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**Supporting older farmers to adapt to the rapidly
changing food and fibre sector**

Kellogg Rural Leadership Programme

Course 47, 2022

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I wish to thank the Kellogg Rural Leadership Programme investing partners for their continued support.

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Executive Summary

To this day New Zealand's food and fibre sector continues to lead economic recovery through the Covid-19 response. This sector thrives on challenges and makes the most of opportunities to further develop. With an increase in success, there is also an increase in challenges. Some of these challenges are supply chain disruptions, rising costs of fuel and fertiliser, workforce challenges, floods, drought, and the increase in new regulations.

This report aims to better understand how the food and fibre sector can better support older farmers. I aim to better understand the changes and challenges older farmers are currently facing. To produce recommendations, this report will further research into adopting change, farmer mindset, reverse mentoring, learning preferences, key drivers, and challenges they face as older farmers.

Older farmers enjoy the farming lifestyle and make their systems work for them. As farmers age, they start to show less desire and ability to be as productive and innovative as they were at mid-age. They focus on looking after their health by adopting new smarter ways of working. Older farmers are feeling frustrated and confused about the new policy that is being brought out with little consultation and feedback opportunities.

From my findings, there is a great opportunity to further educate older farmers through a reverse mentoring model. This system provides an opportunity for both older farmers and younger farmers to communicate through generations. This system will increase the sharing of perspectives and skill sets. And it can also promote more innovative and act as a cost-effective professional development tool that capitalizes on building bridges between generations.

Recommendations:

- Establish a reverse mentoring system where younger farmers help educate older farmers on the usage of technology or other methods on farm. This method will help to increase the level of communication between different generations to help increase the level of change. There is great potential for the food and fibre sector to adopt this method into businesses to create more success.
- Industry support organisations should develop more one-on-one and small-group support workshops. These workshops need to be consistent, as education is never a once-off. Little to no charge for this workshop as older farmers rarely invest in their education. Learning methods should be targeted at the audience.
- Encourage older farmers to participate in a community catchment group. This is a great chance for older farmers to share knowledge and learn from others. Community catchment groups are local, low cost and farmer led.
- Close the gap between farmers and the government. Farmers need more trust from the government to implement change that is driven by the government. The government needs to be clearer about its intentions for policy and put more time and effort into the consultation process. I recommend that with the consultation process, there should be more time spent going out to farmers in their community. This will show more effort from the government and simply give the farmers the best opportunity to attend the consultation process and provide feedback.
- Improve connectivity of cell phone coverage and faster internet for rural communities. Central government should provide more resources to help achieve this, as poor connectivity to this infrastructure is a barrier to farmers' uptake of technology and change.

Acknowledgments

I would like to thank the New Zealand Rural Leadership Trust and the Kellogg management team, Lisa Rogers, Chris Parsons, and Annie Chant. They have provided an impressive opportunity for me and others to experience this extremely well-designed course.

I would like to thank Phil Morrison, the course facilitator for keeping our cohort eager to absorb and reflect on all key themes and messages we received over the journey of the course.

I would also like to thank Patrick Aldwell for being dynamic in my report planning. Patrick's wealth of knowledge is incredible, and I feel very privileged to have gained some skills from him.

Other thanks to my employer Rangitikei Rivers Catchment Collective for funding a part of my course and allowing me the time to attend each phase as well as time spent completing my research project. And thank you to Whanganui and Partners for also helping me with funding, your support is greatly appreciated.

And lastly, I would like to thank my fellow 47 cohort, it has been an absolute pleasure getting to know everyone. I have been blown away by the talent and knowledge, and it has been great to see everyone grow and develop during our time together. I look forward to the future and seeing everyone achieve wonderful things in their life journeys.

1.0 Introduction

The New Zealand food and fibre sector are high-class and world leading. This sector thrives on challenges and makes the most of opportunities to further develop. From the year ending June 2022, New Zealand's food and fibre sector exported 53.3 billion. Which was up 1.1 billion from the year before (O'Connor, 2022). Considering the global impact of the Covid-19 pandemic, New Zealand has by far had one of the most successful responses to this pandemic. To this day New Zealand's food and fibre sector continues to lead the economic recovery (O'Connor, 2022). Although the food and fibre sector continues to increase success, the number of challenges also increasing. Some of these challenges are supply chain disruptions, rising costs of fuel and fertiliser, workforce challenges, floods, and drought. Farmers are also starting to feel overwhelmed by the volume of environmental regulation that has been introduced by the Government. Legislation and regulation covering Essential Fresh Water, Winter Grazing, Greenhouse Gas (GHG) reporting, Biodiversity, and Three Waters (Beef and Lamb NZ, 2022).

As a Community Catchment Coordinator, I am exposed to a lot of different landowners, farming systems, and communities. But also, knowledge and experiences. Through this exposure, I have identified key issues and themes that populate within most of my sub-catchment groups. My role is to help support and motivate catchment group members to achieve positive outcomes. During my time in this role, I have noticed an increase in confused and worried farmers, especially ones that are over the age of 65. With the speed of change and the increase in technology, some of these older farmers are struggling to know what to do, how to do it, and why.

14.1% of people working in the agriculture industry are over the age of 65 (2013 Census, 2013). Research shows that there is an increase in the average age of farmers, meaning that fewer younger farmers are coming into the sector, therefore increasing the average age. Some reasons for this are that farmers may be more open to their children taking on different careers, farming may not have the status it once had, or older farmers are more likely to have the capital to expand their farms to counter the long-term decrease in commodity prices (Deavoll, 2015).

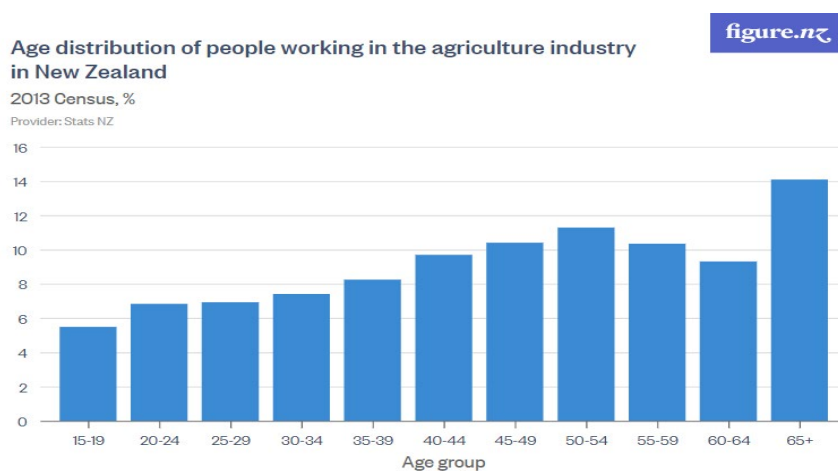


Figure 1: Age distribution of people working in the agriculture industry in New Zealand (2013 Census, 2013).

2.0 Aims and Objectives

This report aims to better understand how the food and fibre sector can better support older farmers. I aim to better understand what changes and challenges older farmers are currently facing. To produce recommendations, this report will further research into adopting change, farmer mindset, reverse mentoring, learning preferences, key drivers, and challenges they face as older farmers.

2.1 Objectives

- Identify key barriers to learning for sheep and beef farmers over the age of 65.
- Discover what knowledge is already out there about this topic.
- Understand the role and influence that change adoption and mindset can have on farmer success.
- Provide practical recommendations on solutions to help improve support methods.

2.2 Scope

The scope I have identified for this research report is a small sample of three sheep and beef farmers over the age of 65 years, who are classified as older people in New Zealand (Koopman-Boyden, 2018). All farmers were based in the Rangitikei catchment. All farmers are still actively involved in their farming system in everyday activities.

3.0 Method

3.1 Primary Research

The methodology used for this report consists of semi-structured interviews and a literature review. This was chosen to ensure a thematic analysis could be used to compare, contrast, and evaluate my project findings.

A literature review was carried out to help develop a deeper understanding of project themes, ideas, and research questions. The literature used for this review consisted of website documents, peer-reviewed papers, news articles, and government reports.

Semi-structured interviews allowed for natural conversations that were related to a certain topic. The interviews were performed with three sheep and beef farmers over the age of 65, who are based in the Rangitikei catchment, which is in the Whanganui/Manawatu region of New Zealand. Viewpoints and information gathered from the individuals were collected in confidence that their identity would be kept confidential. For this reason, each farmer will be identified as either A, B, or C.

3.2 Limitations of this research

The limitation of this research is the nature of qualitative research. It does not represent all individuals that are in the same criteria as the target audience. Because of the small sample size, I would like to add a clause that suggests the results of this study could best be described as indicative.

4.0 Literature Review

4.1 Ageing rural population

New Zealand along with other countries is seeing an increased percentage of older people. After the second world war, life expectancy increased from 46.5 years in the 1950s to 71.4 years in 2015 (Jing Liu, 2021). Improved living conditions were one of the main factors for this increase. Decreased fertility rates are also increasing the proportion of people aged over 65 (Jing Liu, 2021).

The New Zealand food and fibre sector has not yet seen the effects of the aging rural population. But some long-term impacts on the farming business may be that older farmers will gradually decrease their physical inputs on farms, which will result in fewer outputs (Jing Liu, 2021). It is believed that human capital will weaken in the future due to the knowledge, skills, and health that individuals in the food and fibre sector will have (Jing Liu, 2021). This will start to be a trend as farmers start to age. Their physical capabilities will decrease, which will result in inadequate agricultural labour and land input. Although this is negative, in most cases older farmers will outsource labour to assist with land input. This creates opportunities for others in the food and fibre sector. Outsourcing can be a good support network for older people and allows for other inputs into the business. It is also a good opportunity for reverse mentoring where younger farmers could help educate older farmers on the usage of technology or other methods on farms. This approach will help to increase the level of communication between different generations. Which can result in better adoption of change (Singh, 2014).

To further investigate the impacts of an aging rural population, I am interested to see how this impacts efficiency and productivity. Studies have found that the productivity of farmers appears to increase slightly and then decrease with age (Tauer, 2000). The peak productivity age of farmers is between 35-45, as another study shows (Tauer, 1984).

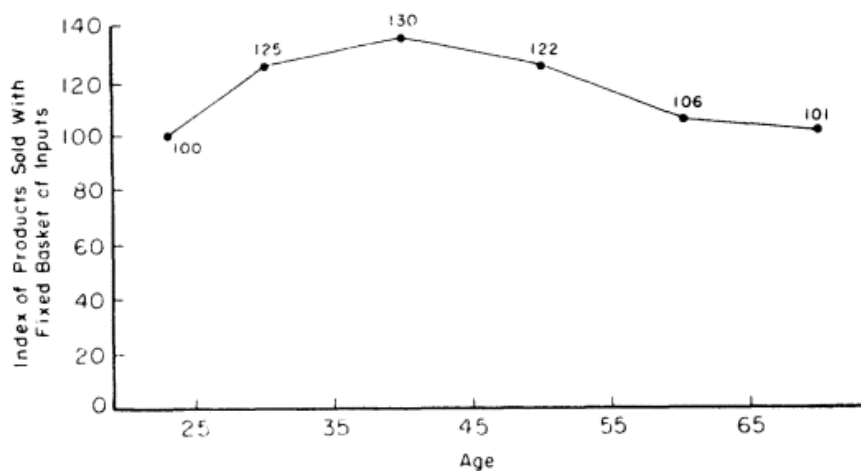


Figure 2: Efficiency of the Farmer at Various Ages (Tauer, 1984).

The relationship between age and land use is well-studied, as this is a growing challenge. One study among New Zealand farmers suggests that the age of a farmer can influence physical abilities that either encourage or restrict the uptake of farming practices related to establishing the farm business, the movement towards new objectives, and production intensity. All factors are essential for farm productivity and may influence management decisions (Brown, 2018).

4.1.1 Reverse mentoring

Reverse mentoring is an innovative and cost-effective professional development tool that capitalizes on building bridges between generations (Murphy, 2012). Reverse mentoring brings an opportunity to bring different perspectives and skill sets to achieve development in building bridges and talent across generations (Carruthers, 2022). One study shows that there are many benefits to including a reverse mentoring model in a business. Two of the obvious ones are young workers bringing technology-savvy expertise and the development of cross-generational communication and relationships (Murphy, 2012).

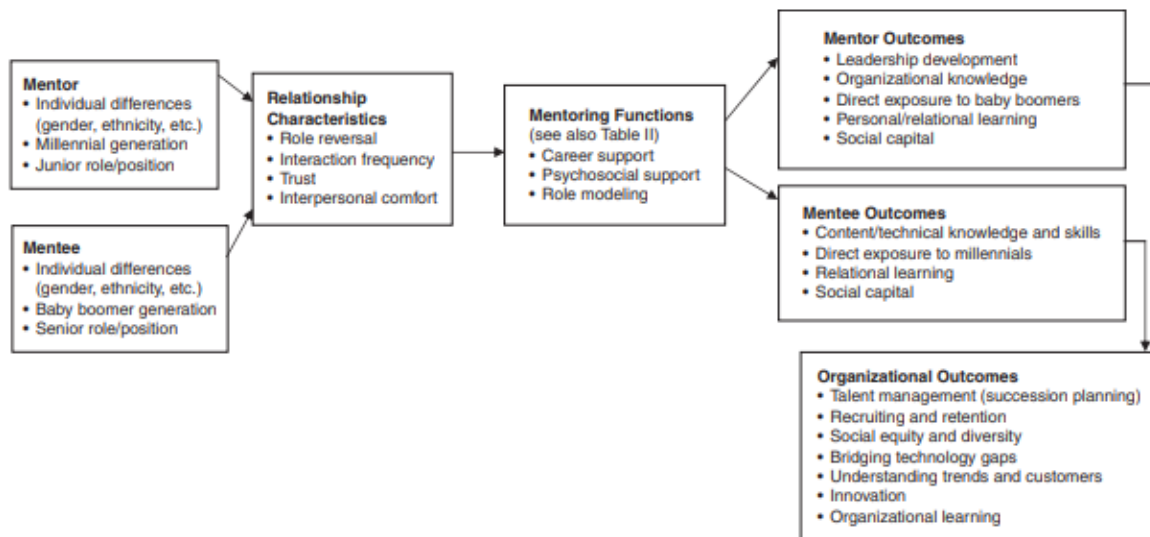


Figure 3: Key Variables in the Prototypical Reverse Mentoring Relationship (Murphy, 2012).

Reverse mentoring involves the pairing of a younger Employee acting as a mentor to share expertise with older, senior colleagues as mentees (Murphy, 2012). Another study shows that the younger generations are more concerned with fast-track progression, and the older generations' concern is getting the job done (Harrison-Green, 2016). If these different views can be combined, there is great potential for success in the uptake of change in a business.

Table 1 shows a reverse mentoring method recipe that could be implemented by any young or older farmer that wants to adopt this method. To help better understand the following recipe I have provided a definition for both mentor and mentee at the bottom of the table.

Table 1: *Reverse Mentoring Recipe* (Bennett, 2021)

1. Ensure mental safety	Boundaries need to be identified and set from the start. mentees need to be clear about their role and how to ensure the relationship isn't too tough on the mentor.
2. Take on board the feedback	feedback should be collated and explored in a transparent way. Transparency is using both good and bad feedback, which allows all to see the 'why' behind the words.
3. Independent person matching mentors with the mentee	Someone who has a pulse on the key spokespeople within the organisation to help you make the right match.
4. Beware of role reversion	Mentees need to be clear on their position in this relationship, as a mentor is more valuable to the organisation.
5. Give credit where credit is due	Find appropriate ways to give credit to mentors who take part
6. Recognise and reward mentors	considering their role as a mentor as a key competency that would put them ahead in promotion opportunities
7. Realise that your leaders have a knowledge gap	ensure that leaders are evaluated based on their inclusive leadership capabilities
8. Provide wellbeing support	provide proactive workshops for mentors participating in the programme that explore topics such as trauma, wellbeing, and navigating discrimination.
9. Continue to pay for training	Reverse mentoring should not replace comprehensive training
10. Beware of the limitations of using individual lived experiences	Take into consideration intersectionality and the range of perspectives and experiences people have within one community or characteristic.
Mentor Definition	A mentor is the main person you rely on to give you advice and guidance, especially in your career
Mentee Definition	If you have a mentor, you are the mentee

4.2 Rapidly changing food and fibre sector

Older farmers are no strangers to change. The global food market is rapidly changing, which is creating great opportunities for New Zealand's food and fibre sector. Consumer preference, climate change, and a growing population are the main influences of this rapid change. Growers now need to be more aware of how they produce their food and fibre, as there is a major market shift to sustainable agriculture. Sustainable agriculture aims to meet

society's needs in the present without compromising the ability of future generations to meet their own needs (UC Sustainable Agriculture Research and Education Program , 2021). Most food producers are using methods to be as sustainable as possible already. For example, promoting soil health and minimising water use. Although these methods are not compulsory for farmers, they are essential to ensure economic and environmental sustainability. However, over the last few years, the government has focused more on on-farm sustainability. To achieve targets, the government will soon start regulating sustainability on farm. By 2025 all effective working farms will need to have a Farm Environment Plan (FEP). Another target from the government that will relate to farmers is the Climate Change Commission which has released a new goal/target to get New Zealand at net zero carbon by 2025 (Love, 2021). The way they will regulate this per farm is still under negotiation.

There has also been a big shift in technology use for farmers in New Zealand over the past 10 years. Along with this being a good opportunity to increase productivity, it has been challenging for farmers that do not have great literacy and technological capabilities. FEP, Intensive winter grazing (IWG) consent and greenhouse gas number (GHG) calculators will take a lot of time and skill for farmers to complete, especially since these changes have been released in a short period. Mike Joy who is a Freshwater Ecologist thinks that New Zealand needs real change that is sudden and hard to reverse the impacts that farmers have had on the environment (McCulloch, 2022).

“Emissions trading reform ‘a slap in the face’ for sheep and beef farmers” (Taunton, 2022)

“Farmers feeling the pressure of regulation changes, environmental criticism” (Kuriger, 2021)

“Ute tax final straw for farmers as pressure mounts” (Littlewood, 2021)

4.3 The importance of mindset

Mindset is a set of beliefs that influence how you think, feel, and behave (Cherry, 2021). Farmer's mindset is unique and shows strength in dedication and service. This dedication and service are what get farmers out of bed every morning rain and shine. According to Dr. Carol Dweck, there are two defining types of mindsets, fixed and growth. Knowing the difference in these mindsets will help individuals to understand how mindsets can affect the way they lead their life (Dweck, 2017).

An individual with a fixed mindset will believe their abilities are fixed, and therefore cannot be changed. They may also believe that talent and intelligence alone will lead to success and effort is not required (Cherry, 2021). Someone with a growth mindset will believe that their talents and abilities can be developed over time through effort and persistence (Cherry, 2021). These two mindsets can change what people strive for and what they see as success. Understanding your mindset and either changing it or using it can be an essential tool for farmers who want to overcome challenges and seek opportunities.

Mindset change is not about picking up a few pointers here and there. It's about seeing things in a new way. People can achieve mindset change through commitment and constancy, which takes plenty of time, effort, and mutual support to achieve and maintain (Dweck, 2017). Mindset change asks people to give up traits and self-esteem that they have developed over their life. Adopting new ways of thinking can be very challenging and unsettling, especially for someone with a fixed mindset (Dweck, 2017).

“You either go one way or the other. You might as well be the one deciding the direction” – Alex Rodriguez, Professional American Baseball Player.

4.4 Learning preferences among older people

Learning preferences among older people need to be understood better if the food and fibre sector wants to help educate and support older farmers through rapid change. Many different learning style inventories help to identify preferences. One study that has used Kolb's learning style inventory has researched learning style preferences among older adults. Research showed that with age there appears to be a trend for adults to become less active and hands-on while learning, but rather to become more reflective and observant while learning. It was also found that people tend to modify their learning preferences as they age (Bradley, 1999).

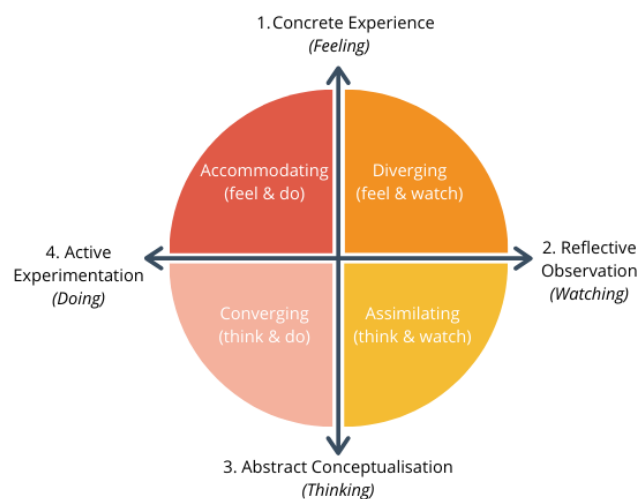


Figure 4: Kolb's Learning Cycle (Kolb, 2021)

Increased knowledge of learning styles among older people can assist educators within the food and fibre sector to become more sensitive to the learning needs of older adults (Bradley, 1999). Another study shows that learning and education are positively correlated with the willingness to take risks within a farming business. Along with this positive correlation, there was also a negative correlation that between age and preference for farmers ages 60-69 who preferred to leave experimentation with new ideas to others (Brown, 2018).

4.5 Change adoption

The ability and success of the food and fibre sector to compete in the global market are highly dependent on the capability of innovators that are in the sector. The change adoption curve is what change leaders focus on when it comes to communicating and sequencing change. Adopting new ideas and innovations is key to having a successful business that contributes to the global market.

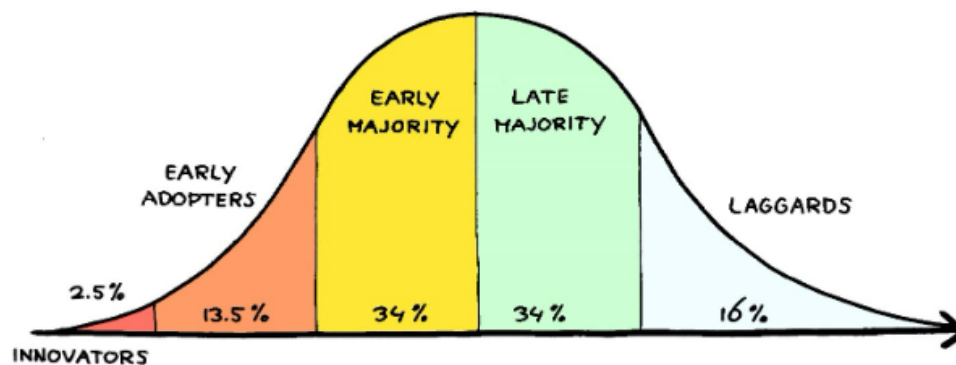


Figure 5: Change Adoption Curve (Cronkite, 2017).

The adoption of best management practices and land use decisions are influenced by farmers' visions and values (Brown, 2018). The innovators are the first adopters of new ideas and technologies. The typical age group of innovators is generally younger people. Then to the other end of the scale, some laggards are stubborn about change and value traditional methods (Ayisi, 2022). But other studies have shown that older farmers have gained more knowledge and experience over time and are better positioned to evaluate and adopt (Ayisi, 2022). Another study of New Zealand's older farmers vs younger farmers has shown that as farmers age they are less likely to adopt best management practices and convert land to intensify their farming system (Brown, 2018). There is a lot of contrary research on Innovation and adoption within agriculture it has been challenging to find a relationship between change adoption and age.

5.0 Analysis

Analysis of the literature used for this research has found the following themes.

- Aging population is increasing. The main reason for this in the food and fibre sector is a decrease in young farmers coming into the sector.
- Productivity of farmers appears to increase slightly and then decrease with age. The peak productivity age of farmers is between 35-45.
- Reverse mentoring is a good tool for bridging communication, knowledge, and skills from different generations.
- The food and fibre sector is facing a lot of policy and regulatory change that is unfamiliar and overwhelming to farmers.
- Understanding your mindset is a good tool for change adoption and development.
- Mindset change can be achieved with time and persistence.

- Learning preferences change with age, and it is important to understand this for an adequate education.

6.0 Findings and Discussions

6.1 Key drivers for older farmers

Farming is a lifestyle, and it's a great career for someone who appreciates life balance and the outdoors. This was a common theme throughout my research.

"It's our income, but it's also our life" – Farmer A.

"Our job doesn't finish at 5 pm each day, this job is a part of our life all day every day" – Farmer C

"I am more passionate about it now than I ever have. We are in paradise here considering where everyone else is in the world" – Farmer A

Factors like being outdoors, flexibility, privacy, decision-making, and community connection were a few of the dominant reasons why farming is a good lifestyle for older people. All farmers I interviewed were in good physical health, which they deemed essential for their participation in physical work around the farm. I was interested to understand if there were any challenges around human capital for older farmers and how it might be impacting their productivity. As discussed earlier in this report, research done by Jing Liu suggested that older farmers will eventually decrease productivity and result in inadequate agricultural labour and land input. To a certain extent, this is slightly true, but I identified a theme where older farmers are now trying to work smarter and more conservatively to help sustain their health. They are achieving this by using technology and learning techniques from others, which are much more available now.

"With new technologies, you can carry-on farming for a lot longer physically, because that's what stops you" – Farmer A

"These days I am more concerned about my health, and making sure that is my main priority" – Farmer B

"Back when I was a young fella I loved physical work and didn't think too much into finding an easier way. I was fit and my body could handle it. Not so much these days" – Farmer A

Having an increase of older farmers, technology, and education pathways to good practices will help older farmers to still be a valuable resource within a farming business. Making technology and education pathways suitable for older people is a challenging issue that will take careful consideration and time.

6.2 Older farmer's relationships with compliance

Older farmers are traditional and rely a lot on building trust (Newman, 2016). Trusting employees, rural professionals, and other stakeholders within the farming business is very significant for older farmers.

‘To get good advice I will generally talk to respected people within the industry. I am big on trust and don't mind paying more for good advice’ – Farmer A

After interviewing some older farmers, it is obvious they have lost confidence and trust in the central government. With the amount of change happening, it is becoming overwhelming for some farmers to keep informed on regulation changes and updates. Trust and confidence have been lost through unworkable regulations, constant changes in regulations, minimal negotiations, and unfunded mandates that put a lot of pressure on local government.

Lately, regulations from the government have been rushed and enforced with little consultation, which has resulted in impractical regulations (Morrison, 2021). So why does the New Zealand Government insist on introducing regulations first, without talking to those affected and how they would work from the ground up (Kuriger, Scoop, 2022). Older farmers are practical people who don't mind making changes for good reason. This has been a common trend throughout my research. It seems all the older farmers I interviewed, were happy to make changes, but only if it was necessary.

“Never worries me, I like making changes. But I only change for good reason” – Farmer C

“Costs a lot to change, and hard to come back from” – Farmer A

“Too old to change. I will only make changes if it is necessary” – Farmer B

Farmers are familiar with compliance (Huang, 1993). But the relationship has increased over the last few 10 years. Previously sheep and beef farmers have had a relaxed relationship with compliance and haven't had to do too much in this space. If they did, it would generally result in a premium or the ability to produce more. New Zealand Farmers are being encouraged to increase production, but they are also being asked to meet strict environmental standards, making farming a lot harder. These mixed messages are becoming confusing for farmers, and with no clear incentives or rewards, farmers are finding it hard to adopt these changes.

6.3 Education among older farmers

Education is important for any development. Farmers are good at asking for advice, and they are lucky enough to have a lot of support around them. With the increase of change, having a good network of support will be key for keeping up and getting ahead. Farmers understand times have changed and there is a need for upskilling and development. An interesting finding from my research is that older farmers are feeling well supported by

industry bodies and had little to no advice on what they could do better. They all liked to attend educational workshops, and all received on-farm advice.

“There needs to be more attention on learning literacy skills. You can get fencing a wee bit wrong but not be affected. But when you do something wrong technically it won’t work” – Farmer C

“One-on-one is good. Service people don’t really exist anymore, and they are also expensive” – Farmer B

“I feel well supported for the likes of Beef and Lamb; they are there with the right support if you need it” – Farmer C.

“Times have changed. Back in my day if you went to a conference or meeting and talked about the environment or welfare you would be chased out of the room” – Farmer A

Throughout this research, it was interested to develop more understanding of the farmer mindset, and it might be one of the biggest tools for success. A pattern started to emerge after my interviews. All of them showed predominant signs of a growth mindset. They all believed that their skills and abilities can be developed over time through effort and persistence. One of the farmers I interviewed was a good example of a growth mindset, they were always looking at new ways to develop their farming business to be at the top of their game. They had a well-balanced system that they were proud of it. There were some discussions with all participants about their drive to develop isn’t as much as it used to be. This confirms that production will slowly start to decrease as farmers age into the older category.

“Not looking for heaps to do now, we are just happy where we are” – Farmer A

“Retiring isn’t an option for now. I couldn’t bare being board, so won’t go down that track” – Farmer B

For years I have worked hard at developing my system to help increase production. Now that I am starting to slow down I am happy where I am. I wouldn’t be here if I hadn’t done the hard yards in previous years” – Farmer C

I found the concept of reverse mentoring quite fascinating, as this is rarely used for farmers. It is a great opportunity for older farmers to be educated about technology and other methods they could use on the farm. This will essentially improve communication between both age groups and should have a positive impact on a farming business. I also see it as a great prospect for young farmers, as this could open opportunities and networks for their future in farm ownership. I also see this as a huge opportunity for older farmers that don’t have children interested in taking over the farming business.

A decrease in the educational drive will make it challenging for local government and industry good organisations to try and implement change and innovation throughout the whole sector. For example, 100% of farmers to know their GHG numbers by 2023. This will

be challenging to get the whole industry to meet this standard, as there will be farmers who won't have the drive to upskill and educate themselves to meet this standard. One of my interviewers was unsure about this topic and didn't understand its importance. And in their opinion didn't see the benefit of this for their business, which is why they haven't educated themselves more about it. One advantage of trying to get older people more involved in educational activities is that they have more time up their sleeves and like to go to educational workshops. Mid-age farmers are said to be the most productive, which means finding opportunities to do more things is generally quite challenging for them.

7.0 Conclusions

Older farmers are passionate. Therefore, they are still in the game and have been for a lifetime. They're dedicated to making a life that they are proud of, and they bring a wealth of knowledge and experience to the rural community. Older farmers have seen a lot of changes within their time in the food and fibre sector, especially over the last 10 years.

"It is harder to farm now, which means that non-passionate farmers are getting pushed out"
– Farmer B

As well as having a successful business, older farmers valued having a good lifestyle. They have been determined to make their business suit them at different stages of their life. As farmers age, they tend to show less desire and ability to be as productive as they were in mid-age. This brings a challenge to the food and fibre sector regarding the implementation of changes and policies. If farmers don't meet standards, fines could be received, and sector reputation could be negatively impacted on a national and international scale. These standards need to have good reasons behind them. Otherwise, farmers will struggle to see the point of reaching standards for their businesses.

There is an opportunity to further educate older farmers. They are at the age where they have more free time and become more social again. Industry bodies need to continue their support to help grow older farmers and drive for more extension education. If this can be influenced, there is no reason why older farmers won't be able to keep up and get ahead.

There is a great opportunity for older farmers to connect with younger farmers through a reverse mentoring method. This method is rarely used in the farming sector. But is a great prospect for both older and younger farmers, especially for those older farmers who do not have children or younger individuals involved in the farming business. And also, for the young farmers that do not have either a family farming business to develop into or the resources. If older farmers and younger farmers can help each other develop this will strengthen technology uptake, communication of knowledge from older farmers, and fresh ideas from younger farmers.

8.0 Recommendations

- Establish a reverse mentoring system where younger farmers help educate older farmers on the usage of technology or other methods on farm. This method will help to increase the level of communication between different generations to

help increase the level of change. There is great potential for the food and fibre sector to adopt this method into businesses to create more success.

- Industry support organisations should develop more one-on-one and small-group support workshops. These workshops need to be consistent, as education is never a once-off. Little to no charge for this workshop as older farmers rarely invest in their education. Learning methods should be targeted at the audience.
- Encourage older farmers to participate in a community catchment group. This is a great chance for older farmers to share knowledge and learn from others. Community catchment groups are local, low cost and farmer-led.
- Close the gap between farmers and the government. Farmers need more trust from the government to implement change that is driven by the government. The government needs to be clearer about its intentions for policy and put more time and effort into the consultation process. I recommend that with the consultation process, there should be more time spent going out to farmers in their community. This will show more effort from the government and simply give the farmers the best opportunity to attend the consultation process and provide feedback.
- Improve connectivity of cell phone coverage and faster internet for rural communities. Central government should provide more resources to help achieve this, as poor connectivity to this infrastructure is a barrier to farmers' uptake of technology and change.

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Appendices

Appendix A: Semi-structured interview questions

Farm details:

- Type of farm
- How long have you been farming?
- What is your role within your farming system?
- How have you developed your staff over the last 10 years?
- How have you developed your stock types over the last 10 years?
- How do you feel about the farming system you have developed?
- How have you developed yourself?

Priorities and visions questions:

- What part of farming do you love the most?
- What have been your main drivers to keep you farming?
- What are the main priorities for your farming business?
- What does success in your farming business look like for you?
- How do you measure this success?
- How are you feeling about the future of your farming business?

Challenges questions:

- What are the main business and personal challenges you face as a farmer?
- And how do you think you will overcome these challenges in the future?
- What are the impacts of these challenges for you so far?
- How much pressure do you feel regarding economic and environmental sustainability?

Support questions:

- How well do you feel supported by your industry's good organisations?
- Can you give me some examples of what they have done for you?
- What other help do you think they should offer?
- What support and advice do you seek for your farming business?
- If you want more support, what form would this look like for you?

Learning questions:

- When you are learning something new or want to understand something better, how do you get this information?
- What are your learning preferences?
- When something doesn't go to plan in your farming business, what learning tools do you use to try and improve it?

Mindset questions:

- How do you feel about making changes in your farming business?
- Do you see changes more as a challenge or an opportunity?
- Do you think you are good at adapting to change? Can you give an example, please?
- What changes have you experienced during your time of being a farmer?