



How Resilient Farmers Thrive in the Face of Adversity

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1. Executive Summary

Farmers face adversity from a range of sources, many of which are outside their control and include: health; natural disasters, weather, and climate challenges; financial; family; and personal loss. There are established and establishing systems, strategies, support networks, and techniques for recovering quickly from this adversity, or being 'resilient'. However these tools don't appear to be conveyed in the form of a simple 'all-encompassing resilience focused' model specifically for farmers. Such a model could be utilised by farmers when facing adversity to ask themselves, their family, and their business; "am I, or are we, living and implementing the key strategies and techniques both as an individual and as a team of individuals that we need to be resilient in the face of this adversity". Be that a flood, an earthquake, a cancer diagnosis, or a commodity price fall.

As a farmer I've experienced adversity from a life threatening brain injury which saw me in a coma and suffer a cardiac arrest. Day one in hospital my family was given a prognosis that their husband, dad, and son would be dead today; best case he'd survive but spend the rest of his life in an institution. I obviously did survive, however the following six years saw me undergo many major surgeries and spend considerable time in hospital. From this experience and my recovery I've been told I'm a resilient character and have been asked to give several talks to farmers on my experience and how I became resilient. This has been a humbling and surprising experience for the feedback I've had, however this is just one farmer's thoughts and I wanted to test my theories.

To achieve this I've done the Kellogg course and this research project. Resilience literature in farming concentrates on climatic and financial resilience. Due to the apparent lack of a theoretical model for 'personal resilience' for farmers within the literature, I've taken a grounded theory (Strauss & Corbin 1994) approach to this research through the form of instrumental case studies (Stake, 1998). The focus has been on developing a theory for how farmers become resilient and thrive in the face of adversity. I have had the privilege of interviewing five resilient New Zealand farming individuals and couples about adversity they've faced and how they've become resilient. From these interviews there have been strong commonalities across these five case study participants for how they've become resilient. The theoretical model developed through the grounded theory research process can best be described in the form of a three level triangle comprising three primary strategies the case study participants have employed to become more resilient (Figure 6):

- Purpose this is the direction the participants are moving in their lives and why. This is the direction of the triangle;
- The middle of the triangle is keeping connected. This is the glue that holds the triangle together. This is keeping connected with other people; friends, family, and networks. These connections are the people in our lives who often buoy us up and encourage us to achieve, to rise above and have courage when going through adversity; and
- The base of the triangle is keeping well. This is 'what do I need in my life to be well', or to be happy and content. This is the foundation for resilience.

Within each of these three common primary strategies there are various secondary techniques that two or more of the case study participants employ to thrive in the face of adversity. Furthermore there were six common characteristics across the five case study participants; driven people, high achievers, emotionally intelligent, unrelentingly positive, grateful, and humble.

My recommendation is the model developed from this research be refined into a format that can be delivered to farmers across New Zealand; ideally by other farmers who have faced severe adversity and have thrived in the face of this adversity and become resilient. How these resilient farmers 'live' the model and their stories will facilitate communicating the model to other farmers.

2. Introduction

New Zealand society and business faces adversity from a range of forces. Farmers are not immune from these forces and potentially face more sources of adversity and with less control. Coupled with this are the challenges to mental health that farmers face due to the physically isolated nature of their businesses, the fact they are often working in and managing a family business with close family members, the lack of control they have over weather, prices, and input costs, and the fact that they live at their place of work.

These pressures on farmers are well recognised and there are many agencies and individuals doing valuable work in the areas of wellness and mental health (John Kirwan, Mike King, 'The Resilient Farmer' Doug Avery, and the organisation Farmstrong for example). This work is tremendously valuable and adds a great deal to the industry particularly through the 'de-stigmatisation' of mental illness and wellbeing. This is often done using iconic and recognisable New Zealanders (John Kirwan, Mike King etc.). Farmers face many challenges beyond mental health and wellbeing and there doesn't appear to be a clear set of principles for how farmers become more resilient as 'individuals'. Adversity hits farmers from many directions; health, natural disasters and climate, financial forces, family pressures, and personal loss. It would appear we are good as an industry in having conversations about the causes of adversity, but there is an opportunity for more tools for how farmers can best manage 'themselves' to meet these forces (rather than adapt their business or farming system to manage adversity). By its very nature, by being more resilient individuals, farmers can operate more resilient businesses and farming systems.

In 2013 I suffered a major brain aneurysm with an associated seizure, pulmonary oedema, cardiac arrest and then two weeks in a coma. Over the next six years I underwent fifteen major surgeries and several minor surgeries over 12 different hospital admissions spanning eight months of admission to hospital. As a result of this experience and my recovery, many people have told me I am a 'resilient' character and I have been asked to speak publically to farmers about my experience and what I saw as 'resilience'. This experience of speaking to farmers and their overwhelmingly positive reactions has been both surprising and humbling.

- However it got me thinking that my ideas were just one farmer's views on resilience and how
 I had made myself resilient, rather than a wider industry view of resilience.
- Further I felt all farmers face adversity not just this farmer who has experienced a brain injury.

Given these two questions, I became interested in how farmers could learn to be more resilient in the face of all the forms of adversity they face. This idea aligns with a strong consensus amongst New Zealand medical professionals away from mental 'illness' towards mental 'well-being' (Poulton *et al.*, 2020).

A literature review found no work on personal resilience for farmers. Because there didn't appear to be a theory or set of guidelines for how farmers become more resilient as individuals I set out to study the area further through the project component of the Kellogg Rural Leadership Programme. This report is the outcome of that work. The project takes a grounded theory approach to understanding how resilient farmers thrive when faced with serious adversity to themselves or their family. Grounded theory is a process of developing theory that is grounded in the systematic gathering and analysis of data (Strauss & Corbin, 1994). I conducted semi-structured interviews with five farmers and/or farming couples about some significant adversity they had faced and through this process, how they had become more resilient. These interviews were condensed into instrumental case studies for the purpose of theory development (Stake, 1998). These farmers had faced adversity from five different sources; health, climatic, financial challenge, family challenge, and personal loss. By taking

a grounded theory approach I was attempting to develop a theory of simple strategies and techniques for how farmers could become more resilient themselves when there appeared to be no recognised strategy or technique for how to do so at present.

The specific objectives of this project were:

- Discover if there is some commonality between recognised 'resilient' farmers in the strategies and techniques they have adopted in their lives to become more resilient;
- To develop a series of simple strategies and techniques that any New Zealand farmer could adopt in their daily lives to become more resilient;
- Discover if there are some inherent 'personality traits' differentiating resilient farmers;
- Develop these principles into a format that could be delivered to farmers by other farmers and industry bodies (Beef and Lamb New Zealand, Dairy NZ etc. or the organisation 'Farmstrong'); and
- Take these principles and deliver them nationally and internationally to farmers, agribusiness professionals, academics, and researchers in the form of written and verbal presentations.

To meet these objectives the project is structured into seven sections as below.

- Section one and two are the executive summary and introduction.
- Section three provides a literature review of the common forms of adversity facing farmers, international research work in business and psychology resilience, and the current state of resilience research as it pertains to farmers.
- Section four describes the methodology adopted in this research; grounded theory and case study analysis.
- Section five summarises the five case studies conducted and gives a brief synopsis of the journey through adversity that each case study participant has travelled.
- The sixth section provides the theoretical model for the key elements to resilience that were common across the five case study farmers.
- Section seven summarises the findings, outlines the industry 'take home' messages that could be delivered to the wider New Zealand farming sector, and details the next steps to be taken to deliver these messages to farmers.

3. Literature Review

Farmers face adversity from a range of sources, major ones being: health challenges (the traditional cancer and heart disease through to the increasingly common depression and anxiety); climate (seasonal weather patterns and longer-term climate change) and natural disasters (earthquakes); financial challenges (global and local economies, interest rates, exchange rates, commodity prices); family challenges (farm succession being the most common); and personal loss (death of a close family member or loss of capability through injury or illness)¹. These factors along with the dynamics of farmers often owning and managing a family business, living at their workplace, and often living in a remote location combine to make the challenges of farming unique. Shadbolt *et al.* (2013) discuss the increasingly turbulent business environment that farmers operate in and how this poses risks to their survival. Snow *et al.* (2021) discuss the admirable way in which the agricultural sector managed itself during Covid19. However the marginally higher rural suicide rate compared with the rest of New Zealand society (Small, 2019) suggests there is still work to do.

As knowledge has built around adversity in farming there has been increased focus on developing systems and strategies for how to cope with specific challenges. The generalised ability of people to cope or 'bounce back' from adversity is termed 'resilience'. Darnhofer (2014) argues resilience thinking offers alternative insights into farm management and how farmers balance short and long-term thinking. Resilience research and extension in New Zealand agriculture has focused in the following areas:

- On-farm focus has been on resilient farming systems for handling climatic variability. King (2012) discusses farm- level adaptive capacity to climate change. Stevens, et al. (2016) discuss the resilience of the farming system, encompassing production, economic, social and environmental trade-offs, emerging as a topic of great interest over the decade 2006 to 2015;
- Financial focus has been on creating financially resilient balance sheets of which the majority of New Zealand farming businesses have (Greig et al., 2019);
- Some farm succession research on resilience has looked at the impact of economic and industry reforms on farmers ability to preserve a professional identity and retain the ability to make farm succession happen in Southland (Forney & Stock, 2013); and
- Farmstrong (2021) has increased the focus on mental wellness or well-being. This has applications for all forms of adversity. Recent focus from medical professionals has shifted from mental 'illness' to mental 'well-being (Poulton, et al. 2020).

The palpable question becomes then, is there an encompassing set of principles for how New Zealand farmers can become more resilient as 'individuals' to handle adversity, in whatever form this adversity may present itself.

This literature review firstly summarises the main types of adversity that farmers in New Zealand face. Secondly resilience is examined, the significant body of work in the area of personal resilience in the business world and psychology, then thirdly farming systems resilience. The literature review concludes by examining why these business or psychology ideas don't adequately fit with farming and

¹ Further sources of adversity are; labour shortages, environmental pressures, compliance, and restrictions, trade barriers, and changing political ideologies. A notable recent source of adversity is environmental compliance. This was excluded from this study in the interests of brevity and simplicity however it is

acknowledged this is and will be a serious cause of adversity for farmers in New Zealand agriculture in the medium term as they adjust and respond within their farming businesses to meet new Government and market requirements.

asks in the unsuitability of these business and psychology models for farming is there a need for a model specific to farming families?

3.1 Adversity for Farmers

Adversity is when we find ourselves in a difficult or unpleasant situation (Oxford dictionary, 2021). Fort Behavioural Health (2019) states there are six types of adversity; physical, mental, emotional, social, spiritual, and financial. For the purposes of this study the types of adversity that farmers face are characterised into five main areas which are summarised in turn: health; natural disasters, climate, and weather; financial; family challenges; and personal loss.

- i) Health and more recently, mental health, is a challenge for all sectors of society. Mental health, mostly depression and anxiety, is a major challenge in New Zealand agriculture (Avery, 2017). Suicide is the tip of the iceberg of depression and anxiety (Avery, 2017). In New Zealand rural people are more likely than urban people to die by suicide, however the rate of rural suicide has dropped sharply from 2009 to 2016 (Small, 2019).
- ii) Climatic adversity to New Zealand farmers can take the form of short-term localised weather events (flooding, drought, snowstorms) or longer-term changes to climate induced by climate change. A New Zealand government report (Ministry for the Environment, 2020) suggests ongoing climate change could have a profound effect on New Zealand's climate in the form of more heatwave days, extreme rainfall and dry spells, and shifts in seasons. Natural disasters such as the Christchurch and Kaikoura earthquakes are additional forms of adversity for farmers.
- iii) Farming businesses have always been exposed to financial volatility and the associated adversity this volatility brings. Greig *et al.* (2019) argue farmers may experience increased volatility in their businesses in the future resulting from trade liberalisation and the impact of global warming.
- iv) Farm succession, or passing on the farm to the next generation is a significant issue for New Zealand agriculture (Stevenson, 2013). It can be a source of major uncertainty, stress, and conflict for all farming families. If anything is going to rupture a rural family, it is farm succession (Deavoll, 2018).
- v) Any form of personal challenge or adversity, such as the death of a close family member requires resilience (Fine, 1990).

Navigating any of the major forms of adversity requires resilience or the capacity to recover quickly from adversity.

3.2 Resilience

Resilience is a buzzword in New Zealand society (Snow *et al.* 2021) and in the business world (Coutu, 2002). Defining resilience simplistically is difficult. Stevenson *et al.* (2015) highlighted 120 different definitions of resilience from peer-reviewed academic literature and policy and industry grey literature. From this work Stevenson *et al.* (2015) proposed a Meta definition for resilience of:

'The ability to absorb the effects of a disruptive event, minimize adverse impacts, respond effectively post-event, maintain or recover functionality, and adapt in a way that allows for learning and thriving, while mitigating the adverse impacts of future events.'

For the purposes of this study resilience is defined as:

'The capacity to recover quickly from adversity'.

Resilience is something people find they have, or do not have, after the time they needed it or realised they didn't have it (Coutu, 2002). Resilience is one of the great puzzles of human nature (Coutu, 2002). There is some acceptance that resilience is genetic but there is an increasing body of empirical evidence that resilience, be that in business recovery, in children, or in survivors of concentration camps, can be learnt (Coutu, 2002). Jackson, et al., (2007) propose that resilience can be developed and strengthened through developing strategies for reducing vulnerability and the personal impact of adversity in the workplace. This indicates two things for farmers; firstly they may find they have, or do not have, resilience after the fact they needed it, and secondly if they do not have sufficient resilience, they can learn how to become more resilient.

There is a huge array of business and psychology resilience literature and different views on the characteristics of resilient individuals or 'personal resilience'. For example Coutu (2002) identified three characteristics of resilient people; a staunch acceptance of reality, a deep belief that life is meaningful, and an uncanny ability to improvise. Furthermore, Hone (2019) argues there are three tools people can employ to become more resilient and better navigate adversity; 'resilient people get that shit happens', secondly 'resilient people are good at choosing where they put their attention', and thirdly, resilient people ask themselves, 'is what I'm doing helping me or harming me?'

Seligman (2011) argues in his research, which started in the areas of helplessness, that 'optimism' is the key to resilience. People who don't give up have a habit of interpreting setbacks as temporary, local, and changeable (Seligman, 2011). Seligman (2011) discusses the building of the Comprehensive Soldier Fitness (CSF) model for the US military to enhance soldiers mental resilience and positive psychology based on the building blocks of resilience and growth or 'PERMA'; Positive emotion, Engagement, Relationships, Meaning, and Accomplishments.

Coutu (2002) discusses an interview she had with a partner in a respected consulting firm in the US. They were discussing what he looked for when hiring new MBA graduates for their firm. The partner stated 'resilience' probably mattered more than any of the usual things they look for when hiring staff. In Coutu (2002) a CEO of a training firm states that; "more than education, more than experience, more than training, a person's level of resilience will determine who succeeds and who fails".

A survey of employees in public, private, and non-profit firms in Britain found that over 90% stated they got their reserves of resilience from themselves (Bond & Shapiro, 2014).

This indicates then that for farmers to build resilient farming systems to combat climate change, or to build resilient balance sheets to manage financial volatility, or to manage their own mental health, they need resilience within themselves. Hence coming back to the objectives of this study; to develop a model for how farmers can become more resilient as individuals.

3.3 Relevance to Farmers

The work of Bond and Shaprio (2014), Seligman's (2011), and Coutu (2002) indicates that resilience training is possible and needs to focus on increasing 'personal resilience' in individuals. When personal resilience is high, individuals have the inherent ability to handle adversity and to 'bounce back' (Eckerman, 2021). Shadbolt *et al.* (2013) proposed that there was little work done in the area of resilience to New Zealand dairy farmers. Their 2013 study set out to study what resilience means for dairy farmers and how to measure it. They found that resilient dairy farm businesses were technically and financially efficient, were cash liquid, and managed debt servicing capacity (Shadbolt *et al.*, 2013). Thus this study looked at resilience at a 'farm business' level. A further farm business resilience study was completed by Neal & Roche (2018) looking at profitable and resilient pasture based systems in New Zealand dairying. This study found over the medium-term, businesses that have less reliance on

imported feed are more profitable and resilient to changes in milk price. Two longitudinal studies of resilience of sheep and beef farms (Parsonson & Saunders 2011; Pomeroy 2015) identify management strategies employed on farms that allowed them to adapt successfully through disruptions over time. Greig et al. (2016) looked at farm financial health; again a 'farm business' level study. Although there is some consideration of mental health or personal and family wellbeing as part of farm resilience, it has been difficult to integrate and measure these factors in more comprehensive farm system assessments (Meuwissen et al. 2019). While Parsonson & Saunders (2011) consider the effect of human and social capital (i.e., the skills and personal resources and networks and interpersonal resources), there is no empirical assessment of these factors on farm system resilience.

There has been agricultural resilience work done on socio-ecological systems. Folke *et al.* (2010) focus on the development of a theoretical framework centred on the idea of resilience focused on social-ecological systems. Moller *et al.* (2005) look at environmental monitoring and research for improved sustainability and socio-ecological resilience on ARGOS farms.

Work in the Australian and New Zealand dairy sector examined challenges to resilience across the sector and proposed ways that farmers can be engaged to support adaptability and empowerment (Nettle *et al.* 2014).far

3.4 Gaps in the Literature Pertaining to Farmers

While there is significant work (Coutu 2002, Hone 2019, Seligman 2011; and many others) in the area of 'personal resilience', there appears to be a dearth of it in the farming literature. Farming specific models need to relate specifically to the unique forms and combinations of adversity farmers face (climate, loneliness, family businesses, remote locations etc.) that are often not seen in other businesses, and certainly not in combination. This research aims to fill this gap.

4. Methodology

This research is concerned with developing a conceptual model for how farmers thrive when faced with serious adversity; essentially how they become 'resilient'. Through my own experience of adversity I had some ideas on what I needed to do myself to be resilient. The complication I've faced is are my ideas applicable to other farmers or are they just one farmer's ideas? Section three discusses the dearth of farmer specific literature on personal resilience. In order to examine how some farmers manage to be resilient and thrive in the face of adversity a grounded theory methodology is taken using instrumental case studies.

4.1 Grounded Theory

Grounded theory is a methodology for developing theory from the systematic gathering and analysis of data (Strauss & Corbin, 1994). Theory is developed during the actual research process, and through the constant interplay between analysis and data collection (Strauss & Corbin, 1994). The major difference between grounded theory and other approaches to qualitative research is that the focus is on theory development (Strauss & Corbin, 1994).

4.2 Case Studies

Case studies are an avenue for the development of theory (Eisenhardt, 1989). The case study is a research strategy which focuses on understanding the dynamics present within single settings (Eisenhardt, 1989). Case study research offers a tool to build theory by examining phenomena that are not suited to traditional statistical approaches (Westgren & Zering, 1998).

There are two principle types of case study: intrinsic and instrumental. In an intrinsic case study the researcher has an intrinsic interest in a particular case and wants to learn more about it (Stake, 1998). The purpose is not theory building or understanding some abstract construct or generic phenomena, but because the case is of intrinsic interest to the researcher (Stake, 1995). In instrumental case studies the researcher has a research question or need for general understanding that they feel a particular case may fulfil (Stake, 1998). The case is of secondary interest, it plays a supportive role in facilitating our understanding of something else, an issue, or a refinement of theory (Stake, 1998). The case studies chosen in this research are instrumental in that the primary goal of this study is the development of theory rather than the study of a particular case.

The five case study participants were chosen as individuals who have faced major adversity in one of five chosen areas and have in turn thrived through exposure to this adversity². They were purposely selected as participants and I had never met any of them before. Two of the case study participants were suggested and initially contacted by an accounting friend of mine. I contacted the other three farmers directly. The five areas of adversity and a brief synopsis of each case are below.

- Health. Doug who farms on the East Coast faced severe adversity in the form of depression.
 This was primarily brought about through farming through what became an eight-year drought.
- ii. Natural disasters, climate, and weather. Andy who farms in Canterbury has farmed through a succession of major weather events; snowfalls and droughts. He has a pool of wise knowledge for how to farm through adversity.

² The term 'case study participants' is used to classify the five farmers. In some cases the participants were individuals, in some cases they were part of a couple (for some couples I only met one of the couple, in one I met them both).

- iii. Financial. Kevin and Jody have faced an incredible amount of adversity in their life together. Their major adversity has been financial, in the form of a very low dairy payout in their first two seasons as 50:50 sharemilkers.
- iv. Family. Brent and Jo, who farm in Southland, experienced a number of challenges to farm succession early in their farming career. They have since done everything right to complete succession with Brent's family and are an example for how farm succession should be completed with their own children.
- v. Personal loss. Melissa lost her husband to cancer and has since done tremendous good for her community.

It would be impossible and unfair to compare each of these stories. The level of adversity and the situations they've faced are so different that any of them would have responded differently, perhaps better, perhaps worse. The choice of case study participants does I believe provide a cross section of:

- The five main sources of adversity farmers in New Zealand face;
- A cross section of the likelihood of adversity from the 'wow, that is incredible' to 'yes our neighbours have been in that situation I've seen it many times';
- Some case studies may seem apparently less remarkable stories of resilience than others however they are possibly some of the more common sources of adversity in New Zealand farming and illustrate a textbook response;
- The most remarkable story of resilience is notable for the breadth of the sources of adversity and the severity of the adversity these farmers have faced; and
- Some of the cases show the power that adversity has in telling a story and getting a message across and in turn improving the lives of others as a result.

There are some definite commonalities across the five case studies in the strategies and techniques the case study participants employ to manage adversity, and in turn become more resilient. The case studies are structured around three main sections: life before adversity; the adversity they faced; and how they became resilient.

5. Case Studies

The five farmers and their families I met through this project are truly inspiring and remarkable New Zealanders. It's been a privilege meeting them and gaining an insight into their stories. Each of them have faced adversity from one and in most cases many sources.

5.1 Why Study Resilience?

I'd like to begin this section by setting the scene with my own case study and how I became interested in this area. I grew up in a farming family with both my mother's and father's families being farmers. I spent my pre-school and primary school years in Mid Canterbury before finishing my schooling in Southland. I completed a Bachelor of Commerce in Agriculture at Lincoln University and then spent five years overseas; the last two of these studying for a Masters in Economics at the University of Illinois in the US.

Upon returning to New Zealand I joined a Dunedin agricultural consultancy, AbacusBio. In 2007 I married Kate and in 2009 we moved to the Queenstown area to manage her family high country station. Life was going great; we had two healthy children in 2010 and 2011 and were loving the challenge of living in the high country and managing a farm.

Our world changed early March 2013. I got a massive headache, the cause of which I didn't understand, but the outcome I knew could potentially kill me. I'd never spent an hour in hospital before but knew that was where I needed to be. Kate rang 111 and in the next five hours I suffered a seizure, pulmonary oedema, cardiac arrest, and then slipped into a coma where I remained for the next two weeks. A brain aneurysm was diagnosed as the cause of these effects and a congenital condition called an Arterial Venous Malformation, the ultimate cause of the aneurysm. I was flown to Dunedin hospital in the middle of the night and operated on early that morning.

The initial day in hospital saw Kate and my parents involved in the standard doctor/family conversations that take place in these situations. They were told I would most likely be dead by the end of the day, and if I did survive I would probably spend the rest of my life in an institution. Kate asked, 'what are the chances of getting my husband back how he was?' The doctors said 'less than 1 percent'. Mum and dad were told the son they'd brought up was gone as they knew him.

I obviously did survive and over the next two years despite some ups and downs (four months in hospital and eight major surgeries) largely improved. Poor balance and double vision were the main issues I suffered. The next two years saw continual improvement and a return to full time work on the farm and in the house. I started to think that maybe this chapter of my life was behind me. Years five and six post aneurysm weren't so good. Due to scarring from the original bleed I suffered nerve damage which saw me back in a walking frame, I lost my voice, had issues with facial muscles, and lost most of the strength in my hands and arms. The following three years (years seven, eight, and nine post the aneurysm) saw a steady improvement back to where I'm largely recovered with the exception of balance. I can't ride a horse, or muster sheep in the high country but I can now complete most other former farm tasks.

Over this period of recovery I've been asked to give several talks to farmers about my experience and how I became resilient. I've found this process surprising and humbling for the positive feedback I've received. However I have struggled with aspects of telling my story; as firstly I felt the adversity I'd faced was no worse than what many people face, and secondly, were my ideas on resilience applicable to all farmers or were they just the ideas of one farmer who'd faced a bit of adversity?

This led me to doing the Kellogg course. I've interviewed five recognised 'resilient farmers' about adversity they've faced and what they've done to become resilient. This section is the case study summaries of the semi-structured interviews I've had with these five farmers.

5.2 Health

Doug, who farms sheep and cattle, is someone we would call a classic resilient farmer. Doug was born and brought up in a dry farming environment on the east coast of the South Island. He was the youngest child in a family of four. He attended the local school, then went away to boarding school in a nearby large town, before returning to the family farm and marrying Wendy. Doug did well at school, in sport, and in his farming career.



Figure 1: Logo for rural industry wellbeing programme 'Farmstrong'

Doug's classic response to any challenge in life was to rise above it and to do this he'd just work harder. For example, when he was at school he didn't get in the fifth grade A team for rugby. So he got into the B team, ended up captaining this team, and then went on to beat the A team twice. His whole life, if something didn't work out he'd just work harder and rise above it.

Perhaps more than many of us Doug experienced significant adversity during the first forty years of his life. His older brother Eric died in a hunting accident when Doug was eleven. Doug and Wendy married in 1976 and began farming. On the first day back home after their honeymoon a young staff member was killed in a tractor accident right before their eyes. Doug and Wendy had three children in the late 70's, early 80's, which was obviously a happy time. Soon after this Wendy was diagnosed with breast cancer, which she beat. Then when their daughter was twelve their daughter was diagnosed with diabetes, which she manages.

Doug's ultimate adversity however was depression. This was brought on by a severe drought like no other through the late nineties and early 2000's, in the end lasting eight years. At the time the family were running a traditional breeding farming system and fed out supplementary feed or sold stock in times of feed shortage. When Doug experienced the eight year drought his old method of overcoming adversity, work harder, didn't work and he couldn't handle it. He had no ability to manage his vulnerability or shame. Nothing he did gave him any satisfaction except playing games and building spreadsheets on his computer. He resigned from all the local community organisations he was involved in, and eventually laid off all of his staff. The lack of purpose was the most difficult part of this period. This is a period of Doug's life that was pretty terrible and going back to that place is his greatest fear. While he never wants to return to this period of his life he realises now it was the best thing that could have happened to him. Doug has learnt that adversity is the best teacher as you learn about yourself and you grow as a person. The tremendous good Doug has gone on to do for society is testament to this.

Doug has a clear idea of what humans need to be well. To Doug there are four things people need to be well; love, purpose, hope, and connection. Many of us may need to live through a period of our lives without one of these things, but very few of us can cope without help if we lack two. During this time of severe adversity Doug's wife still loved him, but he lost his sense of hope and his sense of purpose, and once this happened he started disconnecting from the community. He began drinking heavily and was totally unhappy.

The major event that started Doug on a path towards a more resilient future was a trip to a field day on lucerne in North Canterbury run by Lincoln University Professor Dr Derrick Moot. Dr Moot discussed the agronomical features of lucerne and how it could be utilised as a grazing feed for sheep farmers on the dry east coast of the South Island. Doug knew how to grow lucerne, but had only utilised it as a 'cut and carry' feed source for hay and silage rather than grazing. What Dr Moot explained that day was how the plant provided high quality feed and thrived more than any other grazing plant on the dry east coast. Doug saw how lucerne could potentially change how they farmed in their dry environment by using it as a grazing feed. What Dr Moot did at this field day was restore Doug's sense of hope.

The next four, and particularly the next two years were incredibly tough as Doug and Wendy started establishing a new farming system based around grazing lucerne. Two pivotal events happened towards the end of this period. The first was the return home of their son Fraser into the farming business. The second was their involvement in a major farm environmental management group starting in 2003; the Flaxbourne Scarborough Soil Conservation Group (FSSCG). This group reignited Doug's passion for farming, it gave him purpose, and got him reconnected in his local farming community. Wendy started seeing the return of the man she married. Doug never got depression diagnosed, nor did he seek professional counselling or help. This was pre the days of talking openly about mental health in New Zealand. Doug beat depression over a period of time by re-establishing wellness in his life.

Since this time Doug has become a leader and an inspiration in the New Zealand and international farming community. He's written a book, he regularly speaks about mental health, and he counsels people who are going through tough times. To Doug, being resilient as a farmer means being resilient across the three pillars of farming; economic, environmental, and social.

5.3 Natural Disasters, Climate, and Weather

Andy grew up on his family farm in Canterbury. He is one of six children and went to school in Christchurch and attended Lincoln University. After a period overseas Andy returned to the family farm which he took over in 1988.



Figure 2: Sheep being fed hay during a drought

Andy struck me as a not atypical understated New Zealander in that he doesn't consider he's had any more adversity than anyone else, except he has. He lost an eye when he was 18, he's farmed through two major snowstorms in 1992, two major droughts in 1998 and 2015, and went through a marriage breakdown and subsequent divorce in 2008/09.

Like many of these case study farmers, the causes of adversity to Andy have been broader than the initial cause I set out to discuss with him. With Andy, climate was the adversity we set out to discuss, but in reality the hardest adversity Andy has faced was the breakdown of his marriage.

Resilience to Andy is putting yourself in a better place than before. Hope is fundamental to recovering from adversity. Hope that things will get better than they are today.

Taking small steps is critical to recovering from adversity. Bite off small, achievable tasks that you can celebrate once they're achieved. Having a list and ticking off the jobs as they are completed provides a great sense of achievement. Thinking about goals, writing them down, and striving towards them is important. Andy thought resilient farmers were generally organised people.

Making a plan when going through adversity is important. The result of the plan in a drought for example may be pretty terrible but you feel better by knowing more accurately where your business is going.

A big realisation for Andy when going through adversity was to look after himself. He's conscious that this may seem selfish, but a key learning when recovering from adversity has been to look after

yourself. To recover quickly you need to be well yourself. Mental health and physical health are closely related; if you keep good physical health, your mental health is likely to be better and vice versa. Giving to others is a great way of keeping well. Farmstrong list 'giving' as one of their five ways to wellness (Farmstrong, 2021). As a way of giving Andy regularly gives sheepmeat to struggling households in Christchurch and the local area, having had it processed through a local licensed abattoir.

Surrounding himself with the right people has been critical. Friends and family have been important. Andy's mates were a source of support for him after his marriage breakdown. Unconditional love from family is very important also. Since the 1990's Andy has utilised the wisdom of a mentor, a friend of his family. Drought shouts are a common method farmers utilise to lessen the burden of a drought and share their concerns and learnings with other farmers. Andy recalls organising several of these events, organising speakers, venues and so forth. At the end of the day the most valuable part of these days/evenings for farmers was talking to other farmers and sharing the burden of what they were all going through.

Part of being resilient to Andy is looking at the past and looking internally at ourselves. Are we at fault? Is there something we could have done differently?

Like so many of these resilient farmers Andy had a pool of aphorisms, pearls of wisdom, or one liners that crystallise thinking on a particular issue regarding business, farming, or just life in general. Some of the ones he shared with me were:

- 'If you think you can or you think you can't, either way you're probably right (Henry Ford)';
- 'Life is a succession of one off events';
- 'If we forget the past we are destined to repeat it';
- 'You can fall out with two people, but as soon as its three you need to start looking at yourself; and
- 'What other people think of you is none of your business, so don't worry about it'.

5.4 Financial

Kevin grew up on a mixed livestock and cropping farm in Zimbabwe. He grew up during the bush wars in the seventies and eighties. It was a challenging and dangerous time for farmers of European descent; they carried firearms, had bullet proof protection within their homes, for safety drove in convoys or flew anywhere they needed to go, and they sent their children to boarding school from the age of five. All of his family on his mother and fathers side were farmers; none of them are still farming in Zimbabwe now. Jody grew up in Johannesburg in South Africa and had always been a city girl prior to meeting Kevin. She is a trained teacher. ³

Kevin left Zimbabwe for South Africa as a young man, attended university, and married Jody. At the time that Nelson Mandela was released from prison (1994/95) there were major labour reforms in South Africa. This created an opportunity for Kevin and Jody in that many large corporate farmers or older farmers didn't want to have to manage large numbers of staff under these new laws. So Kevin and Jody started a labour contracting business, employing hundreds of staff to do manual labour on farms. Their business was very successful and enabled them to purchase their own small mixed cropping farm north of Durban.

³ Due to the interview taking place during school hours on a school day I didn't get the opportunity to meet Jody so the story is told through Kevin's eye. It is very much 'their' story though.

After farming for a period of time in South Africa three events led to Kevin and Jody deciding to leave the country.

- 1. It started with pile of rocks on their driveway. There was a stick on the pile with a sign saying you are going to be killed.
- 2. The second event was their neighbour got shot through the window of his home, murdered. Danger was coming closer to home.
- 3. The final straw was six months later. Kevin was driving back from town with an employee and noticed a meeting at the local community hall that he needed to be at. Kevin stopped and went to the meeting and his staff member continued the journey home in Kevin's farm truck. As his staff member came onto their farm he went over a low level bridge and men ambushed him with automatic rifles, opening fire, badly wounding him.

Kevin and Jody looked at different parts of the world where they could emigrate. This place needed to be English speaking, where rugby and cricket were played, be safe, and have a pleasant climate. There needed to be an open agricultural industry that provided an opportunity to grow their equity. After recalling a talk Kevin had heard from a New Zealander they decided on sharemilking in New Zealand as the opportunity they would pursue.

Their first dairying job was as a dairy assistant on a dairy farm near Riverton in Southland. The employers were good farmers and tremendous people who Kevin learnt a great deal from regarding dairying in New Zealand. This led to a lower-order sharemilking job for three years at Edendale, Southland.

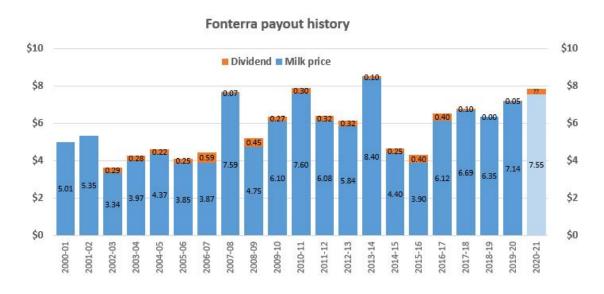


Figure 3: Fonterra milk price to New Zealand dairy farmers; 2000-01 – 2020-21

At the end of the lower-order sharemilking contract Kevin and Jody got their first 50:50 sharemilking job which was up the road in South Otago. This was when they feel, their major adversity happened.

The farm they took over had low pasture covers and poor crops. As a result the previous sharemilker had to make up the pasture cover shortfall with bought in baleage, which was poor quality. Kevin and Jody had to swallow the poor crop shortfall themselves. To make matters worse the first spring saw a significant snowfall; something they'd never experienced before in Africa. The end result of feeding the cows through the spring was incredibly tough and more costly than it should have been.

- The dairy payout prior to their first season on the 50:50 contract was \$8.40. Part way through
 the first season (2014/15) it had crashed to \$4.40. No one saw this coming. They'd done their
 initial budgets on \$6.50 (which showed them repaying debt).
- The payout for their second season as 50:50 sharemilkers (2015/16) was \$3.90.
- Kevin recalls the budgets they did with their bank and accountant when the payout was predicted to be \$3.90 showing huge losses and negative equity. He remembers a meeting at the accountant's office when the bare bones budget still showed a significant financial loss. Kevin recalls thinking if they were declared bankrupt they'd get nothing, if they sold everything they'd get nothing. This was in January 2016.
- The night after this meeting Kevin got a phone call in the middle of the night from his sister in Africa. His parents had been murdered. Armed men had broken into their property, stabbed them both to death, and stolen their possessions. Kevin flew home to the funeral and left Jody and their son in charge of the farm.
- When he returned he despaired. He doesn't think he was depressed, just incredibly sad and beaten up. He recalls sitting in the tractor while doing farm work and having to stop to just cry and cry. This whole period was made harder by the fact they were on the other side of the world from family and close friends.

In the February after this, an unsolicited act of kindness changed their life. Kevin was walking across the road at their farm. A sheep farmer (who Kevin had never met) from a neighbouring district was driving down the road. This sheep farmer stopped his vehicle, went up to Kevin, introduced himself and shook Kevin's hand. The farmer said, 'I know you guys are doing it tough in the dairy industry at the moment. We had it tough in the eighties and we got through. I just wanted to tell you, don't give up, don't give up'. This farmer shook Kevin's hand again, got in his car, and drove away. This simple unsolicited act of kindness changed Kevin and Jody's life. Kevin went home, told Jody, and rang their accountant. He told him, 'we're not going anywhere, we'll get through this'. It gave them hope.

Shortly after receiving this act of kindness the dairy trade auction price lifted, and at the next auction it lifted again. While this didn't make a major difference to the final payout for that season the trend was reversing. They somehow got through that season. If an animal was sick, it went in a hole, if something was broken, they fixed it with number 8 wire or bubble gum.

The next season (2016/17) the payout was \$6.12.

The year after, they got their second 50:50 job, still in Otago, but in a more reliable farming area, on an excellent farm. In the four years at this farm, dairy payouts have been solid, they've paid off significant debt and the future is looking good.

Resilience to Kevin is something everyone can have; some people are just naturally more resilient than others. Being naturally positive is important to this. Not giving up has been vital to them surviving this terrible period of adversity. An unrelenting desire to succeed drove them through; 'It only takes one match to burn down a forest'. You never know when things will change.

The sheep farmer who gave Kevin the unsolicited advice gave them hope; it changed their lives.

Kevin and Jody's relationship through this adversity has been hugely important. Critical for them if one of them is down, has been importance for the other to keep more positive and lift the one who is down. If both people in a partnership are down, then they both spiral down further and faster. However, if one is positive, it can hugely lift both of them.

5.5 Family

Brent and Jo farm on a Southland property which has been in Brent's family over a century. Their story of adversity is a challenging farm succession process which took place through the late nineties, early 2000's.

In the previous generation Brent's father and his uncle had farmed in partnership with a larger block of land. The two brothers had owned and managed the land and farming business together until splitting the business and land many years ago.

Brent grew up on the family farm with his three siblings and attended Lincoln University. He married Jo and they farmed in a five way partnership between Brent's parents, Brent and Jo, his younger brother who farmed with them, and his two other siblings who lived and worked off farm. Brent and Jo and Brent's younger brother were all working full time on the farm over the late nineties/early 2000s period.



Figure 4: Three generations of farmers on a New Zealand farm

The process towards getting a resolution to farm succession was extremely stressful for Brent and Jo. They were concerned they weren't making financial progress and they didn't have a secure future for their own family (now three children). Brent's father had a goal of an equal split of the family assets between his four children. The farm succession process was repeatedly delayed by Brent's father over a ten-year period and eventually halted. Lack of communication was the most challenging aspect of the process.

The succession process between Brent's family has since been resolved in a fair, civil, and amicable manner. Brent's father sadly passed away in 2002 and the farm succession process was restarted and was completed 12 months after his death. On hearing this it could be seen that the process was facilitated through the death of his father. The key however, is that the family completed the process successfully, met the needs of the whole family, did it in an amicable manner, and Brent and Jo have now taken the learnings from this process and are doing everything right for their own family.

There are some important lessons that all farmers going through or considering a farm succession process could learn from.

The first was meeting the objectives of the family in the correct order when the succession process was restarted. Firstly, the needs of Brent's mother in her retirement were met. Secondly, separate land owning and farming businesses were established between Brent and Jo and Brent's brother. These entities were financially viable and legally separate entities, enabling each family to chart their own course. Thirdly, the two non-farming children were assisted financially.

The second lesson is that Brent and Jo have learnt from the succession experience with Brent's family and are doing everything right with their own family. They have started the process at a time when their children are embarking on their own careers and have some idea on what they want to do. They are utilising the skills of an independent third party advisor to facilitate communication and vision for the family. Their communication channels are open, there is a handing over of responsibilities to the farming child, they have a financially strong business to enable succession to happen, and they have grown off farm assets to cater for Brent and Jo and non-farming children.

Keeping well is important. They exercise regularly, they have taken some great family holidays together, they have purchased a holiday house off-farm which the whole family utilise, they use a boat, and have cycled regularly as a family.

Having a strong business is critical to enabling farm succession. Making strong, consistent profits, carefully managing expenditure, and having a focus on debt reduction are all important.

And the final lesson other farmers can take from Brent and Jo's experience is the importance of communication. Talk openly with family members about the situation as it currently stands and everyone's expectations for the future. Communication and planning were two common themes in our discussions.

5.6 Personal Loss

Melissa grew up in a medium sized rural New Zealand city and married Blair, a farmer from Southland. They were dairy farmers in Southland for a period of time after getting married and having children then Melissa returned to work as a human resources and health and safety consultant working mostly in the agricultural industry. Blair became a house dad to their two girls and did casual farm work for a friend.

The onset of adversity for Melissa was sudden. Blair was working on his friend's farm in the spring of 2019 and felt unwell. The next day he returned to the farm, felt worse, and took himself to the emergency department at Southland Hospital. This was a man who rarely went to the GP, let alone took himself to hospital. Scans were done and it was discovered he had terminal cancer in his liver and lungs. Three further days in hospital determined the cancer had originated in his bowel and he was given six to eight weeks to live. Melissa was in disbelief.

Blair passed away eleven and a half months after the cancer diagnosis. During that eleven and a half months he and Melissa worked tirelessly to improve the health system in light of the failures they saw in the system. They initiated the building of a charity hospital in Invercargill (The Southland Charity Hospital) to meet the needs of people in Otago and Southland who couldn't access the health care they needed through the public system.

Blair immediately focused on what he was going to achieve in his remaining time on earth. He set out to play one last game of rugby, renew his wedding vows with Melissa, and do something special with each of their girls. His focus was not on this is terrible card he'd been dealt, but rather on what he would do and what he could achieve in his remaining time.



Figure 4: A typical hospital ward

A key skill Melissa showed during this time was an ability to learn from others. While she is most likely a naturally resilient person she learnt from Blair how to be more resilient. Farmstrong (2021) list learning as one of the five ways to well-being.

Blair looked for the positives in situations and focused on his circle of influence rather than his circle of concern (Covey, 1989). He accepted he had been diagnosed with terminal cancer and set out to enjoy his remaining time on earth with people he wanted to be with and work towards improving the health system. A poignant example of looking for the positives was after a meeting the couple had with an oncologist where they were told nine pieces of bad news and one piece of good news. Blair got in the car after the meeting and thinking of the one piece of good news said to Melissa 'that was pretty good wasn't it?'

Purpose has been huge for Melissa in achieving what she has so soon after Blair passed away. There are many pivotal inspirations for her but three stood out for me:

- Weeks before he passed away Blair said to her, 'you'd better get on and build this hospital babe';
- Then on her way to the first public meeting in Invercargill about the idea of building a hospital she got a phone call from a supporter of the charity hospital (who was an Invercargill lawyer). A client of the lawyer had rung and pledged to donate \$100,000 to the charity hospital; and
- The third inspiration was a conversation she had with a five year old girl from a small rural school in Southland. Melissa had given a talk on the charity hospital and after the talk this girl came up to her and told her about work she was doing on her parent's farm. She was getting paid for this work and with the proceeds she asked if she could buy a brick to help build the hospital.

Melissa has a tremendous ability to be positive and focus on the positive things in her life. She says she needs to consciously focus on this but by looking for the positive things in her life she feels better, and when we feel better we're able to achieve more. For her a physical list of what's she's grateful for is useful. For other people it may be a video or a photo album.

Exercise has been a big part of her life since Blair passed away. It's important for her to keep well. Blair found exercise helpful for him when he was unwell. Dedicating time to the things that make you happy has been and was critical to Melissa and Blair.

Friends, family, and the different communities they've been involved in (rugby, school, business, and farming) have been hugely important in getting through adversity. So many people have given their time or money and wanted nothing in return. Unsolicited acts of kindness and generosity have been common.

6. Theoretical Model

The five case study participants are inspirational New Zealanders for how they have faced adversity and risen above it. In doing so they have been resilient. The palpable question is are there some commonalities amongst these five participants? Have they employed similar strategies and techniques to become resilient? Also are there common personality traits that define or separate these five participants from the rest of society?

The research has found yes, there are three common strategies across all five participants that each of them have employed to become resilient. Furthermore, there are secondary techniques under each of these three common strategies that additionally tease out or describe how these three primary strategies are used to make these participants more resilient. And finally, yes there are some common personality traits across these five participants.

6.1 The Three Strategies to be Resilient

The theoretical model can best be described in the form of a three level triangle (Figure 6) comprising:

- Purpose this is the direction the participants are moving in their lives and why. This is the direction of the triangle;
- The middle third of the triangle is keeping connected. This is the glue that holds the triangle together. This is keeping connected with other people; friends, family, and networks. These connections are the people in our lives who often buoy us up and encourage us to achieve, to rise above in times of adversity; and,
- The base of the triangle is keeping well. This is 'what do I need in my life to be well', or to be happy and content. This is the foundation of resilience. Poulton et al. (2021) discuss the increasing focus of health practitioners on mental 'well-being' rather than mental 'illness'.

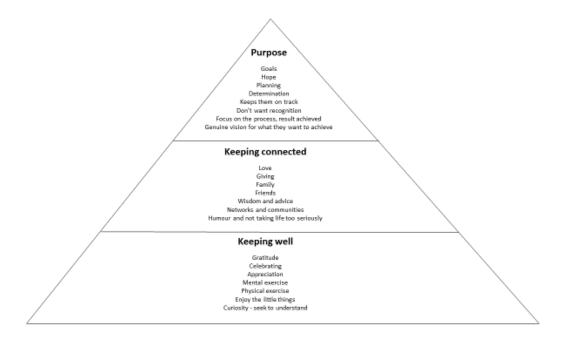


Figure 6: Strategies Employed by Case Study Participants to be Resilient

These three levels of this triangle are the strategies the five case study participants have knowingly or unknowingly employed to be and to keep themselves resilient. The different weighting and their

underlying consciousness of the use of these strategies differ but they are common across all five case study participants. Purpose and connection were discussed by Weld (2018) as important strategies for managing adversity for older adults following the 2010 and 2011 Christchurch earthquakes. This matches closely with the results of this study.

Many people will recognise and identify with one or all of these levels of the triangle, in relation to or in isolation from resilience. The key is the combination of the three strategies and how the case study participants have implemented the strategies in their lives.

Each of the case study participants had purpose as an important part of their lives. Purpose is described by Dhingra *et al.* (2020) as an "overarching sense of what matters in our lives, and we experience purposefulness when we strive or work toward something personally meaningful or valued". Essentially it is 'where we want to go in our lives and why'.

The constant reminder of purpose has lifted participants and kept them on 'track'. Spake and Thomson (2013) and Nygren, et al. (2005) highlight the importance of purpose to resilience. Purpose for Kevin and Jody has been building a future with certainty; for Brent and Jo it has been to work hard, enjoy the journey, and leave a sustainable property in better heart than when they took it over; and for Doug, purpose is having a sense of belonging and value.

Keeping connected with other people is the second common strategy across all of the participants. "Connecting with others who know exactly what you're going through is important, and our social connections have as much impact on our long-term health as eating well or quitting smoking" (Prakash, 2017). For this study keeping connected is "who are the people in our lives who make us feel better and stronger and more able to cope with adversity". Who, with, and when participants have connected with others has differed depending on their needs at the time and their specific circumstances. All case study participants explicitly or implicitly listed connections as important to handling adversity and becoming resilient. Kevin and Jody very much missed the connections of their family and close friends when they went through their major period of financial adversity in Otago (these people were in other parts of the world, many of them in Africa). Social events Andy was involved in during climatic adversity saw farmers getting the most value at these events, not from invited speakers, but from connecting with other farmers; sharing stories, experiences, and learnings.

Wellness or well-being can be described as the state of being or doing well in life, being comfortable, healthy, or happy (Oxford Dictionary, 1989). The World Health Organisation defines well-being as "the state in which every individual realises his or her potential, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his or her community" (World Health Organisation, 2021). For the purposes of this study keeping well is recognising "what we need in our lives to be happy and content". Keeping well was the third common resilience strategy.

International research has found people who thrive have five things in common; they *connect* with others, they *give*, they take *notice*, they keep *learning*, and they keep *active* (Farmstrong, 2021). Farmstrong has adopted these *'five ways to well-being'* in their programmes with farmers.

Doug has put a lot of thought into this area and he's come up with four things he believes people need to be well; love, hope, purpose, and connection. Doug believes any of us should expect to live part of our lives without one of these things but very few of us can cope without two, without help. Both of the medical doctors spoken to regarding this research mentioned wellness as being fundamental to being resilient (Dr Jacqui Blunt, personal communication, March 22, 2021 and Dr Glenda Wallace, personal communication, April 2, 2021). All of the case study participants listed exercise as important to keeping well and in turn, being resilient.

6.2 Secondary Techniques.

Beneath the primary strategies there are many secondary techniques participants employed to become resilient. The primary strategies were common across all five participants whereas these secondary techniques were common in two or more of the participants but not necessarily all. They further explain how participants became and be resilient. The secondary techniques are listed in Figure 6 below the primary strategies.

For living with purpose; goals and planning were important. Andy discussed the importance of planning when facing an adverse climatic effect. He said the plan might show a pretty terrible result but it gives you confidence in that you know approximately how bad the result will be and therefore what needs to be, or what could be done to overcome it.

The hope Kevin and Jody received in the form of unsolicited advice from the unknown sheep farmer changed their lives. Dr Moot gave Doug hope that they could change their farming system and farm successfully in their dry environment by utilising lucerne.

For keeping connected, family, friends and networks or communities were listed as important. For Melissa, the various communities her and Blair were involved in (farming, rugby, school, and business) were hugely important in her handling the adversity she has since Blair got sick and achieving what she has since he passed away. Getting involved in the local conservation group was important for Doug in reconnecting him with people; locally, with leading local farmers, and nationally, with relevant experts in their chosen fields. Andy's mates were a great source of connection and camaraderie when going through adversity. A mentor has also been a great source of connection for Andy.

In terms of keeping well there were commonalities across the participants. For the case study participants they all consciously listed activities that enhance their well-being as being important to being resilient. The actual mix and emphasis on each of these activities depended on the conversation and the particular individuals. Several of them spoke of appreciating the little things in life as being important to being resilient; these could be as simple as Doug enjoying different foods through the seasons or Kevin hearing the sound of the birds in the morning.

6.3 Common Characteristics

Some of the participants highlighted the fact that some people are naturally more resilient than others. This is a phenomenon discussed in the literature (Coutu, 2002). The six common characteristics of these five participants were:

- Driven people;
- High achievers;
- Emotionally intelligent;
- Unrelentingly positive;
- Grateful; and
- Humble.

When these six characteristics are listed together it is clear what remarkable and inspiring New Zealanders these case study participants are.

7. Discussion

7.1 Conclusions

This research project is concerned with developing a theory for how resilient farmers thrive in the face of adversity. Farmers face adversity from the same sectors as all businesses in New Zealand society, however combined with the weather, and the fact they are generally living at their workplace, and often managing and working in a family business poses additional challenges. The literature would suggest that some individuals are naturally more resilient than others. However the literature would also suggests that resilience is a skill that can be learnt. In this study, five recognised resilient farmers who have faced severe adversity in the form of health, climate, financial adversity, a challenging farm succession, and personal loss are studied.

There are three strategies common across the five case study participants that have enabled them to thrive in the face of adversity and be resilient. These are:

- Purpose this is the direction the participants are moving in their lives and why. This is the direction of the triangle;
- The middle third of the triangle is keeping connected. This is the glue that holds the triangle together. This is keeping connected with other people; friends, family, and networks. These connections are the people in our lives who often buoy us up and encourage us to achieve, to rise above in times of adversity; and,
- The base of the triangle is keeping well. This is 'what do I need in my life to be well', or to be happy and content. This is the foundation for resilience. Poulton et al. (2021) discuss the increasing focus of health practitioners on mental 'well-being' rather than mental 'illness'.

These three key strategies can be visualised in the form of a triangle with purpose as the *direction* of the triangle, keeping connected as the *glue* in the middle that holds the triangle together, and keeping well as the *foundation* of the triangle (Figure 6).

Within each of these three common strategies there are various techniques that two or more of the case study participants employ to thrive in the face of adversity.

There were six common characteristics across the five case study participants; driven people, high achievers, emotionally intelligent, unrelentingly positive, grateful, and humble.

7.2 Further Research/Work

There are three main areas where this study could be expanded and developed through the development of a PhD dissertation that tests and builds on this theory:

- Add in compliance as another source of adversity;
- Interview industry professionals (accountants, solicitors etc.) about farmers that haven't been
 resilient through some adversity they've faced (its felt getting farmers with a low level of
 resilience to discuss their story would be very difficult essentially they would be asked to
 relive a failure in their lives); and
- Interview an additional ten fifteen recognised resilient farmers across the five (six including compliance) forms of adversity to test if the theory is applicable across more farmers.

7.3 Recommendations/Next Steps

If there is an appetite amongst industry bodies to deliver this model to the farming community the following is suggested. This could potentially fit within the work of rural wellbeing programme Farmstrong. Given the uncertainty the world has and is experiencing with Covid19 and climate change now could be an opportune time to deliver the model.

7.3.1 Refine the Model

Develop and refine the model with a relevant team of experts – recognised resilient farmers, academic professionals, and industry professionals.

7.3.2 Develop a Delivery Plan

Develop a plan for delivering the model to farmers. Initial thoughts would be for it to be delivered through a ninety minute afternoon or evening workshop session. This would be in small groups run by a recognised resilient farmer and an industry body representative (facilitator). This is essentially an expanded and more interactive version of the final Kellogg presentation that went with this report. It would be critical that this delivery achieve three objectives:

- i. Have a resilient farmer delivering their own story on adversity (10 minutes);
- ii. Establish group engagement with the farmers by encouraging them to consider their own experiences of adversity that they have faced in their lives (10 minutes); and
- iii. Have the facilitator and the resilient farmer facilitate a session on how to apply the model to the various forms of adversity that farmers face (70 minutes). How the recognised resilient farmer 'lives' the model will be critical to delivering it.

7.3.3 Develop an Online Resource

Develop an online resource (ideally smart phone based) for farmers to be able to learn more about resilience, how resilient they are as an individual, and how they might become more resilient. This resource would include a ten minute test that: i) establishes the adversity they have faced and are likely to face; ii) establishes their current level of resilience, and iii) provides simple guidelines for how they become more resilient.

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