

Nuffield Farming Scholarships Trust

A MacRobert Trust Award

The Farming Ladder

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DISCLAIMER

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GLOSSARY

EID	Electronic Identification. EID tagging of sheep is now compulsory in a complicated kind of way.
LVT	Land Value Tax. A cunning way to reduce land price – revolution by stealth!
RDP	Rural Development Programme. Grant aid for business development
SAP	Sheep Annual Premium. A headage subsidy no longer in operation. This makes some people very sad.
SFP	Single Farm Payment. The current method of directly subsidizing farmers. This makes some people very happy.
SRDP	Scottish Rural Development Programme. Grant aid for business development but Scottish and therefore even better.
TFA	Tenant Farms Association. An association for farmers who are tenants.

EXECUTIVE SUMMARY

I am a first generation farmer and a farm consultant. In 2003 I bought my first 50 sheep using a balance transfer from my credit card. I now have 700, all on seasonal lets over 30 miles from home. I have one wife and four beautiful children ... despite their father's genetics.

I live near Perth and my sheep live in Fife. It's a long distance relationship. I worked out that in the last five years I have travelled the equivalent of twice the circumference of the globe just to see my sheep. That's £20,000 in fuel and 1100 hours: over half a year of 40 hour weeks... in a car ... just to get to the same position as an established farmer when he walks out of his farmhouse door.

There is a lot of talk about New Entrants, but I wanted to look at building a business *after* entry. I have developed my business from nothing, to just a little bit more than nothing. My equity has increased 2.7 times in the last 6 years. I always make a profit. Yet I consistently struggle for cash, sometimes to the point of embarrassment. I also think an average of 33% per annum isn't nearly enough equity growth if I'm serious about building a farm business of true worth.

I travelled to the USA, Australia, New Zealand, Cambodia, India and France in search of ways I might climb the Farming Ladder. I started the Nuffield process with frustration in my heart. To me, obtaining a farm with some security of tenure, one that we could actually live on, was becoming an impossibility. What I learnt on my journey was: it's not 90% about the system ... it's 90% about me.

Essentially my study was about stories and about people. First generation farmers, as a demographic, are amongst the most positive and innovative members of any industry. I felt humbled. Some made me laugh, some made me cry (you think I'm joking!), some made me depressed (they were that good) and all taught me something.

I learnt there are really only two ways to progress in farming: property or production. To buy farm property, improve it and ride a rising market is beyond my capital resources, so it has to come down to production. I have to be the very best farmer I can possibly be. Achieve Operational Excellence. Be in the Top 5% of producers. GULP!

As a first generation farmer, you have to operate your business differently to an established operator. Existing producers don't have to grow their business by 20, 30, 50 or 100% per year – you do! Growth is a very dangerous animal and one of the main reasons businesses fail. You have to apply a *growth* business model to your business not a *continuation* model. Generating high levels of cash, operating very low cost structures and a constant positive cash flow are key. To do this you have to be innovative. Doing what others do, being traditional, WILL NOT work.

You have to be patient. Equity growth in new farm businesses is not a straight line, but a logarithmic curve. Many will think they are getting nowhere and may give up. Yet all the curves I saw tracking equity showed gradual development whilst skills were refined and contacts made in order to provide opportunity. At some point in the process, if you have done things right, exponential equity growth occurs.

The people I met "needed" to farm. It was almost something they *had* to do. It was deep within them and as such they had tremendous determination and resilience. They were dynamic, pioneering and passionate about farming. I am convinced we need a lot more of

these types of people in UK agriculture. We need new entrants to help themselves. It needs to be hard for them; that makes them better. But it also needs to be possible. Distortion in markets needs to be eliminated to allow merit-based progression in the UK.

P.S. Anyone with ground available in the Tayside area for a period of 5 years or longer please phone 07841 354875. Thank you.

ACKNOWLEDGEMENTS

I would like to thank the Nuffield Farming Scholarships Trust for giving me an opportunity to see, learn and experience so much.

John Stones for telling me to "man up" when I was being a Big Jesse and for telling me I was good when I was having my doubts.

The MacRobert Trust. Air Commodore Bob Joseph and in particular Doug Fowlie who was on the interview panel and saw a bundle of nerves wrapped up in a tweed suit and thought I might have a slither of potential. I am their first Scholar ... it's all uphill from here.

My wife, Kate – words are simply not enough but "sorry" and "thank you" are good starting points. Our four tremendous children – Jessica, Seamas, Calum and Keres.

My sheep, most of whom stayed alive whilst I was away.

My fellow 2010 scholars. I learnt things from all of you. Those that I travelled with, debated with and laughed with: Tony Davies, Rona Amiss, Kevin Beaty, James Peck, Malcolm Fewster, Rhys Williams.

I have given a full list of visits in the Appendix, but I met some amazing people. Most of them were first generation farmers. They had depth because they had dug deep. They had humbling tales of determination, resilience and genius. I feel honoured to have heard some of the best stories in agriculture from some of the best people in agriculture.



Jessica, Seamas, Calum, Me and-guitar based rock enthusiast - Keres

1.0 INTRODUCTION

Since I was three years old, I've wanted to farm. Being the son of an accountant and a teacher meant that, although farming was in my bones, it was not in my blood. There was no family farm, no agricultural lease to inherit and no assets given. Indeed, though lovely people, all I got from my parents in an agricultural context was a clear message not to bother trying.

After working first as a land agent then as an agricultural consultant with SAC, a long rumbling frustration finally got the better of me and in 2003 I purchased 50 sheep with a balance transfer from my credit card. Within two years, I had left SAC with the idea of using self employed consultancy to fuel expansion in sheep numbers. By 2010 I had 650 females and the credit card was paid off (albeit temporarily).

Yet after 8 years I am still wholly reliant on seasonal lets. I have tried for seven "proper" tenancies and failed each time. Although I seem to make decent profits, cash is still incredibly tight and sometimes (admittedly, rarely) I question whether I should really do something more lucrative.

In the last five years I worked out that I have travelled the equivalent of twice the circumference of the globe just to see my sheep. That's $\pm 20,000$ in fuel and ± 1100 hours (over half a year of 40 hour weeks) ... in a car ... just to get to the same position as an established farmer when he walks out of his farmhouse door.

This statistic throws up a number of questions:

- 1. Why go to those efforts just to have sheep mental illness or determination? What is my motivation?
- 2. What kind of farming system means I have to enforce such a huge carbon footprint on the world just to try to farm?
- 3. Is it my fault I cannot get a more secure lease? What am I doing wrong?
- 4. Is there a better way to progress in farming?
- 5. Are there better ways to grow the business?
- 6. How do other people do it? *Are* there other people doing it?
- 7. Is it even *possible* to be a farmer starting from scratch?

As will become apparent in this report I am an idealist. I have the dreamer's disease and no medication. But I wanted to find a realistic way of making my dreams come true. How can first generation farmers start with nothing and build a successful agricultural business of true worth?

I wanted to build my study on three pillars -

First: the System (the intervention of government, markets and culture in hampering or assisting merit based progression in agriculture).

Second: the Business Strategy (if progression in farming was a mathematical equation, what would it look like? what have others done?).

Third: the Individual (the psychology of motivation, of progression and of success; the traits that are required to be a successful first generation farmer and the stories that can inspire others)

Some of the best advice I was given at the start was to be selfish in my study. I found this hard to take at the time as at the start of this project I wanted to change the farming world. I now realise I'd have tried to cover too much and solved little. Everyone's farming ladder looks slightly different. I concentrated on mine and I just hope others can take something from it.

I also started this study thinking of the Farming Ladder as a new entrant/first generation concept. It is not. All farmers are on the Farming Ladder, many are growing their business. Indeed I would argue that a truly efficient Farming Ladder that enables the best farmers to progress – on the basis of their skills and technical efficiency and farming merit alone – would make the UK the most efficient agricultural country in the world and solve any problems the much heralded "perfect storm" would present to us (and many others) by 2030.

2.0 DEFINING "THE FARMING LADDER"

One of the few books I've read more than once is "The Farming Ladder" by George Henderson. I liked it so much, I named my Nuffield Scholarship study after it. It is full of wisdom and he left a book to the world that - almost 70 years on - will still be inspirational to some and certainly was to me.

The book tells the story of his progression from city boy to successful business man. That was his Farming Ladder – gaining his skills, gaining some land, making good profits and growing his equity, all in a variety of different ways. That is what the farming ladder is – simple progression but multi-faceted progression.

Recently there has been a slight hijacking of the term, albeit for the best of reasons. The Farming Ladder seems to concentrate now on just one aspect - on the opportunities available to gain land and get more land thereafter. It tends to refer to the system as producing or not producing opportunities for new entrants and those growing their businesses. This seems to include help from government in terms of grants and subsidies. At present many are asking *not* what you can do for your own farming ladder but what the farming ladder can do for you.

This report will try to doff its cap to George Henderson's holistic approach to the farming ladder. Progression - from little to a lot – in all its forms, which includes land and assistance but also, more importantly, traits the individual has within his or her control (what they can do for their own ladder).

The term ladder is a good, simple analogy though in my mind, progression in farming looks like a weird twisted, multi-sided pyramid. Let's keep it simple and stick with the ladder.

In this study I have concentrated on first generation farmers. There is a lot of talk in the UK about New Entrants but I wanted to look at how I could build my business after entry.

I have already mentioned that the farming ladder is all about progression and growth for those individuals on it, but should anyone else care? Do we really need new entrants? Do we really need them to progress?

I am not going to get uptight about whether people answer yes or no to these questions – that is one way in which Nuffield has changed my attitude. All I would ask is for you to consider the following:

We have some excellent farmers in the UK. We produce good products in acceptable quantities. Although there is never a moment when someone, somewhere cannot grasp something to complain about in farming, overall UK agriculture is in a downy, soft, snuggly, comfort zone. Why fix something that ain't broke?

I don't think UK agriculture is broke. There are some brilliant performers and some admirable farming practice. Yet as I travelled the world it was apparent that no one rated us. I have too much pride sometimes but this annoyed me. As someone from the sheep sector, perhaps I've got a guilty conscience. Maybe pigs, poultry and dairy are different but developed countries like Australia and New Zealand looked down on us in an affectionate way; developing countries like Cambodia and India barely considered that the UK might have any knowledge that was needed there.

This is the country of Townsend and Bakewell; it was the stud farm of the world; it invented the tractor, the plough and the threshing machine. We were world giants in agriculture once and I think most in agriculture now have simply become satisfied with having tidy farms, taking other people's money and doing all right for themselves on a wholly individual basis. We band together to lobby for subsidy, to fight unwanted regulation and to try to keep end prices high, but developing our industry into a world giant again is not really considered.

The key to developing an agricultural industry we can be truly proud of in a worldwide context is innovation. The key to innovation is new ideas and individuals willing to develop these ideas with dynamism. Innovation is a dish best served by the desperate and the different, those with little to lose but a massive need to succeed. Many new entrants and first generation farmers fit this bill but an efficient farming ladder would simply reward anyone who was sufficiently progressive.

Yet, at present, progress in UK farming is due to many reasons and quite low down the list are technical efficiency and farming merit. Most farming businesses do not make a profit without subsidy, huge swathes of capital are inherited and the tenancy system through succession does not select efficiently on merit.

I do not expect you to agree with me, but to paraphrase John Lennon "Imagine there was a completely merit based agriculture in the UK/ It's easy if you try".

Imagine a vibrant and dynamic farming ladder providing feasible opportunities for all those who were truly efficient at production. Imagine 90% of the UK farmland was farmed by those performing at or above the level at which the top 10% producers are farming now.

The world has to feed 9 billion people by 2050. We have to produce 50% more food. Perhaps typically we are somewhat complacent about this in the UK. Yet we import 40% of our food!

A truly efficient farming ladder means effective revolution or at least turbo powered evolution toward a 2050 destination.

But this is idealist talk, which ignores the massive complications in rural Britain. In many ways it is idealist talk in *any* of the countries I visited with a few significant exceptions. The reality is that first generation farmers that do make it, make it *despite* not *because of* the system. This has to be accepted by anyone starting in farming. You have to create a significant proportion of your farming ladder yourself, not expect any help from the system and anticipate only frustration. You have to focus on your personal qualities and your own business strategy.

At the start of this process I saw the farming ladder, the lack of one, the need for one, the construction of one, as 90% about the system. Now I see it as 90% about the individual.

In summary – yes, we do need new entrants. But waiting for the system to change is not going to help you. Focusing on the system is not going to help you. Blaming the system is not going to help you. You must help yourself. *"What is to be is within me".*

- Hence the "System" section of this report is an ideal I don't expect will translate into reality
- the "People" section of this report is the reality that should become the ideal for prospective new entrants
- and the "Business Strategy" section is the reality that should never meet idealism in any way, shape or form.

4.0 TRAVELS

My original intention with this report was to get to grips with the main issues straight away and avoid a travelogue. Yet, on reflection, Nuffield was a journey for me, so part of it has to be a journey for you too.

USA, March 2010

This was the location of the Contemporary Scholars' Conference (CSC) and one of the most powerful weeks I've ever spent. Even the shortest of chats with some of the people I met left a lasting impression on me and I expect they will never know the effect their words had.

We went to Washington and Gettysburg. On the first day I entered the Lincoln Memorial dominated by the great man himself in marble form. At his right hand was the carved permanence of the word perfect Gettysburg Address. It's 272 words long. It's rare to see such precision. Every word is brilliant and each one in the right place. Those words impressed on me one way in which great men can lead a great many.

The conferences we had built a picture of global issues, trade issues, important contradictions and crucial correlations. Of the many visits we made, I won't forget the comparison of Mason Dixon Farms (a 2,400 cow dairy famed for its innovation), expert at the hard headed business of farming, and the Amish dairy farm of Sam Riehl (a 36 cow dairy herd) where I had tears in my eyes – don't tell anyone - as he explained how emotional and spiritual farming was to him and his family. I think we all farm with the head and the heart, the balance varies between individuals, but I came away from the conference wanting to give farming more of both.

Staying in Gettysburg itself meant the ghosts of the monumental battle and subsequent call from Lincoln in his address kept us company for the majority of the trip. We spent a day on the battlefield and looked at the crucial leaders in the battle and what we might learn from them. All this reinforced the fact there is more than one way to lead and to succeed. The day also gave the three words that will live with me longest, so appropriate they were to my own position:

Adapt : Innovate : Overcome

As a first generation farmer, I'm trying to grow a business from meagre resources. I need to move forward by finding a way round the barriers in front of me rather than waiting for someone else to take them down. This trip made me realise, it's me and no one else who can overcome.

The feeding of the 9 billion by 2050, the fragility and frugality of this earth's resources, innovation and sustainability were all huge topics of discussion. The balance between the pressure to produce huge amounts of food and the pressure to do this sustainably was a central theme. Though the challenges are huge, the whole week was immensely positive. We looked forward not with doom but with excitement, believing we could make it happen. We need to adapt, innovate and overcome - the battlefield and the cornfield have more in common than I first thought. I came away from the CSC, truly and passionately believing agriculture will win.

AUSTRALIA, June/July 2010

The Outback

The first week was spent in the Western Division of New South Wales. Thanks entirely to an Australian 2010 Nuffield Scholar, Chris Ferguson, I was able to visit seven families in seven days; five of whom were first generation farmers and another who built his business from near insolvency. The immediate things you notice are the obvious and the physical - the scale (10,000 to 12,000 ewes per man is common); the extremes of nature (just out of an 8 year drought, the rains at the end of the week threatened to wash away the dirt roads that are the only communication routes there); there is very little grass - sheep eat bushes; many businesses rely heavily on the "harvesting" of feral goats; the isolation.

But the best bit was when you dug deeper, when you talked to the people who lived in this place, when they told you their story. Such a tough environment breeds tough people. This was the first chapter of the story of how to succeed as a first generation farmer - heart, resilience, tenacity, sacrifice.

There were also - what were to be - the common themes: everyone's obsession with equity (their assets minus liabilities) and their constant revision and analysis of this figure; the improvement of their property and the riding of land price increases to raise this equity; the close relationship of land productivity to land value (property could be paid off in 10 years through the profit it generated); the seeming absence of government tinkering and interference.

- the ability in the good times to borrow significant amounts (one cotton grower was able to borrow everything to get started)
- the ability to adapt a farm system to the environment one is faced with; the ability to get a start where it is hard, where established farmers don't want to go
- and crucially the importance of a sense of humour (one chap would sack a musterer if he wasn't funny)

These were all lessons learnt.



Me trying to apply the sense of humour theory to Garry Hannigan ... with disappointing results

One of my most vivid memories was not words or places but a look. It was my very first visit to Tony Thomson, just outside Bourke. It was his reaction when I moaned about the system in the UK that prevented new entrants progressing. The look he gave me suggested I may as well have said my favourite singer was Liza Minnelli, I loved West End Musicals and had strong opinions on male fashion. He didn't have to say anything but the first rule of first generation farming is you don't whinge – it's up to you and no one else.

South Australia

If the Outback showed me the heart required, South Australia showed me the importance of the head. Some of those I met will be referred to as case studies later in the report but the themes that were developing as I left South Australia, included:

- The starting point for a young business has to be cash flow and cash generation. Be this through an intensive enterprise like pigs or a busy contracting business or something else; cash truly is king. Without cash there can be no investment; without investment there can be no capital gain.
- Also the land market, though now moving beyond productive value, still bore a much closer relationship to profitability than in the UK. Access to debt was easier.
- The attitude of personal responsibility, largely because there was little else to blame, was refreshing.
- Then there was the issue that was raised time and time again and would be raised further in New Zealand - there are two ways of building equity: through a "land ownership" business (where property improvement and value increases provided increased asset value) or a "production" business (where farm profit added wealth directly). The latter would mean I would have to strive to be an excellent and innovative farmer gulp.

NEW ZEALAND, July 2010

Visiting New Zealand was like seeing two different farming countries in one – there was dairy and then there was everything else. Though the sheep, cattle and deer sectors have many excellent operators there was a general sense of struggle and stagnancy. There seemed to be a huge variation in performance of such enterprises and even a lack of dynamism in some quarters - in many ways there were a lot of parallels with the UK.

The High Country of Otago

I flew into Queenstown and went straight to Wanaka where I met Richard Burdon. Richard was almost a stereotype of my imagined NZ farmer and lack of dynamism was not a challenge he had to face. He measured everything. He knew the value of everything. His technical knowledge was jaw dropping. A stock unit - the principal measurement of livestock farming - wasn't just a sheep or a cow it was a 55kg ewe, averaging 110% lambs per year, producing 4.5kg of wool and consuming 570kg of Dry Matter/year. The return on a kg of DM averaged 12 cents for sheep compared to 60 cents for dairy cows. Feed budgeting (how many kg DM to feed each day) was the most important management practice.

He talked at 100 miles an hour and I had to struggle to keep up. He had diversified his

business into deer for venison and deer for velvet, then diversified further by charging Americans phenomenal amounts to shoot stags he released onto his mountain area. Sheep didn't generate enough profit and he adapted so he could generate cash.

Sheep, deer and cattle farmers in NZ are grappling with limited profits. Most are bolstered by the massive increases in land values in recent years, which have transformed their equity. Yet this in turn prevents entry into agriculture in these enterprises. In total I met just four first generation sheep farmers (and I looked hard), only one of whom had started recently.

The High Country of Otago was interesting because I also met other farmers just like the ones I know in the UK. They farm on feel and gut without measuring or analysing much and perform pretty well. But these are fourth or fifth generation farmers, established and almost comfortable. Throughout, you could identify someone who had significantly increased his capital base by his or her attitude and his or her obsession with figures, analysis and learning more.

I asked Grant Ludemann, based just outside Oamaru, and all self made what he would do if he was starting off now. He answered it in one word - "dairy". He explained the profitability differentials between sectors to prove his point:

	Turnover	Profit
Dairy \$9,000/ha		\$4,000/ha
Crop	\$4,000/ha	\$1,500/ha
Sheep	\$1,500/ha	\$ 600/ha

The cash generation per unit of land area would suggest dairy is the only way to go. This is especially relevant in NZ with its significant land values. The old rule of thumb there in the 70s was if you paid three times potential turnover you'd be OK; if you paid 5 times you'd go broke. I did figures on this basis for the ground I rented in Fife, to include maximum subsidy available - this would mean its value should be £1,100 at 3 times and £1,800 at 5 times ... it would probably fetch 12 times on the open market. Therein lies a problem.

Canterbury & North Island

Even in the High Country there was evidence of what was to come - dairy cows where there were never dairy cows before. But as I moved into North Otago and up through Canterbury the scale of this massive industry was very obvious.

It was sharemilking (see Appendix 2) that drew me to New Zealand. As a means of progression in farming it seemed an incredible system. It was slightly different to what I expected, success wasn't automatic and it seemed slightly threatened in its present format.

One day I met two first generation dairy farmers. Each had equity of between \$15 and \$20 million having started with minimal savings. Some, if not most, of the successful farmers in New Zealand are first generation and in the dairy industry. Surpluses can be immense: one 50:50 sharemilker (roughly 50% of costs, 50% sharing capital inputs) had earned \$650,000 the previous year and this sort of money may see the end of such agreements, as it's too much for the land owners to stomach. The flip side is that the year before little money was made and much lost. Whereas the end price of milk solids (a kg of milk solids effectively means twelve litres) used to vary by 50 cents it can now have as much as a \$2 fluctuation from year to year. When I visited in the summer of 2010 it stood at around \$7/kg which was seen as good.

There are plenty of good stories in sharemilking like the Englishman, with barely any capital at the start, who sharemilked for 10 years until he had 1,000 cows and sold them at the top of the market, grossing \$3,000,000. I will save the others for some case studies later.



The best story in New Zealand: Damien Harrison with the next generation

As stated previously I looked hard for first generation sheep farmers in New Zealand. There were plenty in the dairy industry, but like hens' teeth elsewhere. Of the four I met - one was part time; one was retired; one was one of the most exceptional people I have ever met; and the other was breaking the mould in terms of lease agreements.

The mould breaker really interested me. He was the closest thing to a sharemilker l've seen in the sheep industry. Share milking is a cultural phenomenon originating right back to the 1880s with variable order sharemilking (see Appendix 2) legislated for in 1937. There is no such history or comparable incentivised agreements in sheep farming. The Mould Breaker has designed his own business model and his own land use agreement, has a huge network of farmer landowners and intends to roll this business plan out over the coming years beyond the one farm he has now.

I was told again and again that to grow a business with limited funds you needed to achieve "operational excellence" and be in the Top 5% of producers. With the realisation I'd have to become a lot better at farming slowly coming into focus, my last visit was to Mandi McLeod and her partner Ant "Beetle" Beet. On their farm a door to a whole new room in agriculture was opened to me and in it I might just find operational excellence. It was grassland management - but not as I knew it.

Going round his 2.5 hectare paddocks with Beetle, meant that things I had read about and heard about, I was eventually seeing and finally believing. The ryegrass plant was talked about with deference and with a detailed understanding. Its physiology: once grazed it will grow again in 3 days, if immediately grazed again it has to drain itself of the strength to grow to its full potential; the senescence timing, moisture content and energy values it produces at different times of year; its response ratio to nitrogen at different soil temperatures; and most importantly of all the measurement of what's there, the prediction of what will be there and how to fit this with the stock demand. It was a science and a logistical feat of management. It was serious. The same acre in North Island can grow 18 tonnes of grass dry matter or 9 tonnes - depending on how it is managed. The maintenance requirement for a dry dairy cow is half its requirement as a newly calved animal. *Twice* and *half* - these seemed significant signposts on the grassy track to true efficiency.

CAMBODIA, January/February 2011

A history written in blood with a pen of misery

I am an emotional man. I cry too easily and laugh at anything. Yet of all the countries I visited, Cambodia had by far and away the largest emotional effect. I went to see farming in a developing country and in a sick kind of way believed that, after the atrocities and the subsequent famine in the 70s and early 80s, there might be new blood in its farming industry (there wasn't – 74% of the population are farmers, meaning almost everyone has family in farming).

A large part of what I saw was far bigger than agriculture though. On arrival in Phnom Penh I could vaguely remember the pictures on TV of the horrific famine, I could recall a film called "The Killing Fields" achieving Oscar recognition and - based on limited information - Pol Pot still made it onto my 'Top 5 Bad Blokes that used to run countries' list.

The first day there was incredibly powerful for me. We visited Tuol Sleng "S-21" Prison. Tuol Sleng was a tranquil school, a hub of education, that was converted to become hell on earth in 1975. The Pol Pot regime tortured and killed all those it took there (approximately 20,000). Only seven people got out alive.

We saw photographs of the room we were standing in. Everything was the same except for the dead body in the photographs - throat slit, fingers cut off. The photographs were taken by the Vietnamese, immediately after storming the building in 1979.

In another room there were a thousand faces that stared back from a thousand black and white photographs. You knew they had had to suffer like no one should before they met their end.



The lady who showed us round explained how she had lost her father, a brother and a sister to Pol Pot; how Phnom Penh was evacuated in 1975 and she, as a six year old, walked for two weeks to find safety. She explained that the torturers were largely children. They were

brutalised and brainwashed in jungle camps before being sent to do evil upon their own people.

We walked the busy streets of a city once deserted, and people smiled. We travelled around by tuk tuk and people waved. All these people would have had fathers, mothers, sisters, brothers, cousins or grandparents who died during the regime and the famine afterwards. Two million died, 1 million fled the country out of a 7 million population. That's the equivalent of 17 million dying in the UK today; and over 8 million fleeing as refugees.

In that context the smiles and waves have so much more meaning. Displaced people can still find a place for gentleness. Horror and sadness can be overcome. Me moaning about the lack of rungs on the farming ladder felt incredibly pathetic.

I suppose I found perspective in Cambodia. You can gaze at your own navel for too long and become besotted with your own world.

Lives spent bent double in a paddy field

We moved into the countryside and I met another hugely powerful realisation – innovation is a truly remarkable thing.

Agriculture in Cambodia is so labour intensive, it's scary. In the paddy fields most will work from dawn till dusk in a body position that *homo sapiens* is really only designed to take up for short periods. Time and effort are cheap in Cambodia. There is so little money in the country, success isn't judged on profit or loss but malnutrition or health. The marvels of mechanisation, of innovation, of the power of the mind rather than simply the hands, fall into a wondrous clarity in Cambodia. The examples of innovation you do see are less complex, less forgotten and thus more compelling than in the UK.



Weeding in a paddy field -5 women working, 1 man doing nothing – an innovation I'm keen to develop in the UK

You realise that the breakthroughs in production methods are led by individuals for private gain. Yet whole communities and countries and continents benefit. Innovation grows from need, desperation even. Innovation comes mostly from those with a contrasting rather than corresponding story to the traditional farming system. Innovation is a dish best served by the desperate, the disadvantaged and the different.

Farming in Cambodia is hard, beyond what I can fully appreciate. The lack of mechanisation makes you realise that simple hard work is not enough to progress. The ingenuity,

innovation and thought of those special people in the UK's farming past - the inventors, the early adopters, the thinkers - the forces that have got us to where our industry is today - should be worshipped on a daily basis.

There was to be one more powerful moment in Cambodia, one which when giving a talk on my return almost resulted in total humiliation in its telling – voice quiver, dramatic pause, the momentary horror of the thought I was going to cry. I will save this for a case study in Section 8.

INDIA, February 2011

Punjab

The Punjab is India's Japati basket. 44% of the grains (rice and wheat) produced in India are produced there. This is on 2% of the country's farmland. Bare agricultural land values range from \pm 30,000 to \pm 60,000 per acre. Hope value (for future development) has a massive impact that drives price up even further. The Green Belt around Chandigarh can command up to \$500 million for 1 acre.

Land in Punjab was subject to severe legislation after independence. The maximum holding any individual could own was set at 25 acres. This together with subsequent splits via inheritance means farms are small (90% of farms throughout India are 5 acres or less). Yet 3 crops of maize a year are easy in Punjab, one guy reckoned 4 were possible.

The first dairy farmer we met told how his grandfather dug a well in 1947 and only needed to go to 10 feet; his father then dug a well in 1962 and had to go deeper - 62 feet; then he himself had to dig a well in 2010. To get to water he had to bore to 500 feet. Such is the challenge in the Punjab - what the weather giveth, the weather (and extreme irrigation) now taketh away. The significant move to dairy, away from thirsty rice, is a reaction to this challenge.

I got my first real glimpse of an Indian psyche that would be underlined later. A proportion of farming businesses are incredibly ambitious and there is no ceiling in their minds to this ambition. These are large operators – one dairy we saw had a 2,500 herd totally vertically integrated, processing and marketing value-added milk. They are certainly not crippled by self doubt. There is a real hunger for new technology (mostly from the US) and there is huge motivation in finding ways to make more money. There is a massive population to feed but there is an even larger potential to their farming. Watch out global agriculture ... India is coming!

Rajasthan

After Punjab, Rajasthan was a complete juxtaposition. We flew into Udaipur and had a two hour taxi drive north. Throughout my trip to Cambodia and India I found the simple business of just travelling from A to B fascinating. Sitting in the taxi I smelt smells in the warm air that rushed through my open window. Yet it was the bright colours radiating in the strong sunlight that had most impact. These colours were man made and worn by man but felt intrinsic to the land. Ladies with saris of vivid pinks, yellows and reds; men have turbans of equal brilliance.

On arrival we were met by Ilse and Hanwant who run LPPS, an organisation that aims to preserve sheep pastoral and camel herding traditions and rights. They took us immediately

to a sheep shearing "festival". The shepherds were dressed up for the occasion. They chatted, laughed and smoked as they parted the wool, slowly and deliberately, from their sheep. This was not about economics but about brotherhood; yet another perspective in a journey full of contrast.



When in India ... sampling the local "tobacco" at the sheep shearing festival

In New Zealand and Australia people laughed and teased me when I told them I had 650 ewes. In Rajasthan, I felt like a God momentarily, they were *that* impressed!

Chattisgarh

The main visit here was to the ABIS group, courtesy of Ricky Thaper. Owned by Mr Bahadur Ali, the business had 10,000 broiler chickens in 1985. By 2010 it turned over 2.5 million birds per cycle and there are 7 cycles per year! It had 250,000 breeding birds. He had a 2,500 dairy cow herd and 1,500 buffalo. He had a huge feed mill. He produced pet food, fish feed and 5,000 tonnes of solvent. The milk was packed and sold under his own label. 30 veterinarians worked in the business and everyone we met was called "Doctor". The business had a 2,500 labour force.

I'd seen vertical integration before but this seemed to also include horizontal, backwards, forwards and sideways integration too. You sensed there were no barriers in ambition or, indeed, implementation. There was no fear in growing the business. It was like going to visit the aftermath of a huge business explosion.

The ABIS group operated - as far as I could work out - on just over 100 acres. I've seen intensive agricultural businesses before but this was on another level. I know it's not quite a true benchmark figure - they relied on other farmers for a lot of raw material and some of the enterprises were beyond agriculture – but, by my workings, the business's output was over £1.5 million per acre!

At the end of our day we met the main man - Mr Bahadur Ali . He walked in and there was an aura about him. He was more comfortable speaking his native tongue which added to the mystery. His questions were incisive and very focused. Indeed, his questions were kind of answers in themselves, as they seemed to reveal what the important issues are on a particular subject.

Mr Ali asked us about the potential for a serious sheep business in India. At this point I suddenly got a dose of verbal Delhi belly. My words came straight from my head through my mouth without touching the sides. I said it would be a great idea - introduce better genetics; get hold of lots of land; rely on scale. On and on I went. It was becoming interminable. Mr Bahadar Ali asked what stocking rates we had in the UK for sheep. 4 ewes to the acre on decent permanent pasture, up to 7 on good stuff, I said. I was unstoppable. I thought he would be impressed. The colleagues from ABIS looked at each other, paused and then laughed for a long time. 4 ewes per acre versus £1.5 million turnover per acre – I still cringe about it now but it was a lesson learnt.

UK, ongoing throughout

I attended conferences, spoke to professors and sought opinions from rural commentators on my subject but the best bit was going to see those first generation farmers that I didn't realise existed.

There is no doubt that lack of opportunity is a huge problem in the UK. Of all the countries I visited it is the UK, by a fair margin, that had the most stagnant and dysfunctional progression route in agriculture. Small areas of land, let seasonally, with no security are relatively easy to obtain, Council tenancies in England are still possible to acquire but only just. But it is beyond this that the ladder falls to bits.

Some have made it though and more often than not it is via intensive enterprises. Rona Amiss NSch, would say she hasn't made it yet but she and her husband Nevil employ two men and are both full time themselves on just 57 acres; with ducks and chickens sold direct that boast a multitude of awards. I met two other chicken producers in the south west, Chris Labdon and Freddie Chanin, who have grown good broiler businesses to the point each is at varying stages of obtaining planning permission for a house. This would in turn transform their equity from property.

Chris Fogden NSch did it with pigs. He started with just 60 gilts on 10 acres and now has a hugely successful 1,000 sow business, even accounting for the feed price spike. One major lesson I took from Chris was that he expanded significantly but got to a point he wasn't making much money. He looked at his business again, he allowed himself to be self-critical and subsequently transformed his health status, the result of which meant 5 weaned piglets more per sow per year. No-one is a natural at growing a business, though some have undeniable talent. If you work at it, if you think about it – there is always a way.

I met two first generation sheep men in the South: Tim White, who is trying to grow a sheep business in the present, and the legend that is David Sullivan who did it 30 years ago. David, much through his own efforts, had land coming out his ears when he was farming. Tim is picking up bits and pieces but again opportunity seems very limited.

There was a letter published in The Scottish Farmer from a group called the New Entrants Forum. It said, "Land availability, however, is only a small part of the new entrant's conundrum. There are, after all, thousands of hectares of grass parks to let annually if the determination is there to farm." Their main lobbying point is to achieve some sort of fairness in the Single Farm Payment system where there hasn't been a National Reserve since 2004. I got SFP from the last of the Reserve but don't have any security or efficiency in my land holding, I presume members of the forum have security in their land holding but no SFP. They represent two of the essential resources in basic economics - Land and Capital.

Whatever the New Entrant's Forum says land is a huge part of the new entrant's conundrum, believe me (remember I've gone twice round the world to farm).

FRANCE, June 2011

It wasn't intentional but my Nuffield Scholarship was rather like chapters of a book - each place I visited dealt with a different issue and the story almost developed in an ordered fashion, adding layer upon layer of concepts, but with common threads running through the entire journey.

Again and again in the Antipodes I was reminded that there was no real choice – I had to be as good as I possibly could be at what I do: Top 5%, operational excellence. In New Zealand I found ryegrass to be a far more complex beast than I had ever thought it could be.

Again and again in Cambodia I was reminded how powerful a phenomenon innovation is.

Again and again in India I was reminded that early adoption of techniques that already existed in other parts of the world was the key to growth and success and profit.

And so the final chapter took place in France. With the grazing gurus of the Nuffield 2010 Year Group – Rhys Williams, Malcolm Fewster and Kevin Beaty – I went on a tour of 600 miles in 4 days seeing paddock grazing, cell grazing (se Appendix 1) and techno grazing. I had been given John Bailey's name by the inspirational Robin Fagan in New Zealand. John is an Irishman, who's lived in France since 1979 but also trained in New Zealand under Harry Weir of Techno Grazing fame. He took us on a truly brilliant trip and – once I finish this report – it will probably have changed my farming practice permanently. I am now more convinced than ever that I can get twice the production from an acre of grass than I have done in the past.

By grazing cells down to 1500 kgDM/ha every 24 hours I should be able to almost double the grass yield compared to set stocking, increase ryegrass content in the sward from 30% to 70% in a season, utilize 80- 85% of the grass compared to perhaps 40-60% in the past, improve the energy content of my sward by as much as 1 MJ/kgDM. I'm so excited I have to wear a man nappy permanently!

I managed to break away from grazing obsession on the odd occasion to ask about entry into farming in France. Our first visit was to Erwan Le Roux. It was officially a grass visit but it turned out he was a first generation farmer and a former researcher and consultant. What he said was interesting: when he was young he wanted to farm; then he went through a phase when he didn't want to at all. This coincided with most of his contact being with quite negative, gloomy farmers. What transformed this opinion was associating with really good, progressive and positive farmers. Farming can be so exciting and farming can be so depressing – it all depends on who you talk to.

Interestingly, speaking to others, farming is not seen as profitable in France and is certainly not "sexy" essentially because of a moaning culture. It is very hard to obtain a profitable unit, even though land price is low. Parcels are small and fragmentation of operation is seen as uneconomic (I didn't bother telling them the twice the circumference of the Earth statistic at this point).

On our last night in the Pyrenees, we dined with a wonderful family. I sat next to the father of Julie who now farms the holding with her husband Thimo. He was mayor of the parish but so humble. He was raised in the city but, having completed his degree in mathematics at University, started to farm. He brought innovation to the area and loved the fact his neighbours would shake their heads at his practices, many of which those same neighbours have since adopted.

His mathematics degree fascinated me. I had thought for a while that it would be fantastic for my report to define progression in farming in the form of a mathematical equation. I asked him if he were to do this what would it look like and what would be the variables. He looked me in the eye and said in French "You come up with the right philosophy first, then I'll show you the arithmetic." So ended my quest for the mathematical equation.

5.0 THE SYSTEM

By "System" I am referring to the external factors effecting progression in farming: how the intervention of government, markets and culture might hamper or assist. In many ways it is in exactly that order – government policies affect and even distort markets. Markets – or rather money and thus incentive – mould culture. There are also the historical sides of culture too and global perspectives to markets whilst intervention levels of government tend to be inconsistent and transitory.

All in all the "System" is what it is. It is simply a mirror reflection of the pressures, the incentives and the culture that exist in the UK today.

It is incredibly intricate and complex. In the UK, unlike some other countries, it tends to be governed more by politics than economics and more by opinion than objectivity.

Thousands of books have been written on hundreds of aspects of the tens of influences involved. In a desperate attempt to keep things simple, I'm going to split the external influences on the farming ladder into two. You cannot farm without (1) land and (2) money; and it is these two subjects I'll deal with.

5.1 Land

5.1.1 Land Price and Ownership

A recent report from Savills listed the countries with the highest land prices:

	Country	Value per hectare
1.	Netherlands	£40,450
2.	Denmark	£23,206
3.	Ireland	£21,715
4.	New Zealand	£13,080
5.	ик	£12,057

The number of investors seeking to buy land doubled in 2010 and now accounts for 31% of all buyers. Christopher Miles of Savills says these tend "either to be English buying for IHT purposes or high Net Worth international buyers wanting to place a portion of their portfolios". This group still does not include the big boys. Speaking in an international context, Ken Jones of Savills, London comments, "For most mainstream institutions, investment in agriculture is yet to appear on the agenda but we believe this will change in the next few years".

"When the men in silk suits invest in agriculture, beware!" Dr. Dave M. Kohl, Virginia Tech You can see the attraction. In the last 20 years, land has outperformed other investments, including commercial and residential property. Many are touting it as the new gold but with a yield. It has strong fundamentals, stable returns, a safe port in a recessionary storm, a store of value when inflation is high.

The increase in land value has been impressive over the last 20 years. Extrapolating approximate figures from a graph produced by HGCA and Savills Research and using 1992 as a base year for indexation, this is how it compares with gold and wheat:

	1992	1997	2002	2006	2010
Land (Grade 3 Arable, England)	100	230	190	260	500
Gold	100	95	100	175	410
Wheat	100	75	50	80	150

So land has doubled in the last four years and it also doubled in the four years between 1992 and 1996. In 2008 and 2009 UK's GDP fell in 6 quarters i.e. we had a recession. In 1990 and 1991 GDP fell in 5 quarters (our last recession before 2008).

Land is a panic room for investment when recession hits, not to mention an emotive aspiration for potential lifestyle buyers, but where does that leave agriculture and where does it leave progression in agriculture?

In the Outback, land is still worth three times its productive value, in South Australia it's worth five times and rising, in New Zealand it's roughly seven times. In the past though these multipliers were even lower and this is when people made it in farming through property. If land keeps doubling every 7 to 10 years then equity will still be made by owning property. But the agricultural aspect to that ownership dwindles every cycle. If 100 acres were bought in 1992 by one investor, a subsequent investor in 1997 could only buy 50 acres with the same money, in real terms. In turn a further investor buying land could only buy 25 acres with similar funds in 2010.

"The old rule of thumb in the 70s was if you paid three times potential turnover you'd be OK; if you paid 5 times you'd go broke." Grant Ludemann, Oamaru, NZ

The UK is further challenged. It's all to do with our wealth to land area ratio. Professor Ken Thomson from the Macaulay Land Use Institute argued that in the UK, farmland is so much more than farming. There are a lot of wealthy people on this island and there is a large demand for investments - be they gold bars, works of art or land. Land is emotive, a dream for some, a need for others, to play out expensive hobbies. Effectively the wealth to land area ratio in the UK is fundamentally divergent from the Antipodes and as such investment and leisure buyers have a significantly larger impact. Professor Bill Slee also from MLURI was of a similar opinion but saw amenity as an even more powerful driver. Also, supply of land onto the market has been at, or close to, 1% for the last 150 years – that's just the way it is.

Demand is fuelled by the need for investment and the fulfillment of dreams but is overwhelmingly enhanced by the two huge spectres of market distortion – Inheritance Tax Relief and Subsidy. The demand for investment, as already quoted, is driven strongly by 100% IHT relief. One sentence on IHT doesn't really reflect its colossal importance. Many I spoke to in the UK saw it as the main cause, with subsidy a close second, of having the viability of land ownership as farmers taken from them.

Ken Thomson pointed to one piece of research that suggested half the annual subsidy in Scotland went directly into land value. This roughly translates to \pm 1,000 per acre of arable ground. Others have suggested that this may be even higher.

Alan Greenspan in his book "The Age of Turbulence" points out that "the net beneficiaries of [agricultural] subsidy are those who owned the land when the subsidies were created. Future owners pay for the expected continued subsidy flow in an elevated purchase price of the land."

I wanted to relate what the Australians described as "productive value" back to my situation. The land I took as seasonal lets last year was generally believed to be able to carry 3 ewes per acre and was worth around £4,500 in 2010. By roughly estimating the normal subsidy, which is now all historically based, the figures were as follows:

	Potential production	Land Value Multiplier
3 ewes per acre @ 1.5 lambs per ewe @ £60	£270	
Old SAP subsidy @ £22/ewe	£66	
LFASS say £20 per acre	£20	
Total	£356	
If land worth £4,500/acre, the multiplier is		12.64
In Outback		3
In South Australia		5 to 7
In New Zealand		7

Investing in land is fine. Plenty of people think it is an excellent investment. I have spoken to many farmers who have bought land and were told they had paid a crazy price. Almost without exception it wasn't crazy at all but an excellent purchase. The only caveat to this is New Zealand where in 2010 the land price was estimated to have dropped 30% in a year. Yet the UK seems so much more protected given its wealth to land area ratio and the distortion subsidy and IHT relief continuing to apply.

It has to be questioned, however, whether land price inflation is healthy for the nation, let alone agriculture. If, as has happened in the last 20 years, land price doubles (**very importantly in real terms!**) on average once every ten years, we have the following scenario over the next century:

	Predicted Value of an acre worth £5,000 in 2010			
2030	£20,000 / acre			
2050	£80,000 / acre			
2070	£320,000 / acre			
3000	£2,560,000 / acre			

This could happen. I have a goal of getting to 2050 still breathing. To pay £80,000 per acre in today's money for ground that might carry 4 ewes to the acre would probably give me a heart attack and ensure I didn't exceed target!

I don't see what good these increases would do except for those that own land just for owning land's sake. For landowning farmers it means they might have to accept, at some point, that their businesses are effectively capped in terms of farm size. Being completely objective you would expect at some point the heat is going to be taken out of the market, particularly as taxation and CAP is effectively fueling a huge chunk of such a phenomenon.

I, as a new entrant, with little capital have already accepted that owning a decent area of ground will probably never happen - ten acres and then planning permission for a house, maybe. Then tenuously perhaps I could sell that and get more ground but financing each leap relies on adding considerable value. I am probably wrong but I think there might be better ways of building a farm business.

"No-one owns land, they only own bits of paper saying they do". David Sullivan NSch, Hampshire

Solutions that would benefit the Farming Ladder

Even I understand that there are wider issues than the farming ladder. Thanks to Nuffield I have had to let go of any of the feelings of injustice I had with the land market. I have this acceptance that nothing will change. It's a huge subject. Yet I feel I need to take a stab at giving an opinion on it.

If there are only two ways of building a farming business – through property or through production – current trends are killing the property route stone dead and thus denying opportunity for new farming businesses. It is all very well accepting that in the real world, equality of opportunity for those in farming starting from scratch will never be possible. But to see all opportunity, or at least half the opportunity, riding away into the sunset never to be seen again is extremely concerning.

There are two approaches as I see it:

- 1) End the distortion that exists at present i.e. tax relief and subsidy; or
- 2) Exert different distortion to the market to reduce rather than increase land price.

contd on next page

Ending Distortion, Embracing the Free Market

- End direct subsidy. This could be tempered by paying for public goods such as environmental schemes and retaining LFA support.
- End Inheritance Tax Relief. I suspect all the friends I have who own farms will shoot me but we could try to compromise and attempt an activity test for farmers to get IHT Relief and cut out the blatant investors.

Different Distortion

• Land Value Tax (LVT). I had the pleasure of having lunch with Andy Wightman in March. Andy is one of the leading land reformists in Scotland and had recently completed a report on LVT commissioned by the Scottish Green Party. It subsequently became part of their manifesto.

The proposal was to tax all land (residential and agricultural) at 50% of the rental worth or 5% of its capital value. It would be on land alone (ignoring buildings and services). The LVT Campaign's philosophy was radical:

"Collecting the rental value of land as close as is possible to the theoretical maximum 100%, leaves bare land with practically no selling value, since the capitalisation of a theoretically 0% rental stream which the landholder can retain, is zero. Land is worth holding only for use, and for good use to boot. Speculation in land is killed stone dead."

Of course tax levels would be huge to start with but as land values fall so does the tax. The theory half falls on its face in a Farming Ladder context as much of the increase in equity required to build a business relies on land price increases! Yet, if it was enacted, land acquisition would be far more closely related to a land user's abilities to efficiently produce from it, and there would be no need for tenancies.

"The landlord who happened to own a plot of land on the outskirts or at the centre of one of our great cities sits still and does nothing. Roads are made, streets are made, railway services are improved, electric light turns night into day, electric trams glide swiftly to and fro, water is brought from reservoirs a hundred miles off in the mountains – and all the while the landlord sits still... To not one of these improvements does the land monopolist as a land monopolist contribute, and yet by every one of them the value of his land is sensibly enhanced." Winston Churchill, 1909

- Ban foreign investment.
- Limit land purchase only to those that live on a farm or have an agricultural qualification. They do it in Norway and entry costs are significantly lower.
- Introduction of a Vendor Finance Scheme. It works in Australia. However their multiplier linking productivity (potential annual turnover) and land price was and is between 3 and 7 times. Paying back money with land well in excess of 10 times what it can produce is likely to prove difficult.

None of these options is mutually exclusive. One thing is pretty pressing. In 90 years' time, if trends continue, it will be like spending £1.25 million on a plot of land today just so that you can stick 4 sheep on it. Action is required to end the madness. Agriculture needs to wrestle its land back for its future. Those who have intimately

cared for the land are now selling it off to people who see it only as a number. If land, which will be so important for the whole nation's future, remains a commodity and can be bought and sold at will, there will be problems. The passion of those who care will make way for the chill of a calculator.

Land ownership is now an unlikely method of building equity for a new farm business but as time passes it takes this method away from more and more established family farms.

Those who are owner occupiers should be fine as their equity will track the land price. However, it is the leap from tenant to owner – a major rung much further up the farming ladder – which has been a common occurrence in the past, that will be made almost impossible.

5.1.2 Leasing of Land

The tenancy sector of the UK should be a wonderful, glorious thing. I found nothing quite like it on my travels. But it is in decline and traditional arrangements offering good security, which encourages reinvestment, are seen by some Land Agents as a thing of the past.

The decline in the tenancy sector has been long term:

	1940	1970	2000	2008
% of Holdings tenanted (Scotland)	68.7%	43.2%	32.0%	28.2%

Source: Andy Wightman. "The Poor Had No Lawyers"

In Scotland in the last 12 months, I know of only two farms advertised for let under Agricultural Holdings legislation. I had to be off my seasonal let on the 1st of April this year. Part in desperation, part as experiment I thought I'd try to create my own opportunity.

Phase 1: I wrote a press release on the difficulties in obtaining land with some security, sent it to the regional paper, they published it, a lot of people read it and the teasing was relentless but no significant opportunities arose.

Phase 2: On the back of the article I sent a flyer explaining who I was, what I was after and that I was a generally good bloke. I sent this to Estates controlling 275,000 acres and to every Land Agent I could think of who must have controlled a similar amount. As a minimum those that read it (or chucked it in the bin) were responsible for 500,000 acres of let land. I was only asking for 200. I had some meetings, some phone conversations but the final result was just 60 acres of seasonally let ground.

In terms of success rate this could be seen either as 0% (the 60 acres still had no security) or 0.0001%. I may not have pushed enough, maybe the flyer was uninspiring but, if it proves nothing else, it is irrefutable that opportunity is minimal.

I have been to a number of conferences on tenancies over the last 15 months and it has struck me each time that there is a tremendous amount of emotion involved in the landlord/tenant relationship. Before we look at financial incentives or disincentives of leasing land we need to first look at the culture.

Culture

I've sung a lullaby to all four of my children as babies; it's a beautiful song but the lyrics betray a passion from deep in the Scottish past:

"Hush Hush / Time to be sleepin'/ Hush Hush / Dreams come a creepin' / Dreams of peace and of freedom / So smile in your sleep bonnie baby.

Once our valleys were ringing / With sounds of our children singing / But now sheep bleat till the evening / And shielings lie empty and broken.

We stood with heads bowed in prayer / While factors [translation - Estate Managers] laid our cottages bare / the flames licked the cool mountain air / and many lay dead by the morning." Lyrics Jim McLean

The song refers to the Highland Clearances which were a big deal - cottages were burned, settlements cleared, people died and thousands displaced in order to make way for sheep. Progression in agriculture was paid for by extreme social injustice. The acts and feelings of injustice, perceived or real, significant or petty, run through all of UK history as a consistent and constant theme. Much is rooted in land.

Our history of land ownership where, in Scotland, 65% of the privately owned rural land is owned by just 0.031% of the population, has naturally stirred envy. The laws of inheritance have encouraged land to be kept in the hands of this tiny "elite". The statistic and its perpetuation are, in many cases, the result of enforced injustice in the distant past.

Yet the basis of a free market economy has to include security of property rights: "... the rule of law plus property rights appear to me to be the most prominent institutional pillars of economic growth and prosperity ..." Alan Greenspan, The Age of Turbulence.

"The Golden Rule is : he who has the gold, makes the rules" c/o John Baker, Beginning Farmer Centre, Iowa State University

The fundamental choice in the present is to address past injustices by legislating against the continuation of the land ownership monopoly OR to draw a line under things, accepting property rights as they stand as a clean slate and look to the future.

Bottom line is landlords and tenants have "previous" in their dealings with each other. That fact alone muddles the waters of trust and trust should never be underestimated in its importance in business dealings.

Yet now should really be the best time to develop good, dynamic and positive relations between landlords and tenants. The past is the past. Injustice has changed its form from life and death to occasional litigation and negotiation. The social disparity between landlords and tenants has narrowed beyond recognition. It's not beyond people to forgive and forget and this is easy if the incentives are right.

Incentives and Disincentives

We need to understand both parties' motivation when considering how the tenanted sector could be reinvigorated. Then make both landlords and tenants promise to accept the others point of view! As a former land agent, in my experience, the motivations for both when entering an agreement would include:

Landlord	Tenant
To protect the value of his asset	The ability to farm profitably and grow equity
To earn a decent yield/profit from this asset	To be able to farm efficiently
To maintain his property	Being able to reinvest knowing they will get the full value of that investment back
Wants the tenant to bear the farming risk (usually)	To be free to make management decisions
Keep taxation burden down	The ability to plan medium to long term
Long term asset that can be handed down to next generation	To raise a family, have a home in one place
To have the best tenant possible	To be able to provide opportunity for sons or daughters should they be interested

So both parties want the agreement to be financially rewarding and beneficial, both want to protect their investments, both want the tenant to farm and both want to be able to be allowed to pass their efforts down to the next generation. They have so much in common but at present when it comes to "give and take" neither wants to compromise in these. What is needed is a scenario where it is win-win.

Financial reward

Undoubtedly, in the past, profitability in agriculture has been too low to satisfy both parties. Some examples of Contract Farming agreements try to squeeze even more blood out of farming's stone by getting a land agent involved to take a further £12 per acre for himself and design an arrangement which is heavily in the landlord's favour. The "contractor" gets involved but quite often feels, in the end, he is simply working for the landowner at below his true worth.

Yet in New Zealand, the dairy industry can generate income. The incentive for a sharemilker is both carrot and stick – Ben Allomes knew he had to be 20% better than a manager for it to be worthwhile for his landlord. The sharemilking (see Appendix 2) principle incentivises both parties, particularly the sharemilker, to drive dynamically to true efficiency through innovation and cutting edge technique.

What is required is to ensure productivity from land is high and is as efficient as possible. For example in New Zealand Techno Grazers (with as low as 8 tonne Dry Matter/Ha grass curves – lower than much of the UK) are producing 1 tonne of carcass growth per hectare in bulls. Translated to the UK, this would mean £3,000/Ha output or £1,200/acre, equivalent to some dairy enterprises here but

with a fraction of the costs. Landlords just need people who want to innovate to try such practices, which - if they work - are contagious in the farming industry. Innovation could transform the tenanted sector if it were allowed to breathe.

Investment security

Landlords tend not to want their asset to be halved in value, which a secure long term tenancy effectively does. Most landlords, though, expect to keep the land beyond the duration of the lease. More important is taxation relief. IHT relief is 50% on secure tenancies and 100% on owner occupied land. Income tax is lighter on earned income than unearned income. Cue the weird and wonderful, sometimes highly complex, sham arrangements of leasing land that require significant professional help to implement and run. The word sham is emotive and quite often, in court, arrangements have been proven to be otherwise but let's all be honest – the landlord wants the "tenant" to farm but wants the tax relief with no security of tenure too.

Hence the alternative leasing arrangements to Agricultural Holdings tenancies are essentially motivated by tax avoidance not efficient farming practice. End the tax relief discrepancy and you have a smooth run to an efficient, lucrative and dynamic tenancy sector.

Tenants quite rightly do not want to spend money they will never see returned. Short term arrangements, hence, lead to decay of the land, sucking the goodness out with a non-return valve involved. Most landlords want their properties to be maintained too. Lack of agreement on investment policy is a phenomenon that is hard to understand as a result. My view is that tenant farmers tend to appreciate the value of lime, fertilizer and fencing intimately. Many landlords (note, I'm not saying all), being one step removed from the growing of crops or livestock, do not fully appreciate the importance of such reinvestment. Education of landlords in this respect would be highly recommended!

If term of lease is a problem, all that is required is an agreement for compensation at the end of the lease. Simple.

"To improve land with profit, like all other commercial projects, requires an exact attention to small savings and small gains, of which a man born to great fortune, even though naturally frugal, is very seldom capable". Adam Smith, Wealth of Nations

Inheritance

One conclusion I've come to over the study - from a first generation/new entrant perspective – is that one source of rot for the farming ladder is the Voldemort of the farming system, that cannot be named. Inheritance (oops, just said it!).

Be it IHT relief for owner-occupiers and external investors or succession in the tenancy sector, inheritance is a significant barrier to merit based progression in farming. I spoke to one estate manager, who was passionate about his assertion that tenancies should be for one generation only. The majority of tenant farmers' sons I know are far better farmers than I am, but there is no merit test for succession. Another thing I've learnt is, being tested makes you better at farming. If

there was a unilateral dismantling of succession there would be a significant increase in opportunity but as FBTs and LDTs slowly take over, this is likely to happen over time anyway.

"If there is no struggle, there is no progress". Fredrick Douglas

The English Tenant Farmers Association's 2020 Vision for Agriculture makes the effectiveness of a Farming Ladder a priority, which is commendable. Of their eight points made on the subject, seven principally concern the possibility of a dignified retirement for current tenants. It is undoubtedly true that there are many farms locked in a cycle of under production because there is either nowhere for the tenant to go, it's much cheaper to live on the farm in semi-retirement or the emotional tie is too strong.

One very bright chap I corresponded with suggested that a way forward would be a freely transferable heritable tenancy, rather like leasehold in residential property. It could be bought and sold to anyone with an interest. This would provide another tier in between freehold land and short term agreements and represent a more feasible entry point for new entrants. It is radical and, in its bare bones, somewhat discriminatory against the landlord. Yet if some tax incentive was provided it may sweeten the pill.

<u>Risk</u>

In my experience, Estates would far rather let ground to someone already renting other ground from them. This is a sensible and natural policy in limiting risk. I find it hard to argue with, except to say the price paid is simply more of the same but slightly better. Demand is high especially from neighbours but the output from the new area might not be as high if farmed as a sole unit. There will never be any step changes in production methods, innovation or technique. Think of it as breeding your flock too close but without the resultant genetic disorders.

"Most farmers would rather farm 1,000 acres at a loss, than 100 at a profit". George Henderson, The Farming Ladder

If there is no step change in technique or production, the landlord is effectively asking for his returns from let land to remain low!

Solutions that would benefit the Farming Ladder

The option of revolution was considered but deemed slightly excessive. Some of the largest landlords are the best landlords (for example the largest landowner in Scotland, the Duke of Buccleuch, is seen as an excellent landlord and recently advertised a farm for rent where only new entrants could apply). Such estates owning great swathes of land would actually create far more opportunities for new entrants and young farm businesses than they destroy, *if* the tenancy system at large was functional. Their main use of land is to let it to someone else.

There are examples of Estates, however, where the adage "you can own too much land" is appropriate. Some have said to me that many families could live off the

waste and inefficiencies their local large Estate (without excellent management systems) creates.

There still remains in both parts of the United Kingdom some great estates which have continued without interruption in the hands of the same family since the times of feudal anarchy. Compare the present condition of those estates with the possessions of the small proprietors in their neighbourhood, and you will require no other argument to convince you how unfavourable such extensive property is to improvement". Adam Smith, Wealth of Nations.

With the revolution option cancelled, my remaining suggestions are:

- Culture needs to change. The present and future need to overshadow the past. Attitudes need to modernise. The urgency required to develop a world leading agriculture needs to be conveyed. The threats presented by the "perfect storm" need to be conveyed. The leased land system is crucial to this – Landlords, tenants and new entrants. The financial benefits to all need to be conveyed.
- New incentivised, performance based, simple agreements need to be devised. Essentially take a 50:50 sharemilking (see Appendix 2) agreement and change a few of the words.
- The disparity in the taxation system (IHT and, to a lesser extent, Income tax) needs to be addressed currently it is a disincentive for efficient land use.
- The condition of any retirement scheme is an agreement not to farm in hand but enter a sharefaming agreement with a new entrant.
- Make heritable leases freely transferable and give tax breaks to landlords this affects. Similar concept to leasehold in residential property.
- Continue the vocal persuasion (e.g. Sir Don Curry's campaign) to encourage Estates to "think New Entrants". I did think of tax breaks for letting to new entrants to encourage risk from Estates but this is unrealistic and unwieldy.

5.2 Money

"Real" money will be left to the Business Strategy section but how does the system affect capital, profit and equity on the way up the Ladder?

Subsidy

Subsidy seems to have developed into an emotion of its own. I have been strongly corrected for calling it subsidy – it should be called support. People get very passionate about the subject and for good reason. The Single Farm Payment in the UK roughly equates to total net farm income.

In theory it is essential that all subsidy is cancelled. Growth in Scottish agriculture over the last decade has hovered at or below 0.4%. I've seen a statistic that indicates, in New Zealand, growth is over 6%. One of the professors I spoke to was unequivocal – subsidy restricts growth in agriculture. Pride is a dangerous thing, but I'm pretty sure I'd be proud to be part of an industry growing at 6% p.a.; not sure if I can say the same for 0.4% or lower.

"Subsidy is compensation for not thinking hard enough". Anonymous

Yet there is the reality of the social reliance. I visited a hill farm in North Wales as part of my study. It was very well operated and provided huge amenity and environmental benefits. However gross margins for the sheep enterprise were in single digits, before the many employees were paid and before all other fixed costs. Take subsidy away and the hills change forever.

But in the uplands and lowlands having no subsidy would provide far more opportunities for new entrants and those wanting to drive production. The market would reward you most, the more efficient you were. The market would also react - in the days of Sheep Annual Premium lambs were worth £40 and SAP was roughly £20 per ewe, an output of £80 per ewe at 150% lambing; today lambs are worth at least £60 with no SAP, an output of £90. Conveniently I'm ignoring exchange rate pressures!

Subsidy is so ingrained in our thinking. A recent example was: in reaction to the insistence of Brussels's zero tolerance toward EID for sheep some well respected farming commentators were suggesting that sheep farmers may as well sell their stock as they couldn't risk losing their SFP if there were errors on inspection. If it comes to a choice, highly intelligent people would choose subsidy over sheep, hand-outs over production. It should not be like this.

In a farming ladder context, what is most concerning about the present system is that SFP is actually strongly discriminatory against new entrants, the very people who need it most. For example, in Scotland we have the amazing phenomenon of established farm businesses receiving significant subsidy on the basis of what they produced up to 11 years ago whilst those entering farming since 2004 have never had direct access to the same pot. Subsidy is hugely emotive in this context because there will always be the "haves" and there will always be the "have nots". Injustice always stirs emotion. The disparity continues, the richest businesses get the most SFP and an interminable cycle operates. In Scotland in 2009 only a small percentage of farmers received significant proportions of SFP:

% of Farmers	Number of Farmers	% of National SFP Received
0.95%	182	10%
2.77%	538	20%
5.30%	1032	30%

Source: Andy Wightman, The Poor Had No Lawyers

If SFP was turned on its head, with a significant proportion – say 30% - going to new entrants and new farm businesses, with none going to those who take the most now - I'm sure the uproar would be huge to the point of apoplectic, yet SFP probably currently rewards most, those that need it least.

Rural Development Programme Grants

Later in this report I will mention Dirk Stephens from Broken Hill teasing me that our subsidy schemes encouraging over capitalised, high labour systems. I'm pretty sure he knew nothing about RDP and I wasn't about to leave myself open to yet more abuse by telling him about it.

The Capital Works Axis in SRDP essentially incentivises you to build sheds, buy machinery and increase your fixed costs. The Scottish Government is careful to ensure any proposal makes financial sense, in that there needs to be a cost-benefit analysis done. Yet when you go to Australia and New Zealand you see farming systems that are designed strictly for a market place without distortion and it makes you think. RDP is effectively encouraging, even developing farming systems that could not survive without the oxygen of subsidy!

Most worrying is that the Interest Rate Relief grant for New Entrants could not be used to purchase stock. The wise old sayings to young people starting out were "Buy legs and land" and "Buy flesh not metal"; in other words buy productive assets not depreciating assets, but these appear not to have been considered in Brussels.

Raising Capital

Banks are businesses, they cannot be expected to be charities. No more to say.

In terms of capital, if we really want to encourage new entrants and everyone else is getting subsidy, then capital grants or SFP need to be provided. From my own experience SFP is a poisoned chalice – I couldn't have kept going without it but the safety net it provides doesn't make you a better farmer, it doesn't help with focusing you on the right things. A capitalised SFP payment up front with guidance, conditions and monitoring and a decreasing annualised payment thereafter, for 3 years, would give people a start (provided they get access to land) and then they need to perform and continue to focus thereafter.

Solutions that would benefit the Farming Ladder

The choice is subsidy that supports new entrants or no subsidy at all. If the aim is for the UK to be a world leader in agriculture, subsidy has to go.

Complexity costs, and subsidy is complex. Government has good intentions but again and again the system suffers from the Law of Unintended Consequences produced by its policies

– no SFP to new entrants since 2004 in Scotland being a prominent example; building farm systems that wouldn't work in the free market another.

6.0 THE BUSINESS STRATEGY

If you start with very little and want more, you have to grow your business. The challenge in the UK is to grow your business in a farming industry that tends to "boast" zero or minimal growth. In this environment, and quite often not on a level playing field with others, in a highly subsidised industry, you should be focused from day one. I didn't do this. I desperately hope that, if you are a new entrant, you will get at least something out of this section to help that focus.

"Growth is the number one reason why businesses fail". Dr Dave M. Kohl, Virginia Tech.

The farming ladder is as much about business growth as it is about acquiring land. You can stop growing whenever you want but the sooner you stop the less comfortable you will be and the lower the contribution farming will have to your lifestyle. Many have modest aspirations – enjoy life, family, farming, have a decent but not excessive income. But as a new entrant there is no choice but to grow to even get to that point.

"Contentment is success". David Sullivan, Hampshire

But growth is a very dangerous beast.

How can a business make a profit and still go bust?

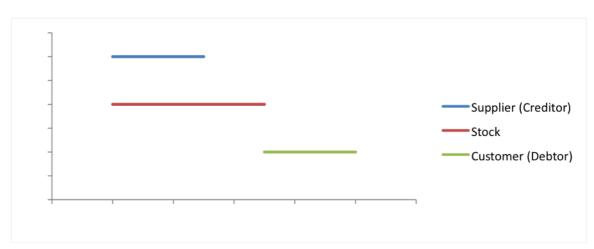
Answer: Cash.

Cash is probably over-simplistic but if I am trying to encourage focus, its best using only one word, and 'Cash" will have to do.

Ronnie Ballantyne is the former Financial Director of a large national wholesaler and happens to be my uncle. To say he sold light bulbs is generalising a complicated business. Ronnie used to run courses for his store managers on the intricacies of growth and working capital and would start each course by asking "How can a business make a profit and still go bust?".

He argues that it is the servicing of working (or circulatory) capital that is crucial. He drew me a diagram:

see over page



I need to work on my computer skills but, importantly, what this is showing is time. On day one we purchase stock (red line) and hold it until we sell it. Also on day one we are running credit from our supplier (blue line) because we haven't paid for the stock but have it on the "shelf". In this example we pay our supplier for the stock on, say, day 30 and it is at this point we need working capital to finance our trading. We manage to sell our stock on day 50 but are not paid for it until day 90 by the customer (green line). That represents 60 days' requirement of working capital. To reduce your working capital you increase your creditors (without losing them as suppliers); reduce your stock (sell quick, for a profit) and get paid on the day of sale (without putting off your customers).

Also vital is the servicing of debt. Debt can be huge if you have a tremendous positive cash flow to service it. If this cash flow is slow or tight, debt has to be restricted. In any scenario we have to look very critically at our fixed assets – the need for investment of vital money in particular machinery, plant or even buildings; what is fit for purpose; what return on capital employed each asset would provide. Could leasing or contracting or even better - design of systems where the requirement for such an asset is eliminated altogether, be preferable? Even those I met who said debt drove them will have invested in productive assets and also designed financially high yielding production systems.

Both the management of working capital and investment decisions relating to fixed assets are crucial to all businesses. Yet of all operations it is the one that is growing, and particularly the fledging business that is growing, where these principals are magnified still further.

Investments are required to grow. Growing businesses suck in more and more working capital. It takes a lot of thought and a true understanding of how costs behave to get the management of growth right.

Application to Agriculture

We could make this very complicated but agriculture is different to, but the same as, light bulbs.

It strikes me that there are two further basic secrets I should keep in mind when applying these principles to my business:

1. Like the Secret to Riding a Bike - BALANCE.

All investments need to be scrutinised on a 'return on capital employed' basis. The yield must justify or "balance" the money invested. If I borrow big, I need to balance this with serious positive cash flows. If cash flow is not like pigs or dairy (i e like

2. Like the Secret to Good Comedy - TIMING

To manage working capital I need the stock I have to fly off the "shelf" as quickly as possible and very soon after expenses have been incurred. To have expenses outlying for long periods will cause problems. This means negotiation of rental payments, agreements with suppliers, manipulating credit terms, high growth rates (genetics and more importantly nutrition).

For a sheep business I need to have very low levels of capital employed per head. The capital I do have needs to be invested in *productive* assets – the wise sayings of "buy legs and land" and "buy flesh not metal" are relevant here. I need systems which eliminate the need for significant machinery, plant and high inputs. In terms of rent I need to get the most out of the grass I pay for. I need to simplify my land holding and move closer to it. Any fragmentation of holdings operated, just pile on logistical complexity and costs. I also feel I need to develop a trading arm to the business – using Market Finance if I can – so I am making more margins over the summer, using my principal resource - grass - highly efficiently and keeping investment in "stock" lower than if I had a purely breeding flock.

I know it sounds misguided but my aim is to achieve a low input, high output system with high cash margins. This is why I am so excited by cell grazing (see Appendix 1) – a small investment in infrastructure can double production per hectare and potentially halve costs. Cell grazing is the answer ... honest!

"If you are the lowest cost producer, your business will grow whether you like it or not". Dick Waybright, Mason Dixon Farms

Continuation Business Model v. Growth Business Model

When I learnt about financial analysis in agriculture, I was learning about models for *continuation* businesses. Targets and assessments were designed for established businesses not new ones. Continuation businesses can still grow through outperforming targets and taking advantage of asset growth. But if they grew at a rate a new business is required to grow they would quite possibly go bust.

What new entrants have to do is assess the *continuation model*, learn from it, but also ignore it. New entrants need to design their own *growth model* and this is a closely related but different science. That is why it is important to accept that doing what everyone else does, being traditional, WILL NOT work.

This is why innovation is often linked with new entrants. New entrants innovate not so much because they want to but because they *have* to. They need to find a way of operating differently to grow their business.

Growth Model

I analyse a lot of farm business accounts as part of my consultancy business and my favourite analytical tool is Percentage of Gross Output analysis. This assesses the cost structure of a *continuation* business by applying targets to each cost group as a percentage of turnover:

Cost Group	Target as a % of Gross Output	
Gross Output	100%	
Variable Costs (feed, fert, V&M etc)	30-40%	Assessment of technical
Gross Margin	60-70%	performance. How good the business is at farming.
Labour	15-18%	Assessment of organisational
Power & Machinery	15-18%	structure. The effectiveness of
Overheads	4-6%	systems.
Cost structure before R & I	65-70%	
Rent & Interest	Max 15%	
Net Profit	Min 15%	

Cost structure before Rent and Interest is something I've added since I met Andy Morris, Ashburton, New Zealand. Andy appears in Section 8 but he was one of the richest first generation farmers I met, all through his business acumen. Before he bought a dairy farm he had his cost structure in his sheep business (before interest only) down to **43%**. This was without any subsidy to boost gross output. The continuation model targets 65-70% and that includes subsidy and excludes rent!

Hence there are two principles to the growth model:

- 1. Producing the same product for a much lower cost, or more product, still, for a much lower cost. A lower cost structure is non-negotiable!
- 2. Working on much lower levels of working capital e.g. lambs away more quickly, low input systems

As intimated earlier, the ideas I've followed up or am about to pursue in this regard include:

- Paddock/Cell grazing twice the production from an acre, at half the cost.
- Develop trading arm to business gimmering ewe hoggs and fattening store cattle using market finance (cell grazing would be operated, see Appendix 1) providing a quicker turnover of cash and another pot of capital.
- Sell half sheep flock and Techno/lane graze dairy bulls. The margins look wonderful at relatively low cash input. But would need a processor to accept bulls at 18 months old!
- Get a job! My consultancy income may not be enough and is certainly inconsistent. Regular cash input to reduce costs of financing working capital and debt.
- Find a farm! Fuel alone ignoring depreciation accounts for 12% of my sheep enterprise's gross output. I need to find ground near me or move to be near land on

which I have some security. Also time involved moving stock between paddocks is minimal but time getting there is significant.

Though I accept the system will not change dramatically, the final point is the largest barrier I face. Operating an incredibly low cost structure is a challenge with grazing 32 miles from home. This is a growing phenomenon as security of land use dwindles and formerly whole farms become fragmented. Operating a fragmented land holding with no security, involving large distances or large rents is the most urgent challenge to which I have to find a solution.

Other sectors are more naturally predisposed to the growth model. A sow is a wonderful agricultural machine. A gimmer threatens to be close to the value of a gilt in current market conditions and yet that gimmer might only produce 1.5 lambs per year; the gilt will produce over 20 piglets! Costs of servicing the stock are higher but the stock (piglets) can be off the "shelf' in weeks and in high numbers.

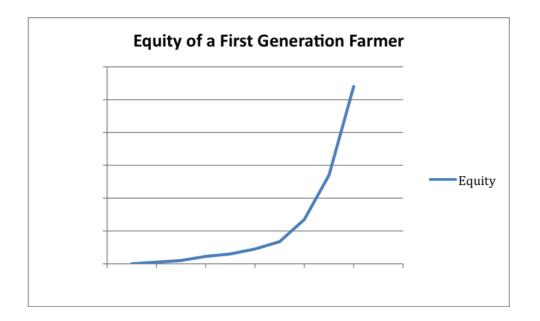
Dairy has a significant capital input requirement but it produces monthly milk cheques and on a well run, low input, grass based system can generate a significantly positive cash flow with a fraction of the working capital requirement of a high yielding herd. In New Zealand a large proportion of capital costs are covered at the variable order end of sharemilking, then progression opportunities are provided through 50:50 sharemilking. It is no coincidence that 30% of those in the New Zealand Dairy Industry come from non-farming backgrounds.

Poultry will be similar to pigs and adding value by direct marketing or producing branded, niche products can tick a lot of the growth model boxes.

The Ben Allomes's Theory

I have mentioned Ben in Section 8 but he showed me something that warranted a special place in this section too.

I call it The Graph because it's a graph! It shows what Ben believes to be the typical tracking of equity in a new farming business over time (N.B.: x axis is time; y is money):



It may not look it but the business is still growing as significantly in percentage terms at the start as it is at the end. You still have to grow your business significantly all the way through, it's just all relative.

Ben suggested that many new entrants give up round the middle of the graph because they feel they aren't getting anywhere: just before real total equity growth kicks in.

It is a graph similar to the one Andy Morris showed me tracking his equity; it's also similar to the one I imagined Mr Bahdur Ali in India to have and over 70 years ago George Henderson probably had a comparable trend happen to his equity.

"Once you have this technique, you can never be defeated." John Bailey, Pature Sens, France

Ben's theory was that the first third of the graph involved gaining and implementing skills. I thought I knew a reasonable amount about farming when I started this study. I think most of us are confident in our knowledge. Yet on my travels, what excited me was how much I didn't know.

The second third is gaining and benefitting from contacts. This means meeting people, impressing people, proving to people you are worth investing in. It took me a while to get my head round this. My default setting is to keep quiet with my head below the parapet. This is fine if you have a continuation model to follow, but under growth conditions it is essential to be at the front of people's minds and hence at the front of the queue for opportunity.

The final third is seeing tremendous equity growth. It can't happen without the first two.

Access to Capital

Capital comes in all shapes and forms. As a new entrant you usually don't have a lot and getting access to more is one of the biggest challenges you face.

Capital doesn't just come in the form of a bank loan, savings or equity in a house. Though I've grumbled about some of the convoluted contract farming arrangements in operation in the UK, if nothing else the No 1 account can give you working capital that you might not normally be able to access. By being loyal to a market over a period of time, finance could become available to you.

If those with capital see there is a yield to be had and they trust you; if they see you as a money making machine, capital is obtainable. It relies on making contacts, proving yourself and selling yourself.

Focus & Goal Setting

I feel somewhat sanctimonious lecturing on focus and goal setting. I don't do enough of either. Yet those whom I met and had made it were very focused and driven by goals. One wrote a business plan 10 years ago and still refers to it. I went to a dairy NZ workshop all about goal setting. It's seen as vital. "Big vision, tiny steps" was one quote.

Risk and Decision Making

Most of those first generation farmers I met took risks. They were well aware that they took risks and proactively managed them. Many put their success partly down to this trait.

Procrastination was seen as very dangerous.

"The timing of a decision is almost as important as the decision itself ... get 60% of the information you need, then go with your gut". Tlom Vossler, Gettysburg

7.0 PSYCHOLOGY & MOTIVATION

I thought this warranted a section on its own, however brief.

Psychology

On my travels when I asked first generation farmers why they wanted to farm, almost always, the response was quite deep. "I needed to" was the most common. "It's almost like a calling" was on similar lines. To go to the efforts that are required to build a business in one of the most capitalised industries in the world - from scratch - requires more than just interest, it requires passion.

"Giving up is easy, anyone can give up. To be special, never give up". Joe Baty, Muella, NSW

Freud would have you believe this "need" is set in your psyche in early childhood. If you have positive emotions synonymous with farming in your first seven years of life, this is likely to set a passion for the rest of your days.

Farming isn't like insurance or accountancy. It seems one of the few industries that directly represents an emotion. Just as helping people might direct you to becoming a doctor or injustice might lead you to the law; farming is even more direct. Farming is basically a word to describe growing stuff and caring for the land, plants and animals you have in your care. It's about life and death. It's basic. It's about the essentials. Farming *is* an emotion.

Motivation

I'll move quickly on from the weirdness above and raise the issue of motivation, closely linked to inspiration.

In June I spoke to Erwan le Roux in France – he was a first generation farmer and explained he wanted to farm as a boy; was then put off by his contact with negative, "moaning" farmers; then in turn was inspired when he started working with really progressive, positive ones. I concluded that farming can be the most exciting job in the world or the most depressing and it all depends on who you speak to.

France appears to have a problem with the perception from people of non-farming backgrounds that farming is essentially a miserable life. The only people that have created that image are the farmers themselves. It does not help the industry.

In Cambodia, agriculture was seen as menial and something you would do only if you couldn't do anything else. Compare that with New Zealand where the main TV channel still broadcasts its "Young Farmer of the Year" competition at a 7.30 pm time slot on a Saturday evening!

Of all the studies I could have chosen, one that involved going round the world speaking to first generation farmers who, as a demographic, must be the most positive and innovative members of any industry, was a huge inspiration to me.

8.0 THE PEOPLE, THEIR STORIES & THEIR CASE STUDIES

Chris Ferguson NSch, Wanaaring, NSW

Chris owned a 60,000 acre property in the heart of the New South Wales outback. She had traded stock and bred stock but after 9 years of drought she had adapted her business to the harvesting of wild goats. She explained that a 60,000 acre property in her area had the potential to produce 2,000 goats and keep 2,000 ewes (requiring half a labour unit), producing around \$240,000 in turnover and in turn \$100,000 in profit. That 60,000 acre holding was worth \$720,000. In other words the value of the holding was only 3 times its productivity.

I was a foreigner in a strange but beautiful place. Chris was so isolated, I found it hard to fully understand. Her nearest "neighbour" - 20 miles away over hard terrain - Neil Leigow, told me he came out in 1978 and stayed on the property for 9 months. The only person he saw in that time was the mailman once every two weeks. He also explained that back then he could earn, in net profit, 30% of the land value in one year.

Chris is one of the toughest women I've met. She was a mother, a teacher, a cook, a business woman and a farmer: all full time jobs. In the drought years, day after day, week after week, she would get up at 4am and cut bush (so the stock could eat the leaves) until 8.30 am; then school her two children until 3pm only to go back out and cut more bush. With her husband away most of the time contracting to earn cash, she would be alone with the children for weeks on end, seeing no-one.

Yet she was making good margins and seeing her equity grow. Getting a start where it's hard means more opportunity.

Joe Baty, Muella, NSW

Joe was one of the biggest characters I met on all my travels: a man who couldn't sleep more than 4 hours a night he seemed that driven. He was a former Brumbie Runner (musterer of wild horses) who are famed for having a screw loose. Of Brumbie Running he said in his rasping Aussie tone *"There's only 6 people in the world I know who can do it right ... one of them's me ... and another one's me brother".* He mustered anything. Son of a stockman, at 18 he set up his own mustering business and was bust within three weeks having not been paid for his first two jobs. He said it was one of his best lessons of his career.

He always had a consistent vision – he wanted a property in the Western Division in New South Wales and to breed goats. He now does just that, only he actually has two properties in the Western Division. He achieved this through sheer determination, incredible focus, a great business head and I suspect the tremendous help of his wife Kylie. Some years he would spend ten months out of twelve out mustering, sleeping under the stars in his swag. He was challenged with cash on many an occasion (he joked this was because he either drunk it or gambled it. At least I think he was joking). Once having no money at all he survived only on the fruit cake - that his unknowing mother had given him - for a fortnight.

But crucially he always had a spread in his business – cash and asset growth. By the time I met him, to earn cash, he'd become one of the biggest goat dealers in Australia. He had investments in two properties and was looking at another. Like many I met he said debt drove him.

He was full of quotes and many of them appear in this report. He put his success down to pride, ambition, determination and endurance of hardship. Also vital, as far as he saw it, was a sense of humour. In his mustering days if a bloke wasn't funny, he'd sack him. Humour was, and still is, part of the job description for Joe Baty.

Dirk Stephens, Broken Hill, NSW

Speaking of a sense of humour, one of the funniest men I met was Dirk Stephens. Through electrical contracting he became a millionaire by the time he was 28. He reinvested some of the money in order to farm but was very business savvy. He aimed for 80% equity, but never wanted to be over 90% (others I met in Australia were more risk seeking and would settle for over 50% equity). He managed 12,000 ewes, over 3 properties, within a 150 km radius, on his own! He pointed out that travelling 1.5 hours to look at 5,000 sheep was better than me travelling ¾ of hour to see 650. He built up numbers by buying old ewes, lambing them and then selling them, again keeping investment in stock low.

He never renewed plant. He looked after the plant he had very well but never, ever bought anything new. He saw low labour and low plant for production as a huge key to success and teased me for the UK's subsidy system encouraging high plant and labour requirements.

Brendon Smart NSch, Keith, SA

Brendon Smart is a proper businessman. He started with virtually no capital of his own in 1976. His family farm acted as guarantors and he was able to negotiate vendor finance (very common and a great facilitator for land purchase for those with limited capital in a market where profitability and land price are not disproportionate) to buy his first farm of 1000 acres. He is now the Business Development Manager in the Smartgroup business, which embraces several diverse properties under the operational control of two of his three sons. In the first seven years his business grew 25 times and has continued to expand. He now has over 15,000 acres of good quality arable ground in high rainfall reliable areas.

How did he do this? There will be some reasons that would be only obvious if you were there with him along the way - he is obviously an exceptional operator and focused on the essential detail that is crucial to high efficiency. But also what was important was:

- He bought land at, or below, productive value in the past, as a rule of thumb, this would mean grossing the land's value in three to five years from production; but this has reduced to an 8- 10% return on capital target.
- He was bold (procrastination is very dangerous) in his risk-taking but crucially managed that risk incredibly well. He transformed a lot of land with flood irrigation capability and managed flooding and salination issues through drainage. These works on their own increased the value of the land considerably but also ensured production and hence cash generation. He questioned the theory that you can't manage the weather he has

- the above improvements have ensured a minimum of 60% of potential production when there could have been nothing following extreme weather events.

• Two significant innovations that have had a profound effect on his business, cost him nothing except courage. He implemented a totally different way of managing his staff that ensured they had status, satisfaction and security. The responsibility to achieve tasks was all theirs and also judged by their peers. He plotted a graph of his net worth and, at the point he implemented this, the line increased sharply. Later he set up a board to run his business, all decisions were made by the board that included the business owners. The board was made up of trusted people and the family could make a case for an action but it had to be researched to death and very persuasive. At the point Brendon implemented this management system, net worth increased steeply again.

Andrew Johnston NSch, Tintinarra, SA

Andrew was a second generation farmer but he had to take on the reins of the business at a very young age after his father had an accident. Also his father didn't really start from square one, he had had to start off the board by clearing thousands of acres of bush.

Andrew was one of the very few I've met who has increased a significant proportion of his equity through production. He borrowed big and seemed to have balls of brass but he was able to service and reduce this debt through the cash flow provided by 1,000 finished pigs a week. He was an innovator and an early adopter. He concentrated on systems rather than procedures and was the first in Australia to farrow, wean and finish in strict batches, his inexpensive growing sheds reduced capital input and his farrowing shed was state of the art. He had expanded when others thought it was crazy but he trusted his gut then referred to his head for an objective opinion. He had, thus far, ridden the market fluctuations incredibly well through his expansions to 1800 sows. He may have taken risks but he made sure big risks were of low risk by doing things exceptionally well.

Grant Ludemann, Oamaru, NZ

Grant started at 16, with the help of his father, buying 320 acres, and has subsequently built an empire. He had an incredibly astute business mind and he was a born trader. Trading has been where his cash has come from. He would often buy lambs from drought stricken areas and finish them elsewhere in the country. At present he finishes 200,000 lambs a year and has properties all over South Island (which in combination with the irrigation schemes he has constructed, effectively manages the risks he has undoubtedly taken); he has two dairy operations and specialist sheep and beef breeding units. He, too, saw a big part of his business as the people who worked in it.

He explained his general attitude - "It's possible to be better without being big but if you get big without being better you'll get into trouble. It was never my aim to get bigger, but I was always determined to get better." This attitude was prevalent with many I met, those that had made it had limited targets - 10 acres and a house was a good example, but crucially they had concentrated on the process not the end result.

Andy Morris, Ashburton, NZ

Andy was a dairy farmer who never milked cows. He had 3,500 but had a sharemilker involved. His story was incredibly impressive. He loved being a first generation farmer – no family baggage, he could make instant decisions, no siblings to pay off.

On his way up from a working shepherd, he had had his equity halved twice, once to get out of an equity partnership and another when he lost 2,000 ewes in a terrible winter in the High Country. He liked big changes not detail; it's the first 85% that's important, don't chase the last 15%. He was forceful in his view that reputation is far more important than the last dollar, you must have absolute honesty right down to the last tank of fuel. He was a systems man and a problem solver. He judged performance on cost structure (after 10 years he had it down to 43% excluding interest on his sheep farm) and equity – he was one of the richest first generation farmers I met. He was managing 22.5% compound growth per year and latterly his equity had doubled every 3.2 years.

His story had so many ebbs and flows. He had the halving of equity hits, but won with booms in wool (from \$3 to \$14 in the mid to late 80s) and timber (on his purchased farm where he lost all the ewes, it rose from \$15,000 to \$200,000 in 6 months).

Debt drove him to innovation and when taking on his present farm at Ealing, he had the vision and nerve to gut it. He took all the fences out and produced a new farm on the same area.

What was obvious was that he was keen on helping talented youngsters to build their dairy businesses and had a Trust set up with others that acted as guarantor for a lot of them. This was a cultural phenomenon peculiar to the dairy sector in New Zealand.

Damien Harrison, Cheviot, NZ

Damien came from a difficult background. He had witnessed his mother trying to drown his father in the bath amongst other horrendous alcohol induced violence. He left school at 15 without being able to read or write. But he now sees these as the basis of his determination, and as such - an absolute positive.

He had nothing, but would do anything to earn a dollar. His determination and resilience made him one of the most exceptional people I met on my travels. At one point he lasted 8 months on bread and cheese alone because he didn't have enough money for anything else. He remembers at the end of this period he sat down for lunch with his workmate and started crying - his lunch didn't consist of bread and cheese, he finally could afford something better.

He again built his business on the back of contracting (this time spraying), at which he worked indescribably hard. He now owns 750 acres with 150 acres more in the pipeline. He has 2,300 ewes and some cattle. He felt you had to borrow to get ahead and his relationship with his banker was a huge priority for him.

He was a saver and an incredibly hard worker. He normally works 4.30am to dark in the spraying season and has seen himself working from 2am to 11pm when really pushed. When the alarm goes off, he says to himself "Come on you lazy bastard" then drags himself out of bed.

Ben Allomes, Hawkes Bay, NZ

I met Ben almost by chance. We spoke about my study for perhaps 15 minutes but as a knowledge return per minute he was probably the best value. One of his theories – "The Graph" – has become a major aspect to the business strategy section of this report.

He was a former Sharemilker of the Year and only 31. Maybe it was the enthusiasm and free spirited way with which Ben conveyed it, but in no time he had told me some of the core issues I needed to include in this report.

He and his wife Nicky started straight from University with no money. One of the first things they did was write down goals and a strategic plan. He still refers to it. The main target was \$1 million of equity in 10 years ... they did it in 7! He embraced debt and got excited by it. He was adamant that the only way to progress from a standing start was to be in the top 5% of operators.

He had no qualms in gaining recognition. He was in no way arrogant, rather he saw this as an essential part of progression and creating opportunity. He entered the Sharemilker of the Year competition every second year after starting until he won it 7 years later.

He had exceptional clarity of thought. He would simply look at a challenge then find a solution. He was always looking for ways to achieve his goals and his goals were always defined. He embraced innovation to achieve this.

He shared Andy Morris's attitude to detail. The first 80% is important – cow health and nutrition were non negotiable – but chasing the last 20% kick started the law of diminishing returns.

Alastair Nelson, Napier, NZ

Alastair had a full time job but had entered sheep farming through leasing the land and stock on an 8,000 stock unit station hundreds of miles away from his home. He felt he had a business model that could yield 85% return on his capital and 7% from all farm assets (average sheep farmers in NZ are struggling to get near 3%). All he had to find is the working capital for inputs, wages and the rent for the land and stock.

In the absence of a clearly defined vehicle for progression - akin to sharemilking in dairying - Alastair had built his own in the sheep industry. He had accepted that most current farmers have increased their equity though their "land owning" - rather than their "farming" - business but knew he had to do it through production.

He repeated Ben Allomes assertion - you have to be in the top 5% of operators to make a successful business from production alone. He called it "Operational Excellence". You have to think outside the box and innovate.

I asked him how he achieved operational excellence. Simple systems were top of the list - he only has two stock classes: sheep and cattle. With ewe hoggets, different breeds with different breeding strategies, all types of cattle youngstock; some equivalent farms might have 30 stock classes.

Then, the right genetics. Feed your sheep correctly - that meant rotational grazing of 1200 ewe mobs in 6-7Ha paddocks on the basis of detailed feed budgeting (a huge amount more dry matter can be grown this way).

After that : Forward planning. Excellent staff. In truth he felt it was 100 small things in addition to these.

Since I met him Alastair has taken on a second, larger farm using the same model. He now devotes 50% of his time to the farm business and is actively seeking more farms.

Noy, Koh Kong, Cambodia

Though Cambodia was a powerful place for the reasons already mentioned, I had got to the second last day of our visit thinking I wouldn't meet a first generation farmer there. It seemed everyone was related to a farmer and that if they weren't farming they had no intention of doing so. Farming was looked down on, farming was seen as almost menial.

We were boated up river by a chap called Noy to see a village and the small farms that surrounded it. Noy spoke excellent English.

When we were there we asked Noy a question and realised he is a first generation farmer. I wasn't expecting it at all. He told us his story. He told us that when he decided to farm, he came to a village, asked about land and was pointed in a direction and told "help yourself".

As he continued I realised he was probably the most extreme first generation farmer I had met. You see, Noy was born on the road, fleeing from the Khmer Rouge, ended up in a refugee camp over the Thai border and stayed there until he was 12. His English is excellent because the UN taught him the language in the camp. He doesn't know what day he was born as everyone was disorientated as they fled from Cambodia. He never has a birthday.

The camp was hell. Thai soldiers guarded its perimeter with guns and stares. No one was allowed to leave. Largely made up of women and children, if a female strayed too far from the main group she was likely to be raped by the guards. Food was something that was always given - never found, harvested, purchased or sold.

I asked him why he wanted to farm - his quick and definite response was a single word that came from a deep, deep place: "Freedom".

May be it's a first generation thing, maybe it's just peculiar to my own mind, but the reason I got emotional when I was talking about it on my return was, I'm pretty sure that's why I farm too. I have a decadent past compared to Noy but that word "Freedom" is hugely powerful to me.

Mr Badhur Ali, Raipur, India

I have mentioned Mr Bahadur Ali already. I don't even know if he was a first generation farmer but what stuck with me is his equity graph would resemble a very similar shape to Ben Allomes's graph, to Andy Morris's graph and many others I spoke to.

He explained how he took his business from a humble beginning to one of the biggest agribusinesses in India. From 1985 to 1996 he built the business's effectiveness. But growth was relatively slow. 1996 saw him attend the International Poultry Congress and that event seems to have transformed his whole business. His vision was radicalised - to drive for scale and vertical integration. Thereafter, the growth graph was close to being as vertical as his integration.

It's the shared phenomenon of building skills and effectiveness, enduring frustratingly slow growth then, at some key point - a steep line upwards thereafter.

With the exception of "Hello", the first words David said to me were "*There are no problems, only solutions*". This appears to be the definition of how he has lived his farming life.

Brought up in the town, his father arranged for a local farmer to give him horrible jobs as a child with the instructions "knock it out of him". This was in reference to David's obsession with farming. It didn't work.

He was a shepherd and manager until he was 38 and then had a further 6 years managing the farm of a philanthropic gentleman. In these six years, working in unison, they moved toward a sharefarming system. The agreement was he could build up 25% of the flock in his ownership. The owner would have allowed him more but this level was what David deemed fair. Integrity is everything for David Sullivan.

The next step was to expand. He asked his local landlord if he could rent some land. The landlord said no. Importantly David asked him "*why not?*". The issue was security of tenure. David went away to find a solution to his limiting factor. If the landlord owned half the stock then security of tenure was not an issue. Over the next few years, David developed the sharefarming concept on his own, without realising there were similar agreements elsewhere in the world. He created a local sub culture, with his original landlord's neighbours joining in. He had land and stock coming out of his ears. He had approaches from the City, as he was achieving 25% return on capital for his investors.

Without doubt he created his own opportunities. In doing so he placed significant importance on his natural way with people. He is a character, he does things differently and has a great sense of humour. He saw it as vital, whilst marketing yourself to gain opportunity, to "have a bit of style" to do things differently with humour and to tell a story.

David was the first to develop sharefarming in the UK, the first to May lamb and the first to drift lamb. He was an innovator as well as a character. He had really testing times but saved himself by his history of integrity and his determination to find solutions.

Rhys Williams NSch, Lleyn Peninsular, UK

Rhys's parents had a smallholding of 10 acres, and his father worked for the NFUW. He remembers his Dad applying for farm tenancies when he was a teenager, and staying by the phone waiting for it to ring. It never did. At a school full of farmers' sons, how many acres you had was a big deal.

On leaving college he worked on farms before joining DEFRA. But he really wanted to farm. He took a huge leap and took his wife-to-be, Kelly, to sharemilk in New Zealand for three years. He came home after a chance meeting with a progressive local landowner. A deal was done and this pathway has taken him to having a half share in 1400 cows at the age of 36 and with a business that - joining the dots - must be one of the most profitable I've come across.

He is focused on the essentials - grass, cows, people. The system he runs is very simple in its operation but that seems to be the result of a lot of thought.

He is an agricultural money making machine. He is a bloke you'd want to invest in - and his landlord has - to their mutual benefit. He ticks all of the boxes of all the variables involved in the mathematical equation of progression up the farming ladder - he acquired all the skills and is now definitely top 5%; he developed the contacts; he has proved himself a very good investment and generated his own capital as a result; he concentrated on the essentials and

ignored the irrelevant; he has been bold and had the courage of his convictions; he innovated and implemented a system that most local worthies would have shaken their heads at. But it all worked.

9.0 CONCLUSIONS

The System

- New Entrants and First Generation Farmers are vital to the success of any country's agricultural industry: primarily through greater innovation and early adoption of techniques but also through providing a dynamism by an intensive striving for efficiency.
- Not all should make it. Only 20% of those entering the dairy sector in New Zealand, make it all the way.
- Progress in farming should be hard struggle makes you better but it also has to be possible and worth it.
- Subsidy adds significantly to land values. Taxation incentives distort land values. Inheritance constricts tenancy availability. Culture pertaining to land severely compromises sustainable letting arrangements for mutual benefit.
- Current new entrant grants encourage over capitalisation of businesses. They do not account for the fact that entry into farming is a process, not an event.
- The law of unintended consequences new initiatives for encouraging new entrants could distort markets further. General subsidy regimes tend never to account for their effect on new entrants
- Land in the UK has huge culturally-fixed emotion and attitudes attached to it, detrimental to the farming ladder.
- Developing new innovative methods of lease would be hugely beneficial to facilitating the farming ladder in the UK. These should be incentive based and motivate both parties to be as efficient as possible.
- Crucial to this is the ability to make these win-win agreements provide significant returns on capital – average sharemilking contracts (see Appendix 2) in NZ return 20% on capital; a unique example also in NZ showed 100% return on Working Capital and 7% return on all assets including land value in sheep. Agreements that incentivise efficiency would produce more income and product from land.

The Business Model

- There are two ways of building a farm business property or production.
- Property: buy improve ride rising land market = Increased equity
- Production: operational excellence profit = Increased equity
- To make it through production you have to be Top 5%. Therefore you need skills and technique (these are quite often free, cheap or even cash positive to acquire). Once you have technique you can never be defeated.
- Simplicity saves, complexity costs. Simplicity will produce far more units of production per labour unit and fixed cost pound than complexity.
- Many of the financial analytical tools lack relevance for new businesses that need to grow by 10, 20 or 50% per year
- The Ben Allomes Theory. Growing equity is not a straight line process. It is a logarithmic curve. Many give up just before the line goes steeply upward.
- Central to the graph is two essential processes acquisition of a high level of skills and the development of contacts. In order to open doors you need to be really good at what you do and convince everyone else you are.
- Cash is king! (closely related to servicing working capital but this is harder to put in a catchy phrase). Generate Cash Reinvest Capital Growth.
- Constant Cash Flow is so important.
- Intensity of production where land is restricted in its supply and high in its price should be a target. Break the culture of wanting to farm 1000 acres at a loss, rather than 100 acres at a profit.
- Capital is essential to produce a return. Those with little, need to get access to capital in different, innovative ways or build slowly.
- Debt is a huge motivator for many. I heard "debt drives me" many times from many people. At the same time I'm sure debt ruins others. Balance is key.
- Don't procrastinate it's dangerous. Take risks but manage these well. Go west when everyone else goes east.

- Be innovative. Or at least adopt new ideas. Being traditional will not work!
- Concentrate on systems rather than procedures ... there is a difference!
- *"If you are the lowest cost producer, your business will grow whether you like it or not"* Dick Waybright, Mason Dixon Farms

<u>The People</u>

- Farming is an emotion and it's OK to talk about it. Almost all first generation farmers I met said they *needed* to farm. They almost didn't have a choice. One termed it a Calling.
- Don't whinge. Be self reliant. A sense of humour should be compulsory.
- Work hard. Find a way. Eat bread and cheese for months if you have to.
- You need heart determination, resilience, pride
- You need head 99% of the money you make from farming comes from the top 3 inches of your body.
- Balls are not mandatory but highly recommended. (This is in a figurative sense, one of the ones with the biggest balls I met was a woman!)
- The more people you know and the more people that know you the more opportunity. It's a direct correlation.
- Integrity is compulsory, high farming practice is powerful and a "bit of style" is compelling in building your own farming ladder.
- People that don't make it or don't try, tend to blame lack of *resources* e.g. lack of time, lack of money, lack of knowledge, lack of opportunity. In actual fact it is quite often down to a lack of *resourcefulness* in the individual. Think about that!

10.0 RULES of FIRST GENERATION FARMING CLUB

FIRST RULE It's up to you and no one else.

"What's to be is within me"

Get obsessed with the system, blame others, grow massive chips on both shoulders at your peril. Focusing on the things you can control is key.

SECOND RULE Be patient and persistent.

Walt Disney went to 139 financial institutions before being successful in getting a loan

"Q: How do you eat an elephant? A: One forkful at a time" Set your goal and commence eating.

THIRD RULE It's all about head.

You either need to choose a system with high turnover of product and therefore cash in order to keep working capital requirements down OR have a very low input system with a very low cost structure to achieve the same goal. Being traditional won't work. You need to develop a growth business model not a continuation business model.

FOURTH RULE It's all about heart.

This means resilience, determination and endurance of hardship. How deep can you dig to get to where you want to be? You will be hit and sometimes you will lose. Most that made it were hit hard and lost big but they kept going. "Always look forward, if you look back you'll trip up."

FIFTTH RULE Cash, Cash, Cash.

All those who made it had a consistent source of cash that enabled them to reinvest and thus produce capital growth. Examples included: trading livestock, all forms of contracting, off farm employment, intensive livestock (dairy, pigs, chickens). You need to know that for every hour you work you can achieve a decent margin.

SIXTH RULE Innovate and adapt.

Respond to the challenges in front of you. Think outside the box. If there are no opportunities, think of ways, sell yourself in different ways, approach people, be cheeky, be bold, be resourceful, create your own opportunities. Create systems that are simple yet clever. Seek new ideas, implement these well. "Trust yourself when all men doubt you but allow for their doubting too."

SEVENTH RULE Property or Production?

You can do both but most did it predominantly one way. In the UK unless you have significant capital, you'll have to do it through production and maybe invest in property thereafter. To grow a business through production you need to be in the Top 5% of producers ... it's the only way, it should be your only focus.

11.0

Seeing how some of the most successful first generation farmers in the world have transformed their equity made me look at myself, and my business, very seriously.

I don't purport to be anything special and on my journeys I met exceptionally special people.

I suspect I'm not the best shepherd or the best businessman but I know I have passion. I started when everyone thought I was daft, I have continued when others would have given up, I have even more enthusiasm for farming now than I did before and I wasn't sure that was possible.

But I came back from New Zealand and worked out my equity. It's almost eight years now since I bought those 50 sheep on that credit card. In 2005 we sold our house and though there wasn't a huge amount of equity released, I managed to introduce some to the business. Since then my equity has grown but only by 2.7 times. Over eight years that's an average annual growth of 33%. I don't think that's remotely good enough. The total equity is 92 times less than the richest first generation farmer I met on my travels.

I always make a decent profit but am constantly challenged by lack of cash, quite often to the point of discomfort. Eight years of sheep on seasonal lets, miles away from home, has frustrated me. There is so much more I could do in farming with a more efficient land holding, where a house, steading and land is roughly in the same area of one county. My cost structure would be hugely assisted just by that simple change. I am incredibly excited about cell grazing (see Appendix 1). I think it has the potential to revolutionise sheep and beef production in the UK. I've been trialling it and obtained funding from Rappa Fencing. However, to roll it out for my whole sheep flock would only be workable if I held land for more than 6 months, within a five mile radius of home.

Nuffield has shown me qualities in myself that I only suspected I might have, but it has also shown me some frailties. Maybe I'm not good enough to succeed in farming from scratch! In the past six months, I have applied for one job but withdrew at interview stage. I had another job application form half completed. I couldn't go through with it. I couldn't let go of the dream. I couldn't trade in Freedom for something else.

Yet probably the biggest constraint is one of my own making. For personal reasons, I don't want to move away from Tayside. I know this will probably be my downfall.

"To progress, you need to be prepared to move". Unknown.

All things considered, I now have to regroup. Use what I've learnt. Find a way. Be resourceful in finding some land that is efficient for me to get to and at a reasonable price. No-one's going to help me do this, least of all legislators or government. I need to drive my cost structure down and my production up. I need to get my act together and grow my equity faster yet solve the cash problem at the same time.

A dream and a goal are different entities. I have now set targets and written them down. I have thought of ways I can reach these targets and now need to embark on implementing them. I'm looking forward to it, not because it's going to be easy but because it's going to be hard.

This report is a milestone. I feel my brain, that has been so full of thoughts these last 16 months, has finally projectile vomited all over a Microsoft Word document. I feel better now. It's time to move on, dust myself down and go again in pursuit of the dream. I do this with the words of the Brumbie Runner ringing in my ears:

"Giving up is easy, anyone can give up. To be special, never give up."

12.0 DISCOGRAPHY

Tongue in cheek, melodramatic or self absorbed - you decide

In my world, most events have to have a theme tune: a piece of music that represents a memory or an emotion. And if nothing else my Nuffield Scholarship was memorable and emotional.

If this report is a true reflection of my experience over the last year and a half then a discography is relevant ... to me at least. Perhaps if I'd studied a technical subject, perhaps if I had met people and not talked about *them* but rather what they did or practised, there might have been less questioning of myself. It was a drip, drip effect. Meet someone, get a bit deeper than normal conversation, move on then talk to someone else only to do the same thing again. It took its toll to some degree.

This study was about people more than anything else. It was about how they felt about something that was a huge deal to them. It became a huge deal to me. The whole principle of a life defining struggle. How I could make it without qualities some possessed and I didn't.

I'm pretty sure I disappeared through one of my own orifices for an extended period. I know I became selfish and self obsessed whereas before I was just a "nice" guy.

There were great times and there were dark times – many have a song to remember them by. For example:

<u>Foxy Lady by Jimi Hendrix</u>. Voted by my mind as my best performance at a Karaoke ever in Arlington, PA

<u>God & Satan, Biffy Clyro</u>. When I was totally self absorbed and feeling sorry for myself.

Eminem, as a fellow middle aged man with issues, kept me company often.

Take it Easy, The Eagles. Played loud and constantly on my road trip round the UK.

Finally, eventually and thankfully, a song by <u>Linkin Park</u> that helped me wake up in the suburbs of sanity; from where I could finally see the hurt I'd caused to those dearest to me.

But of all the songs, one stands out. You have to work with me here. Discard any shackles of what you deem to be cool and uncool. Suppress any preconceptions you may have and take it for what it is. This song should be the global anthem for all new entrants climbing the farming ladder.

This goes out to:

- Sam Riehl in Pennsylvania
- to the children of the Outback Chris Fergusson and Joe Baty

- to an exceptional man in Cheviot, New Zealand, Damien Harrison
- to Noy, in Cambodia the most extreme first generation farmer I've ever met
- and finally to Tim White who has followed me and teased me all the way and can play it really well on the banjo.

Their stories, their passion, their journeys inspired a man who farms with his heart. Find it on Youtube (<u>http://www.youtube.com/watch?v=vmKsCMgROCQ</u>), purchase it on iTunes, take it out of your CD collection and play it loud.

The Climb by Miley Cyrus

I can almost see it. That dream I'm dreaming, but There's a voice inside my head saying You'll never reach it Every step I'm takin' Every move I make Feels lost with no direction, My faith is shakin' But I gotta keep tryin' Gotta keep my head held high

There's always gonna be another mountain I'm always gonna wanna make it move Always gonna be an uphill battle Sometimes I'm gonna have to lose Ain't about how fast I get there Ain't about what's waitin' on the other side It's the climb

The struggles I'm facing The chances I'm taking Sometimes might knock me down, but No I'm not breaking I may not know it, but These are the moments that I'm gonna remember most I've just gotta keep goin', and I gotta be strong Just keep pushing on, but

[Chorus x2]

Keep on movin' Keep climbin' Keep faith baby It's all about, it's all about The climb Keep the faith, keep your faith, woah

[N.B. Obviously Miley should also set targets and have a business plan!]

Thank you Nuffield – it's been emotional. Thank you reader - you've been a great audience.

The End

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13.0. THANK YOUs

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Tony & Meredith Thomson Chris Fergusson (NSch) Niel & Debbie Leigow Tony & Tammy Brown Joe & Kylie Baty Garry (NSch) & Tracey Hannigan Dirk & Cindy Stephens Brendon Smart (NSch) Dick Smith Damien Smart (NSch) Graham Clothier (NSch) Andrew Johnston (NSch) Lynton Arney (NSch) Annie Hughes

NEW ZEALAND

Richard Burdon Tom & Jane Murdoch James Cochrane John Saunders **Tony Bailey** Grant Ludemann Andy Morris Alvin Reid Dairy NZ Tony Whatman, Bruce Grieg, Chris Logan Steven Sheen **Daniel Wheeler Damien Harrison** Grant Rowan & Steve Blyth **Ben Allomes** Alastair Nelson Mandi McLeod (NSch) & Ant Beet Jake Moreland

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INDIA

Kanwal Preet S. Brar, Deep Roots Retreat, Punjab (and his lovely father) Harinder Singh, Mohali, Punjab Dr Amarpreet S Sidhu, Macro Dairy, Ludhiana, Punjab The Mayor of Tehsil Morinda and his large family, Punjab Ilse Kohler-Rollefson, LPPS, Ranakpur, Rajasthan Hanwant Singh, LPPS (Thanks for the turban too), Rajasthan Ricky Thaper, Poultry Federation of India, New Delhi Dr Mukesh Sharma, IB Group, Rajnandgoan, Chattisgarh Mr Bahadur Ali, IB Group, Rajnandgoan, Chattisgarh Mr M L Purohit, Raipur. I want to be like you when I grow up!

UK

Rona Amiss, Higher Fingle, Devon Chris Labdon, Devon Freddie Chanin, Devon Professor Ken Thomson, MLURI, Aberdeen Professor Bill Slee, MLURI, Aberdeen John McLaren, Methven Willie and Jack Shaw, Saline Rhys Williams, Home Farm, Tudweliog Arwyn Owen, Hafod Y Llan, Begggelert Marnie Dobson, Radmore Green Farm, Tarporley Tim White, Deverill Organic Meats, Maiden Bradley, Wiltshire David Sullivan, Ibthorpe, Hampshire Chris Fogden, Fakenham Magna, Norfolk Andy Wightman, Edinburgh Angus McCall, Sutherland

FRANCE

John Bailey, Pature Sens, La Fleche Pascal Le Coeur, Tevarez Research Centre, Brittany Erwan & Lawrence Le Roux, Finistere, Brittany Dominique & Ghislain Mainard, Vendee Jannick Billy, Vendee Julie & Thimo Resneau and family, Aude

APPENDIX 1 : Cell Grazing

Cell grazing is a set of principles based on the work of French agronomist, Andre Voisin. It is based on the sub division of fields into relatively small areas (e.g. 1 to 4 hectares); very high stocking rates for a very short period and then an extended period of rest. It should not be confused with "rotational grazing" which uses less paddocks and longer graze periods.

Essentially Cell Grazing relies on the following:

1. THE THREE DAY RULE: Grazing period less than 3 days per paddock / cell: Once grazed the ryegrass plant will grow a new leaf in 2.5 to 3 days, in the height of the growing season. If the new leaf is grazed immediately or at an early stage, the growth potential of the plant is compromised, as it has to rely on stored nutrients in the crown and roots rather than photosynthesis.

2. FEED BUDGETING: providing the stock with what they'll eat during their time in the **paddock:** The residual grazing level should be 1500 kgDM/Ha (4 to 5 cm) though sheep could

graze down to 1200 kgDM/Ha. Normal entry level target is usually between 2500 and 2800 kgDM/Ha. Hence stocking rates need to match expected dry matter intakes with the other variables of grass availability and duration of grazing.

3. PLAN, MONITOR & MANAGE: Initially, cell grazing requires a bit of thought and discipline. Ideally you would measure your grass every week to ten days. There will be occasions where paddocks need to be taken for silage to *reduce* farm cover or nitrogen has to be applied to *boost* farm cover. It requires a more intensive management input than set stocking.

Claimed Increase	Measurement	Reasons, Examples
Twice	the yield of grass	95% of energy for plant growth comes from the sun. Leaves are like solar panels. Reasonable recovery periods and no grazing of any regrowth means faster growth rates. Examples: paddock grazing near Hamilton, NZ grows 18t kgDM/Ha; set stocked in same area grows 9t; Dairy farm 1,000 ft above sea level in North Wales grew 8t kgDM/Ha, changed to paddock grazing and grew 14t the next year. It is all relative to the starting point! 40% more grass is probably more realistic compared to set stocking.
Up to twice	the ryegrass in sward	This is even more exciting in sheep and beef scenarios that often rely on permanent pastures! Example given on Welsh Dairy farm - field with 30% ryegrass at start in Spring, became 70% after one season paddock grazing. Legume content increases significantly in some instances. It all comes down to the lack of preferential grazing. Set stocking cripples the preferred ryegrass and clover. Cell grazing cripples the indigenous species allowing the faster growing ryegrass to take over.

Almost 1	MJ of ME per	10.8 to 11.5 MJ/kgDM increase reported if grazed	
	kgDM	to 1500 kgDM/Ha residual. All grass grazed is	
		regrowth and green leaf.	
Twice	production per	Though twice grass yield in Scottish conditions	
	hectare	may be optimistic, twice the production is realistic	
		if the previous claims are close to being true.	
		Techno grazers are yielding 1,000 kg of carcass	
		growth per hectare per season in areas of NZ with	
		similar grass growth potential to most of Scotland.	
Double	available soil	Australian research. After 2 years, available P	
	phosphate	twice that of control. Thought to be the result of	
		better root structure that cell grazing encourages	
		(the result of long recovery periods).	
25%	of previous sward	One dairy farmer moved from 20% renewal of	
	renewal costs	swards per year to 5%. Essentially due to no	
		preferential grazing and increased, rather than	
		reduced, ryegrass in sward composition.	
Up to twice	the utilisation of	Pasture based dairy farmers on paddock systems	
	grass	are utilising around 85% of the grass they grow.	
		EBLEX estimate utilisation on beef and sheep set	
		stocking systems at between 40 and 60%.	
Increase	in profitability	In an Australian survey 95% of respondents	
		reported that they "significantly increased" their	
		profitability. If production increases and costs are	
		lowered, profit is inevitable.	
Double	the return on	A Queensland beef group increased their return	
	assets managed	on assets managed from 4% to 8% in two years	

Recently I tried to get funding from QMS to trial the concept. Their R&D committee weren't as convinced as I am at the joys of Cell Grazing and turned me down ... either that or they will get proper, professional researchers to look into it. Maybe I'm getting far too carried away with the idea but we'll see how it goes.

Appendix 2 : Sharemilking Contracts

Sharemilking contracts operate on 40% of New Zealand dairy farms. Essentially the contracts share the costs and the income connected with the farm between the Landowner and sharemilker. Ironically sharemilking originated in Scotland and was exported to NZ in the 1800s.

Sharemilking is part of a hugely impressive progression culture in the NZ dairy industry. The pathway in dairying seems simple but intrinsic yet only around 20% make it all the way. People start young - late teens, early twenties. Savings are made, this money invested and heifer calves raised. Once milking these heifers can be leased (@15% of value) into other herds and when numbers are large enough a Lower Order share milking job (less capital, less share of surplus than 50:50) can be had putting the cows up as capital. Thereafter a 50:50 share milking opportunity can be sought where rewards can be even greater. Some share milkers run more than one farm; perhaps using a lower order share milkers or employed labour to run the other farms day to day. Apparently there are some in the North Island share milking up to 7 properties.

Sharemilking is all about figures and performance. Performance is the focus – not tax breaks, subsidy or security of tenure. There are two main types of sharemilking arrangements:

- Variable Order (sometimes referred to as Lower Order) Sharemilking. This is actually in legislation and currently covered by the Sharemilking Agreements Order 2001. Landowners provide the land, cows, machinery and facilities. Certain costs are shared and the Sharemilker receives between 20 and 30% of income usually partially paid in heifer calves. The natural progression is then 50:50 sharemilking.
- 50:50 Sharemilking. The Landowner provides the land and facilities. The sharemilker provides the cows machinery and labour. Certain costs are shared equally.

Despite its remarkable success, there are now challenges to the Sharemilking phenomenon. They principally centre on the value of land. Land has greatly increased in value whereas the value of cows has not. Returns on capital for the landowner now appear out of line to that of the sharemilker. There is some suggestion that 50:50s might be replaced by 60:40s. The land price also means that there are now career sharemilkers whereas in the past most would progress to buying a farm. More people staying in the system blocks entry to new entrants.