Health and Social Effects of the Agricultural Downturn in Northern Ireland: A Descriptive Study

David McConaghy

July 2016

About Rural Support:

Rural Support was established in 2001 to help farmers and rural dwellers in Northern Ireland who were severely affected by the foot and mouth crisis. In response to ever increasing challenges for the agri-rural sector, Rural Support has since expanded it's remit to include concerns related to financial problems, inheritance issues, disease outbreaks, and the burden imposed by farm paper work and related matters. The organisation provides a telephone helpline for farming and rural families across all of Northern Ireland.

Rural Support is a registered Charity and a Company limited by guarantee. It has 5 staff members operating from a base at Loughry College Cookstown. As part of the 'Tackling Rural Stress, Promoting Positive Mental Health' project Rural Support has also engaged 12 financial and business mentors. The mentors all have strong financial and banking backgrounds and are all experienced in the provision of advisory services. The organisation is managed by a voluntary Board of 11 members with a wide range of rural and agricultural knowledge and experience. The charity is also supported by a team of 36 volunteers who give their time, expertise and experience to Rural Support clients. They also contribute to the promotion and outreach work of the organisation.

Rural Support's Vision is: **to contribute to a healthy, sustainable rural community by providing individual support and promoting positive mental health and wellbeing.**

Its mission is: **to empower and improve the lives of farmers, farm families and rural dwellers by providing bespoke support and creating opportunities**

Objectives:

Objective 1) *Reduce Rural Isolation through Helpline / Volunteer Outreach Support*

Objective 2) *Reduce Rural Stress and Promote Positive Mental Health through information sessions and bespoke on-farm business mentoring*

Objective 3) *Promote and Develop Social Farming for the benefit of vulnerable citizens and farming families.*

Objective 4) *Maximise awareness and knowledge of Rural Support services*

Objective 5) *Ensure the needs of vulnerable rural dwellers are addressed through working in partnership with key stakeholder organisations*

About the author:

David McConaghy

David is from a medium-sized dairy farm outside Ballymoney in County Antrim, and was educated at Stranocum Primary School, Bushvalley Primary School and Ballycastle High School. In 2013 he graduated top of his class in Philosophy at the University of Dundee and was awarded the *Richard Smith Memorial Prize.* In 2014 he got a job with the Ulster Farmers' Union where, among other things, he was instrumental in revitalising the UFU's policy towards health and social care in rural areas. Upon leaving the UFU in 2015, David has been working in a voluntary capacity with Rural Support while completing his Master's in Social Research Methods (MRes) at Queen's University Belfast.

Acknowledgements:

The author would like to thank the Ulster Farmers' Union for their help in the early stages of this research, notably former president Ian Marshall for his input into the survey design, Chief Executive Wesley Aston for unhesitating willingness to help us complete the surveys at the President's Area Meetings, former Rural Affairs committee chairperson Freda Magill, Rural Affairs Policy Officer Kate Cairns for their support and input throughout the process, and the communications team at UFU for sharing our online survey through their channels.

We would also like to thank Kellie Armstrong MLA and Claire Sugden MLA for helping to distribute the online survey through their social media channels, and thanks also to the Young Farmers' Clubs in Glarryford, Cookstown, Killinchy, Lisnamurrican, Ahoghill, Donaghadee and Kilrea for their help in this regard. If we have neglected to include anyone, we sincerely apologise.

Particular thanks go to Jude McCann, Melissa Wylie and Suzanne Johnston at Rural Support for their invaluable support and guidance throughout this study.

Finally, we would like to thank all those who completed a survey or took part in an interview for us. Without their willingness to participate, the research would not have been possible.

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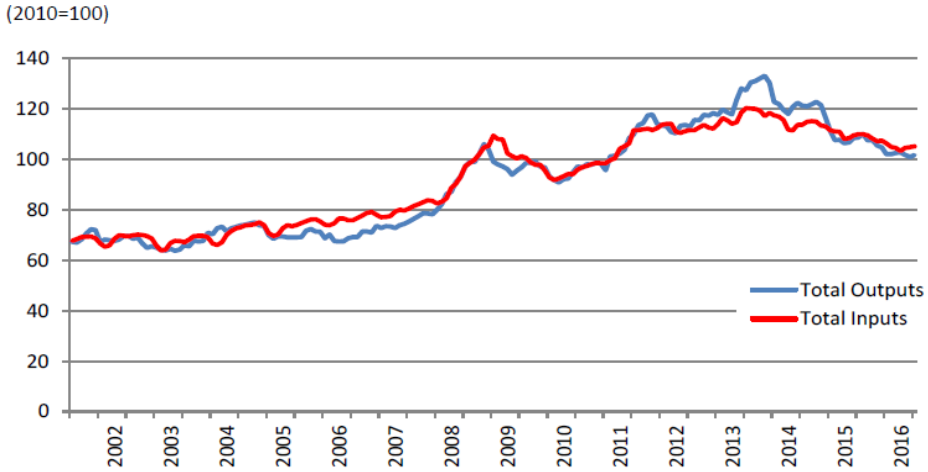
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1. Introduction

In 2014, agricultural commodity prices began a steady decline, spurred on by a cacophony of events, including a worldwide oversupply of certain products and the loss of markets- in particular due to the Russian ban on the import of food from the EU. This had a profound effect on farmers' livelihoods, particularly given the recent increase in commodity prices, coupled with relatively steady levels of input. Figure 1.1, obtained from the Agricultural Price Index,(API) published by the Department of Environment, Food and Rural Affairs, (DEFRA) shows the changing levels of overall inputs and outputs for the agricultural sector between 2002 and 2016.

Figure 1.1 Agricultural Price Indices



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As is clear from Figure 1.1, outputs, which represent the prices paid to farmers, have decreased dramatically from 2013, and have fallen sharply below the level of input(cost paid by farmers in producing food)in mid-2014, with the gap appearing to open up, rather than closing in late 2015/early 2016. Compare this to the last comparable downturn in 2008, when inputs fell sharply to effectively match output by 2010. The recent figures show that the sharp downturn in prices this time round has not been met by a similar sharp downturn in the cost of production.

Although Figure 1.1 shows that the effect has been felt across the board with regard to agricultural produce, it is perhaps most noticeable in the dairy sector, with Figure 1.2, also published in the API from DEFRA showing the dip in prices for milk across the United Kingdom as a whole, from a high at the beginning of 2014, to the lowest they have been in almost a decade, indeed, a fall of 12% is evident between January 2015 and January 2016.

While Figures 1.1 and 1.2 show the dramatic changes in the UK agricultural prices indices as a whole, the effects in Northern Ireland are perhaps most singularly pronounced, and will have a greater overall impact. This is because the agri-food sector remain Northern Ireland's largest industry, accounting for one quarter of manufactured products in Northern Ireland. As such, the poor commodity prices have larger ramifications for Northern Ireland in particular than for the UK as a whole.

Figure 1.2 Milk Price Index

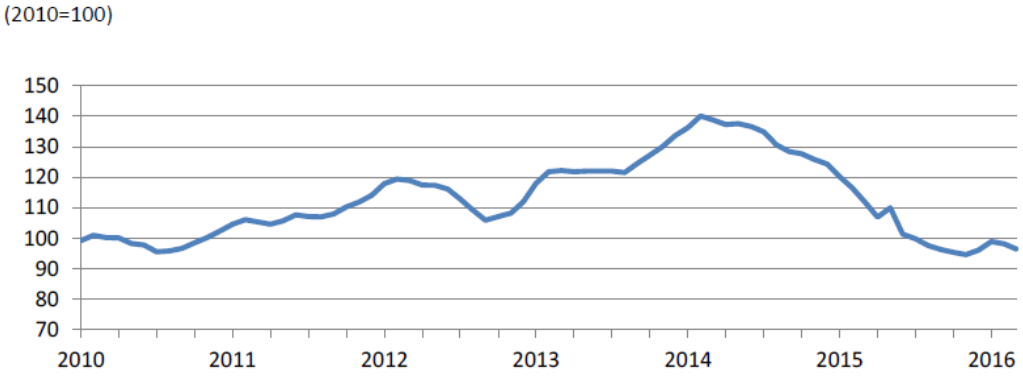


Table 1.1 shows the yearly average commodity prices for each of the main agricultural products in Northern Ireland between 2005 and 2015. These figures have been obtained from the Department of Agriculture, Environment and Rural Affairs' API. As can be seen, there is a substantial drop in prices for almost all commodities in 2015. The DEFRA graphs shown above do not indicate that 2016 is offering much in the way of an improvement in commodity prices. In particular, one can see that milk, wheat, barley and oats have been affected severely by the commodity price downturn.

Table 1.1 Northern Ireland average commodity prices per year 2005-2015.
(Source DAERA Statistics)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Milk Price (£/litre)	0.183	0.172	0.222	0.233	0.199	0.254	0.276	0.262	0.318	0.297	0.212
Finished Steers, heifers and young bulls (£/kg Deadweight)	1.78	1.92	1.93	2.48	2.61	2.55	2.92	3.17	3.55	3.29	3.26
Finished sheep and lambs (£/kg deadweight)	2.36	2.45	2.43	2.91	3.32	3.72	4.13	3.64	3.87	3.82	3.40
Finished clean pigs (£/kg deadweight)	0.96	0.99	0.99	1.16	1.33	1.28	1.34	1.40	1.56	1.46	1.19
Eggs (£/dozen)	0.361	0.400	0.509	0.573	0.678	0.651	0.682	0.805	0.734	0.722	0.756
Broilers (£/kg liveweight)	0.507	0.508	0.531	0.666	0.708	0.716	0.803	0.804	0.860	0.812	0.750
Potatoes (Ware Maincrop) (£/tonne)	88	117	134	126	125	125	121	153	196	125	126
Potatoes (Seed) (£/tonne)	95	125	172	171	182	174	183	157	218	167	151
Barley (£/tonne)	83	95	142	145	111	135	179	196	179	146	130
Wheat (£/tonne)	86	100	148	145	121	152	191	203	195	156	136
Oats (£/tonne)	83	99	139	147	120	140	173	207	193	162	152
Mushrooms (£/tonne)	1,232	1,144	1,243	1,232	1,213	1,210	1,390	1,425	1,450	1,484	1,496
Apples (£/tonne)	122	168	171	148	152	137	133	183	267	259	265

What each of these figures show is that the last two years have presented great challenges to the agricultural community, with many farmers now operating well below the cost of production, and losing money every month. The longevity of this downturn is itself an issue of great concern, as it does not appear thus far that inputs are moving to match the output level, and indications from industry leaders and policy-makers that the crisis is not one which will be short-lived, with no firm predictions as to when the commodity market will "sort itself out."

In a speech at an event organised by MEP Michel Dantin on 5th April 2016, EU Agriculture and Rural Development Commissioner Phil Hogan said that:

> *"At what is a very difficult time for agricultural markets, with a deeper and longer lasting crisis than had been foreseen, it is not easy to look beyond the here and now, but we must. Despite the current situation, the medium and longer-term prospects remain positive for EU agriculture. Global demand will recover and prices will improve. Unfortunately, predicting just when this will happen is a little more difficult...*
>
> *"I understand very well the concerns of farmers who are suffering under huge pressure, quite often farmers who have taken on loans to invest in their enterprises which they are now trying to repay. I appreciate that for those farmers and many others it may be difficult to see the light at the end of the tunnel, but I think that there are times when we should take a step back and look beyond the crisis...*
>
> *"Before concluding, I should return to the title of this presentation. The crisis in the agricultural markets, particularly in the dairy and pigmeat sectors, has been with us for some time now and looks likely to be with us for a while yet."*[1]

While in November 2015, former Department of Agriculture and Rural Development Minister Michelle O'Neill said:

> *"People are at the end of their tether. There is no doubt about it, this has been such a financially challenging year."*
>
> *"The prices they're receiving are putting farmers out of business and the impact on them is obvious. I am engaging with farmers who aren't sleeping because of the worry and the stress they are under. It's just so important that we have this conversation."*[2]

While Commissioner Hogan acknowledges the difficult circumstances in which farmers find themselves, and Ms O'Neill directly addresses the personal impacts on farmers' well-being, Rural Support are becoming increasingly concerned regarding the impact the crisis is having in the here-and-now. Does the commodity price crisis pose a threat of turning into a mental health crisis? To that end, we have carried out our own research into the health and social effects of the downturn, in particularly, the symptoms of mental health problems and general attitude toward one's self, one's environment and one's future:

[1] http://ec.europa.eu/agriculture/commissioner-speeches/pdf/hogan-2016-04-05-dantin-event.pdf
[2] http://www.bbc.co.uk/news/uk-northern-ireland-34945624

This research aims to build on an already substantial body of work produced by psychologists and sociologists worldwide- notably in Australia- in examining the mental health landscape of those engaged in agriculture. In particular, there have been several key factors which enhance farmers' risk of mental health problems, including: social isolation and exclusion; physically demanding work and long working hours under a range of different light and weather conditions; long working; high levels of stress, depression and anxiety; the volatility of commodity markets; the variability of weather patterns, influence of government regulations, and the inherent dangers of farming itself.

In addition, farmers have increasingly become price-accepters rather than price-setters for their produce, and have experienced an overall "loss of control" over their own land and livelihoods. As Fraser *et al* explain:

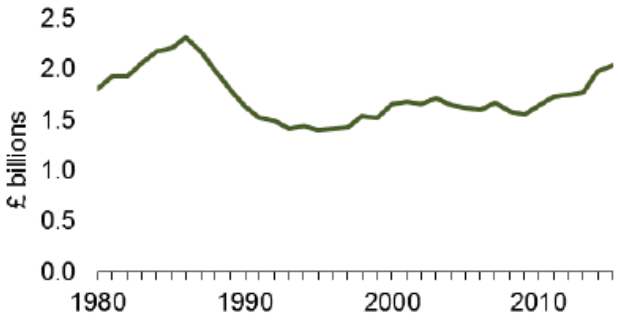
> *"the physical stressors and hazards of the farm environment are compounded by the regulatory frameworks and economic dynamics of managing a farm business. Farming enterprises operate in a context of declining terms of trade for agricultural produce; volatile commodity markets; limited availability of off-farm employment; growing cost of machinery and production; loss of farm or livelihood due to crop or production failure; and changing government policy in relation to a range of economic and environmental issues (Elkind et al., 1998). Economic concerns and pressures and government bureaucracy have been consistently identified as a major cause of stress. (Malmberg et al., 1999)"*

Although these studies refer primarily to Australia, it is probable that the same conditions exist in Europe, the UK and Northern Ireland. A briefing paper for the Northern Ireland Assembly in 2010 said that: "It is also thought that the financial pressures resulting from the current economic climate have had wide ranging effects on the agricultural industry and have led to increased stress and pressure on family relationships."[3] 2010, as we can see from Figure 1, marked a low-watermark for the API, caused by the global credit and debt crises. It is important that the lessons from this downturn are not forgotten given that we are now entering what could be a prolonged period of poor commodity prices and no clear sign of an ending to the crisis.

Also of importance as we consider the background to this research is the issue of debt. Farm borrowing has increased dramatically over recent years as farmers have sought to enhance their business and grow the industry. Figure 1.3, obtained from the Scottish Government, shows the long term level of outstanding debt in Scottish agriculture up to 2015.

[3] http://www.niassembly.gov.uk/globalassets/Documents/RaISe/Publications/2010/Agriculture-Rural-Development/12510.pdf

Figure 1.3 Long term trend in outstanding debt(1980-2015)[4]



This figure shows outstanding debt to be approaching its highest level in Scottish agriculture since the mid-80s, to a total of £2.05bn in 2015, up by 4% since 2014. This seems not to be out of the ordinary for the UK as a whole. High levels of debt in an industry are not necessarily a bad sign, since growth inevitably requires investment.

The 2013 publication of the Agri-Food Strategy Board's *Going For Growth* document provided a high-watermark in optimism and enthusiasm within the industry as a whole, and set some ambitious and laudable goals. However, the document also made a very revealing comment regarding bank-borrowing:

> *"of the 24,436 farm businesses in 2011 only 1,518 are classed as large. They are typically conservative in nature and, historically, financial support schemes and bank lending have represented the main sources of funding. While alternative funding mechanisms are available (often involving equity finance), the size of businesses and the level of profitability render this option unsuitable in most cases. Adequately funded support schemes and a properly functioning banking sector are therefore vital to industry's growth."*[5]

This is in response to a concern regarding access to finance among the agri-food industry. Growth in any industry requires large amounts of finance to be made available over a lengthy period of time, yet the cash-flow problems resulting from this recent financial downturn are making the repayment of loans an issue of concern for farmers in Northern Ireland. The link between debt and health and social problems is also well known, according to Vasavi:

> *"Debt, as part of the capitalization of agriculture and rural economies, is a signal aspect of the circuits of capital and is promoted as an inevitable process of economic growth and productivity. Even as debt forges new relationships between creditors and debtors, it generates a cultural grammar in which "repayment," "interest," "mortgage," "deferment," "reclaim," "seizure," and so on become part of the lexicon of the everyday life of debtors."*[6]

The key word in Vasavi's comment is the word "everyday." Many people today have some level of debt, but a steady income ensures that the words used in the above paragraph are

[4] http://www.gov.scot/Publications/2015/09/5070/1
[5] http://www.agrifoodstrategyboard.org.uk/uploads/Going%20for%20Growth%20-%20Web%20Version.PDF

not in one's thoughts day-in, day-out. The idea of the word "reclaim" or "seizure" being the first words entering one's head waking up, and the last before sleeping is a chilling idea. As we will come to later in this report, greater training on finance and income support is a key recommendation coming out of our research.

In drawing these introductory remarks to a close, it is worth re-iterating that this research is designed to be a snapshot of the situation as felt by farmers in Northern Ireland. Clearly more longitudinal data and resources would be helpful and desirable in assessing the long term impacts of the downturn. It is worth noting that the data collection and analysis was completed before the UK's vote to leave th European Union.

2. Methodology

The survey process took place over four stages: the design of the survey; a pilot exercise; the quantitative data-gathering stage; and finally the qualitative data-gathering stage. The design stage began in November 2015, when Rural Support examined the issues at stake, took into account the data from our own initiatives, notably the helpline and the Financial Mentoring Scheme. We then met with industry representatives in order to finalise a list of questions to be included in the survey. It was decided that we would require a sample size of at least 160(this would represent approximately 0.6% of farms in Northern Ireland.) Clearly a higher number would have been desirable, but resource is a key element in our work- particularly given that two of the researchers involved received no financial reward for their work.

The original questionnaire was then piloted at the 2015 Winter Fair. Getting 28 results back, it emerged that there were some issues with the initial survey, which were addressed. These included: lack of response options for respondents to indicate no health concerns and no option to indicate that one might have difficulty in procurement in the near future. These were added to the questionnaire for the later stages.

Following the pilot exercise, we were fortunate to receive help from the Ulster Farmers' Union, who distributed the survey at each of their President's Area Meetings in February and March 2016. This aided us greatly in accessing the audience we required and we received over 100 responses through this.

Finally, the survey was published online, and again we were fortunate enough to receive help from various bodies in sharing the link on social media. The online platform included three new questions: asking respondents how much debt their business had; how much money they were losing each month(if applicable) and whether or not they would encourage their children to enter the industry. However, we only received 37 online responses before calling a halt to the quantitative procedure in May 2016. As a result, the results for these questions will be included in Appendix 1.

The qualitative stage began in April 2016, with consideration of the results obtained so far. We proceeded with pilot face-to-face interviews, during which no real issues were identified with the interview programme. Following this we were able to complete five more interviews, giving us a total of seven to work with. We called a halt to the qualitative stage in May 2016.
A copy of the questionnaire is included in Appendix 2, and the interview programme is included in Appendix 3. The rationale behind each of the key variables is described below.

2.1 Gender.

Gender is an important issue within mental health studies, and attention has been drawn to this in various studies we have considered. (Fraser *et al.,* 2005; Vasavi, 2014; Roy *et al.,* 2013; 2014) In particular, the issue of male mental health is prescient, with particular stressors present for males, including a culture of primogeniture in farm succession, perceived models of masculinity and self-esteem. (Stehlik, Gray & Lawrence, 1999) A male farmer will most likely inherit the family farm from his father, who inherited from his father and so on, as such, "failing" to keep the farm viable and profitable can lead to crises in male farmers' mental health. In addition, males often have a culture of not sharing their problems or seeking peer or

professional support. We are interested to see how males would report their ability to talk to someone about their problems, or if they could talk to someone else they felt may be in difficulty.

Females in the farming industry, on the other hand generally report higher levels of stress than their male counter-parts, as well as high levels of depression and other issues.(Carruth & Logan, 2002) In many cases, a farming woman's role is almost limitless: book-keeping; child-rearing; caring for the elderly; looking after young stock; and running errands for the farm. In addition, many farming women now seek off-farm employment in order to ensure the viability of the farm and thus wear three hats: farmer, home-maker and employee (Gallagher & Delworth, 2003) As a result, there is concern about these women being run down and suffering from fatigue. With many farms losing money, we have concerns that many women in rural Northern Ireland may be being spread too thinly. We are also interested in the power relationship existing on farms, and how many females- particularly older females would identify as the owner of the farm.

2.2 Age.

With the UK median age for a head of holding at 59[7], age is an important factor in considering mental health challenges and issues, and this is no different in the farming context. (Polain *et al.,* 2011) An older farmer, frequently working well beyond retirement age, faces increased difficulties due to illness, loss of ability, less energy, difficulty in keeping up with technological advances and the effects of bereavement. There are also issues regarding access to care, and older farmers, both male and female, often find themselves assuming caring responsibilities for their spouse. In addition to this, many older farmers have experienced a loss of social capital over the last half-century. Rather than being viewed as pillars of the rural community, many farmers feel left behind and excluded. As a result of these factors, many older farmers can sometimes be left feeling unvalued and as though they have failed as Polain *et al.* explain:

> *"Some older farming families felt increasingly marginalised from the rest of society. A perceived loss of economic and social status and of self-esteem emanated, partly, from being unable to cope with modern electronic communication and business practices. Although many understood the macroeconomic context, their marked loss of wealth had led to a pervasive sense of failure: in losing the family farm, they had failed their ancestors; in being unable to provide secure support, they had failed their wives; and, in being unable to pass on the family farm, they had failed their descendents. Increasing government regulation and reporting requirements also contributed to a sense of growing disenfranchisement."*[8]

The factor of age is inextricably linked to the length of time the farm has been in operation, with many farmers having worked on the farm all their lives, having inherited it from their parents. This idea of "custodianship" is strong within the farming community as many farmers wish to preserve the farm and have it in a better position to hand on to their children. The idea

[7] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/315103/auk-2013-29may14.pdf
[8] Polain, J, Berry, H, Hoskin, J, 'Rapid change, climate adversity and the next 'big dry': Older farmers' mental health.', *Australian Journal of Rural Health* Oct 2011; 19(5): 239-243. (5p)

of a "life's work" in this remains in farming culture, mirroring the catchphrase: "it's not a job, it's a way of life." (Melberg, 2003)

2.3 Marital Status and Family.

Family relationships play a very important role in mental health and well-being, with the family structure playing an important role in providing support throughout a person's lifetime. Also, issues like relationship breakdown, conflict, domestic violence and divorce have an impact not only on those in the relationship, but on the wider family network. (Shrifen *et al.,* 2015; Cohen & Finzi-Dottan, 2012) This is particularly felt in farm environments, where divorce can be particularly messy and the fall-out much more traumatic for all involved.(Haugen & Brandth, 2014)

According to Fraser *et al.,*

> *"There is some data to suggest that farmers are more likely to live in close proximity and have more contact with parents and parents-in-law than non-farmers (Swisher et al., 1998). Whilst this proximity has the benefit of providing support, it can also impose demands and responsibilities, such as conflict over roles between generations and family members, and responsibility for dependent relatives. Family problems can become work problems and work difficulties can create family tensions (Weigel et al., 1987)."*

We are therefore interested in the interplay between family or relationship status and mental health and well-being. This data cannot be fully captured using the quantitative measures we have employed, so will be dealt with most fully in the qualitative section. In particular we hope to gain insight on the particular dynamic and correlations between age, marital status, gender and mental health.

From a more economic point of view, we are interested to see the relationship between off-farm income and financial liquidity. Are households in which one spouse works outside of the industry and brings in another wage less prone to have difficulties in procuring goods and services for the home, and do they have less difficulty in paying for items for the farm? As noted above, the line between household and business is often very blurred when it comes to farms so it is expected that having an off-farm income will lessen the financial pressure on both farm and household.

In addition to the above, we have considered the number of dependents each respondent has, with variables for both child dependents and adult dependents. Given that many farmers, both male and female, find themselves in the role of carer, it will be interesting to see the effect that this has both on financial difficulty and their overall mental health score.

2.4 Farm Size and Type.

As Figures 1 and 3 makes clear, the last year has been very challenging for farmers across almost all sectors, with dramatic losses in income through farmgate prices. However, it appears from the data that some commodities are performing better than others. In particular

it appears that dairy and cereals are badly affected, while the red meat sector is also facing a period of difficulty.

Of interest also is the size of the farms in question. While most farms in Northern Ireland are firmly placed in the family-run tradition, the trend over recent years has seen a radical shake-up in the size, and number of farms in Northern Ireland. According to the Ulster Farmers' Union:

> *"Farming in Northern Ireland has been under increasing pressure in recent years, in 1997, there were 32118 farms in NI, in 2013 there were 24503- a drop of 24%. Of the farms in 1997, 11386 were classified as 'small' and 3322 were 'medium'; in 2013 there were 3063 small and 1187 medium- a combined drop of 71%. However, the number of 'large' farms has increased from 551 in 1997 to 1534 in 2013, while the number of 'very small' has remained largely stable, increasing from 16859 in 1997 to 18719 in 2013. Thus the dynamic of farming has changed considerably, with the pressure on farmers either to 'scale up or ship out'. There are many reasons for this change, which the committee will be familiar with but the economics aside, the impact on farmers and their families has been substantial."*[9]

In spite of this, we expect that farms of all sizes will be under pressure, but that those in the "small" category(20-40ha) and those in the "large" and "very large" categories(over 60ha) to be feeling the pressure the most. This is because we anticipate that those in the "very small"(less than 20ha) category will have a lower dependence on the farm for their household income.

2.5 Mental Health

After consultation with the farming industry, we have developed a model for assessing the mental health impacts on the farming community. This involves asking respondents to state the day-to-day effects of five symptoms affecting mental health by saying if they felt them not at all, rarely, sometimes, often and all the time, and three other questions asked regarding worry, compared to the past and the future, giving three options for answer. In doing this we have mirrored the approach taken by the Warwick-Edinburgh Mental Well-being Scale.[10] Although the categories we have used are different, we hope that we are able to paint a picture of the day to day lives of farmers and how they are affected by poor mental health.

The five questions we have included on the five point scale are:

- Have you, at any stage over the past 12 months, worried about the impact that financial constraints were having on your family?
- Do your worries ever keep you awake at night?
- Do you ever have feelings that you can't cope with your current situation?
- Do you ever feel you have failed?
- Do you ever worry because of the pressure you are under?

[9] http://www.niassembly.gov.uk/globalassets/documents/agriculture-and-rural-development/reviews/anti-poverty/ufu-briefing-paper-181114.pdf

[10] http://www.healthscotland.com/scotlands-health/population/Measuring-positive-mental-health.aspx

The three categories on the three-point scale are:

- Do you feel more or less optimistic than you did five years ago?
- Do you find yourself worrying more or less about your financial situation than you did 3-5 years ago?
- Do you worry that in the next twelve months you will have more or less difficulties financially if things do not change?

On the three-point answer scale, an answer that a person felt better that they had previously was given a score of -1 for that category; stating that they felt the same resulted in a 0 and saying they felt worse gave a score of 1. For the five-point answers, saying that they never felt these things gave a score of 0; rarely a score of 1; sometimes a score of 2; often a score of 3 and all the time a score of 4. These were then added together to give a cumulative score out of 23.

In interpreting the final score, we have devised the following categories: a total score of less than 5 is deemed to indicate that the respondent is having virtually no problems as a result of the downturn; a score between 6 and 10 indicates some problems; between 11 and 15 and the individual is deemed to be of concern, as the impacts of the crisis are having an impact on their mental health; those scoring 16 and above are, on our scale in a serious situation. Figure 2.5.1 presents the model in visual form.

While we believe this scale is a useful indicator of mental well-being, it must be remembered that it is not a clinical diagnostic tool. There is no automatic presumption that those scoring high on our scale are in need of medical intervention, although we would have serious concerns about anyone scoring 11 or above. As this indicates some level of pressure on their well-being. We hope that this scale can be revised and updated in future to aid us in assessing the overall well-being of the farming community in time-series analysis.

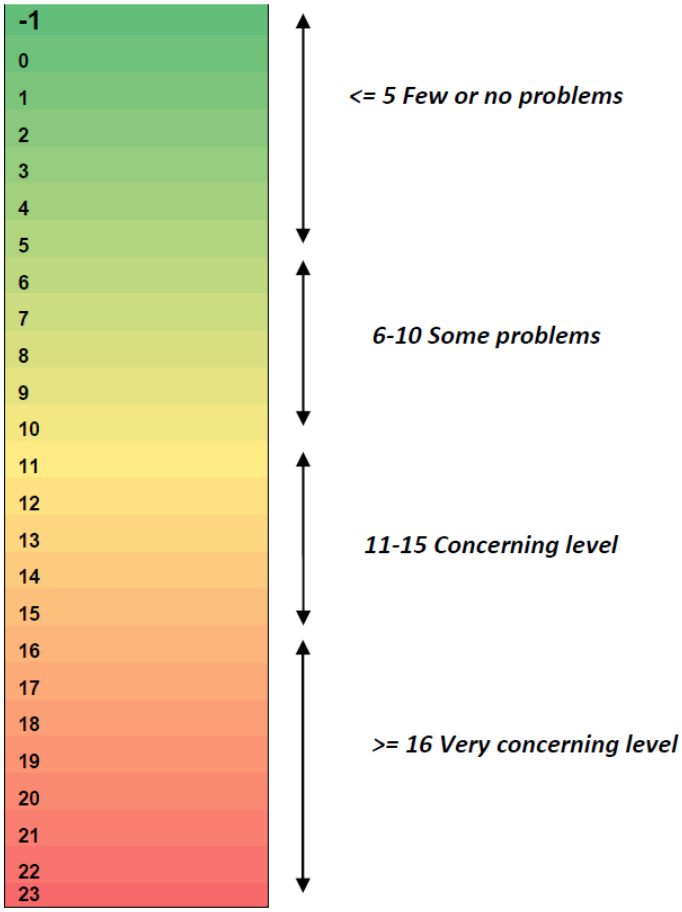
Each of the variables we have included is associated with mental well-being and are included on the Mental Health Foundation website, as well as being addressed in many academic journals. So while the model should not be taken as exhaustive, there is good reason to believe it rests on sound psychological foundations in gaining a snapshot of the respondent's well-being as a result of the commodity price downturn. It is also worth noting at this stage that the model includes only those who answered all of the questions included.

Aside from the variables included in the scale model, we have also inquired about whether respondents would feel comfortable talking to someone if they felt they were having mental health issues, as well as asking if they would feel comfortable in approaching someone else if they felt that the other person was in difficulty. This is to give us some insight into the level of stigma that still exists within the farming community with regard to mental health. (Fraser *et al,* 2002) We have also asked whether respondents have someone in their lives they feel they can talk to if they feel they are having problems.

These last factors will be interesting to explore with regard to age, gender and marital status. We expect that older people and unmarried people may find it more difficult to approach

someone if they are in difficulty, while the very old and the young may have no-one to turn to in a time of difficulty.

Figure 2.5.1 Mental Health Scale



2.6 Effect of the downturn and financial difficulty.

We have included variables reflecting the impact which the recent financial downturn has had on farmers, from "little or no impact" through "slight impact," "noticeable impact," "big impact" and "severe impact." This scale will allow respondents to indicate how they feel they have impacts, rather than constructing a model which will assign them an impact level.

The reasons for this are twofold: firstly, it will help assess how the farmers themselves feel they have been affected. Since this is a mental health study, and not an economic assessment, the perception of the impact is the most important factor. What may be felt as a severe impact by some farmers may not be felt so keenly by another individual with different circumstances outwith the farm. Secondly, the use of relatively colloquial and non-technical language in this category will help farmers identify which level of nuance they feel most approaches their situation, without having to analyse the situation *ad nauseum*, as stated, we are interested in how they feel they have been impacted by the downturn. The task of putting this in a fully quantified variable is not one for Rural Support in this study.

There are also two variables which ask if farmers have had difficulty in the procurement of various goods and services for their farm or for their household over the past 12 months. The lists were drawn up in consultation with industry representatives in order to most accurately capture the picture on things farmers may well be struggling to pay for. The lists can be seen in Appendix 2. We have also included an option for respondents to say that while they have been able to meet their payments thus far, they worry that they may be unable in the near future. This is an important variable as it includes an element of how the farmer sees the future and their worries about it. Given the likely longevity of the downturn, the fact that farmers can say they feel they could be in serious problems soon is particularly important.

3. Findings

We were able to exceed our target of 160 responses, getting 199 survey responses in total. This is very encouraging and gives us a solid evidence base to work from. The breakdown of the 199 responses is included below.

Table 3.1 Gender

	Frequency	Percent
Male	179	89.9
Female	20	10.1
Total	199	100.0

Figure 3.1. Gender

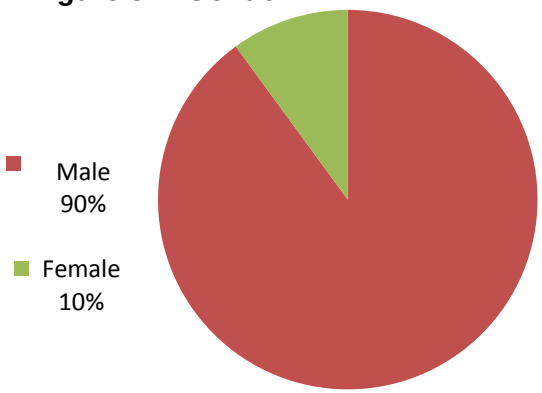


Table 3.1 and Figure 3.1 represent the gender breakdown. It is disappointing, yet unsurprising that females constituted such a small proportion of our results, and this will need to be considered in crosstabulations featuring gender as a variable. However, it is important to remember that farming still remains a male-dominated industry, so to achieve 10% female responses is encouraging. It is also worth noting that many of the female responses came on the online survey. This is important in and of itself since it shows that females are more likely to engage this way, rather than attending a farmers' meeting. Results are weighted appropriately to account for gender disparity.

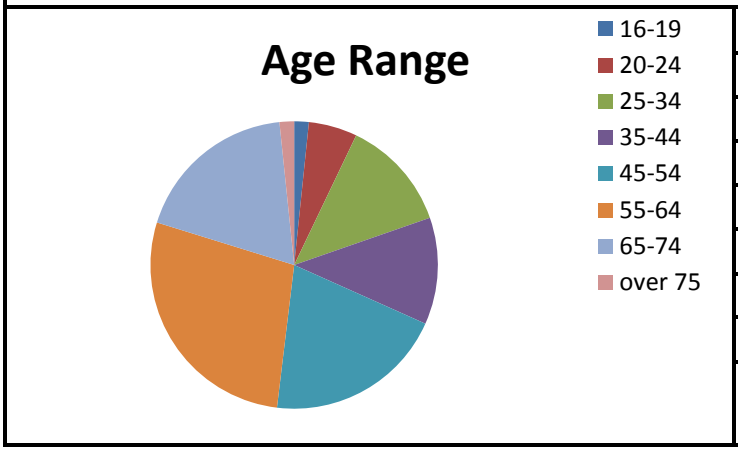
Table 3.2. Type of Enterprise

	Beef	Dairy	Sheep	Pigs	Poultry	Cereals	Potatoes	Other
Valid	105	77	57	2	9	15	4	5
Percentage	52.7	38.6	28.6	1.0	4.5	7.5	2.0	2.5
By Size								
Very small	7	3	3	0	1	0	0	1
Small	18	7	9	0	3	4	1	1
Medium	27	24	16	0	3	1	1	0
Large	35	27	17	1	2	6	1	3
Very large	15	16	8	1	0	4	1	0

Table 3.2 shows the distribution by size and type of farm. It is clear that beef, dairy and sheep form the lion's share of our responses. Please also bear in mind that many farms are mixed enterprises. It would have been better to get more pig, poultry, cereals, potato and other types of farm in order to get a fuller picture. However, red meat and dairy do form the largest sectors of the Northern Irish agricultural community so it is unsurprising that they form the majority of our responses. However, this does present some challenges with regard to low cell counts, therefore, we shall carry out a recoding of the data, grouping pigs, poultry, cereals, potatoes

and other into one category. Further sector-specific research would be very helpful to us, but in the world of statistics, one must work with what one has to hand.

Figure 3.2 Age Range



	Frequency	Percent
16-19	3	1.6
20-24	10	5.5
25-34	23	12.6
35-44	22	12.0
45-54	37	20.2
55-64	51	27.9
65-74	34	18.6
over 75	3	1.6
Total	183	100.0

The age range presented appears to show a good spread and distribution of ages, although slightly skewed in favour of older farmers, it does not appear problematic to the study. It is worth remembering that the average age of a head of holding in Northern Ireland is 59 years. This is borne out by the study, as the largest group is that between 55 and 64, with the two groups adjacent to this one being the second and third largest. However, 58 responders below the age of 45 is encouraging in and of itself. Given the low cell counts in some categories here, we shall recode the '16-19' and '20-24' categories into '16-24' and '65-74' and 'Over 75' into '65+.' This will help ensure the statistical significance of our results.

Table 3.3 Relationship Status

	Frequency	Percent
Single	24	12.5
Married/Civil Partnership	149	77.6
Engaged/ In a relationship	7	3.6
Divorced	3	1.6
Separated	1	0.5
Widowed	8	4.2
Total	192	100.0

In order to help ensure statistical significance, we have recoded the variable to include only three categories: never married; married and previously married. Although this loses much of the nuance in the differing effects of divorce, separation and widowhood, and establishes marriage as the dominant relationship paradigm, we believe it is justified in the context of the results we have received. More specialised studies into the effects of the young and the old in

the farming population would undoubtedly help explore the nature of the effects of being single and of marital breakdown or widowhood and provide useful information on the health and social effects of this. A table showing the recoded variable is included as Table 3.4

Table 3.4 Marital Status

	Frequency	Percent
Never Married	31	16.1
Married	149	77.6
Previously Married	12	6.3
Total	192	100.0

The following table shows the qualifications which respondents report having completed. There are three categories: secondary school qualification; post-secondary school qualifications; and none. It is encouraging that more than half of respondents have a post-secondary school qualification, but concerning that 17% have no qualifications whatsoever. It would have been interesting to explore the type of post-secondary school qualifications held: professional qualifications, diplomas, degrees, post-graduate degrees? As well as this, the subject in which the qualification was taken in.

Table 3.5 Qualifications

	Frequency	Percent
Secondary School	59	31.4
Post Secondary	97	51.6
None	32	17.0
Total	188	100.0

As for dependents, the following two figures show the number of child and adult dependents shown in the survey.

Table 3.6 Adult Dependents

	Frequency	Percent
0	113	61.4
1	26	14.1
2	30	16.3
3	10	5.4
4	4	2.2
9	1	0.5
Total	184	100.0

Table 3.7 Child Dependents

	Frequency	Percent
0	125	67.9
1	12	6.5
2	23	12.5
3	18	9.8
4	5	2.7
5	1	0.5
Total	184	100.0

As is clear from these results, there are some issues with low cell counts which will affect statistical significance. Therefore we will recode the groups into three categories, 'No Dependents;' '1-2 Dependents' and '3 or more dependents.' These new categories will be used in both the adult and child dependents sections. The recoded variables are shown below in Tables 3.8 and 3.9.

Table 3.8 Child Dependents

	Frequency	Percent
No Children	125	67.9
1-2 Children	35	19.0
3+ Children	24	13.0
Total	184	100.0

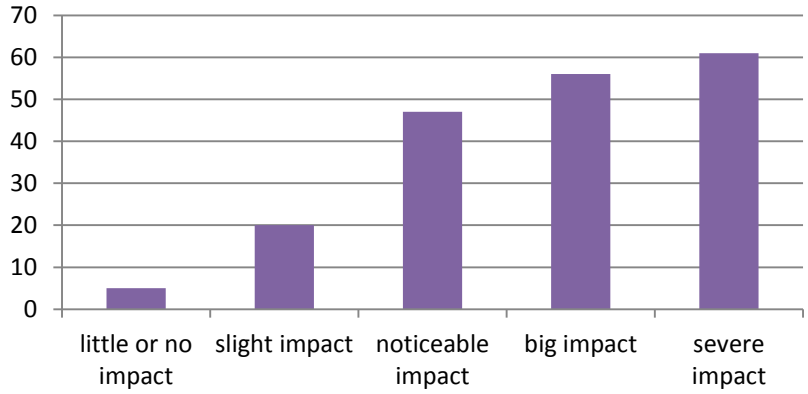
Table 3.9 Adult Dependents

	Frequency	Percent
No Adult Dependents	113	61.4
1-2 Adult Dependents	56	30.4
3+ Adult Dependents	15	8.2
Total	184	100.0

Next, we turn to the effect of the downturn, which has been measured on an ordinal scale from 'Little or No Impact' through to 'Severe Impact.' Figure 3.3 uses a bar chart to depict the scale of the effect.

The results of this are striking: 86% of respondents report that their farm has suffered a noticeable, big, or severe impact as a result of the crisis. This is how farmers themselves perceive the impact, and they are the ones who are living the effects day-in, day-out. It is also their perception of the impact on the farm business which will affect their view of its future, and of their success as a farmer in keeping it going. Indeed, the fact that the 'severe impact' group is the largest of the five groups shows that farmers perceive that the word "severe" accurately describes the situation in which they find themselves. With regard to statistical significance, we believe it is necessary to disregard the 'little or no impact' category, unless otherwise stated.

Figure 3.3. Effect of Downturn



Next, we shall consider the initial results of the mental health model. As noted above, this takes account of various factors which concern an individual's mental health and well-being and assigns them a score out of 23. We have then reprinted Figure 2.5.1 in order to highlight the mean and median scores on the chart itself. The overall mean and median come to 9.8/23 and 10/23 respectively. These results are on the borderline between the "some problems" and the "concerning level" brackets. We shall return to this later in the study, but for now we can say that the mental health scores on our model merit a "yellow alert." Additionally, please bear in mind that the mean is the average score, indicating that there are a great many well above this score: the statistics table below indicates that the highest score is 21/23.

Table 3.10 Overall Mental Health Scores		
N	Valid	173
	Missing	26
Mean		9.80
Median		10.00
Std. Deviation		4.534
Range		22
Minimum		-1
Maximum		21

We have also produced a histogram to highlight the spread of results stemming from our study. This is included in Figure 3.4 and will show the distribution of results around the mean, as well as those a greater distance away. The distribution is very important as the mean value for the mental health score should not be taken in isolation, but considered as part of the larger context provided by the rest of the results.

Figure 2.5.1 Mental Health Scale

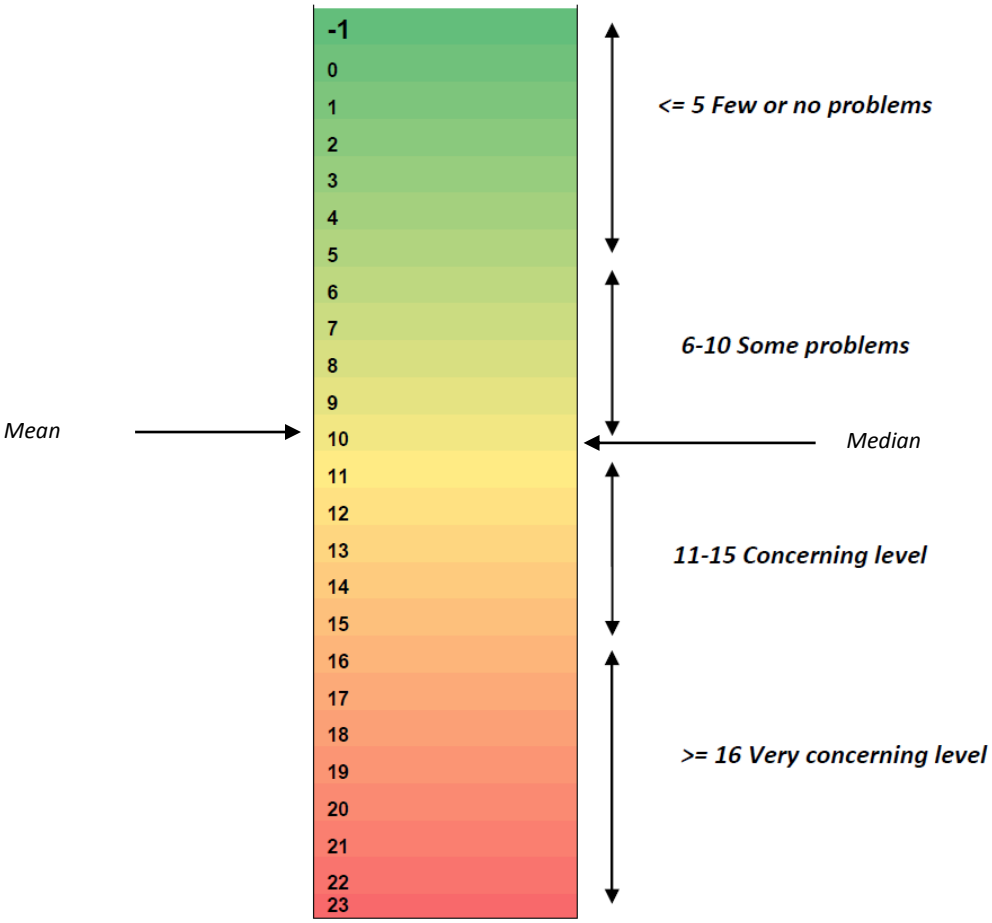
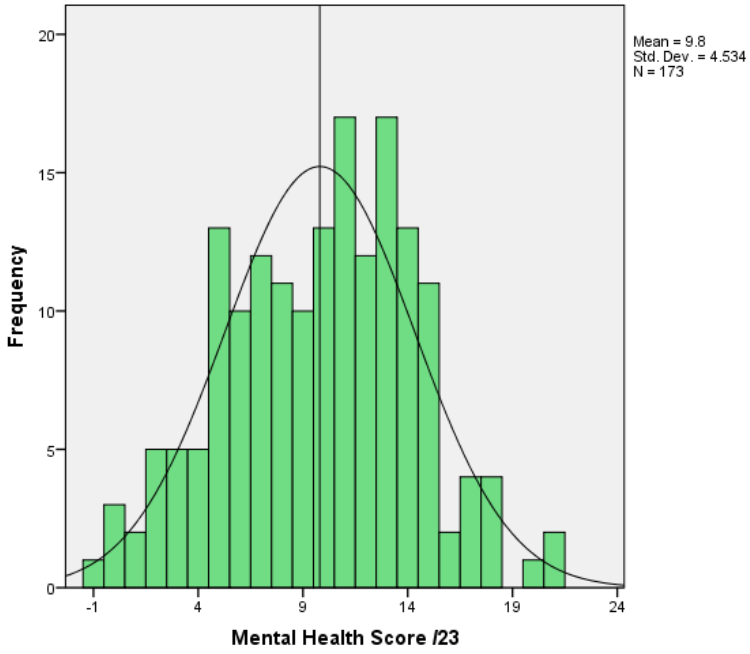


Figure 3.4 clearly shows that while the mean score is 9.8, there is also a significant number of respondents in both the lower and the higher categories, particularly the 11-15 group, for whom we would have concerns, and a substantial number in the lowest group, whom we believe to have few or no problems with regard to our model. The number in the highest category appears small, but has enough members to be concerning. We would anticipate that if things do not improve, a repeat of this study in a year's time could produce a histogram with a different mean and distribution. While we believe this study is significant, it would be greatly aided by a benchmark against which to measure the level of mental health and well-being we have recorded.

It is worth repeating once again that this is not a clinical diagnostic tool, but rather an aid to help us assess the overall mental health of respondents. Perhaps a better way of thinking about the model is that it reflects the level of concern we have regarding a respondent in our role as a mental health charity, rather than an absolute determination on the state of their mental health- which is well beyond the scope of our study.

Figure 3.4 Mental Health Score



As for financial circumstances in the home and on the farm, we can now present the overall results for the survey. In order to present these meaningfully, we have coded the variable to reflect those who have struggled to pay for one good or service; those who have struggled to pay for multiple goods or services, those who have not struggled yet, but fear they may soon, and finally those who report having had no difficulties. We shall stress again here that this is not an economic or business study, and what we are interested in is the difficulty in paying, regardless of what it was for. If a reader has any queries regarding the items which farmers most struggle to pay for, they should contact the authors.

Table 3.11 Issues paying for goods/services

	For farm		For household	
	Frequency	Percent	Frequency	Percent
Single good/service	16	8.7	11	6.0
Multiple goods/services	42	23.0	12	6.6
Not yet, but maybe soon	65	35.5	61	33.3
No difficulties	60	32.8	99	54.1
Total	183	100.0	183	100

Figure 3.5. Issues paying for goods/services for farm

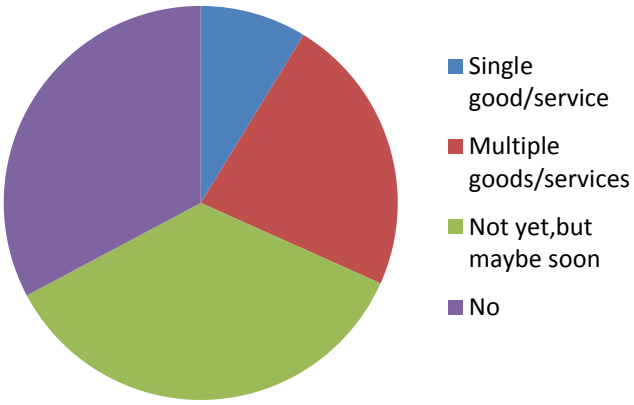
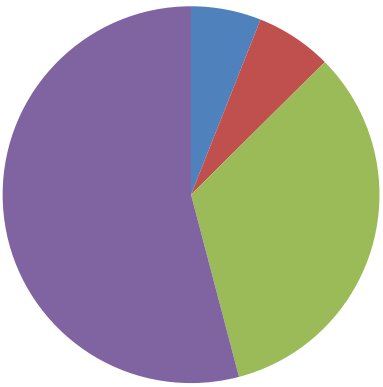


Figure 3.6 Issues paying for goods/services for household



As we can tell from these charts, the same number of people are worrying about their future ability to pay for both goods and services for their farm business and their household; notice that the purple segment of Figure 3.5 is a great deal smaller than in Figure 3.6, while the green segment is much the same size. This suggests that the worry regarding paying for goods and services has already begun to cross the (already blurry) line between the farm business and the household. The concern for the future in the farming community is therefore understandable. It is particularly worrying that less than two thirds of respondents indicated that they have had no difficulty paying for goods or services for their farm, while almost the same number(31.7%) reported that they have already experienced difficulty in paying for at least one good or service for their farm in the past year.

Building on this, Table 3.12 shows the number of people who have sought either alternative or supplementary income to their farm business in the last year, or who are considering doing so. Once again the results are striking; 36.1% have had to seek alternative or supplementary income for their farm in the past year in order to stay afloat, while another 22% say they may well do so in the near future. This has huge ramifications for the future of the industry, as if people are either leaving the industry or seeking supplements to their income from it, we may well see less full-time family farms in Northern Ireland as a result of the downturn.

Table 3.12 Those seeking alternative or supplementary income in the past year

	Frequency	Percent
Alternative Income	28	15.1
Supplementary Income	39	21.0
No, but I might	41	22.0
No	78	41.9
Total	186	100.0

Finally, we shall outline the overall results for people's attitudes towards talking about mental health. Tables 3.13 and 3.14 show the number of people who would be comfortable speaking about their own problems, and whether or not they feel they could approach someone else if they felt that the other person was in difficulty.

Table 3.13 Approaching someone if you have mental health concern

	Frequency	Percent
Yes	40	26.0
Only a professional	57	37.0
Only someone known personally	31	20.1
No	26	16.9
Total	154	100.0

Table 3.14 Talking to someone else who may have a mental health concern

	Frequency	Percent
Yes	85	57.4
No	63	42.6
Total	148	100.0

While table 3.13 is encouraging in that it shows the vast majority of respondents feel they can engage with someone if they feel they have a mental health problem, Table 3.14 highlights that there is still a lot of work to be done around mental health awareness in Northern Ireland, as 42.5% feel they would be unable to speak to someone if they felt that the other person was having difficulty. This is not a criticism of the farming population, as approaching someone with this sort of issue can be delicate and there is a fear of saying the wrong thing. We will return to this in our recommendations section, but we feel that awareness of mental health among farmers must remain a top priority. In addition, the 16.9% of people who feel unable to talk about their own problems highlights a real concern.

4. *Analysis of impact on the farm business*

We shall now perform some more complex statistical testing and analysis of the data at hand in which we hope to dig deeper into the nuances of the findings and raise specific points of interest. In particular, we shall be looking at the mean mental health scores of various groups within the survey and comparing them to the overall mean of 9.8/23. By doing this we hope to highlight the groups of greatest concern and who therefore require the most attention. All aspects of statistical significance shall be referred to in the course of this section. In order to ascertain statistical significance, we shall use a chi-square test, and seek a p-value of less than 0.05, however, this may not be possible due to the size of the dataset at hand.

4.1 A Note on the Downturn.

We shall now examine the effect of the downturn on different types and sizes of farm. As mentioned above, we have recoded the farm type variable into four categories: dairy, beef, sheep and others. While this is a limitation on the study, there is simply not enough data to produce significant results for each of the other sectors individually. Figures 4.1.1 - 4.1.4 show the effect on each sector using pie charts.

From these figures it does appear that the dairy sector is the worst affected in percentage terms, with 38% of farmers engaged in dairying reporting a severe impact, with another 28% reporting a big impact. This compares to 35% and 30% for beef and 27% and 37% for sheep. While each of these results is significant, 13% of beef farmers reported a slight impact or less. This is much less than for either dairy or sheep. This indicates that the impact on those engaged in beef farming is much more spread out.

The next consideration is to take the size of the operations into account. The results of this analysis are included in Table 4.1.1 below. This breakdown helps us to assess how the size of the farm is affects the effect of the downturn. As mentioned above, we hypothesise that medium-sized farms will be the worst affected by the downturn, rather than the very small and very large farms. Given the relatively low numbers in the 'Others' category, we shall proceed only with dairy, beef and sheep. Since this will reduce the number of counts in the 'little or no impact' category to 3, we shall therefore exclude this data at this point also.

Figure 4.1.1 Impact of downturn on Dairy Sector

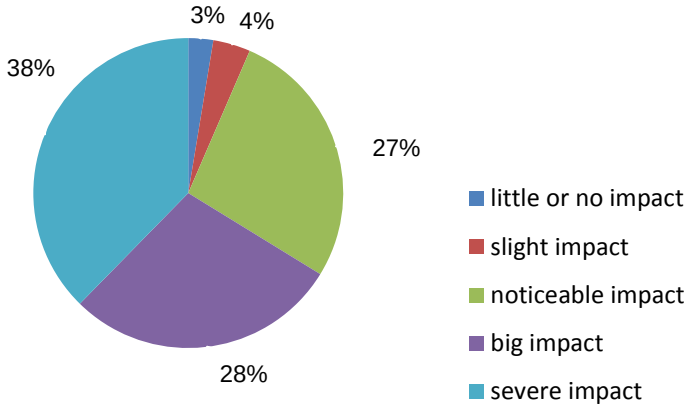


Figure 4.1.2 Impact of downturn on Beef Sector

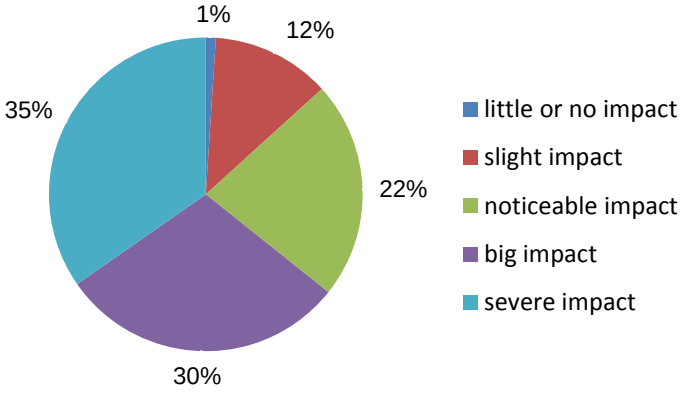


Figure 4.1.3. Impact of downturn on Sheep Sector

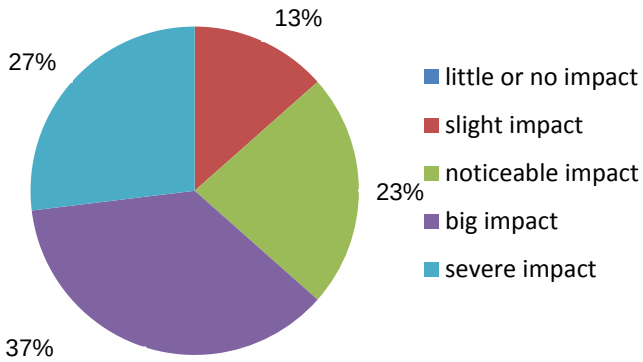


Figure 4.1.4 Impact of downturn on Other Sectors

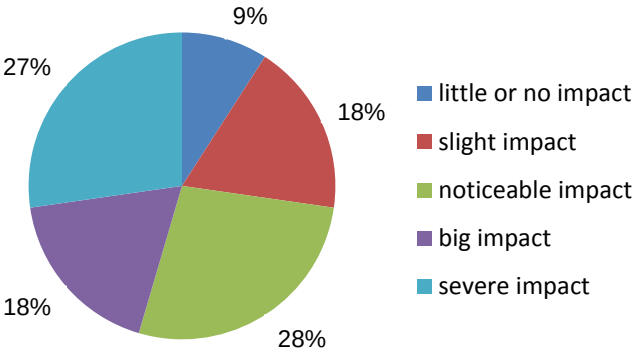


Table 4.1.1 Effect of the Downturn by size in each Sector

		slight impact(%)	noticeable impact(%)	big impact(%)	severe impact(%)	Total(Count)
Dairy	Very Small	33	33	0	0	3
	Small	0	14	14	71	7
	Medium	4	46	25	25	24
	Large	4	22	41	33	27
	Very Large	0	13	25	56	16
Total(%)		4	27	29	38	77
Beef	Very Small	14	29	14	43	7
	Small	12	29	24	35	17
	Medium	11	19	37	30	27
	Large	12	27	33	27	33
	Very Large	14	7	21	57	14
Total(%)		12	22	30	35	98
Sheep	Very Small	33	0	33	33	3
	Small	22	33	22	22	9
	Medium	6	25	38	31	16
	Large	13	19	50	19	16
	Very Large	13	25	25	38	8
Total(%)		13	23	27	37	52

Table 4.1.1 indicates that of the severely impacted farmers in beef and dairy, most tend to be in the 'Large' or 'Very Large' categories, although the groups we can identify as being the worst affected are medium-sized beef enterprises, with 18/27, or 66% of respondents reporting either a big or a severe impact and large dairy farmers, with 74% affected in a big or severe way. Table 4.1.1 also brings up low cell count issues with very small and slightly impacted farmers, it is therefore prudent to exclude slightly impacted farmers from the study altogether and combine the 'small' and 'very small' categories in the farm size variable into one category, known henceforth as 'small.'

The next step in building our model is to add in the factor of household dependence on the farm. Perhaps unsurprisingly at this stage, our results show that large or very large dairy and beef farms with a higher dependence on the farm for their household's income report the worst impacts on their farm business as a result of the crisis. While the size of the farm and the sector have already been explored by the industry, we believe that our limited data has drawn attention to the household dependency factor, which would merit further study. The results of the overall assessment are shown in Table 4.1.2 below, which outlines the effects of the

downturn by farm type, farm size and household dependence on the farm income. We have included only two categories for household dependence: 'only or biggest income' and '50% or less of income.' The reason for this, as you have probably already guessed, to preserve statistical significance.

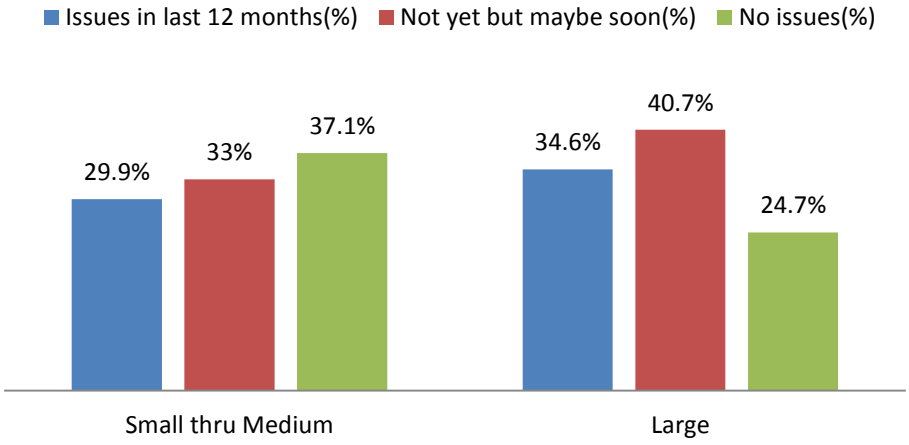
Table 4.1.2 Effect of Downturn by Farm Size by Household Dependency

			Noticeable Impact(%)	Big Impact(%)	Severe Impact(%)	Total(Count)
Only or Biggest Income (Dairy)	Farm Size	Small	17	17	67	6
		Medium	53	24	24	17
		Large	18	36	45	33
	Total(%)		29	30	41	56
50% or less of Income(Dairy)	Farm Size	Small	50	0	50	2
		Medium	33	33	33	6
		Large	25	38	38	8
	Total(%)		31	31	38	16
Total(Dairy)	Farm Size	Small	25	13	63	8
		Medium	48	26	26	23
		Large	20	37	44	41
	Total(Dairy)(%)		29	31	40	72
Only or Biggest Income(Beef)	Farm Size	Small	14	29	57	7
		Medium	15	46	38	13
		Large	9	43	48	23
	Total(%)		12	42	47	43
50% or less of Income(Beef)	Farm Size	Small	43	21	36	14
		Medium	30	40	30	10
		Large	44	22	33	18
	Total(%)		40	26	33	42
Total(Beef)	Farm Size	Small	33	24	43	21
		Medium	22	43	35	23
		Large	24	34	41	41
	Total(Beef)(%)		26	34	40	85
Only or Biggest Income(Sheep)	Farm Size	Small	25	25	50	4
		Medium	14	43	43	7

		Large	18	47	35	17
	Total(%)		18	43	39	28
50% or less of Income(Sheep)	Farm Size	Small	40	40	20	5
		Medium	38	38	25	8
		Large	50	50	0	4
	Total(%)		41	41	18	17
Total(Sheep)	Farm Size	Small	33	33	33	9
		Medium	27	40	33	15
		Large	24	48	29	21
	Total(Sheep)(%)		27	42	31	45

The final step in this model is to investigate which sectors, sizes and dependencies are having trouble making ends meet on their farms and households. Figure 4.1.5 below shows the difficulty faced by enterprises in procuring goods and services, and their concerns as to whether they will be able to in the near future.

Figure 4.1.5 Issues Paying for Goods/Services for Farm Business in past 12 months



This chart shows that there is a much greater spread of difficulty in the small through medium sizes of farms, with many in this bracket reporting no difficulty in paying for goods and services; while the situation for large farms appears much more pronounced, with over one-third of respondents saying they have experienced difficulty in the past year, and less than a quarter saying they have had no issues. This chart does not include the factors for effect of the downturn or the household dependency on the farm income. These are explored further in Figures 4.1.6 and 4.1.7 below.

Figure 4.1.6 Issues paying for Goods/Services for Farm Business in past 12 months when dependence on farm income >50%

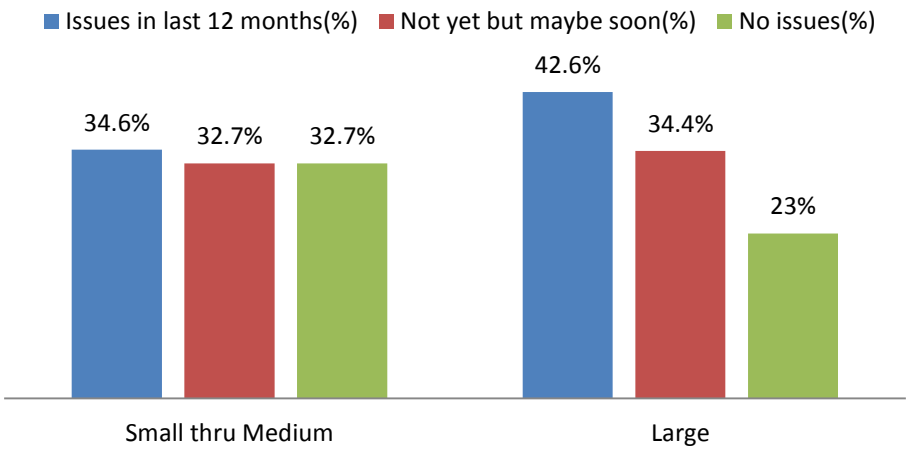
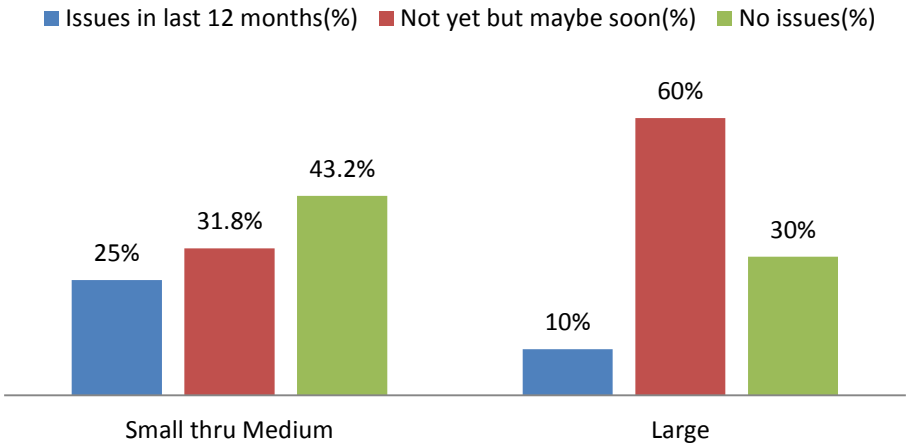


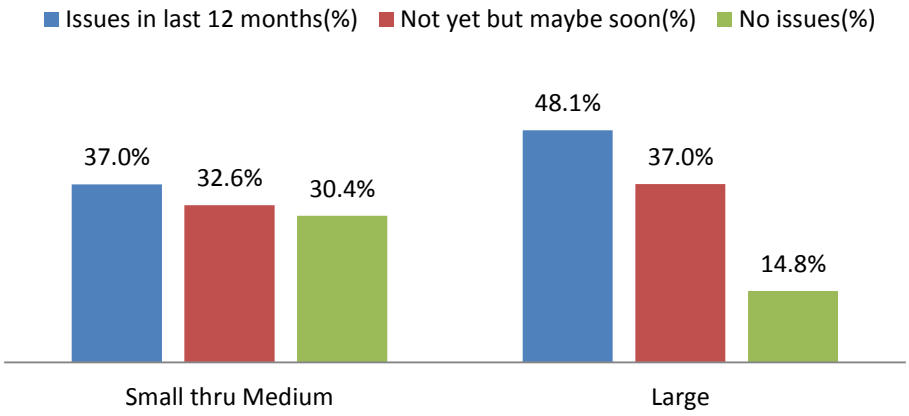
Figure 4.1.7 Issues paying for Goods/Services on Farm Business in past 12 months when dependence on farm income <50%



These charts show clearly that dependence on the farm income has a huge effect on the ability of farmers to pay for goods and services for their farm in the past 12 months, and has huge ramifications for the future if things do not change. Farm size is also an important factor, as farmers whose dependence on the farm income is not high report that even the combined income is being stretched(the second red bar in Figure 4.1.7) A larger farm will obviously incur more expenses so it is unsurprising that they are the ones in difficulty, and it is concerning that even a combined income will not be enough to support it in the near future. Again, to relate this to the mental health aspect, many farmers are worried that even a combined income will not be enough to sustain their farm business in the future if things do not improve.

Figure 4.1.8 shows the impact which the effect of the downturn has had on the ability of farmers to pay for goods and services for their farm, depicting the problem for small and large farmers who have seen a noticeable, big or severe impact on their farm business as a result of the commodity price downturn. This could be compared directly to Figure 4.1.6 above.

Figure 4.1.8 Issues paying for Goods/Services on Farm Business in past 12 months when dependence on farm income >50% and seriously impacted by crisis.



Again, the impact is clear to see, with the number of large farmers reporting no issues falling to 14.8% while the biggest increase jumps directly to those who have already reported difficulty. We must remember that the crisis is an ongoing one and that more and more people could well see the impact on their business increasing- putting them in the blue bar in the future. However, we must say at this stage that the chi-square test of our model, a crosstabulation of farm size, household dependence and issues paying for goods and services for farms affected by the downturn returns a result of X^2 (1, N= 152) = 5.15, p =<0.05. So we are in a position to reject the null hypothesis: that there is no relationship between farm size, effect of downturn and household dependency on ability to pay for goods and/or services for the farm in the past five years.

Figures 4.1.9 and 4.1.10 repeat the process for difficulty in paying for goods and services for the household, as you will see, they show no real change.

Figure 4.1.9 Issues paying for Goods/Services for Household by Farm Size.

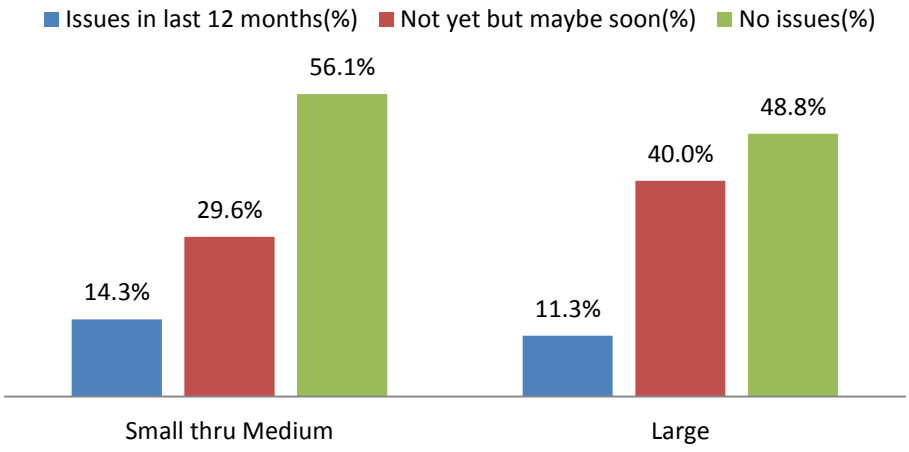
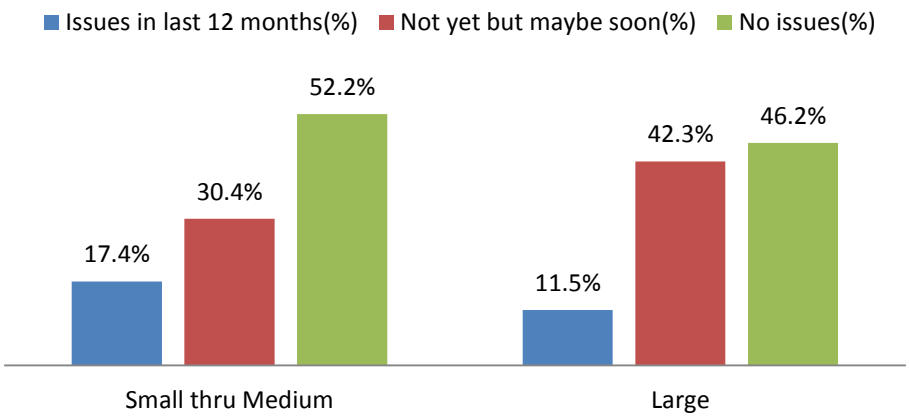


Figure 4.1.10 Issues paying for Goods/Services for Household when dependence on farm income >50% and seriously affected by crisis.



However, we must point out at this stage that less than 50% of respondents from large farms, and just over 50% on small and medium-sized farms, report that they have had no issues in paying for household goods and services, and have no worries about doing so in the near future. This is potentially significant.

To conclude this section then, we have found that our results tell us that household dependency on the farm income has a major role to play in the impact which farmers have felt as a result of the crisis, with 42.6% of large farmers declaring that they have had difficulties paying for goods and services for their farm in the past year if their overall dependence on the farm income was greater than 50%, as opposed to 10% among those whose dependence is less than 50%. However, worry about not being able to pay the bills in the near future is a major factor in both counts, with 60% of those with a dependence of less than 50% saying they may be unable to pay the farm bills soon.

5. Analysis of impact on Mental Health and Wellbeing

Our analysis of the mental health impacts of the downturn may now begin in earnest. It is our aim to describe how the variables we explored in Section 2 and how they impact upon mental health. As we noted earlier, the overall mean score for mental health was 9.8/23, which is in the high end of the "some problems" category of our model, while the histogram presented in Figure 3.4 helped us to explore the measure in a wider context. We shall begin by looking at the mental health impact. The first table in this section, Table 5.1, depicts the mean score out of 23 for each category of affectation by the downturn. This chart lists each score with the appropriate colour on the overall model, shown in Figure 2.5.1.

Table 5.1 Overall mental health score /23

Effect of the downturn	Mean
little or no impact	4.50
slight impact	6.38
noticeable impact	8.63
big impact	10.90
severe impact	11.74

Table 5.1a Effect of Downturn by Mental Health Score[11]

	No Issues	Some Problems	Concerning Level	Very Concerning Level
Noticeable Impact	31.9%	34.0%	34.0%	0.0%
Big Impact	19.6%	26.8%	48.2%	5.4%
Severe Impact	21.3%	21.3%	41.0%	16.4%

The result seems obvious, the effect of the downturn has had a notable impact on the mental well-being of respondents. A mean score of 11.74 for those severely impacted as opposed to only 4.5 for those with little or no impact and 6.38 for slight impact. Table 5.2 will now examine the impact which financial stress is having on farmers, by taking into account whether respondents have struggled to pay for goods and services for their farm in the past twelve months.

[11] Chi-Square Test for effect of downturn and overall score is X^2 (6, N= 164) = 14.4, p =<0.05.

Table 5.2 Overall Score /23 for farmers impacted by crisis and with difficulty paying for goods and services for farm in past 12 months.

		Mean
Minimum Score		-1
Maximum Score		23
Noticeable Impact	Issues in last 12 months	8.92
	Not yet but maybe soon	9.36
	No issues	7.82
	Total	8.63
Big Impact	Issues in last 12 months	12.10
	Not yet but maybe soon	10.38
	No issues	8.86
	Total	10.90
Severe Impact	Issues in last 12 months	14.40
	Not yet but maybe soon	11.10
	No issues	8.50
	Total	11.75
Total	Issues in last 12 months	12.25
	Not yet but maybe soon	10.39
	No issues	8.25
	Total	10.54

Table 5.3 Overall Score /23 for farmers impacted by crisis with difficulty paying for goods and services for household in past 12 months

		Mean
Minimum Score		-1
Maximum Score		23
Noticeable Impact	Issues in last 12 months	10.20
	Not yet but maybe soon	10.93
	No issues	7.04
	Total	8.71
Big Impact	Issues in last 12 months	10.40
	Not yet but maybe soon	12.39
	No issues	10.12
	Total	11.00
Severe Impact	Issues in last 12 months	15.45
	Not yet but maybe soon	12.10
	No issues	9.45
	Total	11.79
Total	Issues in last 12 months	13.00
	Not yet but maybe soon	11.89
	No issues	8.88
	Total	10.61

Using our model, we are able to assign an average score of 14.4/23 to farmers severely impacted by the crisis and who are under financial pressure(adding investment variable increases mean score to 14.88/23), as well as mean scores overall for those in present financial difficulty of 12.25/23 and 10.39/23 for those feeling the pressure, and unsure if they will be able to meet their payments in the near future. Table 5.3 repeats the process for those feeling the pressure on household procurement, as you will notice, the mean scores on this table are higher again, with the score for those severely affected by the downturn and under financial pressure to provide goods for their household approaching the 16/23 mark, which we set for the most critical level. It is worth reminding ourselves here that scores above 16/23 would indicate a high level of severity and require urgent medical attention to deal with the stress.

The next step is to look at the effect of household dependency. While we would have expected higher scores for those with a dependence of greater than 50% on the farm income, our earlier analysis showed that there were high levels of financial uncertainty even for these

respondents, with many expressing doubts as to whether they will be able to meet their payments in the near future. This will, in our view, have a knock-on effect on mental health, as if the farm is eating into a combined income, the effects may be pronounced, with no clear way of bolstering the overall income.

Table 5.4. Overall Score /23 for farmers impacted by crisis with difficulty paying for goods and services for their farm, with their overall dependence on the farm income.

			Mean
Minimum Score			-1
Maximum Score			23
Noticeable Impact	Only or Biggest Income	Issues in last 12 months	8.38
		Not yet but maybe soon	8.00
		No issues	7.78
		Total	8.05
	50% or less of Income	Issues in last 12 months	10.00
		Not yet but maybe soon	9.88
		No issues	7.88
		Total	9.10
	Total	Issues in last 12 months	8.92
		Not yet but maybe soon	9.15
		No issues	7.82
		Total	8.55
Big Impact	Only or Biggest Income	Issues in last 12 months	12.00
		Not yet but maybe soon	10.20
		No issues	7.40
		Total	10.57
	50% or less of Income	Issues in last 12 months	12.33
		Not yet but maybe soon	10.83
		No issues	12.50
		Total	11.71
	Total	Issues in last 12 months	12.10
		Not yet but maybe soon	10.38
		No issues	8.86
		Total	10.90
Severe Impact	Only or Biggest Income	Issues in last 12 months	14.42
		Not yet but maybe soon	10.31
		No issues	7.13
		Total	11.63
	50% or less of Income	Issues in last 12 months	14.00
		Not yet but maybe soon	12.38
		No issues	11.25

		Total	12.15
	Total	Issues in last 12 months	14.40
		Not yet but maybe soon	11.10
		No issues	8.50
		Total	11.75
Total	Only or Biggest Income	Issues in last 12 months	12.40
		Not yet but maybe soon	9.91
		No issues	7.45
		Total	10.43
	50% or less of Income	Issues in last 12 months	11.64
		Not yet but maybe soon	11.05
		No issues	9.50
		Total	10.72
	Total	Issues in last 12 months	12.25
		Not yet but maybe soon	10.36
		No issues	8.25
		Total	10.53

It is striking that these results show that overall mental health scores remain just as high for those with a lesser degree of dependence on the farm income as for those who have a greater, or total dependency on it. What is notable, and this refers to our previous comment, is that overall score for those severely impact and worrying about how they will make ends meet in the near future is higher, at 12.38/23 for those with another source of income than for those with greater dependence on the farm income at 10.31/23. This shows clearly that there is a great worry among these respondents that their income will not stretch to cover future financial pressures on the farm.

Moving on, we will now look at the social factors at play in the downturn: are women more affected than are men? What about age and marital status? As we discussed earlier, these factors play a role in one's mental health and well-being so we are interested to discover if there are significant factors at play here when we consider them. Table 5.5 shows the mean scores for males and females: please bear in mind that the number of females responding to this survey was much lower than the number of males. As you can see, the score for females is higher than it is for males, however, the relationship is not statistically significant enough to reject the null hypothesis in this case.

Table 5.5 Overall mean score /23 for males and females

Gender	Mean
male	9.62
female	11.32
Total	9.80

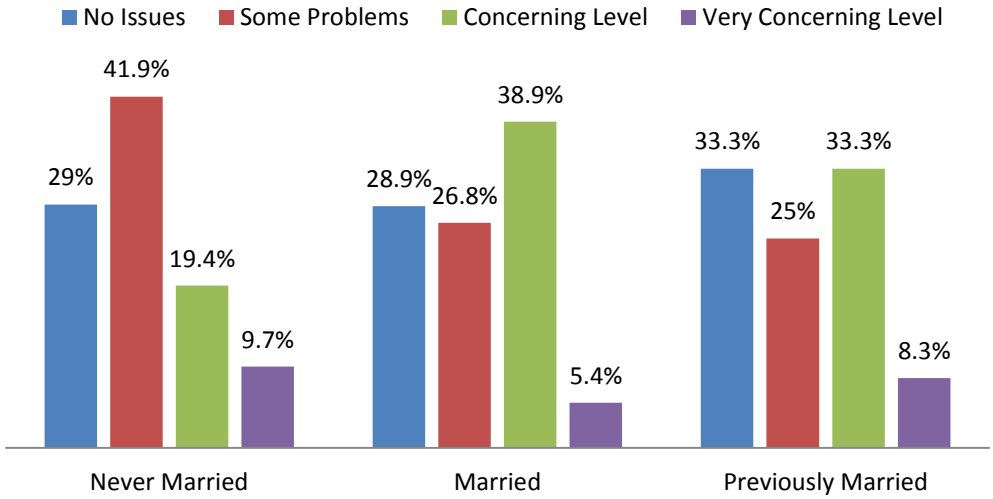
The age factor is highlighted by Table 5.6, which breaks the category for each gender down by the age bracket of respondents. As you will see, the ages most at risk are those between 35 and 54. These will be those of working age, who have put a great deal of time, effort and investment into the farm, and who are involved with it on a daily basis. Figure 5.1 explores the relationship between marital status and mental health score, finding that those who are currently married have the largest proportion of people in the third category- those at a concerning level. However, what is most surprising is that those who have never been married report surprisingly high levels in the second and fourth categories. Almost 10% of these respondents report a very concerning score, and 41% are in the some problems category. This may indicate that those who have never been married(likely to be young) do not have the same level of financial pressure on them, but are still facing problems.

Table 5.6 Overall Score for males and females by age bracket

Gender		Mean
Minimum Score		-1
Maximum Score		23
male	16-24	8.15
	25-34	9.22
	35-44	9.44
	45-54	11.53
	55-64	9.86
	Over 65	8.14
	Total	9.62
female	25-34	10.80
	35-44	13.33
	45-54	12.00
	55-64	10.00
	Over 65	11.50
	Total	11.32
Total	16-24	8.15
	25-34	9.57
	35-44	10.00
	45-54	11.58
	55-64	9.88
	Over 65	8.35
	Total	9.80

Table 5.6a Age Bracket by Level of Health Score[12]				
	No Issues	Some Problems	Concerning Level	Very Concerning Level
16-34	42.3%	32.7%	19.2%	5.8%
35-64	19.1%	27.3%	45.5%	8.2%
Over 65	45.9%	24.3%	27.0%	2.7%

Figure 5.1 Marital Status by Mental Health Category



Although we cannot reject the null hypothesis that marital status does not have an impact on the mental health and wellbeing score, we can see some factors where it is indeed very relevant. Table 5.7 shows the comparison of marital status by household dependency on the farm. While it is unsurprising that those married are more likely to have an alternative income, it is important when we consider the results of our first model on difficulty to pay for goods and services for the farm and household. It is also telling that just over a quarter of never married respondents report a dependence of 50% or less on the farm income.

Table 5.7 Marital Status by Household Dependency		
	Only or Biggest Income	50% or less of Income
Never Married	73.3%	26.7%
Married	58.1%	41.9%
Previously Married	50.0%	50.0%

[12] Chi-Square Test for age bracket and overall score category is X^2 (6, N= 199) = 19.7, p =<0.005.

This produces a p value of 0.12; so while it is not enough to reject the null hypothesis, we believe that it is enough to warrant further study. From a more practical perspective, we believe that it shows that marriage can lead to another income being brought into the house, while this is important, our work also shows that more must be done to ensure that there are viable and attractive career paths for rural spouses who are not primarily involved with or interested in farming.

Table 5.8 Dependents and Overall Mental Health Score[13]

	No Issues	Some Problems	Concerning Level	Very Concerning Level
No Children	36.8%	27.2%	28.8%	7.2%
1-2 Children	17.1%	22.9%	51.4%	8.6%
3 or more Children	4.2%	45.8%	45.8%	4.2%
Total	28.8%	28.8%	35.3%	7.1%
No Adult Dependents	29.2%	31.9%	33.6%	5.3%
1-2 Adult Dependents	33.9%	25.0%	33.9%	7.1%
3 or more Adult Dependents	13.3%	20.0%	53.3%	13.3%
Total	29.3%	28.8%	35.3%	6.5%

The results from Table 5.8 are interesting. While we can see a huge percentage change of -32.6% in the 'No Issues' category between those with no children and those with 3 or more; and a similar percentage change for those with adult dependents: compare this to the categories in 'Concerning Level' and one sees the situation reversed, with 28.8% of those with no children in this category, compared to 45.8% of those with 3 or more children, the same is true for adult dependents. Finally, we can note the 53.3% of those with 3 or more adult dependents who are in the concerning level, compared to only 20% in the 'Some Problems' category this suggests that those with 3 or more adult dependents are being hit harder than those with less dependents, or none. This may be because of the extra pressure put upon them by caring responsibilities, or the minimal amount of state aid available for carers. For example, the Carer's Allowance is a very small sum, and is only available for one person; whereas Child Tax Credits are available for each child in your care. This may explain the jump between those with 1-2 adult dependents and those with 3 or more adult dependents occurring in the 'Concerning Level' category, rather than in the 'Some Problems' category- as is the case for those with children.

The next stage in our investigation is to look at the stigma around mental health in rural populations. As mentioned above, we asked respondents if they would feel comfortable talking about any mental health concerns they may have, or if they felt they could talk to someone else if they thought the other person was in difficulty. We have also asked respondents to

[13] Chi-Square Test for dependents and overall score is X^2 (6, N= 184) = 16.6, p =<0.05.

indicate if they have someone in their lives they feel they can talk to with regard to mental health problems. The preliminary results for these questions are shown in Figures 5.2-5.4.

Figure 5.2 Can you talk to someone?

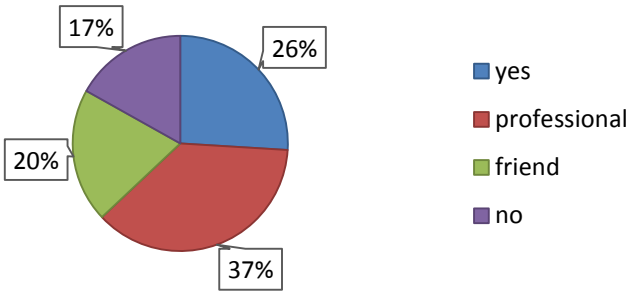


Figure 5.3 Could you talk to someone else who may be having a problem?

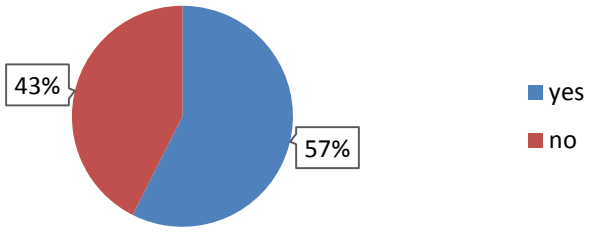
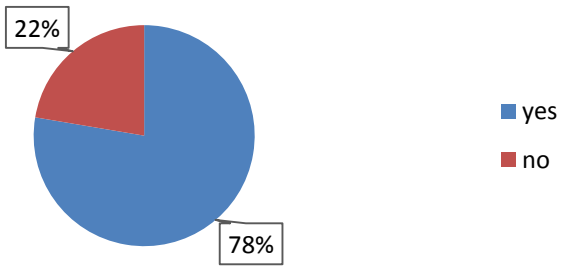


Figure 5.4 Is there someone in your life you can talk to?



It is very encouraging for us as a charity to see that the majority of people in rural Northern Ireland feel they can talk about their mental health and well-being, whether this is with a friend or a professional, and that most feel there is someone in their life they could approach. The number(37%) who qualified their answer by saying they could only speak to a professional does, however, give us pause. While it is perfectly acceptable, even advisable, to approach a professional of some description in seeking help for mental health worries, it perhaps hints that there is still a feeling of not wanting people to know they may be having a problem. In addition, the number who said they felt they would be unable to approach someone who may

be having a problem also gives us concern. Farmers are often very isolated, and many people may only have contact with other people involved in the industry. 41% of respondents indicated they had not been to the doctor in the past year, and 59% said they put off going to see the doctor if they have a concern, indicating this. We therefore believe it is important that farmers, who are very intelligent and robust people, feel able to speak to someone if they are worried about them, even if only to refer them to Rural Support or another charity.

Table 5.9 Can you talk by Age Bracket

	yes	professional	friend	no
16-34	35.5%	32.3%	16.1%	16.1%
35-64	25.6%	40.0%	18.9%	15.6%
Over 65	18.2%	33.3%	27.3%	21.2%

Table 5.10 Can you talk to another by Age Bracket

	yes	no
16-34	61.3%	38.7%
35-64	55.8%	44.2%
Over 65	58.1%	41.9%

Table 5.9 explores the relationship between age and being able to talk to someone about problems one may be having. As you can see, those aged over 65 are more likely to feel unable to speak to someone, but yet, they are much more likely to feel they could talk to someone else. This may have to do with wanting to help others, but not comfortable seeking help for themselves. This admirable outlook among older farmers in Northern Ireland speaks volumes to their character, but may also indicate that more of them need to be helped to feel more comfortable to seek help themselves. We found no real distinction by gender, although we did find that older women may be much more likely to approach a friend rather than a professional if they felt they had a concern. However, we do not have enough females in our survey to comment much further on this.

Also of concern is the fact that 41% of those in the top bracket for mental health score said they felt they would be unable to approach someone if they were in difficulty, and very few said they would approach a friend. This shows that when people are in crisis they may shut down and bottle up their problems- which is itself a very unhealthy thing to do.

6. Qualitative Study.

The survey was followed by a small qualitative study, using seven in depth, semi-structured interviews, conducted by Rural Support staff in April and May 2016. Our interviewees had already completed a survey and volunteered to participate further in the research. We aimed to achieve a good geographical, age and sectoral spread in our selection process in order to get the richest data possible. The template interview schedule is included in Appendix 2, although the questions are to guide, rather than to dictate the conversation, our goal was to dig deeper into how farmers perceive their business, what they see the future holding, the health and well-being issues affecting farmers and the particular social structures prescient to farming in Northern Ireland: particularly around age. Interviews lasted 45 minutes on average and were conducted in the interviewees' homes.

The interview transcripts were then analysed using NVivo 11 to conduct a thematic analysis, which aims to examine the key issues respondents discussed and how they framed their thoughts. The coding was completed in a tree structure, outlined below. The four main themes are: the farm business; health implications; dealings with outside organisations; and the social aspects of rural and farming life. These were themes that recurred frequently and that farmers wanted to discuss. Another key theme explored under the health node was that of a feeling of a "loss of control" of their own business, as well as the stress involved with keeping the farm going through the commodity price downturn.

Coding Strategy

- ***Farm Business***
  - Working hours
  - Unable to invest
  - Risk
  - Regulation
  - Profitability
  - Paperwork
  - Money worries
  - How has farming changed
  - Herd Restriction
  - Family tradition
  - Debt
  - Cutbacks
- ***Health***
  - Physical Health
    - Sleep
      - Sleep well
      - Sleep poorly
    - Diet
    - Alcohol, Tobacco
  - Mental Health
    - Loss of control
    - Stress
- ***Other Organisations***
  - Industry bodies
  - GP
  - Government
  - Churches

- Banks

- ***Social***
  - Family
    - Family Tension
    - Family Support
    - Caring responsibilities
  - Future of Farming
  - Isolation
  - Older generation
  - Social Activity
    - Has lessened
    - Still exists
  - Stigma around mental health
    - Still a stigma
    - Less Stigma
  - Younger generation

6.1 Farm Business

Figure 6.1.1 Words used during discussion of farm business



The above word cloud shows the terms used by interviewees when discussing their farm business. As you can see, issues surrounding money, debt, prices, profit, borrowing etc. are very much a part of the lexicon used. This is interesting as it suggests that farming as an

industry has become increasingly financialised and that money worries are now a part of everyday farming life. Narrowing the search down to just the nodes concerning debt, money worries and profitability returned the following result, which brings the issue into starker focus, with debt, money, prices and profit being mentioned(Figure 6.1.2). In addition, farmers have focused on their outgoings, mentioning costs, fertiliser and wages frequently in discussing these issues. The third word cloud shows the terms used when talking about cutbacks.

Figure 6.1.2 Words used during discussion of farm business when further analysed



The word cloud (Figure 6.1.3) shows that when asked about any cutbacks they have had to make to their expenditure, farmers have mentioned drainage, maintenance, and machinery, although it is noteworthy that issues like shoes and cornflakes have crept into the discussion around cutbacks farmers are having to make. This is concerning as it highlights that the downturn is having an effect on the household as well as on the farm business. One respondent, who cares for her elderly mother as well as working on the farm said:

> *"If it wasn't for me having my mother's attendance allowance I don't think I could go out and buy a weekly shop."*

While other respondents said that

> *"We weren't on holidays last year. You would go out less no doubt about it. You would go out the odd time but not as much. Even if you go out for a meal its forty or fifty quid. And forty, fifty quid here and there soon adds up."*

Figure 6.1.3 Words used during discussion of cutbacks



> *"You spend less on drainage and that sort of work. Some of the bigger projects can just be put to the side. There's things I'd like to do but there's no way. You would have been doing something every year whether it was putting up a shed or draining but you wouldn't be doing that now…there's no big spends going on at the minute."*

> *"We put in money to keep us going, hoping that things would improve or that things would have maintained but nothing has been maintained, everything's been cut back."*

> *"We've been able to do the essential maintenance if a machine breaks down so far we've been able to do that. But there's wee things like doing drains in fields, even reseeding which you would normally do a little bit each year. We've put those things on hold….fencing and so on they're just not being done. Not changing machinery, we're just trying to nurse the things we do have. We had used contractors this last number of years so our machinery is not so important."*

Also notable was that some farmers were clear that they would prioritise the needs of animals over household expenditure. This was particularly around animal health and welfare as well as paying for vaccines for diseases. One farmer, who recounted the devastation of disease on his farm in the past said that

> *"I would nearly risk driving the car without tax before I'd risk having no IVR vaccines."*

6.2 Health

The two nodes used in exploring health were simply physical and mental health. On the one hand, mental health looked at issues of loss of control and stress; while physical health looked at sleep, diet and alcohol and tobacco consumption. No issues with the last category were

noted, although some interviewees did note that their diet may have deteriorated as a result of the downturn. One farmer said that

> *"no proper dinners would be made in the evening time"*

While another said that,

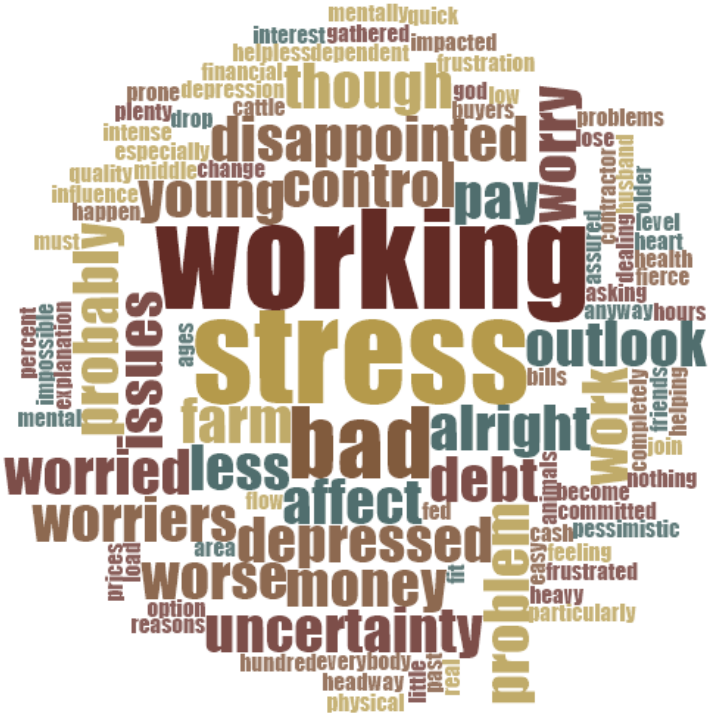
> *"Aye, I seem to eat a lot, I'd be inclined to eat a lot…when you're down you comfort eat"*

Sleep as an issue also occurred in the study, while most interviewed reported that their sleep was still fairly good, some said that it had been affected, one respondent said that

> *"the sleep pattern probably has been affected. It's been disrupted"*

Overall, while there are some concerning elements about physical health as a result of the downturn, it is with mental health that the problems became more apparent as a result of this research project. The below word cloud shows the terms used when people were asked if their mental health had been affected. Issues around stress, frustration, uncertainty, disappointment, worry and loss of control feature heavily here.

Figure 6.2.1 Words used during discussion of mental health



Some of the relevant quotes regarding this are:

> *"it's the uncertainty….if there was any way of helping folks through the uncertainty but that's maybe asking the impossible as these things are a world wide problem…".*

> *"I think there maybe has been a slight change in him. But I think in the whole thing he's maybe just disappointed. Disappointed that things have gone the way they are and that we're not making any headway and there doesn't seem to be a way round things."*

"we're more dependent upon particularly the supermarkets which have more influence and control"

"It would especially when the cash flow and you can't pay your bills. It does have an affect mentally. Stress is your biggest problem. You're trying to get money gathered up to pay everybody and you're dealing stress all the time. We're trying to do as much as we can ourselves."

"I would say that you do, you feel these things. I wouldn't, they get you down. I wouldn't just say depressed but they do get you down"

"That and health issues are only going to get worse both mental and physical because there will be too many older farmers out there slogging about and not fit to do it and only get into worse shape. And they'll probably start to worry more too."

"you lose interest in doing any work then. There's so many people now with problems over debt and stuff. It's fierce. Suicides and that you know…it shouldn't have to come to that…if they're in heavy debt but then there's young people and they're in a different situation. It wouldn't be to do with a farm or anything like that."

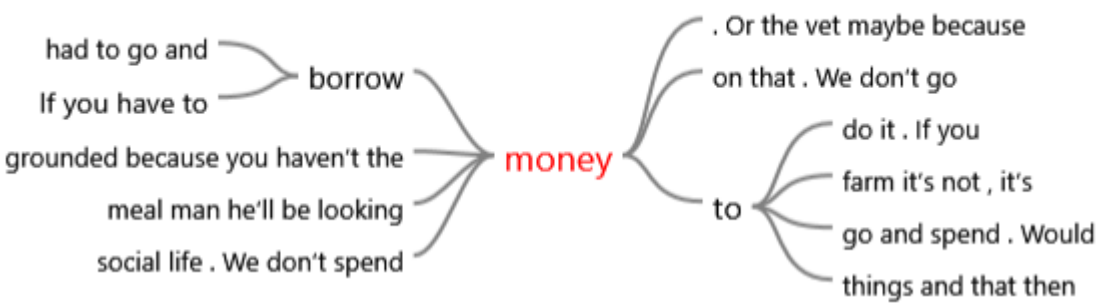
6.3 Social Issues

The below word cloud represents the most commonly used words in the nodes falling under the social category. Neighbours and family feature heavily in the discussion, as well as economic issues like job, land, prices and money. The word tree shows the sentences used when discussing money in terms of the social setting. What is clear is that financial constraints are playing a role in social lives, with people unable to participate due to a lack of money.

Figure 6.3.1 Words used during discussion of social issues



Figure 6.3.2 Word spider to illustrate the context of using the word 'money'.



As for the future of farming, the following word cloud represents the views people have about the future. The diagram speaks for itself and does not require much commentary, save to note that farmers see the future holding fewer farms and Northern Ireland, with the larger farms "absorbing" or "swallowing" the smaller farms.

Figure 6.3.3 Words used during discussion of the future of farming



> *"Farming's all changed. There's not one of our neighbours that were neighbours in 1970, there's not one of those still farming….swallowed up, most of them have been absorbed by a bigger place. These local farmers of 30, 40 acres are now part of a big place of 200, 300 acres…"*
>
> *"I think there will be less. There'll be less cattle, don't know about sheep maybe but I think that's the way it's going. I don't know too if they drop out of the EU what way it'll be then…I don't know whether it'll be better or not."*

With regard to the stigmas surrounding mental health in rural and farming communities, there was a strong feeling that while the stigmas has lessened, it still exists to a greater or lesser extent, and affects those suffering. In particular, respondents noted that isolation is both a cause and effect of stigma. Respondents said:

> *"I think it's still there a bit[of a stigma] in the rural areas and it might be a wee bit more stigmatised. I think maybe people who are living away themselves, isolated a bit would maybe have more problems…"*
>
> *"I think there would be. See they don't want to tell anyone about it because they sort of feel ashamed about it…scared people would be talking about it."*
>
> *"Oh yes. There's no doubt about it…I don't know if I would go to the doctor and say I'm not well, I don't know whether I would or not to be honest. Or if there was somewhere you could go I don't know whether I could walk in and say listen here. I don't know when you're not well."*

To conclude the qualitative study then, we can say that money and financial issues are creeping into the daily lives of farmers and their families, and factors like stress and isolation are playing a huge role in people's mental health and well-being. Farmers are also worried about an uncertain future, not knowing what the future holds for the industry and worrying about a loss of control and an end to the family farm tradition.

In addition, we can also note that farmers did show some concern around the stigma associated with mental health. All interviewed said that the stigma existed and some even worried that they might not be able to talk to someone if they weren't well. This is very concerning and shows that there is still work to be done on breaking the stigma once and for all.

7. Key Findings Summary.

A. Large farms, particularly in the dairy and beef sectors, are more likely to be under financial pressure, and have difficulty in paying for goods and services for their farm.

Sixty percent of large farms with an overall dependency on the farm income are worried about making these payments in the near future.

B. Households with a dependency of more than 50% on the farm business for their income have been worst affected in their ability to pay for goods and services.

42.6% of those with a dependency of 50% or higher have had issues paying for goods and services for their farm in the past 12 months as opposed to 10% of those with a dependency of less than 50%. However, even those with less dependency on the farm business have significant worries about the near future.

C. Financial pressure is undoubtedly having an impact on mental health and well-being.

Those who have reported issues in the past 12 months in paying for goods and services for the farm have on average reported significantly poorer mental health scores than those who have had no issues.

D. Those struggling to make ends meet for the household and who are severely impacted by the crisis reported a mean mental health score very close to the critical level.

There is also worry about not being able to pay for household goods in the near future.

E. Those aged between 35 and 64 reported the worst score on mental health overall.

No significant difference between males and females was found.-Those with a higher number of dependents reported dramatically poorer scores than those without dependents.

F. 17% of people surveyed reported that they could not speak to someone about a mental health problem.

Another 37% said they would be willing to speak to a professional only. 43% felt they could not speak to someone else who may be having a mental health problem. Older people were less likely to seek help for themselves than younger people.

G. 36% of respondents said they have sought either alternative or supplementary income to see them through the crisis. 22% said they are considering doing so.

This study provides only a snapshot of the situation at the present time. The main message is that the impact of the downturn is beginning to take its toll both financially and personally, with more trouble looming if things do not improve. We therefore have great concern about what the situation will be like in the not-too-distant future as budgets tighten further and even combined incomes are stretched. More and more farmers appear to be seeking alternative or supplementary incomes, which could lead to a dramatic change in farming culture in Northern Ireland in the future.

8. Recommendations

Urgent

1. *Specialised support on business planning and finance for farmers and farm families.*

Rural Support has implemented a *Farm Business Mentoring Programme* since 2014, in which farmers who are experiencing distress receive mentoring from a specialist in the agribusiness or finance field. This has been very successful and is needed now more than ever. Many farmers find it difficult to speak to someone about their business. Cutbacks and centralisation from both government and the private sector adds to this difficulty. This mentoring programme needs to be resourced to meet increasing needs.

2. *Increased mental health support for farmers.*

Specialised mental health campaigns are very important in reaching parts of the population who are often difficult to engage with. Those dealing with farmers on a day-to-day basis, vets, DAERA officials, banks, suppliers, accountants and solicitors must be aware of the mental health impacts of the downturn and take steps to do what they can to help, for example by signposting to a mental health service for clients in difficulty. Early intervention is important in addressing mental health concerns and farmers and their families must be encouraged to seek the help they need before reaching a crisis situation.

3. *Greater understanding and appreciation from banks and finance companies.*

Debt is an issue which is causing stress and poor mental health among farmers. We would urge banks and finance companies to be as reasonable and flexible as possible in dealing with farmers in what is a very challenging market situation. Intervening early and giving advice to farmers is much more beneficial in helping to ensure that money is paid back on time and in a mutually beneficial way. There must be acknowledgement of the effect that the commodity price downturn is having on the mental health and well-being of farmers and their families and that responses are sympathetic and understanding.

4. *Advice to encourage take-up of income support.*

Farmers need to be made aware that tax credits are available to support them through periods of low income. We would urge government to ensure that farmers know how to claim and that they get the appropriate amount. We would also encourage government to reconsider plans to reform tax credits into universal credit, which will hugely impact farmers.

Long-term

5. *Appropriate schemes to allow older farmers to exit the industry.*

Part of the concern raised by this study is that there are many older farmers who are thinking about exiting the industry but are unable to, due to debt or no planned succession. Advice needs to be given on how best to go about this, or some schemes whereby outstanding debt can be carried over in a sustainable way which will not burden the incoming farmer.

6. *Further research into health and social issues in rural Northern Ireland.*

Most of the studies referenced in this report are from Australia and New Zealand, in which there is a wealth of information and resources around health issues in the rural and farming communities, with journals like the *Australian Journal of Rural Health.* We would like to see a UK or Ireland-based publication which could feature specific research into the needs of our rural communities.

7. *A change to the culture of borrowing.*

Farmers are often encouraged to borrow or spend for tax purposes, meaning that not enough of them have run a reserve or saved from profitable years. This has been in part encouraged by industry leaders, financial institutions and government. We would urge financial advisers to reconsider the culture of debt and spending in the agricultural sector and look at ways to advise farmers to create financial cushions to help with future market fluctuations.

8. Assurance regarding farm payments post-Brexit.

Given the level of uncertainty farmers are reporting in this study and how this is affecting farmers' mental health, it is imperative that the British Government and Stormont Executive deliver clear guidance on what support will be made available to farmers after the united Kingdom has exited the European Union.

9. Support for alternative careers and supplementary incomes in rural areas.

The report makes clear that households with incomes other than farming are experiencing less financial pressure than those with a higher dependence on the farm. This shows that there is a need to make sure that careers are available both for farmers to get a supplementary income and for other members of the household to be able to work. This can be supported by flexible working conditions and support for businesses in rural areas. Additionally, training needs to be made more available and accessible for farmers and their families to get the skills they need to have alternative and supplementary careers.

10. Joined-up thinking from the entire agri-food industry.

More joined-up and collaborative work between farmers, processors, retailers and government to plan for future market fluctuations and consider the appropriate responses to the current downturn. There must be an equitable share of the profits for all stakeholders and flexibility with regard to market conditions. Industry must show awareness of the social ramifications of the business and take action to ensure that the health and wellbeing of the primary producers is protected.

References

Carolan, M, (2012), *The Sociology of Food and Agriculture,* London, Routledge

Hill, B, (2011) *Understanding the Common Agricultural Policy,* London, Routledge

Knudsen, A, (2009), *Farmers on Welfare,* Ithica, Cornell University Press

Nettleton, S, (2013), *The Sociology of Health and Illness,* Cambridge, PolityShortall, S, (1999), *Women and Farming,* Basingstoke, Palgrave MacMillan

Edited Books

Glied, S and Smith, P, Eds., (2013), *The Oxford Handbook of Health Economics,* Oxford, Oxford University Press

Shucksmith, M, Brown, D, Shortall, S, Vergunst, J and Warner, M, Eds., (2012), *Rural Transformations and Rural Policies in the US and UK,* London, Routledge

Swinnen, J, (2015), *The Political Economy of the 2014-2020 Common Agricultural Policy,* London, Rowman and Littlefield

Journal Articles

Alcock, I, White, M, Lovell, R, Higgins, S, Osborne, N, Husk, K, Wheeler, B, 'Research Paper: What accounts for 'England's green and pleasant land'? A panel data analysis of mental health and land cover types in rural England*', Landscape and Urban Planning* October 2015 142:38-46

Carruth A, Logan C, 'Depressive Symptoms in Farm Women: Effect of health status and farm lifestyle characteristics, behaviours and beliefs' *Journal of Community Health* 2002 June; 27(3) : 213-28

Cohen O & Finzi-Dottan R 'Reasons for Divorce and Mental Health Following the Breakup' 2012, *Journal of Divorce and Remarriage,* Vol 53(8) 581-601

Downey H, Threlkeld G, Warburton J, 'How do older Australian farming couples construct generativity across the life course?: A narrative exploration' *Journal of Aging Studies* 38 (2016) 57–69

Fraser C; Smith K; Judd F; Humphreys J; Fragar L; Henderson A, 'Farming and mental health problems and mental illness', *International Journal of Social Psychiatry*, Dec2005; 51(4): 340-349. (10p)

Fuller, J, Kelly, B, Law, S, Pollard, G, Fragar, L, 'Service network analysis for agricultural mental health', *BMC Health Services Research* 2009 May 29; Vol. 9, pp. 87

Gallagher E & Delworth U, 'The Third Shift: Juggling Employment, Family and the Farm' 2003 (Rep No 95/8) Canberra, RIRDC

Haugen M & Brandth B, 'When Farm Couples Break Up: Gendered Moralities, Gossip and the Fear of Stigmatisation in Rural Communities' 2014 *Sociologia Ruralis* Vol 55(2) 227-242

Henderson, J, Gloy, B, Boehlje, M, 'Agriculture's Boom-Bust Cycles: Is This Time Different?', *Economic Review* (01612387). 2011 4th Quarter, p83-105. 23p. 9 Graphs.

Hossain, D;.Eley, R, Coutts, J, Gorman, D, 'Mental health of farmers in Southern Queensland: issues and support', *The Australian Journal Of Rural Health* 2008 Dec; Vol. 16 (6), pp. 343-8.

Judd F, Jackson H, Fraser C, Murray G, Robins G, Komiti A. Understanding suicide in Australian farmers. Social Psychiatry and Psychiatric Epidemiology 2006; 41: 1–10. Doi: 10.1007/s00127-005-0007-1

Kelly, B; Bobsien, G, 'Industry and rural health: Part of the problem or part of the solution?', *Australian Journal of Rural Health* Jun2015; 23(3): 124-126. (3p)

Lunner Kolstrup, C; Kallioniemi, M; Lundqvist, P; Kymäläinen, H; Stallones, L; Brumby, S, 'International Perspectives on Psychosocial Working Conditions, Mental Health, and Stress of Dairy Farm Operators.', *Journal of Agromedicine* (Jul-Sep2013; 18(3): 244-255. (12p)

Melberg K, 'Farming, Stress and Psychological Well-being' 2003, *Socologia Ruralis,* Vol 43(1) 56-76

Patrick, K, Ifft, J, 'Farm Businesses Well-Positioned Financially, Despite Rising Debt' *The Economics of Food, Farming, Natural Resources, & Rural America*; Apr2014, p1-7, 7p

Polain, J, Berry, H, Hoskin, J, 'Rapid change, climate adversity and the next 'big dry': Older farmers' mental health.', *Australian Journal of Rural Health* Oct 2011; 19(5): 239-243. (5p)

Roy, P, Tremblay, G, Robertson, S, 'Help-seeking among Male Farmers: Connecting Masculinities and Mental Health', *Sociologia Ruralis*. Oct 2014, Vol. 54 Issue 4, p460, 17 p.

Roy, P; Tremblay, G, Oliffe, J, Jbilou, J, Robertson, S, 'Male farmers with mental health disorders: a scoping review.', *The Australian Journal Of Rural Health* 2013 Feb; Vol. 21 (1), pp. 3-7

Stehlik D, Lawrence G & Gray I, 'Drought in the 1990s: Australian Farm Families' Experiences' 1999 (Rep 99/14) Kingston ACT, RIRDC

Vasavi, A. 'Debt and Its Social Entrapments' *Women's Studies Quarterly*. Vol. 42 Issue 1. 2014, p23-37. 15p

Appendix 1: Online-only results.

Debt.

Of those responding to the survey, there was a mean debt level of **£144,172.** However, the median result was only **£20,000.** It is important to consider both these figures, as they highlight the range of levels of debt on farms in Northern Ireland, with some in millions of pounds worth of debt, and others in only a few thousand, or none at all. The below Figure shows the average level of debt for each size of farm.

Mean Debt by Farm Size		Median
Small	£3,333	N/A
Medium	£35,500	N/A
Large	£99,444	£40,000
Very Large	£570,000	£250,000

Loss of Money per Month

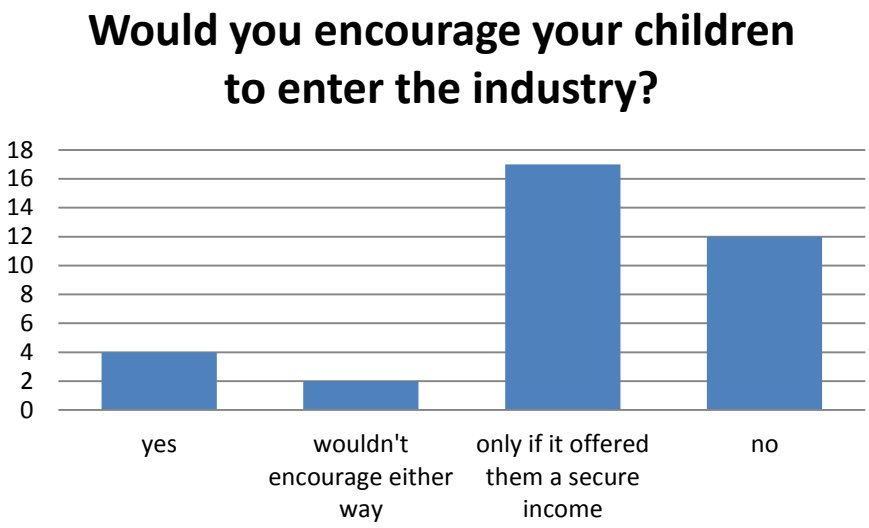
Mean loss overall for the online responses was **£4,478** per month, while the median figure was **£2,000** per month.

Mean loss per month by farm size		Median
Small	N/A	N/A
Medium	£729	£1,750
Large	£6,000.00	£3,000.00
Very Large	£8,375	£7,500

Future Generations

The following graph shows the responses for whether or not those surveyed online would encourage their children to enter the industry as well. As you will see, there appears to be a great level of scepticism around the future of the industry, with most either saying they would not encourage their children to enter the industry, or would only do so if they felt that they would have a secure future in it.

This has important ramifications for the future of Northern Ireland's family farm tradition. If younger people are not being encouraged to enter the industry by their parents, it could lead to discontinuity in farms which may have been owned by a family for generations.



Please bear in mind that these results are presented from only a small sample and should not be treated as conclusive. We would, however, like to explore these themes in much more detail in future research.

Appendix 2: Survey Questionnaire.

CONFIDENTIAL

1. Gender

☐Male ☐Female

2. How would you describe yourself?

☐Owner of farm ☐Manager of farm business ☐Farm Worker ☐Member of farm family

3. Main type of farm enterprise

☐Dairy ☐Beef/Suckler ☐Sheep ☐Pigs ☐Poultry ☐Cereals ☐Potatoes ☐Other

4. Farm Details

4.1 Please indicate the size of your farm: (In hectares)

☐<20ha ☐20-40ha ☐40-60ha ☐>60ha ☐Very Large (Herd size(if applicable: _____)

4.2 How many years has the farm been in operation?

☐< 2 Years ☐2-5 Years ☐5-10 Years ☐10-20 Years ☐> 20 Years

4.3 How long have you been working in the industry?

☐< 2 Years ☐2-5 Years ☐5-10 Years ☐10-20 Years ☐> 20 Years

4.4. How would you rate the effect of the recent downturn on your farm? (Out of five: five being the most severe.)

☐1 (Little or No Impact) ☐2 (Slight Impact) ☐3 (Noticeable Impact) ☐4 (Big Impact) ☐5 (Severe Impact)

4.5 Have you considered finding an alternative or supplementary income in the past 12 months?

☐Alternative Income ☐Supplementary Income ☐No, but I might ☐No

Details: _____

4.6 Do you know of anyone who has had to sell their farm or leave the industry as a result of the current downturn?

☐Yes ☐No

5. Please Indicate your household's dependence on the farm income:

☐It's our only income ☐It's our biggest income ☐It's roughly 50% ☐It's a small part of our income

6. Have you made any significant investment in the farm in the last five years?

☐Yes. (Details: _____)

☐No

7. Have you, at any stage over the past twelve months struggled to pay for any of the following for your farm?

☐Feed for animals ☐Labour ☐Not yet, but maybe soon

☐Payments on machinery ☐Essential maintenance ☐No

☐Payments on loans ☐Veterinary services

☐Fuel

8. Have you, at any stage over the past twelve months, struggled to procure any of the following for your household?

☐Groceries ☐ School uniforms ☐ Not yet, but maybe soon

☐Utilities: ☐Clothes ☐ No.

☐Loan repayments/Mortgage repayment ☐Childcare

9. Do you worry that in the next 12 months you will have more difficulties financially if circumstances do not change?

☐Less difficulties ☐Much the same ☐Things will be worse

10. Do you find yourself worrying about money more than you did 3-5 years ago?

☐I worry less ☐I worry the same amount ☐I worry more than I used to

11. Have you, at any stage over the past twelve months, worried about the impact financial constraints were having on your family?

☐Never ☐Rarely ☐Sometimes ☐Often ☐All the Time

12. Do you have any worries about your own health?

☐Yes, my physical health ☐Yes, my mental health ☐Yes, both ☐No

13. Do you ever put off going to see your GP or other healthcare professional when you have a health concern?

☐Yes, sometimes ☐Yes, Regularly ☐Never

Comments: _____

14. Have you visited your GP with concerns about any of the following in the last 3 years?

☐Physical Health Problem ☐Mental Health Problem ☐No

15. Would you be comfortable and confident in approaching someone if you felt you were having mental health difficulties (anxiety, depression, stress etc.)?

☐Yes ☐Yes, but only a professional ☐Yes, but only someone I know personally ☐No

Comments: _____

16. Do you think you could approach someone you know if you thought they were having mental health difficulties?

☐Yes ☐No

Comments:

_____

17. Do your worries ever keep you awake at night?

☐No ☐Rarely ☐Sometimes ☐Often ☐All of the time

18**. Do you feel more or less optimistic than 5 years ago?**

☐I feel less optimistic ☐I feel just as optimistic ☐I feel more optimistic

19. Do you ever have feelings that you cannot cope with your current situation?

☐No ☐Rarely ☐Sometimes ☐Often ☐All of the time

20. Do you ever feel that you have failed?

☐No ☐Rarely ☐Sometimes ☐Often ☐All of the time

21. Do you ever worry because of the pressure you are under?

☐No ☐Rarely ☐Sometimes ☐Often ☐All of the time

22. Do you worry that other people in your household are experiencing these feelings?

☐Yes ☐No

23. Is there someone in your life who you feel you could talk to if you had worries about your mental health?

☐Yes ☐No

24. In which county are you based?

☐Antrim ☐Armagh ☐Down ☐Fermanagh ☐Tyrone ☐Londonderry/Derry

25. What is your age range?

☐16-19 ☐20-24 ☐25-34 ☐35-44 ☐45-54 ☐55-64 ☐65-74 ☐75+

26. Have you completed any of the following?

☐Secondary School Qualifications ☐Post-Secondary School Qualifications ☐None

27. Relationship status

☐Single ☐Married/Civil Partnership ☐Engaged/In a relationship ☐Divorced

☐Separated ☐Widowed

28. Do you have any dependants? If so how many?

☐Yes (Number under 18 ____) (Number of adult dependants ___) ☐No

29. Have you heard of Rural Support before?

☐yes ☐no

30. What do you think the future will bring for farming and farm families in Northern Ireland?

_____

_____

_____

31. What needs to been done to support farming families in Northern Ireland?

_____

_____

_____

THIS SURVEY HAS BEEN CREATED BY RURAL SUPPORT STAFF AND VOLUNTEERS. THE INFORMATION CONTAINED HEREIN IS STRICTLY CONFIDENTIAL AND NO IDENTIFYING INFORMATION WILL BE SHARED WITH THIRD PARTIES UNDER ANY CIRCUMSTANCES. THE RESULTS OF THIS SURVEY WILL BE USED TO HELP INFORM RURAL SUPPORT POLICY AND PRACTICE AND ENABLE US TO LOBBY MORE EFFECTIVELY ON YOUR BEHALF.

IF YOU WOULD BE WILLING TO SPEAK FURTHER TO RURAL SUPPORT TO HELP OUR RESEARCH, PLEASE PROVIDE YOUR DETAILS BELOW.

NAME _____ TELEPHONE NUMBER _____

DETAILS:

<u>Thank you</u>

Appendix 3. Confidential Rural Support Interview questions

Part A) Background

Tell me about your farm?

What would your typical working day consist of?

How has this changed? (MorePaperwork? Less social things?)

What do you do outside of farming? (Church, clubs, holidays?)

What about the future?

How do you see the farm in say, twenty years?

Part B) Economic impacts of the prolonged downturn

What are you being paid for your produce at the minute?

Do you know your cost of production?

We appreciate that there is considerable pressure on farmers across the whole Industry.

How has this current downturn affected your farm business in terms of profitability?

Give us an indication of how your monthly accounts look now as compared with three years ago? Are you now losing money?

Are your overheads remaining the same? Is there anything you think you could cut back on?

Are you experiencing debt problems? If so what impact is this having on your business?

Do you think the banks appreciate the situation?

Do you or have you claimed benefits?

Have you checked what you and your family might be entitled for?

Have you engaged with any agencies as a result of the downturn?

Option for MARA referral

Do you feel that financial difficulties created by the downturn has affected your mental health?

Part C) Social impacts of the prolonged downturn

Do you experience stress? If so how does it impact you and your family?

Is there a strain on family relationships?

Have you had to make changes in relation to how you spend money or where you have had to make savings?

Have any of these aspects of your life changed as a result of the down turn:

Diet

Sleep

Social Life inc church

Alcohol/smoking

Giving to charity or church collections

Relationships

Attending GP

Who would you speak to if you were concerned about your own mental health?

Is there a stigma in relation to mental health in Rural areas? If so why?

Part D) Environmental impacts of the prolonged downturn

Have you any herd/flock controls in place at the minute? (TB)

Do you think you could afford to take the hit of going down with TB?

Have you had to make any changes in relation to how you manage the land or look after animals? E.g. less reseeding or less vaccinations?

Are you familiar with legislation on animal welfare and environmental protection?

Do you rely on the UFU/DARD to inform you?

Is compliance regulations concerning you? Are you worried you will not be able to afford to comply?

Part E) Leaving the land/Future of farming

Did you inherit the farm? How has it changed since you took over?

What do you see in the future for Farming in Northern Ireland?