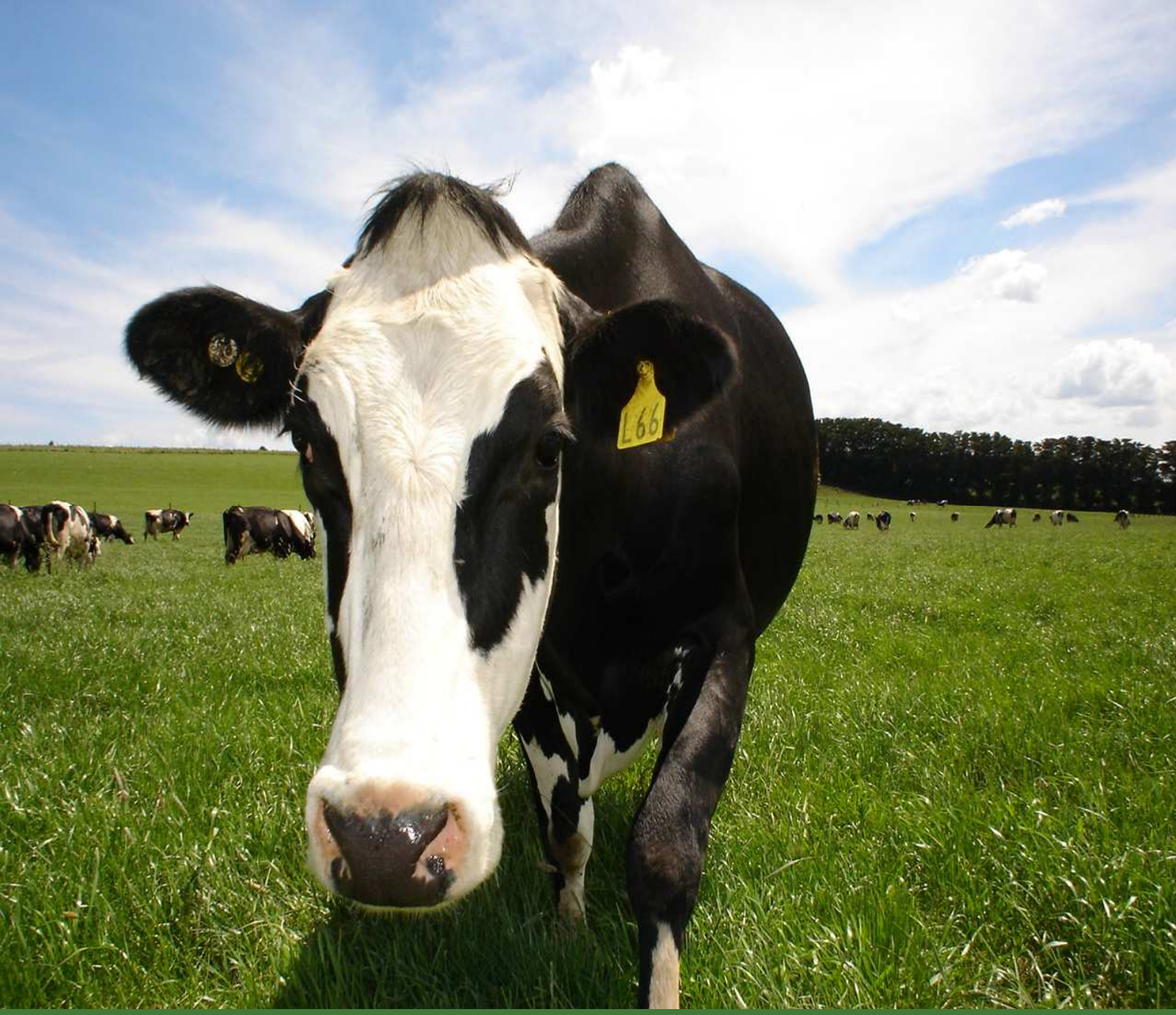

Dairy Industry Farm Monitor Project

Perspectives and practices of profitable dairy farms: results from the Dairy Industry Farm Monitor Project 2006-07 to 2011-12

State Government Victoria
Dairy Australia
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DEPARTMENT OF PRIMARY INDUSTRIES
farm services

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Contents

Executive summary

Further analysis of the Dairy Industry Farm Monitor Project (DIFMP) data each year identifies trends relating to an issue of interest. The focus of this year's feature article is identifying the factors that enable farms to sustain long term profitability. Part one of the article reports on participant farmers' perceptions of the critical and non-critical factors that contribute to long term profitability, and what decisions farmers make to maximise profit and manage risk. It was found that while not all farms primarily aim to maximise profit, the majority stated that controlling costs relative to income and a focus on home grown pasture were key factors for a successful business. Management ability was also highlighted as a central factor that contributes to long term profitability as well as being a key strategy to manage risk.

Consistently achieving strong farm business performance within a benchmarking dataset can be difficult due to the random nature of the operating environment. However within the DIFMP two farms have consistently recorded strong profits resulting in them being ranked within the regional and statewide top 25 percent of participants, as ranked by return on assets, for each year of the five years they have participated. Part two examines how these two farms have been able to adapt to changes in their operating environment and remain within the top performing group relative to their contemporaries. Whilst they have developed inherently different systems in terms of input use, size, and location they share an operational focus as well as similar goals, a thorough understanding of the drivers of their farm business and the ability to monitor change in their business.

This article does not attempt to describe a model for a farming system that will remain profitable over time. Understanding the motivations and behaviours of successful farms provides insights into individual farm businesses in relation to their own unique circumstances. Any change to a farming system must consider the implications on profit and risk.

Preface

2011/12 a year of mixed returns

The Dairy Industry Farm Monitor Project (DIFMP) provides a financial and physical comparative analysis of dairy farms from across the three key dairying regions in Victoria; Northern Victoria, South Western Victoria and Gippsland.

This is the sixth year of the project which is a joint initiative between the Department of Primary Industries (DPI) and Dairy Australia. The project provides farm level data relating to profitability and production on farms in the Victorian dairy industry.

In 2011/12 despite a strong milk price of $5.52/kg MS average farm profitability fell from 6.2 percent return on assets last year to 5.0 percent, however this performance was above the six year project average return on assets of 4.5 percent for farms across the state. Regionally the performance varied as a result of the diverse seasonal conditions. In Northern Victoria a return to traditional seasonal conditions for the first time in a decade saw farms make the highest returns since 2007/08. Good rainfall and water allocations in the North helped farmers reduce their cost of production by 10 percent, to more than enough to offset the 1 percent drop in milk price. This result saw return on assets rise from 7.0 percent in 2010/11 to 7.6 percent in 2011/12.

Seasonal conditions in the South West and Gippsland conspired to depress returns compared to last year. In the South West following a wet winter, spring was dry and much of the region experienced only decile one to three rainfall over the summer and autumn period. These conditions saw return on assets fall from 5.5 percent in 2010/11 to 3.3 percent in 2011/12. Farms in Gippsland experienced a wet winter and spring conditions in 2011 with flooding, wet soils and pugging being the major challenges. This region had the largest drop in milk price, around 4 percent lower than the previous year, that combined with an increase in costs resulting in the average return on assets for Gippsland farms falling from 6.1 percent in 2010/11 to 4.4 percent 2011/12.

The annual report is available on the project website at www.dpi.vic.gov.au/dairyfarmmonitor or www.dairyaustralia.com.au/dairyfarmmonitor.

Part one: Preferences of profit and risk

The factors contributing to high profit on individual farms are diverse and unique. No two farms are the same. There is an array of different farm systems, management ability and personal goals all of which influence the bottom line. A recent study by Shadbolt (2012) highlighted that farms across all systems can operate efficiently (profitably) and that return on assets performance is not related to the type of farm system. However a particular type of farm system may be inherently more risky than another suggesting that both profit and risk are important considerations in analysing different farm systems. The most appropriate farm system is one which is appropriately matched to the physical and financial resources of the farm and is consistent with the farmer's personal opinions and expectations of the future operating environment and attitude to risk, rather than on potential economic performance derived from a particular system.

Part one of this feature article explores the personal preferences of farmers towards farm profitability and risk management. The farms involved in DIFMP were asked the following questions during the data collection process in mid-2012;

- What are the critical factors that contribute to the long term profitability of a dairy farm?
- What factors are less important in running a profitable dairy farm?
- What are the key decisions you make to maximise your farm profit?
- Is maximising profit the main aim of your farming business? If no, what other aims do you have for your farming business?
- What do you do to manage risk in your farming business?

What are the critical factors that contribute to the long term profitability of a dairy farm?

Farm responses were categorised as being functions of production, management, finance or other factors. These categories are shown on the inner circle in the following figures. The farm responses are shown on the outer ring of each figure and vary between questions.

Of particular interest was management skill of the operator and the ability to make timely decisions. This was the fourth highest critical factor with 13 percent of responses. One farm summed up achieving long term profitability is about "…*doing everything well. The most profitable farms are not the best at anything, but are good at everything. They tend not to pursue a particular goal instead looking for a balanced approach*." Management as a key success factor on profitable farms is explored in part two of this article.

Convincingly controlling costs, such as those costs for production, purchased feed, overhead costs and interest and lease costs, was the most critical factor that farmers stated that contributes to long term profit with 28 percent of responses (Figure 1). Of these 46 farms, 12 farms specifically stated that controlling costs relative to production was critical. Controlling costs was identified by double the number of farmers as critical for long term profit compared to the second most critical factor of milk price which was attributed to 14 percent of responses. The farm responses show that the combination of these two factors in the finance category were the most critical to sustaining long term profits.

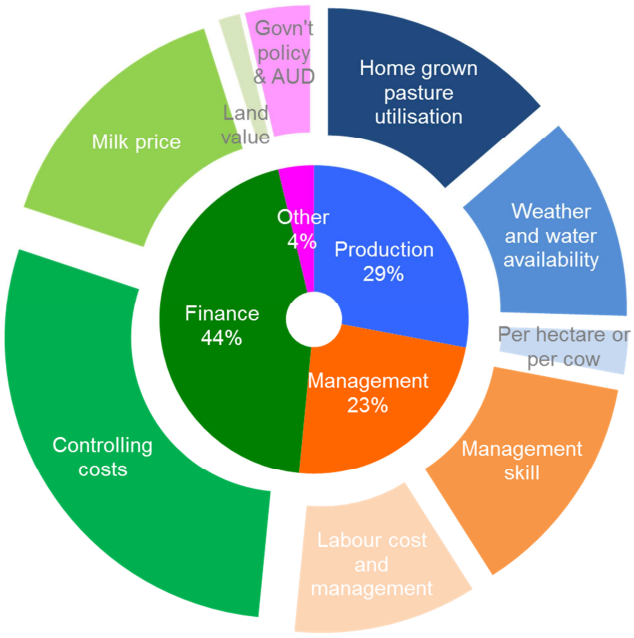

Figure 1. The critical factors that contribute to the long term profitability of a dairy farm. n=163

What factors are less important in running a profitable dairy farm?

The diversity between farms and farmers and their perceptions of the factors that contribute to long term profitability is demonstrated when some farmers describe a variable as being critical to long term profitability whereas other farmers believe the same variable will not have a major influence. One such factor is stocking rate and per cow production. Four farms indicated that it was critical (light blue responses in Figure 1) whereas ten farms stated that it was not (dark blue in Figure 2).

Gibb (2009) declares that one of the traits of successful farmers is that they identify critical variables, usually only two or three, and aren't distracted by non-critical variables. Experience and a comprehensive 'world view' contribute to identifying the critical variables quickly. Twenty seven farms identified at least one factor that is less important in running a profitable dairy farm however 17 farms said that there were no factors that are less important or that everything is important. The factors most commonly identified as least critical were a focus on per hectare or cow production, genetics and investing in expensive machinery (Figure 2).

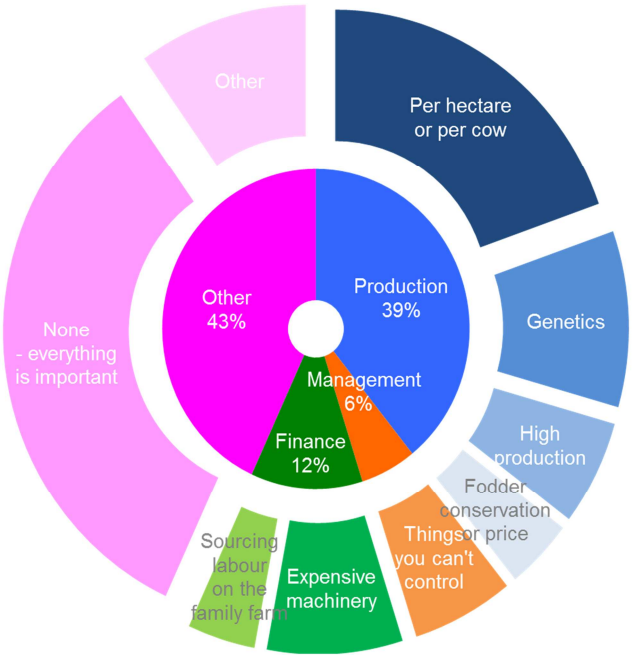

Figure 2. The factors that are less important in running a profitable dairy farm. n=51.

What are the key decisions you make to maximise your farm profit?

Production factors were the major category farmers' focus on to maximise their profit with 53 percent of responses, of which utilising home grown feed was the most popular response (26%). Noticeably a higher proportion of farms focus on pasture utilisation to maximise their own profitability (26%, Figure 3) compared to 13 percent of responses stating that it contributes to long term profitability (Figure 1). This could be due to farmers recognising pasture production as a natural or inherent skill that is within their control and therefore recognising it as a key contributor to maximise their own profits.

The next most popular decisions farmers make were feeding cows (15%), controlling their costs (13%) and ensuring they received a return from their expenditure (11%). These decisions were similar to the large response identifying them as a critical factor to achieving long term profits.

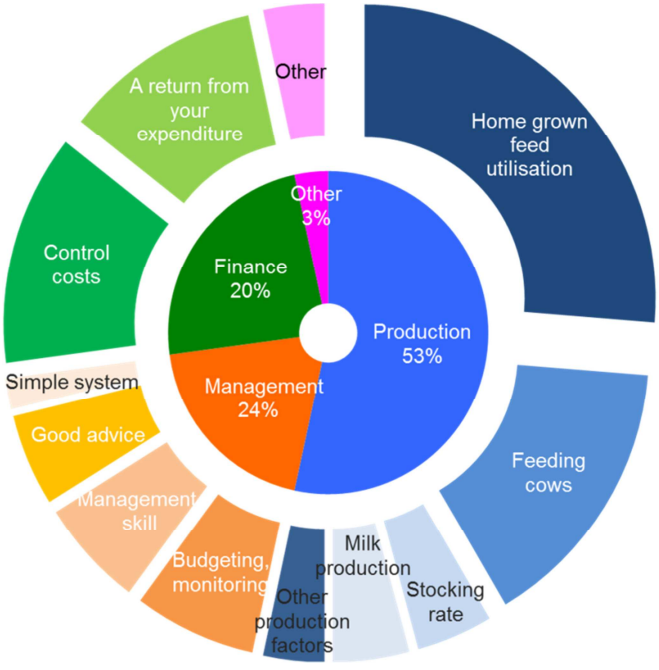

Figure 3. The key decisions farmers make to maximise farm profits. n=114

Is maximising profit the main aim of your farming business? If no, what other aims do you have for your farming business?

Maximising profits was the main aim for over two-thirds of the farms (Figure 4), although it did come with some caveats. Of the 42 farms, 14 also stated that there must be a balance with lifestyle, four farms aim to achieve profits sustainably so they are still farming in the future and four also stated they aim to increase net wealth. For the third of farms whose main aim was not maximising profit, balancing farming with lifestyle and the environment, taking time for holidays and 'loving the job' were some of the other primary aims for farmers and their businesses. This is consistent with a study by Nuthall (2009) who found that not all farmers agree that maximising profitability is the main goal of their farm business but they see it as a way of generating money to support other goals.

Figure 4. The proportion of farms that aim to maximise profit in the farming business. n=62.

Two dairy farming groups in south-west Victoria explored the 'elements' of a successful farming business, much the same way the combination of elements come together in a recipe to make different cakes (Chenoweth and Ryan, 2010). The groups agreed that the most successful or right system will be one where the system needs are matched to the personal and business goals and that the system will not be right if not achieving their goals. This reiterates that there is not one ideal farming system and the farmers' goal must be considered when looking at the economic performance of a farm (Ho *et al*. 2012).

Risk management

Risk is most commonly defined as likelihood multiplied by consequence, or how often an event happens and what is the impact when it does happen. A decision that increases risk may either increase the likelihood of an event happening or increase the consequence when it does happen. It is important to note that risk is not necessarily a bad thing; the consequence of higher risk may be a higher return, not simply a greater loss (Malcolm 2005, Nicholson 2012).

Farmers will have different motivations to generate profits depending on their preferences for risk and return and is neither right nor wrong but is an individual decision taken by the farmer. When looking at a farms' economic performance Ho *et al*. (2012) states that understanding the farmer's risk preferences is essential. A person who is risk averse will be willing to forgo some expected return for a reduction in risk, but increased risk often yields higher return as well as a greater exposure to loss. However strategies can be taken to manage or reduce risk to the farm businesses.

What do you do to manage risk in your farming business?

The vast majority of participant farms indicated they had explicit strategies to manage risk. Budget, monitor and review the farm business (15%) was the main strategy, followed by growing and conserving home grown feed to either build a feed reserve or because it is a relatively cheaper feed source than purchasing (12%) (Figure 5). Some farms (5%) indicated they aim to put money aside with another 4% of farms using Farm Management Deposits (FMD) as the strategy to do this.

Figure 5. Strategies to manage risk in the farming business. n=110

Summary

Not all farms share maximising farm profitability as the main aim of their business. In addition, opinions vary as to what the critical factors for running a profitable dairy farm were. However, the majority of farms stated that controlling costs relative to income and a focus on home grown pasture were the key factors that contributed to long term farm profitability. Management ability was also considered a key factor as well as a strategy for managing risk. Part two of the article explores the critical factors of two farms who have sustained long term profitability by adapting to changes in their operating environment.

Part two: Farm case studies

Consistently achieving above average farm business performance is difficult. During the six years of the DIFMP 137 different farms have contributed to the 416 individual datasets however, when ranked by return on assets, 82 percent of farms have appeared in the top 25 percent group for their region either never or once (Figure 6). It is worth noting that of the 137 farms only 19 have participated in all six years while 29 farms have participated for only one year. On average farms have participated in the project for three years.

Nevertheless, the lack of consistency in economic performance is not unusual and has been noted in other studies (SWFMP 2010, cited in Ho *et al*. 2012). Reasons for the movement of farms in and out of the top group include random luck of the operating environment such as seasonal conditions, the combinations of prices paid and received in a particular year, a farm undertaking a significant development, different sample size between years and being displaced from the top group by another farmer who performed well that year (Ho *et al*. 2012).

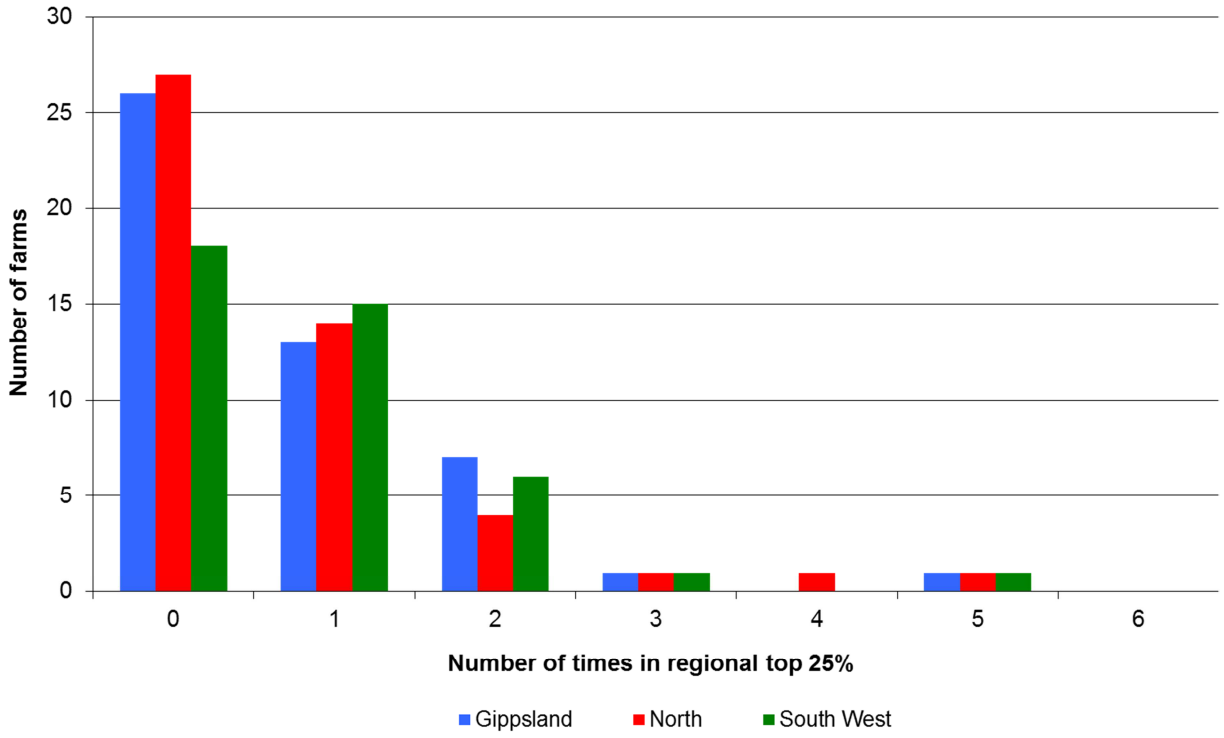

Figure 6. Number of times farms have been ranked in the top 25% by return on assets for their region (2006-07 to 2011-12)

Furthermore using return on assets as the metric for whole farm profitability can influence the ability of some farms to be ranked in the top 25 percent group. While the DIFMP ranks the performance of farms based on return on assets other benchmarking studies may use other indicators. Return on assets is calculated as operating profit divided by total assets under management excluding land and asset appreciation. It measures how efficiently the resources are being used and managed, and allows the comparison of whole farm profitability of farms between areas and regions. However return on assets can be constrained on some farms that have high land or asset values relative to the earning capacity of those assets.

Consistently achieving high profits year in year out comes down to more than achieving exceptionally high performance in any one partial efficiency measure, but rather it comes down to the managers' knowledge, skill and ability to repeatedly use resources in the most efficient way. The way the manager or owner makes best-bet input decisions based on expected milk price and manages the farm's resources is the key determining factor that results in consistently strong farm business performance.

Interestingly three farms have entered the top 25% as ranked by return on assets for their region in each of the five years they have participated in the project (Figure 6). Two of these farms have also entered the top 25 percent for the state sample each year they've participated. These two farms, GI029 and SW021, have been put under the microscope in an attempt to tease out their management characteristics that has enabled them to achieve above average profitability over time.

GI029: Keeping it simple

GI029 is located in the Macalister Irrigation District of Gippsland and has a seasonal calving pattern. The farm has fertile soils that have a high pasture production potential and irritation water allocations have been relatively high over the last four years. This business could be characteristic of a low input system, given relatively moderate use of supplementary feed, fertiliser, machinery and employed labour. Some of the key physical and financial indicators of GI029 are shown in Table 1.

Table 1. The key physical and financial parameters of GI029

	2007/08	2008/09	2009/10	2010/11	2011/12
Annual water use (mm)	1,220	972	1,105	985	1,263
Usable area (ha)[#]	80	116	116	116	116
Number of cows	215	240	240	247	246
Concentrates fed (t DM/cow)	1.0	1.0	1.0	1.1	1.2
Milk solids sold per cow (kg)	517	516	476	489	485
Milk solids sold per hectare (kg)	1,158	1,031	985	1,042	871
Labour efficiency (cows/FTE)	97	103	105	105	109
Milk price ($/kg MS)	6.80	4.88	4.28	5.35	5.12
Cost of production ($/kg MS)*	4.22	3.59	3.06	3.38	3.52
Return on assets (%)	20.7	6.6	6.1	10.2	6.9
Return on equity (%)	29.2	7.8	6.5	13.0	7.7

[#] includes runoff areas
*variable and overhead costs

Through industry experience and sound knowledge of principles of dairy farming the owners of GI029 have built a simple yet robust farming business. It is simple in that they have not over complicated any elements of their system and they focus on the elements that generate a return. This is feeding cows. They also have a strong commitment to the environment and ensuring their farming practices will leave their farm and the surrounding environment better off than when they started farming.

The beginnings

After a sharefarming venture the owners bought their property nearly ten years ago in partnership with one of their parents. The farm had good infrastructure including a working dairy, laser graded irrigation areas, and a reasonable house. As such they haven't had to undertake any significant repairs and maintenance which has been important as they like to avoid spending money on infrastructure where possible. Prior to their farming career both had experience in the dairy industry as well as having completed university degrees. With this experience they have built a robust dairy farm that doesn't push the production boundaries however in terms of whole farm profitability it consistently outperforms other farms in its region.

Business management

Somewhat unique to this farming partnership is their knowledge and ability to articulate the additional output that will be generated from each additional unit of input and how this contributes to total profit on their farm. Past experience has allowed them to observe farms that have pushed production too high, leading to reduced profitability. GI029 would prefer to pull back from a strategy of profit maximisation and take a more conservative approach that enables their business to tick along a bit more slowly while still making healthy profits.

The priorities of this farm is governed by the 80/20 rule. Focus on the 80 percent of the business that generates the profit as a matter of priority and invest less time, money and effort on the 20 percent of the business that does not. GI029 consider that best place to invest 80 percent of their effort is in feeding cows. Underpinning objectives are growing and utilising home grown feed and supplements, irrigation, fertiliser, and pasture management. These 80 percent tasks are completed in batches to aid efficiency and simplicity.

This farm uses budgets when choosing between options or technologies. One recent example of this was comparing options to feed cows by either agisting, purchasing feed or leasing land. Interestingly GI029 commented that for the majority of the time the partial budgets they've completed when considering a change to the farming business don't stack up financially and as a result many changes or developments they've considered making to their business have been discarded. At the whole farm level they are not too concerned with annual budgets as they haven't changed

their system greatly between years and understand the parts of their business that can change if circumstances change.

Operational management

In keeping with their whole farm philosophy, their attitude to pasture management is don't push the system too hard and keep it simple. The herd calving pattern has been developed to match the period of peak pasture production in spring with the peak milk production period resulting in a low cost system for their farm. Direct pasture harvest is a priority and conserving only a true surplus helps sustain this low cost system. Grazing management is kept simple and the rotation generally follows the same paddock sequence. Paddocks are grazed to favour the ryegrass dominant pastures between the two and three leaf stage unless canopy closure is threatening quality. Regular monitoring of pasture growth and ground cover is viewed as a 20 percent task at all but the most critical times of year but daily recordings of the number of cows, paddock number and grain fed each milking are made. Grain supplements are fed at relatively low levels reflecting their dislike of spending money as well as their desire to not push the cows too hard. Personal ethical considerations around feeding grain to cows rather than the world is also important in these decisions.

GI029 are acutely aware of their farm's environmental impacts and actively work towards leaving their farm in a better state than when they arrived. Grants have been received for the removal of willows from a creek running through the farm before it was revegetated with native trees. Pesticide use is avoided due to the impact on the native microfauna along with the use of palm kernel and the induction of cows. A fertiliser plan that uses clover species to supply nitrogen instead of synthetic fertilisers is also being considered after successfully employing this technique in Tasmania. These environmental outcomes are most important to them and they will knowingly accept reduced profitability to ensure they are achieving them.

Risk management

The owners acknowledge they are risk averse and have therefore developed a profitable business that is built on being a low cost system. They acknowledge they are not chasing the profit spikes that may be available in any one year by making the effort to obtain the last dollar as this may then expose them to a loss making position the following year. For example in times of a high milk price they will take the additional margin at the current level of production rather than pushing the system by milking extra cows and feeding additional supplements; this is shown in table one where the relatively stable level of concentrate feeding over time can observed despite fluctuations in milk price. They believe it is fickle to chase a higher milk price but rather believe you should aim for a system that is robust and resilient to change in the operating environment.

GI029 perceive the biggest risk to their business as being irrigation availability and rainfall however they believe their system provides a strong position from which to manage these downside risks. The 2006 drought was particularly tough and challenging but having successfully managed through it they believe their business skills have improved. If a similar drought hit they would make the most of spring, irrigating small areas that have been fertilised to maximise pasture production, buy fodder early, de-stock and look for cheap sources of feed. They would establish a strong plan early to eliminate the stress of worrying about what to do every day. Setting up a budget during the 2006 drought was a key to their success in managing through and they would do this again.

Information sources

The combination of prior experience and the establishment of a robust farming system has enabled their focus to shift towards their family rather than attending industry days and seeking large quantities of information. However, industry newsletters are still received and read and involvement in local focus farm discussion groups continues if somewhat irregularly. In keeping with their environmental focus they have begun to look at information that will aid this such as dairy energy saving workshops. The internet is used as a source of information for technical data and weather forecasts and is also used for business transactions including ordering water and banking. The DIFMP data is useful for observing how the industry is tracking as well as tracking their own performance over time. Comparisons of their performance with others in the project are not made.

Advice to young entrants

The owners receive a great deal of enjoyment from dairy farming. They love lowering the fence and pushing cows into fresh feed. They believe that everyone should do what they love and it is by accident that what they love doing also happens to make them money. This is their advice to young entrants to find the thing that you love doing. If that is dairy farming seek opportunities to sharefarm, don't spend too much money particularly on machinery, make marginal decisions every day and utilise mentors as these were beneficial when they began their farming career.

Future aspirations

GI029 have achieved their ten year plan by establishing a robust, profitable dairy business and are now enjoying keeping the business ticking along and spending time raising their family. The next steps are to consolidate their business, possibly purchase the block they are currently leasing next door and putting labour in place to allow them to travel overseas with their children. They are taking steps to improve their soil quality, planting trees and are considering supplying A2 or organic milk provided the logistics were available and they were able to maintain good farming practices rather simply ticking an organic checklist. If their children were interested and shared their love of farming they would also like to give them the opportunity to dairy farm.

SW021: Crunching the numbers

SW021 is located in a lower rainfall region of the south west however they still manage good pasture consumption compared to the regional average. Concentrates fed was 0.9 t DM/cow in 2007/08 however it jumped to 2.1 t DM/cow in 2008/09 following the introduction of a mixer wagon. Using the combination of bail and partial mixed ration feeding on a feed pad to combine forages and by-products concentrates per cow have varied from 2.1 to 2.7 t DM/cow over the past four years. The farm is also seasonal calving and milk production is above average for both per cow and per hectare for the region. Some of the key physical and financial indicators of SW021 are shown in Table 2.

Table 2. The key physical and financial parameters of SW021

	2007/08	2008/09	2009/10	2010/11	2011/12
Annual water use (mm)	682	624	689	1,032	618
Usable area (ha)[#]	435	435	435	420	420
Number of cows	575	610	612	637	665
Concentrates fed (t DM/cow)	0.9	2.1	2.4	2.7	2.6
Milk solids sold per cow (kg)	526	524	523	579	561
Milk solids sold per hectare (kg)	696	735	736	879	888
Labour efficiency (cows/FTE)	158	168	175	188	186
Milk price ($/kg MS)	6.63	5.53	4.55	5.92	5.67
Cost of production ($/kg MS)*	5.54	4.64	3.66	4.08	4.21
Return on assets (%)	16.2	8.7	7.1	12.2	8.8
Return on equity (%)	17.4	8.9	7.1	13.1	9.2

[#]includes runoff areas
*variable and overhead costs

The owners of SW021 have built a farm business on trust, openness and assessing every facet of the business by 'doing the numbers'. They have a purposeful focus on labour management and desire to always refine tasks with the aim of doing them better and more efficiently.

The beginnings

The successful story of SW021 began nearly two decades ago when the owners returned from overseas and decided to purchase a dairy farm in partnership with one of the owner's parents. Through industry contacts and guidance of a local Department of Primary Industries extension officer at the time, the family identified south west Victoria as the most attractive investment option compared to other regions of the state. Northern Victoria had the potential to generate good returns but water value and security as well as the impact of salt were a concern. Gippsland was considered to be exceptional farming land however it was simply too expensive.

This farm has developed a comprehensive understanding of the profit drivers of their business and the ability to constantly test and refine the system through budgets and models. Whole farm financial budgets, feed ration budgets and investment budgets are critical for regular decision making of both a tactical and strategic nature. These budgets have been used to give the owners the confidence to test and try new technologies, alternate feed sources or expand usable area and herd size. They find satisfaction in operating in line with their forecast budget and operating a profitable business. However family is of most importance to them.

Business management

All decisions made in the business are carefully and meticulously analysed and must contribute to profit. While they appreciate their budgets are not precise, but useful as a guide, they can usually explain the difference between the forecast budget and actual results.

The owners are constantly seeking better ways to do things and with the aid of their budgets and their understanding of the key factors that drive their farm's profit they position themselves to take advantage of opportunities as they arise. Recently, despite the fact they were not looking to expand, when an attractive nearby farm was listed on the market they were able to analyse the likely economics, make the decision to purchase and secure the necessary finance within two weeks of the initial listing.

The ability to be 'numerate' has helped SW021 fine tune their financial performance. After the milk price step down a budget model was developed to determine the number of cows they could profitably feed. The model allowed their key variables; milk price, feed price and number of cows to be changed. Once they determined the number of cows they were able to take action and manage the situation. A view that, "if you can't measure it you can't understand it", and an ability to model options has shown them that for their business the critical variable for making profits is to calculate milk solids per hectare produced off grass (i.e. after deducting that milk equivalent to the cost of brought-in

feeds). Over the last eight years the farm has consistently tracked their business performance by monitoring that figure.

Moreover SW021 are also well aware of the factors that are not critical and don't contribute to profitability. They are not hung up on perfecting operational decisions, or taking notice of biophysical measures such as milk production per hectare or feed conversion efficiency. Other non-critical parts of their farming business that receive limited attention include maintenance of non-critical infrastructure, having sheds immaculately tidy or driving cell counts down past the threshold required to supply milk of premium quality. While still important these factors aren't large contributors to profit and therefore aren't a focus.

A frustration for SW021 are the discussions concerning technical ratios, such as number of cows or production per cow, being intimated as a measure of a dairy farmer's worth or prestige. They believe these conversations are not constructive for long term sustainability of the industry and that lifting the conversation to a discussion around profitability and growing wealth in the business would be far more beneficial. For this farm they are most concerned with factors that contribute to the bottom line and what will generate a return. They believe it is foolish to think you have learnt it all as you never have, and that a key to long term success is to work smarter, not harder.

Operational management

Pasture grazing decisions such as leaf stage and rotation length are made using experience and intuition rather than formal decision making process. High pasture utilisation is the first step in their feeding process and they will then supplementary feed to increase milk production but only if it is profitable to do so. The supplement or feed ration decisions are made using a modified ration calculator that allows the comparison of two rations of equivalent nutritional value to determine the least cost option. As opposed to farm GI029 this farm tends to feed more and have a higher cost of production, however in an economic sense they are operating more closely to the profit maximising point where marginal cost is equal to marginal revenue.

A primary goal of the business is for a healthy work life balance for both the owners and employees. On average employees work 41 hours per week with two days off and as an added bonus to their above award salary they receive a significant share of the previous seasons milk quality incentive payments provided quality targets are met. As a result it is no surprise that turn-over of staff is low and the first advertisement for staff in eight years attracted 26 applications.

This farm has exceptional labour efficiency. Some major examples of the pursuit of increased labour efficiency has been upgrading from a herringbone dairy where good cow flow was difficult to a 60 unit rotary dairy with cup removers, backing bars and auto teat spray which can be operated by one person during non-peak periods. The construction of feed pads has also been undertaken which lowers the cost and time associated with feeding supplements as well as making it easy to increase feeding levels provided it is profitable to do so. On a smaller scale time release catches are used on the front gates of paddocks saving both the time taken to muster cows early in the morning as well as making a noticeable positive difference to the condition of cows' feet. Other labour saving devices such as an automatic calf feeder have also been installed. Future changes to the farming system such as split calving are also currently being assessed for their effect on labour as well as profit.

Similar to GI029 this farm prefers to use contractors rather than spending large amounts on machinery that will sit idle in the shed for the majority of the year. This also allows them to focus on pasture and cows as the core aspects of their business. The owners have built trust and strong relationships with their contractors allowing them to have prompt access to their services. One contractor suggested that he liked working for them not because of their size, but because he would always be paid on time.

Interestingly SW021 commented that as their size had grown, so had their ease of management. They felt that larger herd size had enabled them to employ more labour meaning the owners could now delegate tasks and be more flexible in when they took holidays and attended their children's activities. Comments such as these are not often encountered on dairy farms highlighting the skill of the owners in managing both people and their overall business.

Risk management

Due to their location, rainfall is the main risk for this business. Feed reserves are important to manage feed gaps or unfavourable seasons and they try to retain silage reserves from previous years. As they are actively aware of how the business is performing they can take action as soon as the actual figures are not aligning with their budgeted ones. Understanding the critical variables in their business and where there is room to move or where to push parts of the system allows them to take timely action.

Information sources

The farm sources information through Dairy Australia's dairy web email to keep abreast of current issues and will follow up topics where there is interest. They use consultants or advisors for particular parts of the business where they require specialist expertise, for example a nutritionist and an agronomist. When they first entered dairying locally they received whole farm advice from a consultant who they describe as being fundamental to their success at the beginning.

Advice to future entrants

Their primary advice for new dairy farmers is to be financially literate; being able to do the basic financials by entering figures into small business software using standard dairy cost codes, constructing budgets and knowing your expected forward bank balances will enable you to understand your business. Participating in training or projects such as DIFMP will enable the identification of the key factors that contribute to profit. Every farmer, they believe, can work out their own profitability either intuitively or formally by constructing their own budgets. Alternatively they can join benchmarking studies and have it done for them. Understanding the key areas of the business through this process will help identify how to make profits and what you need to do to achieve it.

Additionally always having time for your family, accessing other successful farmers and the use of a trusted advisor were all key suggestions for new entrants. Finally they felt that there was a critical mass required to be able to run a dairy farm as there are some economies of scale to be taken advantage of.

Future aspirations

The immediate future for this farm business involves setting up their new block of land and fitting it into their farming system. As always they are considering how to improve their farm, particularly with incorporating their land purchase into their existing farm which may possibly involve a move to split calving.

Summary

Over the past five years GI029 and SW021 have consistently and repeatedly produced profit results higher than those reported by their contemporaries within the region and across the state. This is despite them having developed significantly different farming systems of different size, in different locations and being subject to different constraints and opportunities. This re-emphasises the point that there is no one right farming system, but rather the most appropriate farm system is one aligned to the farm physical and financial resources available as well as aligning with each farmers' own attitude to risk and their individual perspective of what the future may hold. How people run their system, as opposed to what system they run, is a critical determinant of long term profitability.

A thorough understanding of their own businesses and the drivers of profit within them has been a key to the success of these businesses. Both farms monitor their physical and financial performance using the DIFMP as well as developing their own whole farm budgets. Using these budgets and through previous experience it is clear to them where the costs are in their business and how this contributes to their profitability. Any proposed change to their farming business or adoption of new technology is always analysed using a partial budget.

They are most concerned with focusing their resources and spending money on those inputs that will derive a return in their business. GI029 will spend money on inputs to a level that they are confident will have a provide return but often leave some margin to ensure that their costs remain low. They have a high level of assurance of the return for the money they invest. SW021 operate more closely to the point of profit maximisation where marginal cost is equal to marginal revenue which tends to result in slightly higher input use and costs. Their motivations for their level of operation are a function of matching their resources with their farm system, their preference of risk, opinions and expectations for the future operating environment.

While their systems are quite different, the two families share many commonalities including:

- Family is their first priority.
- A strong emphasis on home grown pasture and feeding cows for profit, not production.
- Ability to construct budgets to analyse changes to their farming system, manage downturns and inform both tactical and strategic decisions.
- Fundamental understanding of the principles of managing a profitable dairy farm and a focus on the critical variables that affect their business. Reduced focus on the variables that don't contribute to profit.
- Manage risk by understanding their business, what its greatest threats are, knowing how to take respond, and taking action early.
- Employing contractors so they don't have to concern themselves with owning and maintaining machinery.

Both GI029 and SW021 have been able to demonstrate that farming system, location or technical efficiency ratios are not definitive indicators of business performance. Instead, their management ability, decision making characteristics, goals and beliefs are more insightful into the factors that contribute to achieving long term profitability.

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