



Novel Pathways to Farm Ownership within the Arable Sector:

“The Pros, the Cons and the Realities”.

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Executive Summary

Farm ownership within the New Zealand arable sector has and will continue to become a more contentious subject as we develop and age as an industry and a country. Do we accept that the current trends of the established becoming more established, or do we try and initiate a conversation to address the elephant in the room? We need greater diversity in farm ownership to ensure critical mass is maintained.

The aim of this project is to gain some insights into the realities of a person/couple in how feasible it would be for them to be able to gain a foot hold into an arable farming business. I specifically wanted to target people that were not in a position that will or may benefit from matrimony, alimony, and patrimony. Of all the people I interviewed not one example of farm ownership could be thought of that didn't involve the three previous terms.

The methodology used in this report was literature review into the arable sector and its current situation, this was used to quantify themes present. Using both informal interviews and my own profession I explored the key themes coming out of the industries professionals that service this sector.

The arable industry is a relatively small sector when compared to other food and fibre sectors around New Zealand. The critical mass of the industry has been increasingly put under pressure over the past 15-20 years. The number of arable farming businesses have decreased from approx. 1200 in the early 2000's to a hard-core group of approx. 300 that are classed as true mixed small seed & grain arable farms. It is this trend that has driven the questions around this report.

Contracting Seed companies face decreasing diversity with their grower base, corporate, syndicate and large establish family farming businesses have substantially increased their foot hold on large arable operations. Available land suitable for arable production systems is relatively scarce and is heavily contended for on the open market. The established are and always will be able to upscale and grow.

Investigating how an outsider could possibly compete with these established businesses, it become very apparent that the system is broken. The willingness and fortitude of thinking that should and would be required by the banking sector to see the importance to encourage and back the next generation to a sort of farmer ownership was completely lacking.

There were signals of hope with examples equity partnerships, asset fund management companies, and growers signalling that they would be interested to develop relationships with young and up coming individuals. Share farming was a commonly used term to describe situations where a landowner would slowly step back allowing a trusted partner to slowly buy into an arable business.

The relationships that are required for such agreements seemed to be the most difficult aspect to establish, with many growers opening admitting that they wouldn't know who they should turn to in order to make a connection.

The key take outs form this project are:

1. There needs to be a fundamental change of mindset by banks. Rather than looking at one's risk portfolio why not look at their business strategy and passion for achievement.
2. Young people/couples that are driven and hungry for stepping up into an arable farm need to find, foster, and build a trusted relationship with a current landowner.
3. The methodology that is currently used in valuing properties for sale must change to reflect what that business is worth, using the previous three years of EBITDA as the basis.

1.0 Introduction

1.1 Canterbury Seed & Grain

The seed and grain sector of Canterbury has long been the silent golden goose that continues to punch above its weight for both innovation and profitability. Canterbury is the powerhouse of seed and grain production accounting for over 85% of New Zealand's production. Other regions that also contribute are Southland, Otago, Manawatu, Hawke's bay and Wairarapa (Millner & Roskrige 2012).

The arable sector is a major contributor to the New Zealand economy. Arable production puts food on the table, both in terms of employment and in terms of the variety of products it is used in the production of and there is significant input into the livestock, food and drink industries. This is particular so for intensive dairy, poultry, and pig meat production, but also for high value small seed crops that are both consumed domestically and exported (Robertson & Hurren 2019).

Nationally there are approximately 104,000 hectares of grain crops, 42,000 hectares of Maize, and over 33,000 hectares of seed crops that were entered for certification. It is the small seed crops that bring the highest value of return to any grower with approx. 85,000 tonnes of small seed produced and sold domestically and internationally. Certified seed made up most of the seeds produced in 2018 with 47,000 tonnes, 35,00 tonnes of which were grass seed.

Seed and Grain production generated a contribution of \$863 million to New Zealand's GDP, equal to 0.3% of national GDP. And has been valued at \$2.1billion and 11,310 full time equivalent employees are estimated to be supported by production in the arable sector. In 2018 New Zealand exported 43,700 tonnes of arable goods with a value of \$214 million.

Key Statistics: New Zealand Growers Produce

- 60% of the world's radish seed.
- 50% of the world's white clover seed.
- 40% of the world's carrot seed.
- 800,000 tonnes of grain per annum
- 85,000 tonnes of herbage and vegetable seeds

The downstream industries that benefit from this industry range from the dairy sector, meat sector, and brewing of beer. Other industries also benefit further downstream are market gardens, restaurants, supermarkets, fast food outlets, and exporters of vegetables (Robertson & Hurren 2019).

Canterbury's arable farm number and size have changed drastically over the past two decades. Nationally the dominate proprietary seed companies conducted business with over 1200 arable farms

in the early 2000's, of these the majority fell within Canterbury region and their average size was between 190ha – 220ha. This has now reduced to less than 500 arable farms, of which only approx. 300 would be classed as true small seed and grain farms, with average farm size increasing to between 270 – 300ha (Foley 2021).

It is this step change in grower number and farm size that is causing concern among industry users that rely on a grower base that has diversity in both a geographic sense and growers that specialise in different seed crops.

1.2 Aims and Objectives.

The purpose of this report is to explore novel pathways that one could take to obtain farm ownership of an arable farming business producing novel small seed and grain crops. Understanding and exploring alternative options to progress into farm ownership will require learning about what is currently happening within the sector and develop insights into the potential of future opportunities for increasing diversity of the arable sector.

This research has two key points that interact with each other:

1. Diversity and Size of arable farms.
2. Exposure of risk for contracting seed companies.

The arable industry requires critical mass and diversity in order to maintain the niche position as a global small seed producer, but diversity and size of arable operations are putting this at risk.

2.0 Land Ownership

Owning land has always provided a deep connection for the people that live and work on it. It fosters and cultivates memories, family history, and gives the people in this situation a purpose. Land provides income as well as food for families and communities to survive upon.

In particular, our land tenure (manner of possession) system is fundamental to, and provides investor and community confidence in:

- Development planning, economic growth, and sustainability
- Social stability through housing and employment
- Financial security in economic development and property markets
- Natural resources and environmental management and sustainability.

Land Ownership system also underpin:

- Government policy making and program delivery.
- Taxation, land administration and the distribution of electoral boundaries.
- Land use management and regulation.

(G J Donnelly).

The concept of land ownership – as Australia and New Zealand understand and practise it – is not universal and there are many other forms of ‘ownership’ existing in different cultures throughout the world. Many are quite informal in the way they operate. In fact, our system is very formal and highly structured in comparison with developing countries.

The system used in Australia and New Zealand is a comparatively recent development in world history and is based on ‘common law’ (that part of law developed over a long period of time by decisions of courts). Other countries that use common law include Canada, Ireland, the United Kingdom and the United States of America. Common law principles can be overruled by ‘statute law’, which is established by legislative enactments such as Acts or Regulations (G J Donnelly).

Land under common law is said to be held in ‘fee simple’, which describes a form of ownership that can be held by owners and their heirs indefinitely.

2.1 The Conundrum

Farm ownership within the arable sector has historically been based around succession within family businesses. Pathways into owning an arable operation follow the very traditional path of being born into a position to acquire the farm. The arable industry is incredibly specialised with respect to both the climate, soils, machinery, and grower skill required to manage and successfully grow high end seed crops. These crops then must meet domestic and international specification of purity and germination.

As noted earlier the industry is struggling to maintain critical mass and it's this critical mass that is being hamstrung by the competitive nature of acquiring class 1 & 2 land. This has been illustrated this very season for autumn sowings of 2021, all the major seed companies that contract seed crops in Canterbury still have large volumes of production that haven't been able to be contracted to growers (G Gerard 2021).

Increasing limitations to use	LUC Class	Arable cropping suitability†	Pastoral grazing suitability	Production forestry suitability	General suitability	Decreasing versatility of use	
	1	High	High	High	Multiple use land		
	2	↓ Low	↓ ↓ Low	↓ ↓ Low			
	3						
	4						
	5	Unsuitable			Low	Low	Pastoral or forestry land
	6						
	7						
	8		Unsuitable	Unsuitable	Conservation land		

Figure 1 Land Use Capability Classification (arcgis.com)

Canterbury plains are dominated by high land use classed soils that fit arable systems, accompanied with reliable water and irrigation infrastructure. It is this reason that arable operations of any scale will naturally always be positioned on the Canterbury plains.

When arable businesses come to market for sale, which is often seldom, the capital that is required to step into such an operation is not a reality that most people are able to conceive. Arable operations require three large capital rich investments to be a viable specialised arable business.

1. Land - \$35,000 to \$55,000/ha
2. Working Capital - Cash required to operate the business.
3. Plant & Machinery Capital - Combines, Tractors, Trucks, Sheds, Silos, Dryers, Cultivation

The entry costs make it extremely prohibitive for people starting out from scratch to enter this industry which is why we are seeing arable businesses grow in land area and reduce in farm number. The only people that can acquire land of this nature are the arable businesses that have obtained and maintained critical mass over the decades which has enabled them to grow and diversify. This has meant that cooperate, syndicate and larger family operations tend to be the only parties that are capable of taking on additional arable businesses. Any entry level parties are quickly pushed aside when bidding competition takes effect, this is especially the case with any properties that are sold or leased on the public domain.

These larger types of operations tend to run a leaner system and generally focus on commodity type crops for trading, they lose their diversity in crop species that are grown, and the attention to detail can become compromised. This knock-on effect on the seed companies that contract and grow speciality seed crops in canterbury puts additional risk exposure on their company's performance.

As our aging farming population continues to grow to a position where farming is no longer viable for that particular party, we are increasingly seeing properties coming up for sale or for lease. These properties are often quickly absorbed by the large established arable businesses. Which leads to the question, are there other ways of valuing arable businesses so their obtainability can be more achievable for entry level growers? Or how can retiring growers or landowners that are choosing to step out from farming foster and help entry level growers into a specialised business?

2.3 Seed & Grain Farm Costs & Returns

Arable farms have a high-cost structure in order to produce their outputs, additionally payment terms often mean that growers will be required to wait up to 18-20 months to be fully paid for one production cycle. For example, white clover seed crop is sown between February – April, harvested in late January early February the following year, sent to the cleaning store to be cleaned. The final payment may not occur until the following spring between August – October. During this time, the grower has had to lay out all the costs for establishing and producing the crop approx. \$1700 - \$2200/ha, then also establish and begin their next production cycle of the next crop.

The Farm Statistical Survey in table 1 outlines the breakdown of income and expense 's. Of particular note is the "Cash Farm Working Expenses" (C.F.W.E) as a % of "Total Gross Farm Profits" (T.G.F.P) range in between 63% and 65%, this is indicative of the high running cost nature of an arable unit. This is one of the reasons why starting out in arable production is so difficult as the amount of working capital required to produce the harvested crop is prohibitive for people with low surplus capital as cash.

Table 1 Farm Statistical Survey 2020 (RJ Preston LTD 2021)

FARM STATISTICAL SURVEY 2020							
Intensive Crop							
GROUP AVERAGE RESULTS OVER THE PAST SEVEN YEARS							
Description	2014	2015	2016	2017	2018	2019	2020
PHYSICAL DATA							
Est Effective Farm Area (Ha)	253	258	283	286	301	209	305
PRODUCTION DATA							
Net Farm Profit	\$128,137	\$122,366	\$87,763	\$79,109	\$97,742	\$103,526	\$131,751
PERCENTAGES & RATIOS (INCOME)							
T.G.F.P. Per Effective Ha	\$3,662.21	\$4,338.88	\$4,400.73	\$4,150.36	\$4,178.94	\$4,434.07	\$4,522.32
PERCENTAGES & RATIOS (EXPENSE)							
C.F.W.E. as a % of T.G.F.P.	60	62	64	65	65	63	64
Interest & Rent as a % of T.G.F.P.	16	17	15	17	18	17	13
C.F.W.E. per Effective Ha	\$2,210.38	\$2,725.55	\$2,868.33	\$2,734.79	\$2,714.85	\$2,842.86	\$2,884.12
Irrigation Expenses per Irrigated Ha				\$317.29	\$351.95	\$298.49	\$477.43
Fertiliser Expenses per Effective Ha				\$347.85	\$356.20	\$413.64	\$430.69
Weed & Pest Expenses per Effective Ha				\$445.86	\$396.31	\$391.08	\$388.11
Operating Surplus per Ha	\$1,451.83	\$1,613.33	\$1,532.40	\$1,415.79	\$1,464.09	\$1,591.21	\$1,638.20
Return on Capital	8.4	9.1	10.6	8.2	2.4	2.5	2.8
Total Debt Term & Current	\$661,909	\$1,229,841	\$1,463,856	\$1,728,943	\$2,119,399	\$2,434,041	\$2,363,162
Total Gross Profit to Plant Ratio	1.0	1.9	1.0	2.2	2.0	2.2	3.4
T.G.F.P - Total Gross Farm Profits; C.F.W.E - Cash Farm Working Expenses							

Appendix 1: The following series of graphs has been obtained from a farm statistical survey by an accountancy firm in Canterbury. The information displays the trends over the past 6 years of Net Farm

Profit, T.G.F.P per ha, Operating Surplus per ha, and Total debt Term & Current. This offers further comparison within the different arable operations that have partaken in this survey.

How do we maintain critical mass while ensuring diversity in farm ownership and farm size?

2.4 Gross Margin

This is a measure of profitability for different crops which is used to calculate crop returns as follows:

$$\text{Gross Margin} = \frac{\text{Revenue} - \text{COGS}}{\text{Revenue}}$$

COGS = cost of goods sold

Provided the gross margin is calculated consistently this is an effective way to measure and compare the profitability of different crops grown on an arable operation. There are limitations as they do not consider a number of factors including fixed overheads and business debt levels, a more complicated method of valuing a business is required using EBITDA. Further, the choice of a crop in a rotation is not purely based on gross margin as there are other factors that must be considered such as crop rotation, disease, weed pressure, and timing of planting/harvesting.

Table 2 Crop Species ranked in terms of Efficiency of Gross Margin Return.

Crop	Gross Margin	Gross Revenue	Efficiency
Multi Year Browntop	\$ 4,240.77	\$ 6,245.00	67.9
Red Clover 1 st Yr	\$ 2,422.01	\$ 3,614.50	66.7
Multi Year Cocksfoot	\$ 4,135.67	\$ 6,245.00	66.2
Multi Year Tall Fescue	\$ 3,632.87	\$ 5,745.00	63.2
Multi Year Red Clover	\$ 2,431.22	\$ 3,945.00	61.6
2nd year Ryegrass	\$ 3,238.40	\$ 5,475.00	59.1
Chicory	\$ 4,161.16	\$ 7,200.00	57.8
Plantain	\$ 4,134.31	\$ 7,410.00	55.8
2nd Year White Clover	\$ 1,925.53	\$ 4,950.00	54.2
Browntop	\$ 3,068.00	\$ 5,885.00	52.1
Hybrid Rape	\$ 4,639.45	\$ 9,000.00	51.5
Cocksfoot	\$ 2,935.16	\$ 5,885.00	49.9
Spring Barley	\$ 2,019.62	\$ 4,175.00	48.4
Lucerne	\$ 1,930.16	\$ 4,080.00	47.3
Kale	\$ 3,626.53	\$ 7,695.00	47.1
Red Fescue	\$ 2,471.51	\$ 5,400.00	45.8
Yorkshire Fog	\$ 1,954.81	\$ 4,485.00	43.6
Ryecorn	\$ 1,604.33	\$ 3,970.00	40.4
Raphano Brassica	\$ 2,608.17	\$ 6,500.00	40.1
Beans	\$ 1,379.24	\$ 3,450.00	40.0
Lotus	\$ 4,042.29	\$ 6,600.00	40.0
Bromes	\$ 2,095.52	\$ 5,310.00	39.5
White Clover	\$ 1,925.53	\$ 4,950.00	38.9
Tall Fescue	\$ 2,068.31	\$ 5,325.00	38.8
Fodder Radish	\$ 1,880.89	\$ 5,000.00	37.6
Ryegrass	\$ 2,124.77	\$ 5,725.00	37.1
Autumn Oats	\$ 1,247.56	\$ 3,675.00	33.9
Autumn Barley	\$ 1,349.03	\$ 4,175.00	32.3
Forage Rape	\$ 1,476.01	\$ 5,250.00	28.1
Autumn Milling Wheat	\$ 902.49	\$ 3,710.00	24.3
Asian Brassica	\$ 1,012.99	\$ 4,420.00	22.9
Coriander	\$ 765.42	\$ 3,500.00	21.9
Autumn Feed Wheat	\$ 723.38	\$ 3,810.00	19.0
Peas	\$ 463.20	\$ 2,456.00	18.9
Forage Cereals	\$ 632.24	\$ 3,430.00	18.4
Spring Wheat	\$ 547.96	\$ 3,135.00	17.5
Spring Oats	\$ 448.28	\$ 2,675.00	16.8
Triticale	\$ 342.78	\$ 2,910.00	11.8
Cereal Silage (Kg DM/ha)	\$ 239.21	\$ 2,400.00	10.0
Dogstail	\$ 151.06	\$ 3,025.00	5.0

Table 2 shows not only the diversity of crops that are grown for seed in the Canterbury region, but it also highlights that even though that one particular crop may have a higher gross margin it is not necessary the most efficient on return for investment. That does not mean growers only grow the top 5 crops. Arable farms need diversity in species to maintain a crop rotation. This enables weed control (hygiene), preservation of soil flora and fauna, soil structure, controls disease cycles, pest infestations, and helps maintain or increase organic matter. These are the key attributes of a diverse rotation allowing the grower to maximise their gross margin returns. Therefore, the seed industry requires critical mass to maintain the ability to produce these diverse crops.

2.5 EBITDA

Another more effective model to measure the performance of a business is use the formula of EBITDA (earnings before interest, taxes, and depreciation). The EBITDA is an accounting measure calculated using a company's earnings before interest expenses, taxes, depreciation, and amortization are subtracted, as a proxy for a company's current operating profitability. i.e., how much profit it makes with its present assets and its operations on the products it produces and sells, as well as providing a proxy for cash flow.

This model has not been used in the past when purchasing parties do their Due Diligence in purchasing farming businesses, they often revert back to the basics of fixed value of land on a per hectare basis, fixed assets and maybe some good will. Using the EBITDA model and with information from Table 1 you would see most arable business are not hugely profitable business. Which then begs the question why are farming businesses not valued on their EBITDA?

3.0 Methodology

The methodology used for this report involved a thematic analysis and semi formal interviews. Interviews were completed with members in all different capacities of New Zealand's primary industries ranging from the banking sector, industry groups and representatives, farmers, alternative investment companies, and alternative businesses that sit outside of the food and fibre sector.

Three key questions were asked:

1. *What are the 1 or 2 things that you feel are lacking within the seed and grain sector?*
2. *What are the roadblocks that you see inhibiting young people stepping into farm ownership?*
3. *How would you address the points you have raised in questions 1 & 2?*

These formed the basis of our conversations from which I pulled trends and common themes out.

4.0 Findings & Discussions

4.1 Common Themes

The diversity of answers that came out of these 3 keys questions was nothing short of amazement. It was reassuring to see that many of the people had up and coming talent people in their best interests. But the reality of looking at how they could assist or aid young people into farm ownership was brushed aside into the too hard basket. There was a fall back to old mind set of saving from a young age was required, sacrifices, and attempting to grow their equity by any means possible as quickly as possible.

On numerous occasions the word "lack of diversity" within the arable sector was raised as a pressing concern, when asked to expand on this ironically, they stated it was lack of youth within the sector. Many went further and said the lack of females was concerning in a heavily male dominated environment. When asked how to address this the conversation quickly stalled, proving that the novel inventive thought process just isn't there.

The amount of capital an entry level person is required to have was seen as one of the main roadblocks. When speaking with the large banks their fallback position was that they required 50-60% equity for them to justify the lend of the remaining requirements. They were open in saying that gone are the days of supporting low equity entry level business. Although they did mention that if the person had a proven history and could prove through forecasting budget sheets that the targeted investment option would be able to service any debt the bank would consider it. But it immediately led to a question of "how does one acquire a proven history?".

Interestingly the mindset and/or ideology of what owning land means to us was mentioned many times as to how it needs to change. New Zealand landowners view their land as a liquid asset and it appears to still be in that mindset of being in a frontier.

Of the arable farmers and of the wider farming pool I have been associated with there is a strong sentiment of entitlement. This sense of entitlement was illustrated in various ways, but in essence it boiled down a societal issue that has become heavily ingrained into our psyche. The catch 22 is that these entitled people are essentially the same people that are able to foster and aid entry level people into an industry but are choosing to only think of the here and the now in regard to themselves. This is not to say all landowners have this mindset, it was reassuring to meet some growers that are actively pursuing options that were benefiting both themselves and others for entering their business. But it does paint a bleak outlook.

Building relationships to foster business opportunities was highlighted as the one key attribute that was lacking. Every conversation I had revolved around building and maintaining a stable relationship of two or multiple parties. Banks, Accountants, rural professionals, farmers, and alike all highlighted stable and open business relationships were the crux of any business / ownership structure that could be put into place. This can be summed up with the old saying of:

“It’s not what you know it’s who you know!”

If you are the type of person that can build, foster, and develop a relationship with trust and honesty and common goals to that of another person that are in a position to support you, then this seems to be the most likely of scenarios entry level people can hope for.

4.2 Exploring options of Capital.

In New Zealand there are several different pools of capital that could potentially be tapped more vigorously to provide funding options either in the form of equity and/ or debt. Altogether the government investment arms, the New Zealand savings industry and private equity outside the residential property market are estimated to have total assets of around \$280 billion, of which about 50% is estimated to be allocated to New Zealand. For context, the total on-farm asset base of the primary sector is estimated to be around \$225 billion and total bank debt stands at \$63 billion, the lion’s share of which is associated with dairying at \$40 billion. Outside the private equity space both the government investment arms, and the savings industry have very low overall exposure (thought to be in the low single digits) to the primary sectors or land-based investments. So only a small

proportion of the total capital available would need to be allocated to such enterprises to help fill the capital gap in the primary sectors (Williams 2020).

There are range of reasons often given about why the primary sectors have failed to attract funding from some of these pools of capital including:

1. Investment structures not being suited to the investors' need and/or regulatory requirements.
2. Private owners being reluctant to accept 'external' capital and easy access to bank capital as an alternative.
3. The long-term nature of ownership and often uncertain exit strategies.
4. Primary sector businesses often not presenting a professional 'investment ready' case (i.e., the financial reporting and record-keeping has not been to the required standard).
5. Liquidity concerns if investor funds are required back quickly, or the business under-performs.
6. Perceived historical under-performance of the asset classes with low rates of cash returns versus risks, which has also led to difficulty in agreeing on valuations.
7. General lack of sector understanding and experience, with more education required.

Speaking with the large banks that service the rural sector the points that are raised by them as reasons why they do not see more diverse investment into the arable sector resonate with points 1 – 7 above. Of main concerns are points 2 and 3, New Zealand arable farmers and of course other landowners have a very strong moral obligation to own and control their land outright. So, to accept external capital by a younger party buying into that business is something that really does not resonate well with them. This is then further exacerbated by the fact that arable systems are long term cycles, and with any large investment into an arable operation would take at minimum 20-30 arable cycles to repay. Thus, any ownership structures that could be put in place are often deemed to complicated and difficult to manage through any exit strategies if, and when they may arise.

Richard Green's outlook on the arable sector was one from someone who has lived and breathed these systems for many years. He believes that the arable system is broken, it is very complex, and the power of the market has sat with the seeds companies for too long and the cycle of change is about to turn in favour of the arable grower. The question was raised, "Maybe we have too many arable farms?" Meaning that we need more competition in order to create demand so that seed companies are forced to pay high grower prices.

But how would this create opportunities for young people trying to enter the sector?

Arable business is incredibly complex. Return on capital is low of which leads to a lacklustre of desire for people to enter the sector. However, our mindset needs to change, land ownership is an old model and has become more infeasible as our demands on land grow. Change must occur for our industry to survive.

To redefine the arable production model, we need to take a step back and look at the whole industry. It should be about what model would enable people to get into arable farming of today, rather how to develop a production system model for how that land will feed the world with high value produce.

1. Share Farming would be a possible solution to meet land demands and allow landowners to diversify their business risk across various production systems. It could look like a hybrid model where skills are shared along with business returns.
2. Setting up a farming company is another option; this would require a trusted relationship to be built with a landowner, who would have faith in that person they would be going into business with. They would need to be willing to list that farm and maybe assets to a registered company, shares would then be assigned to the parties involved. Having some skin in the game enables the person entering the sector to build their capital. This system benefits over leasing because it reduces the requirement of large cash flow through the payment cycles.
3. Leasing farms is another competitive way to try and build capital. But requires large working capital to begin the operation and sustain it before the payment cycle begins.

Addressing these concerns is not insurmountable but requires good professional input and more formal business arrangements and procedures. Examples include the primary sector-focused companies that are listed on the NZX. However, these are the minority, and their operations/asset base tends to be focused on mid-supply/ value chain activities, with generally limited ownership of production end assets.

So there appears to be room for new financing innovations to occur at greater scale, especially at the production or farm/orchard end of the supply chain. Indeed, looking at the Australian market several listed and private agri-funds have been created in recent years to buy different portfolios of assets. We are seeing the emergence of some in New Zealand, but the field is fairly limited at present.

One example of a NZ based agri-fund is “MyFarm Investments”, established in 1990 it has enabled eligible investors to invest in hard-to-access primary industries. Their investment focus is based on the purchase and syndication of handpicked dairy farms, and horticulture businesses. MyFarm ensures

every asset is professionally managed on the ground through partnerships with some of New Zealand's most successful horticulture managers and post-harvest operators (Watters 2021).

MyFarm is structured so that they only own the asset, they then lease this asset to a proven operator. This immediately guarantees a return on invest. But interestingly when speaking to MyFarm CE Andrew Watters it became very apparent that MyFarm is purely an investment portfolio that is driven to produce returns to their shareholders.

There is no strategy or company policy that means it will focus on young and upcoming rural professionals. Their preferred option when obtaining an asset is to lease it to established cooperate operations. They have the proven ability, capital, plant and machinery, and infrastructure to ensure they will be profitable. When asked would MyFarm back a young couple/family to enter into an arable or farming operation, the answer wasn't no but it equally wasn't yes either. MyFarm would require it to be a lease to buy contract, which essentially puts the outcomes of the operation solely on the lessee. However, a proven business history and a clean track record would be required for MyFarm to consider this option, which begs the question:

"How does one obtained these merits when they can't gain that first step into a small arable operation?"

Funding options regardless of where they come from can be adapted to different situations in the primary sectors i.e., arable farms. However, the first thing a business and or entry level person needs to do is to become investment ready. When outside equity introduced or debt there is a need for more formal business arrangements, financial controls, and procedures (Chamberlain).

The first aspect of being investment ready is to define partner goals, motivations and timeframes. Central to the success is alignment of the partners' goals. During the formation period, and regularly throughout the lifetime of a relationship, it is healthy for all partners to test their alignment with the business strategy.

The key considerations should include:

1. What are the objectives of the venture?
2. What is the investment scope and timeframe for the venture?
3. Are each of the partners' investment objectives aligned?
4. Will partners be locked in for an initial term for the protection of the business goals?
5. How will the venture be funded?

(Chamberlain & Green)

After common goals and timeframes are established a more thorough understanding of a business and what makes it tick is required. This means undertaking all the normal due diligence on a proposition, including:

1. What are the inputs, processes, and outputs of the business?
2. For each of these, what are the key elements for value creation?
3. What must the business get right (critical success factors) and what might go wrong (the key risks)?
4. How will the business get the critical success factors right, and how will it mitigate the risk.

4.3 A Pharmacy Comparison

Stepping away from the arable sector and looking at alternative businesses it becomes very apparent that landowners/farmers across New Zealand have a very dated outlook on how they value and structure their farming business.

Take for example the businesses of owning and operating a pharmacy. There are two types of pharmacy ownership structures that are commonplace in New Zealand. That of the independent privately owned and the large cooperate companies that one can buy into a franchise partnership. Meeting with an owner of privately owned and operated pharmacy it quickly became apparent that their mind set on how the business should be valued and structured was very different to that of the humble arable farmer.

I met with an owner of a pharmacy who entered the business through a relationship that was grounded and developed from when they were a young graduate. The originally owner had early foresight to see that they needed an exit strategy in place many years before actually retiring. 12 years before they planned to step out of the business a plan was put in place when a partnership was formed, and vendor finance was structured to allow the new person to gain an entry.

The key points that allowed this to happen were all aligned to define partner goals, motivations, and timeframes. Clear understandings were put in place, so all parties knew exactly where they stood. The points mentioned by Chamberlain & Green essentially formed the basis of their agreement. This was paramount to the successful transition of a business from the older vendor to the younger upcoming owner.

One defining factor though highlights why this example was reachable and finically viable was based around how that pharmacy business was valued. The value of the that business was solely based on EBITDA, it focused less on the fixed assets. It had a multiplying factor based on how modern and

functional the assets were. i.e., dated old assets with low functional operation meant the current EBITDA was multiplied by 3, alternatively a pharmacy with modern well serviced functional asset was multiplied by 6.

Additionally, the target payback period for the loan required to purchase 51% of the business was 7 years, this seems a very short loan period, but this displays that the business has been valued fairly and reasonable based on its EBITDA performance.

This model immediately lowers the capital required and allows young people a chance to step into a business with certainty that they are paying a fair markable rate, based on the businesses current performance. Additionally, intergenerational debt would not be at such levels to cause burdens for future successions.

4.4 Arable Land values

The methodology used to value alternative businesses as in section 4.3 is not the used when buying or entering a farming business. The value of that business is based on the fixed assets, i.e., land, buildings, plant & machinery. This is often then calculated down to a \$/ha price. Currently this is averaging approx. \$35,000/ha for Mid and Central Canterbury arable farms that have sold recently, refer to figure 2. Assuming an arable business had an EBITDA value of \$4000/ha (RJ Preston LTD 2021) and multiplying this by an order of 3-6 based on those fixed assets and their functionality. The result would be a business valued at a much more obtainable rate for entry level people. It could be argued that the majority of Canterbury’s arable farms would fall into the multiplying fact of 3-4 times that of their EBITDA.

Which brings to question:

“Would a landowner/Arable business accept that their property would be worth \$12-16,000/ha?”

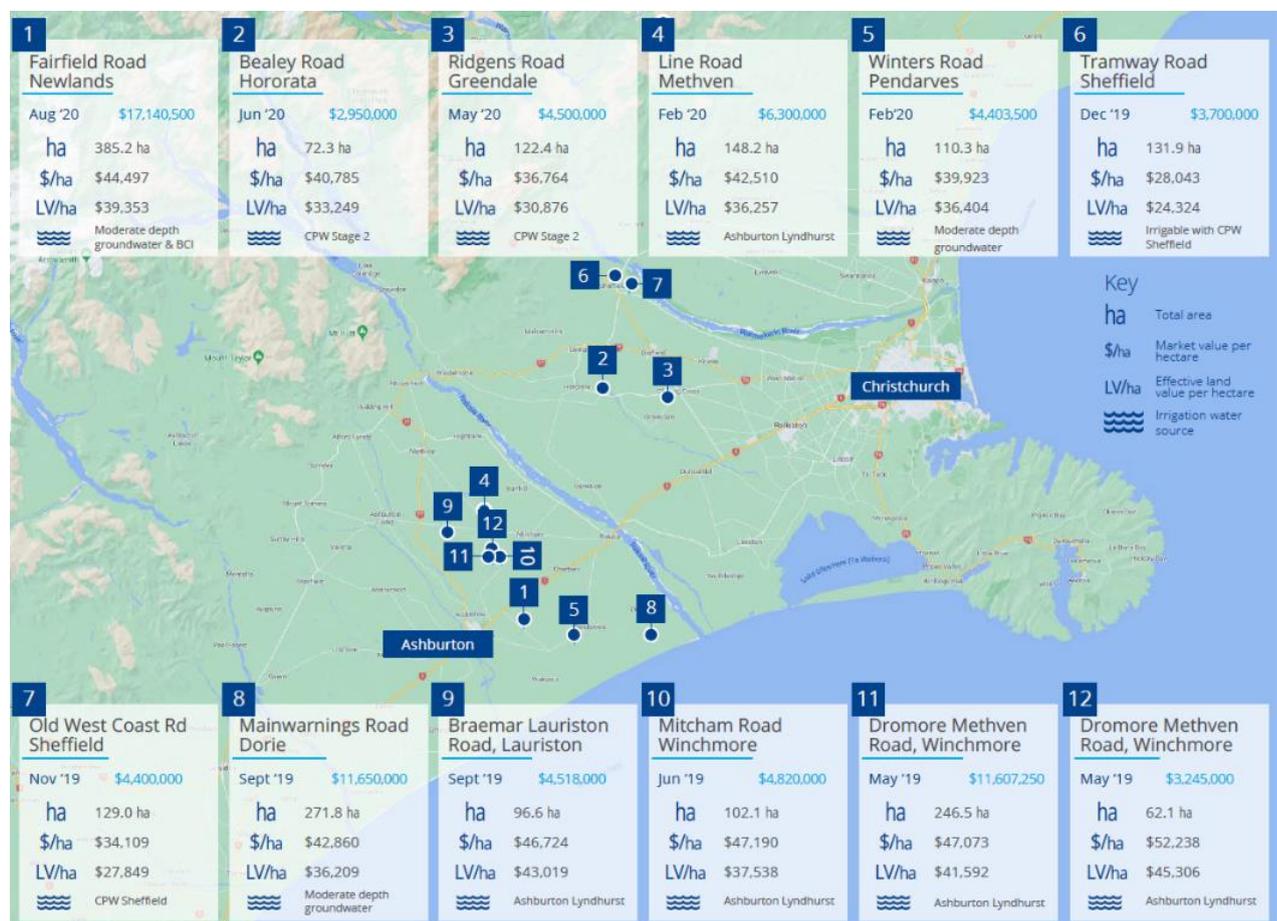


Figure Recent Sale Values of Arable Farms 2020 (Colliers 2021).

Overcoming the barriers and potential roadblocks that exist for entering the arable sector is critical to ensure motivated young entrants to the industry are not put off. There are other ways to fund new entrants into the arable sector with opportunities for overcoming barriers including:

1. Career-ladder farming
2. Contract farming
3. Crowd sourcing & funding
4. Equity partnership
5. Junior-senior partnerships
6. Land partnerships
7. Share farming

Another way to view the options for both an owner and prospective arable farmer is outline in table 3: If any one of these options in Table 3 are to be used as the foundation of a future agreement, then all parties need to full back to the key considerations in section 4.2.

Table 3 Break down of options for prospective parties to engage in farming options.

	Situation	Best Option
Owner	Do not want to farm at all, want minimal day-to-day involvement and legal clarity.	Limited Duration Leases
	Want to be actively involved in a growing farming business but lack expertise or time or fitness.	Share Farming
	Want a level of control at farming policy level and arelatively fixed income, but don't want day-to-day involvement.	Contract Farming & or Share Farming
	Face short term decisions and uncertainty over policy direction but want to maximise returns in meantime.	Short Term Lease
	Farming actively but need a motivated workforce todevelop the business.	Incentivised Employment (allow some skin in the game)
	Want to expand or specialise, but need to bring in a motivated management expertise, new skills and capital.	Equity arrangements or partnerships
Prospective Farmer	Little capital, experience or track record.	Employment or Incentivised Employment (allow some skin in the game)
	Some capital, but little experience and track record.	Short term lease
	Good expertise in one area of farming, plus track recordand machinery (e.g., through contracting) or access to buildings.	Contract Farming
	Good technical and some business track record and experience, plus accumulated some capital.	Share Farming
	Well established track record and significant capital.	Formal long-term leases, Equity arrangements and Partnerships.

5.0 Conclusions

The formal part of any agreement will require the construction of a business plan showing the returns and assumptions used, a capital expenditure budget, other future development plans and financial projections. Also, directors/managers should be researched, independent legal and financial advice needs to be sought on all structural, ownership and financial decisions, and there should be common objectives among all the partners. Following this if everything aligns binding business agreements should be entered. Collectively, these agreements set out the joint venture's goals and how it will operate. They should anticipate the possible points of future disagreement and contain 'ground rules' for the procedures to be followed if partners cannot agree. Common features that a Shareholders' Agreement might contain include:

1. Objectives and purpose of the venture.
2. Authority to make commitments on behalf of the venture.
3. An indicative investment period (i.e., 'sunset' clause) and a clear process to allow partners to exit, or transfer shares from the partnership.
4. A share valuation process for changes of ownership.
5. Financing arrangements.
6. Meetings and reporting standards. Reporting systems should be regular and timely and provide all the information to which partners are entitled, which keeps all parties well informed and ensures there are no surprises. Full transparency is an important aspect of successful partnerships.
7. Voting procedure on major decisions (e.g., capital expenditure, leases, debt funding, investment in other enterprises).
8. Disputes processes and how they are to be addressed.
9. Appointment of directors and an outline of the decision-making process and responsibilities between governance and management.
10. Other clauses aimed at protecting individuals' property rights.
11. Employment contract terms for key people, which includes a detailed contract and job description. In the case of a debt instrument the requirements are usually not the same, but as part of being investment ready it should still be required.

Ultimately the points 1 – 11 above come down to trust and relationships, yes, these helps formalise and structure any agree that may be put in place. But they do not address the need for relationships that need to be connected, formed, and fostered. Our industry is running the risk of losing critical mass and I believe that in the next 5-10 years fundamental structures to how our industry is positioned

will change, and we must create new adaptive ways of to maintain the viability and diversity of our current arable farmland.

6.0 Recommendations

6.1 Farm valuations need to become more aligned to their proven profitability.

Industry change is required in how farms are valued. Farms should not be sold on a dollar figure per hectare but instead be valued based on the previous 3 years of EBTIDA. There needs to be transparency in finances during the due diligence process of purchasing a property. This will allow the opportunity for the purchaser to fully understand the current business model and its profitability.

6.2 Parties of interest require a means to connect.

Parties of interest (landowner or capital investor, and prospective farmer) need a means if making contact to build a prospective business relationship. The potential out there is huge for alliances to be formed, but the lack of connectivity and collaboration to engage key people with one another is difficult to achieve. It is more about word of mouth and strokes of good luck that partnerships or business ventures are aligned. We require the setup of a platform where parties can register their interests and exchange common goals/ambitions.

6.3 Old mindsets need to mature with our changing land requirements.

Current landowners' mindsets need to change. The entitlement and greed that exists is threatening and damaging our diversity and innovation. A fundamental shift from asking "how can I gain more to how can I assist and give back more" is required by the established industry groups and growers of today. Young aspiring people need to be backed, positioned, and given a chance to prove themselves. We just might be surprised by the outcomes.

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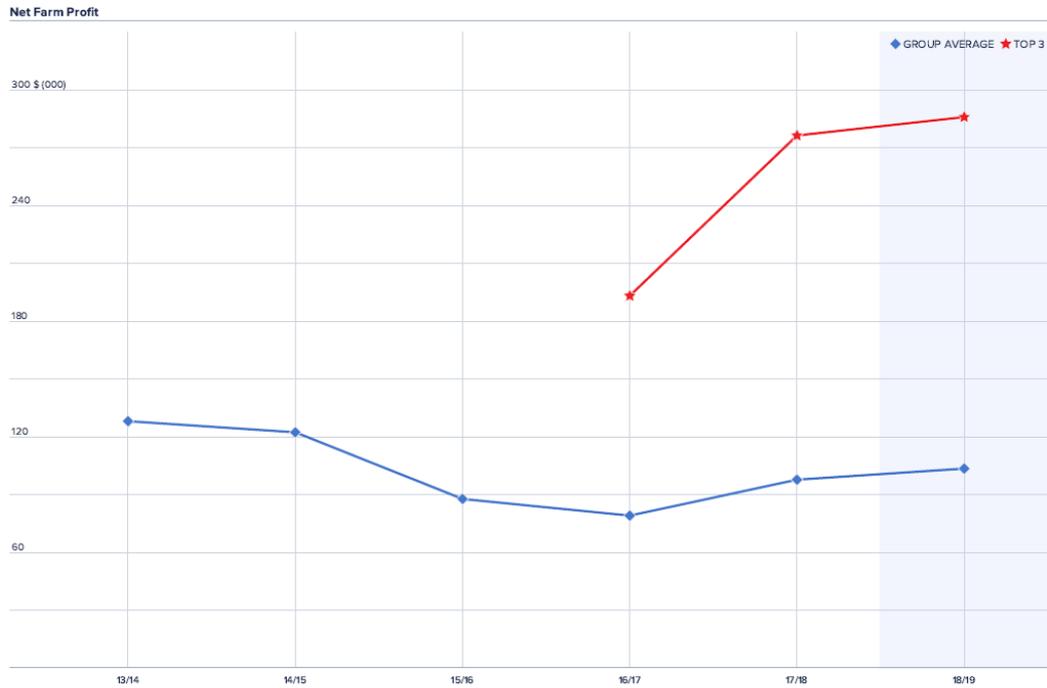
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- Don Chamberlain, Corporate Agribusiness Manager Commercial, Corporate & Institutional. Westpac New Zealand Limited
- George Gerard: GM Production, PGGWrightson Seeds. President NZGSTA 2014-2019.
- Grant McCulloch – RJ Preston Account
- Hamish Marr – Arable Farmer
- James Halford – Arable Farmer
- John Foley 2021. PGGWrightson Seeds Agronomist.
- Maria Morley Bunker – Chemist & Pharmacy owner.
- Richard Green – Dairy, Arable Farmer, Board Member

8.0 Appendix

8.1 Average Net Farm Profit for Arable Farms 2019

INTENSIVE CROP - GROUP AVERAGES REPORT (NZD) - JUNE 2019

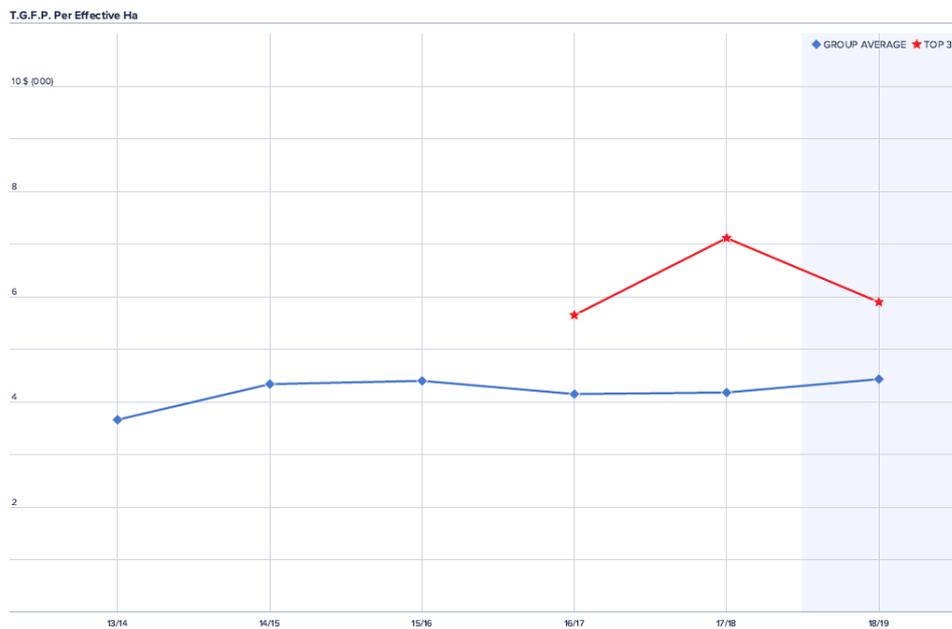
PRODUCTION DATA



8.2 Total Gross Farm Profit per Effective Hectare for Arable Farms 2019

INTENSIVE CROP - GROUP AVERAGES REPORT (NZD) - JUNE 2019

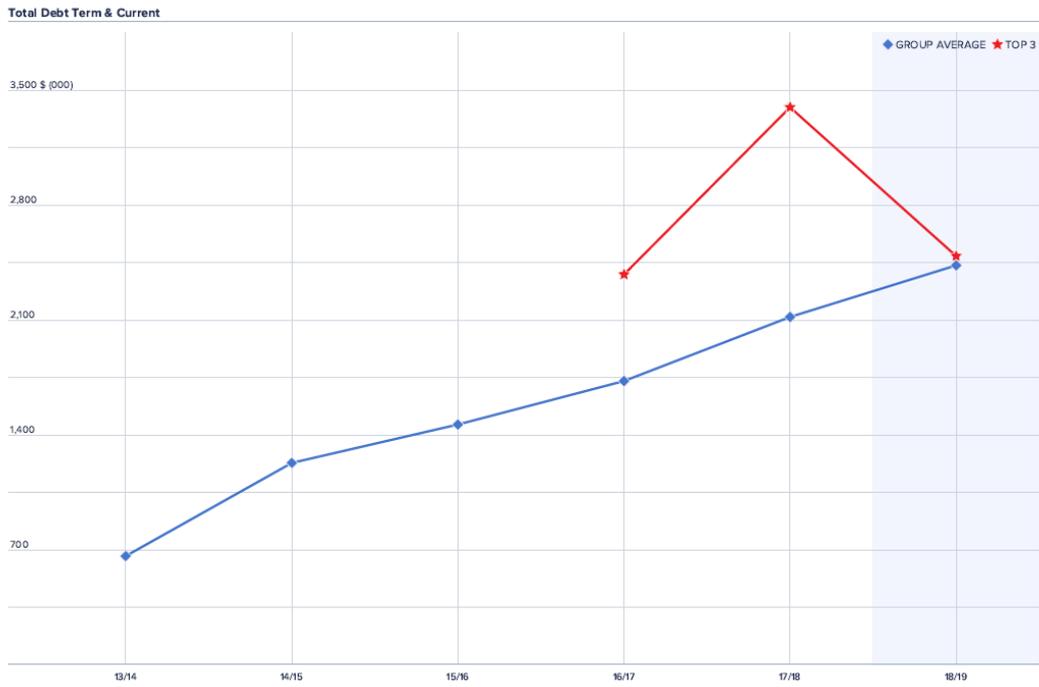
PERCENTAGES & RATIOS (INCOME)



8.3 Total Debt Term & Current for Arable Farms 2019

INTENSIVE CROP - GROUP AVERAGES REPORT (NZD) - JUNE 2019

PERCENTAGES & RATIOS (EXPENSE)



8.4 Operating Surplus per Effective Hectare for Arable Farms 2021

INTENSIVE CROP - GROUP AVERAGES REPORT (NZD) - JUNE 2019

PERCENTAGES & RATIOS (EXPENSE)

