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Farm crime in the Dyfed Powys
policing area: A study on its effects on
farmers and police responses to it.

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Date: 12th of March 2021

DECLARATION

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed: Elen Haf Evans (candidate)

Date: 12/03/2021

STATEMENT 1

This thesis is the result of my own investigations, except where otherwise stated. Where correction services have been used the extent and nature of the correction is clearly marked in a footnote(s). Other sources are acknowledged by footnotes giving explicit references. A bibliography is appended.

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STATEMENT 2

I hereby give consent for my thesis, if accepted, to be available for deposit in the University's digital repository.

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Table of Contents

Acknowledgements	3
Chapter 1: Introduction.....	6
1.1 Introduction.....	6
1.2 Literature review.....	6
1.3 Aims and Objectives	8
1.4 Research Methodology	8
1.5 Data Collection	9
Chapter 2: Literature Review	11
2.1 Introduction.....	11
2.2 Rural vs Urban idyll.....	11
2.3 International Sources	12
2.4 United Kingdom.....	14
2.5 Wales.....	15
2.6 Dyfed Powys.....	17
2.7 Crime Prevention	18
Chapter 3: Research Methodology	21
3.1 Introduction.....	21
3.2 Research Question	21
3.3 Research Design.....	21
3.4 Research Paradigm.....	22
3.5 Research Approach	24
3.6 Research Strategy.....	25
3.7 Time Horizons	26
3.8 Sampling	27
3.9 Sample Size.....	27
3.10 Questionnaire Design.....	28
3.11 Reliability and Validity.....	29
3.12 Analysis of Findings	29
3.13 Limitations of the Study.....	29
Chapter 4: Analysis of Results	31
4.1 Introduction	31
4.2 Questionnaire Breakdown.....	32
Figure 4.1: What county in Dyfed Powys are the participants from?	32
Figure 4.2: Number of participants who have been targeted by criminals.	33

Figure 4.3: Did the farmers who answered yes in the previous question call the police? If not, why?	34
Figure 4.4: What was stolen or damaged?	35
Figure 4.5: Did the respondents who contacted the police think they were helpful?	36
Figure 4.6: Is farm crime getting worse, better or has it stayed the same? Is there a reason you feel this way?.....	37
Figure 4.7: Are the respondents ever afraid or worried about being targeted?	38
Figure 4.8: Did you know there was a Dyfed Powys rural crime team?.....	39
Figure 4.9: Should there be more rural crime officers on the team? (currently 10 on the team)	40
4.3 Key findings in the interviews and focus group	41
4.3.1 Relationships	41
4.3.2 Security.....	42
4.3.3 Rural Crime Team	45
4.3.4 Farm crime rates.....	47
4.4 Discussion	49
Chapter 5: Conclusion	51
5.1 Introduction.....	51
5.2 Discussion	51
5.3 Objective one	52
5.4 Objective two	52
5.5 Objective three	53
5.6 Objective four	53
Appendix A	54
Appendix B	58
Appendix C	62
Bibliography.....	64

Chapter 1: Introduction

1.1 Introduction

Rural crime is a problem in large areas of the UK, and unfortunately, the people who are affected by these types of crimes do not report it to the police. There are four main categories of rural crime: heritage, equine, wildlife and agriculture. This research focuses on crimes committed within agriculture. Farm crime covers working farms, farm machinery, farm buildings and smallholdings. Some of the offences that occur include theft of fuel, theft of/or damage to plant vehicles, equipment or livestock, livestock worrying, and property damage (Metropolitan Police, 2020). These crimes can have a detrimental impact on farmers as they can lose costly machinery that will need replacing as soon as possible to be able to continue their farming duties and the loss of livestock means a loss of productivity and revenue (Welsh Government, 2020). Dyfed Powys Police is the largest police force in England and Wales, and a majority of the area they police is rural, which is why this research focuses on agricultural crimes within Dyfed Powys policing area. There is also a minimal amount of research on rural crime in the United Kingdom, let alone Wales; most of the research that has been done on rural crime has been conducted in the United States and Australia.

1.2 Literature review

Over the years, rural crime has been increasing; according to NFU Mutual's rural crime report (2020), rural crime cost the United Kingdom £54.3 million in 2019, which is 9% higher than the numbers from the previous year. During their research, they found that for the second year in a row, the spike in rural crime cases was caused by theft of farming machinery such as high-value tractors, bailers, large trailers, quad bikes and other farming vehicles and equipment. NFU Mutual also found that livestock theft is on the rise, with organised gangs taking large numbers of sheep, which are believed to be sold to slaughterhouses to be then sold illegally to the meat industry. In late 2019, NFU Cymru released information and statistics on rural crime on their NFU Wales website. They found that rural crime cost Wales as a whole £2,366,000 in 2018, which is 7.1% lower than the year before, but it is unclear if this is because people are not reporting the crime as much as they did or if the cost has fallen due to less crime. Though the overall cost of rural crime has fallen in Wales, it does not mean that the problem is improving, but it could mean that the work the police, farmers and their communities are doing to tackle the problem is potentially working. NFU Wales pointed out that modern technology can be a form of protection and comfort for some farmers; security cameras and gates are better

than ever, tracking and alarms on machinery that send alerts to a mobile phone. Technology has become an effective weapon in the fight against rural crime, but only for those who can afford new technology; smaller farms can be left vulnerable due to the lack of security measures.

In 2017, Dafydd Llywelyn (Police and Crime Commissioner for Dyfed Powys Police) released his rural crime strategy for Dyfed Powys. Within this strategy report, Llywelyn set out his steps to better the problem affecting a large number of farmers across Wales; he would like to make the rural area an inhospitable environment for organised crime groups and criminals. He believes that early intervention is one of the critical steps police, farmers, and local communities can make to decrease these crimes from happening and could be crucial to prevent other criminals from trying. In the Strategy report, Chief Constable Mark Collins also points out how detrimental rural crime is for farmers and agricultural contractors. Collins also explains that rural crime can have a lasting effect on farmers, having their equipment stolen can affect their livelihoods; some farming equipment are hugely important for the farm to work, if their fields are not treated with slurry or fertiliser, it could jeopardise their crop for the season which means they do not have food for their animals during winter (Dyfed Powys Police, 2017)

In 2012, Jane Jones and Jen Phipps wrote a paper on ‘Policing farm crime in England and Wales; they point out the lack of research done on rural crime in the UK and look into what research has been done. Their research aimed to understand why farm crime rates have risen over the years and determine the issues and possible issues that could arise in future police responses to farm crime. Jones and Phipps spoke about some of the observations made by Donnermeyer et al. (2011); they said that there are two different categories of crime that takes place on farms, the first is an ordinary crime, and the second is an extraordinary crime. Ordinary crime can be defined as the crime that occurs on farms regularly, such as theft of equipment, supplies, livestock and other crimes alike and extraordinary crime is defined as using the farm for the production of illegal substances such as marijuana. The paper has a significant amount of information on rural crime. It dissects other people’s research into rural crime in England and Wales while also looking at research done around the world.

In 2016, Vania Ceccato published a book called Rural Crime and Community Safety; while researching for her book, she found that people frequently perceived that crime is an issue that occurs more in urban areas than it does in rural areas. In her book, she explores the relationship between the police, crime and the people in rural communities and how everyone working together in a partnership can change rural crime and support each other.

1.3 Aims and Objectives

Aims:

To identify, evaluate and analyse how farm crime affects farmers and the agricultural community and what the police are doing to help.

Objectives:

1. To research the cost of farm crime and what items are typically targeted, and why?
2. To identify what steps farmers and others in the agricultural community could take to deter criminals.
3. To evaluate and assess if the work that Dyfed Powys Police is doing to prevent and deter criminals from targeting farms is improving farm crime rates
4. To collect, review and analyse what victims of farm crime think about farm crime and the police response.

1.4 Research Methodology

Primary and secondary sources are used in this research. Using these two different ways of collecting data and information will allow a more extensive collection of data and information. Secondary sources will allow the researcher to collect information from work that has already been published in journals, articles, books and studies from around the world from a range of different authors; this provides a variety of information that could be analysed and compared to the data collected in the primary research. To achieve the first, second and third objectives, the use of secondary research has been beneficial; by using previous research, it will be possible to see the last numbers of farm crime in Dyfed Powys and if they have changed over the past few years, what developments have been made in previous plans to deter criminals to the procedures in place now and to see if the rural crime strategy that was published in 2017 has had an effect on rural crime.

Primary research was also used to collect data and information. Primary research helps to achieve the second, third and fourth objective by getting information and data first-hand from the people who have been affected and the officers who deal with these crimes and come up with better ways to deter criminals and protect their community. The first form of primary research used is qualitative; this means that the data has been collected by conducting individual in-depth interviews and focus groups. Using qualitative research allows for more detailed information. It is less structured, so there is the freedom to ask more questions if needed, and the researcher could get an accurate picture of the situation. Focus groups are also

beneficial as they allow for more background information; what type of farm do they have, the size of the farm, and what kind of machinery they have. It also improves the understanding of what farmers in Dyfed Powys think about farm crime and shows if they all agree with each other.

The second form of research used is quantitative research. Quantitative research is information and data collected through distributing questionnaires; this allows for a much more extensive collection of data from a wide range of people from different areas and backgrounds. This will enable a better understanding of what the public think of farm crime and see if the information collected by conducting interviews is the same as the information collected from the people who have been affected by rural crime. It is also possible to see if some people have been affected by farm crime more than once, how it changed them and what security measures have they taken to protect their property and deter criminals.

1.5 Data Collection

To collect data and information about Farm crime and its effects on farmers and agricultural contractors, questionnaires were distributed online through social media; this way, it was possible for the survey to reach more people. Circulating the questionnaire on social media ensures the researcher that there is a range of people from different areas, backgrounds, and farm types filling in the questionnaire, giving a better insight into farm crime in Dyfed Powys as a whole and not just having one county or one area represented. A focus group was held with around five people, using leaders from different Young Farmers Clubs to see their view of farm crime, and its effects and what steps they have personally taken to ensure their equipment and livestock are protected, and additionally, see if they believe farm crime has improved or worsened over the years and what their thoughts are on police response—lastly, interviews with the people who are trying to fight farm crime and improve farm crime rates. One of the interviews was with Dafydd Llywelyn, the Police and Crime Commissioner for Dyfed Powys Police; he gives a more in-depth insight into his plans to improve the rate of farm crime and protect farmers and what do criminals typically target (livestock, machinery, fuel). Additionally, finding out what he thinks farmers should do to protect and deter criminals from targeting them. An interview was also held with a rural crimes officer who is based in Pembrokeshire; through this meeting, additional information was gathered about

farm crime and learnt what her thoughts are on the subject and what her advice is for farmers who have been targeted and those who might be targeted in the future.

Chapter 2: Literature Review

2.1 Introduction

For years farm crime has been an issue for farmers and the Police; every year, criminals find new ways of damaging or stealing machinery, equipment or livestock. These crimes can be detrimental to farmers productivity and income. Dyfed Powys Police has the largest police force in the UK, and a significant amount of the areas they cover are rural, which means that they often deal with farm crime. However, there is hardly any research on this subject; there has barely been any research on the topic of rural or farm crime in the United Kingdom, let alone in Wales or Dyfed Powys. Most of the research that has been conducted on rural crime has been carried out in either Australia or the United States.

Furthermore, due to farm crime being a relatively new and emerging issue today, the number of historical works of literature on the subject is sparse. This review will firstly look at literature about people's perception of crime in urban areas compared to rural; then moving on to research that has been conducted internationally as most research on rural crime has been conducted outside of the UK, this will allow a better understanding of what other countries have done to protect farmers and assess if those measures could be applied in the UK. Next, will be research collected on the issue of farm crime and its cost per year in the UK and looking at sources that show what farmers think of the rising problem and if Police are doing enough; this will then lead to the research on farm crime in Wales then focusing on Dyfed Powys Police.

2.2 Rural vs Urban idyll

In 2005, Richard Yarwood published his work on the rural idyll called "Beyond the rural Idyll: Images, countryside change and geography". Yarwood believes that images are essential as they "both reflect and affect the ways in which the countryside is used by society" (Yarwood, 2002). He found that people's opinions of rural areas are significantly influenced by different programmes on television, newspapers, magazines and social media; this is supported by a report produced by Countryside Agency (2003). People who live in urban areas have an image of the rural regions being calm and quiet with some incredible scenery, but one incident that made people realise that rural areas are more problematic than first believed was when the media covered the farming crisis of 2001, when foot and mouth disease spread from farm to

farm, killing thousands of livestock. At the time of the outbreak, Prince Charles commented, 'If the nightmare of foot-and-mouth disease has served any useful purpose, it is, perhaps, to have brought the desperate plight of those who live in the countryside to a far wider audience' (HRH The Prince of Wales, 2001, p. 2). For instance, people who reside in urban areas would not have learnt about the issues within agricultural communities regarding badger culls or fox hunting if large media outlets had not reported about the problem on a national level. Yarwood also pointed out that when people from urban areas research rural areas to plan a holiday or looking for a new place to live, they are fed promotional images that endorse the idea that rural areas are relaxing, simplistic and picturesque; they show what people want to see, an unrealistic view of what rural life is.

2.3 International Sources

Australia

In 2007, Australian researchers Barclay, Donnermeyer, Scott and Hogg released a book called *Crime in Rural Australia*; the book aims to shed light on an area which rarely researched; they found that Australian criminology textbooks do not classify rural crime as something worthy of scholarly attention. They found that even internationally, there is a minimal number of scholars that have written about rural crime and the issues around it. During their research into rural crime in other countries, they found that people in rural communities are very concerned about the rise in rural crime over the years (Weisheit, Falcone & Wells, 2005); they found this to be true in rural communities across Australia as well after looking at statistical data that clearly showed the increase in the rate of crime. They see the lack of information on rural crime in Australia to be something that needs to be corrected immediately as the neglect of information has shaped and limited peoples understanding of crime in Australia. While researching into rural crime, they found that most criminologists typically try to understand public disorder, which is something that happens mostly in the public space of the city. Every year cities get bigger, which means more people and more crime; this is where the modern conception of crime usually stems from. Due to the rise in urbanisation, the city has become somewhere where crimes occur visibly in public; some of these crimes include robbery, theft, assault and damage to property or persons. Whereas crime in rural areas is hidden, and in obscure places. Farm crimes tend to happen at night when there is no one around on farms that

are secluded. This, in a way, explains why people from urban areas feel like crime rates are lower in rural areas. Rural communities in Wales have also seen a rise of rural crime over recent years and the farms that are typically targeted are those that are hidden on small country roads.

United States of America

It is estimated that agricultural crime costs the United States economy an estimated \$5 billion a year; this is why in 2007, Mears et al. published their work 'A Process and Impact Evaluation of the Agricultural Crime, Technology, Information and Operations Network (ACTION) Program'. They saw that agricultural crime was becoming a bigger problem and wanted to collect information on the situation and provide policymakers, funders and practitioners with well researched and hard evidence on the state of agricultural crime across America. They also wanted to determine if the ACTION program will benefit local governments and law enforcement to prevent and deter criminals from targeting farms and help bring the people responsible for committing these crimes to justice and recover the stolen property. While conducting their research, they spoke to people in law enforcement, farmers and prosecutors; they found that farmers tend to avoid going to the authorities if they are victims of a crime and do not seem to trust them or their ability to help. Additionally, they spoke to a range of different prosecutors. They found that prosecutors have not seen agricultural crime as an offence and that even judges do not seem to take cases that include agricultural crime seriously. When Mears and his fellow researchers looked at the issues around the theft of machinery and chemicals from farms, they realised that most farmers do not have much faith in the effectiveness of the different safety precautions they have been advised to have. To investigate the issue further, the research team went to the World Agricultural Exposition; at the Exposition, they spoke to a chemical and fertiliser supplier that said that there is very little that farmers can do to safeguard their purchases, one of the only things they can do is to lock the chemicals away, but that does not guarantee that it is safe as criminals can cut locks to gain access. The same can be said with tractors and other machinery; the researchers spoke to a young farmer during the Exposition who admitted that most farmers were not very responsible when it came to keeping the purchase documents of the machinery or take note of the serial or product number; this means that if their tractor is stolen, they would have no proof that the vehicle is theirs to begin with. This is a large area of concern. Farmers in America do not trust

the authorities. Law enforcement does not take agricultural crime seriously, and some farmers are too nonchalant about keeping documents and do not take preventative measures.

2.4 United Kingdom

During Marshall and Johnsons (2005) research into rural crime, they looked at NFU's statistics on rural crime. They found that 82 per cent of NFU Mutual's 598 agents were increasingly worried about becoming a victim of rural crime and the rise of rural crime (NFU Mutual, 2004). However, Marshall and Johnson's findings suggest that despite the figures showing that rural crime was decreasing, the people in rural areas believed that rural crime was rising. In early 2020, National Farmers Union (NFU) Mutual released a rural crime report, 'A challenging time for the countryside', the report focuses on rural crime across the whole of the UK and breaks down the costs of farm crime into groups. Hence, there is a clear picture of the damage that these criminals and crime groups cause. According to NFU's theft claim figures, the cost of rural crime in 2019 for the UK was £54.3 million; this is the highest the figure has been in over eight years. They found that the cost of rural crime was just as high the previous year, and they accredit this to the increase in thefts of high-value machinery, quad bikes and other agricultural vehicles. In fact, in 2018, NFU Mutual's claim figures showed that the theft of farming vehicles cost the UK £7.4 million with that figure rising to £9.3 million in 2019; the cost of a quad and ATV theft had increased from £2.6m to £3.1, and theft of livestock rose from £2.8m to £3m. One thing NFU Mutual has tried to do over the years to deter criminals from stealing agricultural vehicles is to offer discounts on specific policies if farmers fit their vehicles with Thatcham approved tracking systems and immobilisers; they hope that by introducing this system, they can encourage more farmers to take measures to safeguard their property and deter criminals from stealing or at least be able to track their belongings (NFU Mutual, 2020). Although the rural crime rates seem to be rising across the UK and the costs rising alongside it, NFU Cymru found that rural crime rates have been declining. In 2018, rural crime in Wales alone cost £2,366,000; this is a 7.1% fall from the previous year; NFU Cymru also found that in 2019, ATVs/quads, tools and livestock were the items criminals commonly targeted across Wales (NFU Cymru, 2019).

After the NFU released their findings on rural crime, the National Rural Crime Network (NRCN) distributed a survey and found that they received the same result as NFU; the survey

showed that farmers are some of the groups that feel most vulnerable to rural crime and that farmers are the most affected. Their survey also showed that farm crime is noticeably underreported; the NRCN believes that there are many reasons why a farmer would not report theft or damage of their property. Some of the reasons include difficulty with the 101 system, if the criminal has intimidated and physically hurt them to keep the crime from being reported (Durham, 2020).

The Country and Landowner Association (CLA) researched the policing of rural crime across England and Wales in 2019; they found that 37% of the police forces lack a strategy to combat rural crime, and nearly two-fifths (39%) do not have a team dedicated to rural crime and only ten police forces in England and Wales provide new recruits with proper training to deal with rural crime. They also found that only 53% of the forces have the tools to help with the detection and prevention of rural crime; these tools include 4x4s, night vision equipment, ATVs or drones. This research shines a light on the lack of resources there are to help protect farmers and their property; rural and farm crime training and farm crime prevention tools should be compulsory for any force that police rural areas. CLA recommends that every police force should have a rural crime strategy in place by 2021 that has been compiled with information and advice from both the police and the Police and Crime Commissioner (PCC), and also the farming community. Does every county within Dyfed Powys Policing area have these tools, and are the new recruits given rural crime training?

2.5 Wales

In 2012, Jane Jones and Jen Phipps published their work on Policing farm crime in England and Wales. The main aims of their article were to understand why farm crime seemed to be an emerging issue within rural communities when until they began their research, farm crime had been a relatively neglected subject within rural crime additionally they wanted to consider what developments have and can be made in order to improve policing of farm crime. They found that rural areas have evolved into what seems to be hotspots for criminal activity, and the crimes that are committed in the rural area are not the same as those being committed in urban areas; there is now a whole new breed of crime that has been created that targets farmers and their property (Crompton 2011a:14). Jones and Phipps wrote about a rural crime seminar that was held by the Association of Chief Police Officers (ACPO) along with Crimestoppers in 2011; they called the seminar 'Closing the gate on Rural Crime'. This seminar brought together all the people who were concerned about rural crime; members of the farming community,

criminal justice professionals and others who were worried about the rise in rural crime and the issues surrounding it. The aim of the event was to talk to the people who were dealing with rural crime and those who have been personally affected by farm crime in order to get first-hand information on what could be done to support and protect the farming community and to cultivate a new approach to prevent and detect rural crime. It is unknown if any of the things they spoke about during the seminar have been dealt with and developed.

Jones and Phipps point out several times that there is a significant gap in criminological literature when it comes to rural/farm crime. They try and emphasise that farm victimisation is a real thing and should be regarded as an essential aspect of farm crime and that it is an area that requires more attention compared to what it is currently receiving from rural policymakers and practitioners. Suppose big farms who sell their produce to supermarkets or local shops fall victim to farm crime. In that case, the cost does not just affect the farmer, it could reverberate beyond that, it could affect the community, and it may potentially raise the price of the product for consumers (Chalfin et al., 2007). Farmers spend years investing their money and time into taking care of their land to get a crop of the highest quality, buying, breeding and growing the best possible livestock and it could all be virtually wiped in one go (Barclay, 2001). In their research they looked at the policing of farm crime, they looked at research by Aust and Simmons (2002), they reported that due to the fact that rural areas are isolated there is an increase in vulnerability to crime. They also noted that due to the rural environment, longer police response times are expected; policing such a large and isolated area makes response times and allocation of other resources difficult. They believe that one way to help protect and deter criminals is to work on strengthening relationships between farmers, the community and police; by doing this, they could create an informal network that could all work together to establish a productive and effective strategy to protect farmers. The idea is to have the people in the community to look out for each other; this would take some pressure off police response that is already under strain. These are some of the things that have been brought up during interviews for this research to see if farmers believe that community policing would work and what rural police officers think of the idea.

2.6 Dyfed Powys

When Dafydd Llywelyn was elected as Police, and Crime Commissioner (PCC) for Dyfed Powys Police, one of the main issues he wanted to tackle was the rates of rural crime; as he was now in charge of overseeing policing in an area that has vast stretches of coastline, large and small weaving road networks, large mountains and rural communities in remote areas. Due to this, deploying resources and responding to rural crime incidents can be challenging for the officers of Dyfed Powys Police. As a result, in 2017, Dafydd Llywelyn and Chief Constable Mark Collins introduced his rural crime strategy that details the steps the Police will take to try and protect the people in the rural communities and farmers and what new measures can be put in place by farmers to ensure that their machinery and livestock are safer. One of the main goals set out in the rural crime strategy is to make all of the counties that make up Dyfed Powys an inhospitable environment in order to hopefully deter criminals and crime groups from operating in those areas. Through early intervention, Llywelyn believes that by having police and communities work together and develop new ideas, they can effectively decrease the number of farm crimes happening in Dyfed Powys. In this strategy, they point out that due to the dispersed rural population of Dyfed Powys, police services are not as easily accessible as in other areas. The PCC and Chief Constable Collins noted that this is an area they would like to improve on. The research conducted for the strategy showed that around 500 different farm crimes had been committed in 2016/17, ranging from theft of livestock, quad bikes, trailers and other machinery to damage to crops, land and buildings and other property. They also noted that they estimate an average of 1.4 farm crimes happened each day across the force area in 2016/17. However, they believed the figure to be much higher; farm crime is under-reported because farmers and others in the agricultural field believe that Police have an inadequate response to farm crime. They rarely get a positive outcome (Dyfed Powys Police, 2017). This strategy does not specify what security precautions farmers should take to ensure the safety of their vehicles and livestock (cameras and tracking devices).

In February 2020, the PCC released a rural crime report. This report details the ‘Dyfed Powys Police Rural Crime Picture’, which includes a clear focus on tackling rural crime and all the challenges that come with that through ‘prevention, intelligence, enforcement and reassurance’ (PCC, 2020). One of the ways Llywelyn is hoping to do that is by introducing a rural crime team across Dyfed Powys. The aim is that each member of the rural crime team will have specialist training to effectively police and deal with rural crime. According to the report, there are ten officers in total that make up this team, and they will work with local neighbourhood

policing teams to create a relationship between the police and the rural communities. The Commissioner emphasises that: “At the heart of understanding the full impact that rural crime carries, will be an open and honest dialogue with victims such as residents, farmers and agricultural businesses.” (Dafydd Llywelyn, 2020). The report discusses a study carried out in 2017 by researchers from Aberystwyth University, and they worked alongside the Commissioner’s office to research Rural Crime. The study looked at farmers experience of farm crime, if farmers and their surrounding community have faith in the police and legal system and the police attitude towards farm crime. Some of the findings from the study showed that although there was general satisfaction with how Dyfed Powys Police dealt with farm-related crime, the consensus between farmers was that the police were not doing enough in terms of investigation and prosecution of farm crimes. The findings of the research informed the renewal of the Dyfed-Powys Rural Crime Strategy. The number of officers on the rural crime team seems relatively small considering the enormity of rural areas that Dyfed Powys has; hopefully, during this study, the PCC can shed light on any plans to increase the number of rural crimes officers. Additionally, it would be interesting to know from farmers across Dyfed Powys if the DPP have improved their investigation and prosecution of farm crimes.

2.7 Crime Prevention

There are many ways to deter criminals from targeting a farm and to protect the farmer's property. While studying crime prevention on farms from a farmer's perspective in Kenya, Bunei, Rono and Chessa (2014) found that farmers may not have sufficient resources, knowledge and understanding of different crime prevention measures available to them. Crime prevention measures can be put in place before any crime has taken place, or the measures can be adopted as a reaction to being targeted by criminals. Anderson and McCall (2005) did a similar study in Australia. They found that due to farmers lack of knowledge in crime prevention, most farmers would only put security measures in place on their property after becoming victims of farm crime. To reduce farm crime, the items that criminals usually target need to be made increasingly difficult to steal or damage. This could be done by inscribing a mark, disabling the machinery or equipment not in use, limiting the more expensive machinery's visibility, and making sure all storage buildings and vehicles are locked (Eck, 2002). One of the most highly suggested crime prevention strategies made by Bunei, Rono and Chessa (2014) is guardianship. Guardianship is "the informal creation of an alliance between neighbours to keep an eye on one another's property". A more formal name

that is used by the police would be a neighbourhood or community watch. This strategy encourages farmers and others in their community to interact and create a healthy relationship where they can rely on each other to keep an eye on each other's property and notify their neighbours if anyone sees any suspicious activity. (McCall and Homel, 2003; Deeds et al., 1992). This relationship between neighbours increases the level of natural surveillance in the area. It might deter criminals, or it can 'increase an offender's perception of the consequent chance of apprehension should they commit a crime' (Felson and Clarke, 1998). All this literature does not bring up the fact that in some rural areas, farmers live in secluded places and might not have many nearby neighbours. This also means that due to some farmers being secluded, the small country roads that the farms are situated on might not have much traffic on them, so the chances of anyone seeing when a crime is being committed is even less. If more people who have close neighbours got involved in the guardianship/ neighbourhood watch, the police should have more time and resources to patrol more rural areas and small county roads.

Aransiola and Ceccato (2020) wrote that due to rural areas being stereotyped as bucolic and crime-free places, they are not often associated with security measures such as cameras, alarms and light sensors (Weisheit & Donnermeyer, 2000). However, over recent years there have been signs that there has been an increase of people in rural areas using technology as a preventative measure to protect their property (Barclay, Donnermeyer, Doyle & Talary, 2001; Mears et al., 2007; Chidziwisano & Wyche, 2018). Rural crime has always existed, but with the increase in the monetary value of machinery and equipment, the rates of rural and farm crime have become greater, which is why traditional measures such as locks, gates and fences are not enough anymore, and more modern technologies are being used to safeguard properties (Aransiola & Ceccato, 2020). Crime in urban areas does not have as many situational factors as in rural areas making a new type of crime with its own challenges. Remoteness, small population and fewer police are some of the most apparent factors why farms are seen as easy targets in rural areas. Also, the police response times and quality of surveillance is determined by the geography of rural areas due to isolation and physical distance (Weisheit & Donnermeyer, 2000). The issue of isolation in rural areas can be solved by using modern technology like CCTV; it increases surveillance of properties and gives the farmer piece of mind that they can see exactly what happening on their property at all times, which is a deterrence for criminals and if something does get stolen or damaged, they have video evidence of it and could increase the chances that the perpetrator will be caught and the stolen items could be returned. Crime prevention measures can be implemented by

individuals and rural communities (Bennet, 1986). The use of new-age technology is a new and effective way to protect one's property and the surrounding community, some of these include 'CCTV, security lights and alarm systems, licence plate readers, car immobilisers, electronic tagging (trackers) and ignition interlocks' (Welsh & Farrington, 2008; Marklund & Holmberg, 2009; Farrell, Tseloni & Tilley, 2011; Ariel, Farrar & Sutherland, 2015; Tseloni, Thompson, Grove, Tilley & Farrell, 2017).

Chapter 3: Research Methodology

3.1 Introduction

This chapter will outline the methodology used in this research; it will illustrate the steps that has been taken to gather primary data in order to achieve the aim and objectives that have been set at the beginning of this dissertation. Firstly, the research question is reiterated, then moving on to the research design, explaining the framework used for the research. Secondly, the researcher will talk about the research paradigm and what paradigm has been chosen for this research, identifying the disadvantages and advantages of the different methods. The researcher will then discuss the research approach, break down each method, and understand why one method is better suited for this research—then moving onto the research strategy, where the researcher will discuss the method that has been used to collect data, such as using surveys or focus groups. After this time horizons, sampling and questionnaire design will be discussed, detailing the research's time limits, what sampling strategy was used, how many samples have been collected, and how the questionnaire has been designed. Lastly, the research will discuss the study's reliability and validity, how the findings have been analysed, and identify any limitations of the study.

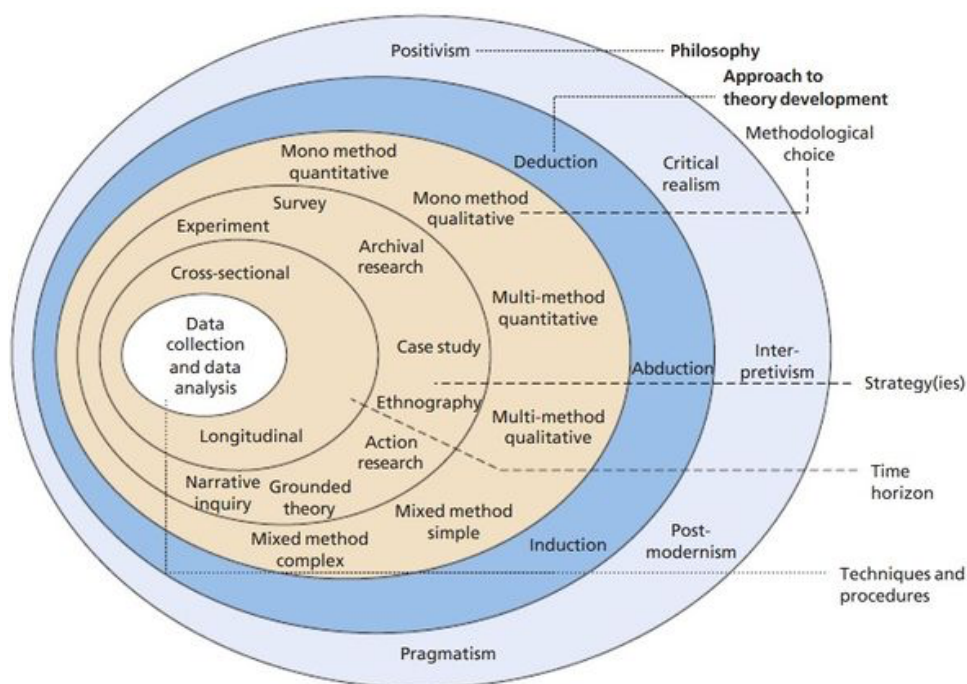
3.2 Research Question

As mentioned before, this research aims to establish how rural crime affects farmers and others within the community while also analysing how Dyfed Powys police deal with rural crime.

3.3 Research Design

Research design is a crucial component for developing research ideas and turning them into viable research projects. Research design is a fundamental step to creating an overall framework and strategies that are needed to guide the research to complete the best possible research project that effectively addresses the research problem (Saunders, 2016). The research design process includes making decisions on what type of data the researcher intends to collect and the methods used to collect and analyse the data, who will participate in the research, and what sources of information will be used to compare. These steps help to ensure that the research conducted is reliable and valid (McCombes, 2020)

The research onion, which Saunders et al. (2007) developed, is a great tool to develop a research design. It is excellent to use as a template to ensure everything is being included within the methodology. The research onion shows the six stages that will be needed to write a research strategy successfully, each layer of the onion explains what needs to be included (from outer to inner); philosophy, approach, methods, strategies, time horizon, techniques and procedures; and for each layer different research tactics can be used. The following diagram shows what the research onion looks like. For this research, the onion was beneficial. It was used as a guideline that could be followed so the researcher can visualise each step that needed to be taken and the different options available.



Source: Saunders, et al. (2007, p. 132)

3.4 Research Paradigm

This research has been utilizing a post-positivism paradigm, as it fits well for the study. Saunders et al. (2009) defines research philosophy as “the development of knowledge and the nature of knowledge”. Putting it simply, every individual that conducts any form of research

does develop their knowledge in their chosen field of research. The table below shows the different research paradigms:

	Positivism-oriented		Interpretivism-oriented	
	Positivism	Post-positivism	Interpretivism	Constructivism
Ontology: What is reality?	Naïve realism. Objective reality.	Critical realism. Reality is imperfectly apprehendable.	Subject and object are dependent. The real essence of the object cannot be known. Reality is constructed.	
Epistemology: How do you know?	Dualism researcher- research. Replicable findings are “true”. Reality can be explained.	Dualism is not possible. Replicated findings are “probably” true. Impossible to fully explain reality.	Knowledge is interpreted. Reality can be understood.	Knowledge is constructed. Reality can be constructed.
Methodologies: How do you find it out?	Experimental, deductive. Mainly quantitative. Relationship cause-effect. Statistical analysis.	Experimental. Mainly quantitative methods, manipulative. Scientific Community plays an important role of validation. Statistical analysis. Probability sampling.	Interpretation. Mainly qualitative methods. Purposive and multipurpose sampling.	Mainly qualitative methods. Purposive and multipurpose sampling. Stakeholders involvement.

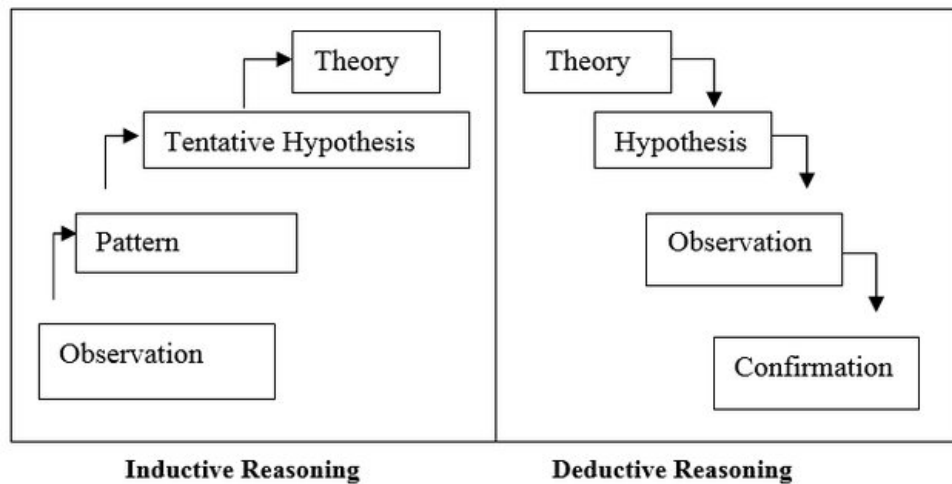
Source: Iofrida et al. (2014)

As the table above states, post-positivism balances both positivist and interpretive approaches. Post-positivism uses historical, comparative and philosophical analysis (Fisher, 1998) as well as including quantitative analysis. Unlike positivists, post positivists believe that there are no absolute truths (Guba and Lincoln, 1994). Post-positivism aims not to disapprove any factors of positivism in research but rather to understand and have a perspective on all aspects of the research using multiple methods and dimensions (Fischer, 1998).

By using a post-positivist approach, there is a flexible research perspective that will allow for the use of multiple methods to gather information and data to answer the research question. Using this research paradigm will decrease personal biases and prejudices throughout the research; the use of different research techniques and methods allows for a broader understanding of the subject from more than one angle (Panhwar et al., 2017)

3.5 Research Approach

There are two primary mindsets of reasoning when it comes to research, and those are deductive (quantitative) and inductive (qualitative) approaches. The difference between the approaches is, with an inductive approach, the research begins with a theory. It collects information and data confirming the theory, while deductive is the reverse, where the theory comes last, as seen in the diagram below.



Source: Trochim and Donnelly (2006)

Creswell and Plano Clark (2007) work from the assumption that both reasonings address the same thing; they are not mutually exclusive; the same question will be addressed either way, but the methods in which the information will be collected will be different. Wilson (2006) suggests that deductive reasoning requires the research to begin with a few general ideas (premises) and then apply them to a specific area. It can visually be seen as a funnel; begin with a broad generalisation, and as the research continues, the idea begins to narrow, eventually forming a specific conclusion. Inductive reasoning is visually similar to a pyramid, starting with a narrow premise, and throughout the research, the conclusion will expand. Inductive reasoning is based on finding a conclusion that will fit into the premise and not having a clear-cut answer, just explaining that the conclusion is the most probable one. Deductive arguments work towards proving a conclusion, whereas inductive arguments are meant to predict the conclusion. Soiferman (2010) believes that quantitative researchers tend to distance themselves from the participants of the research, while researchers who use a qualitative approach gravitate towards making a connection and a relationship with the participants to be able to observe and

understand them better. For this study, the researcher has distanced themselves during the interview process to stay professional. However, for the focus groups, the researcher wants the focus groups' participants to feel comfortable to open up and talk freely about their thoughts and feelings. Quantitative research often uses data and statistical analysis, drawing from logic, evidence and argument to conclude (Trochim, 2006). Qualitative researchers analyse the participants' words, trying to find common themes; this makes the researcher a key instrument within the data collection. This research will use both inductive and deductive research approaches. Using surveys to collect data from a large number of people while also conducting interviews and analysing what each participant says will assist in drawing a valid conclusion.

3.6 Research Strategy

Using a combination of both inductive and deductive approaches and using post-positivism philosophy will increase understanding of how rural crime affects farmers, the community, and the part that Dyfed Powys Police play in preventing and protecting rural communities. Mixed methods is a great way to avoid limitations when gathering all the information needed for the research; it allows for better data collection and analysis (Creswell & Poth, 2017). Combining the elements of both qualitative and quantitative research approaches allows for "the broad purposes of breadth and depth of understanding and corroboration" (Johnson et al., 2007, p. 123). It is a useful research method that expands and strengthens the conclusion of any research. Ultimately, mixed methods research will further increase the validity of the research and heighten knowledge. Using only one method means more restriction while conducting research; the understanding and knowledge cultivated using a mixed-method approach cannot be done while only using one research method (Venkatesh et al., 2013). Although a mixed-method approach will be more time consuming and require more resources than if only one method is used, the extra work will improve the research. Distributing questionnaires and conducting interviews will help avoid bias, as the data will not only be from the police' perspective or only the farmers perspective; there will be data from both sides. The data collected will assist in answering the research question from multiple angles (Creswell, 2017).

Online questionnaires have been used to gather data and information on rural crime and its effect on farmers and rural communities within Dyfed Powys. Distributing questionnaires allow for a larger sample of data to be collected and distributing the questionnaires online will help gather a broader range of participants. By using social media to share the questionnaire,

there is less bias because the collection of data was not be collected from only one location but all across Dyfed Powys policing area. Additionally, gathering data using questionnaires is economical. It does not take much time to do, and it does not cost and makes all the data easier to manage and analyse (Bryman & Bell, 2015). Another advantage of online questionnaires compared to other forms of extensive sample data collecting; is the level of flexibility for both the researcher and the participant to administer and complete. The participants can complete the survey quickly on their mobile phone or laptop without taking too much time out of their day.

Semi-structured interviews have been held with a small group of people who are members of Young Farmers Clubs. The researcher has chosen the participants within the focus group as they needed to reach a criteria: were they willing to do the interview? How old are they? Where are they from? Have they or their family been a victim of rural crime? A semi-structured interview was also conducted with the Police and Crime Commissioner (PCC) of Dyfed Powys Police to gather insight into what they think about the issue of rural crime and how police are helping to protect rural communities prevent further crime.

Along with the PCC, another semi-structured interview was held with a police officer who is part of the Dyfed Powys Police' rural crimes team in Pembrokeshire. Due to the current pandemic, the group discussion was conducted using an online video conferencing service, and the individual interviews were conducted by online conferencing. There were some difficulties in organising a time where everyone was free for the focus groups and using the online video-conferencing application. Due to it being online and everyone's internet signal being of different strength, there were some connection issues. The conversation was not as effortless as first hoped as there were delays and two people starting to speak simultaneously. The interview with the PCC and PC Esther Davies went much smoother; there were no complications, and all went well.

3.7 Time Horizons

For this study, a cross-sectional time horizon was applied rather than longitudinal due to the time limitations of this dissertation. A cross-sectional study looks at data that has been collected from a single point in time for a short period of time. This time horizon records the information present at that specific time when the research was being carried out and considers many variables all at once while also not manipulating any variables. Cross-sectional studies give the researcher a snapshot of what is currently happening; it is a great way to collect a large amount

of data and information in a timely manner, it is a very inexpensive way to collect information and easier to implement (Cherry, 2019). Using this time horizon has allowed the research to see the current state of rural crime and its effects on others and what Dyfed Powys Police are doing to decrease the rate of rural crime, and what they do protect communities. Additionally, it has allowed the researcher to compare with rural crime rates to see if anything has changed and if the Dyfed Powys Police rural crime strategy has had any positive outcomes. It can also be a springboard for further research into the issue of crime in rural areas.

3.8 Sampling

The sampling method used was non-probability sampling; individuals were selected based on non-random criteria; only specific individuals were chosen to be in the sample. There are four main types of non-probability sampling: convenience, voluntary response, purposive and snowball. The one used in the research was purposive. This type of sampling means that the researcher controls who is in the sample depending on the requirements needed for the purpose of the research. This sampling method allows the researcher to gain more extensive knowledge of the chosen subject matter by having participants who have experienced rural crime and removing individuals within the sample who have never been victim to rural crime. (McCombes, 2020).

The target sample for the online questionnaires were farmers within the Dyfed Powys Policing area who have been targeted by criminals, and also any others who live in rural communities within the Dyfed Powys Policing area who have been victim to rural crime. To enhance the research's validity, the questionnaire was shared online with people all over Dyfed Powys to get data from all areas and avoid only gathering data from one area of Dyfed Powys. To collect more in-depth data and information, a focus group and interviews were held; the focus groups were comprised of members from different Young Farmers Clubs in Dyfed Powys. The interviews were conducted with an officer within the rural crime's team of Dyfed Powys and the Dyfed Powys Police PCC.

3.9 Sample Size

For the online questionnaire, the goal sample size was 50 or more individuals who live within the Dyfed Powys policing area that have experienced rural crime in their lifetime. In the end,

the actual number of participants was 40; this still gives the researcher a wide range of data and information.

The researcher hoped to get around five participants for the focus group, but the number of participants in the focus group was four due to time conflicts. Having a smaller group allowed everyone to have their say about the subject and get their views across clearly. Additionally, allowing the researcher to get the chance to build a rapport with the individuals, which made them feel more comfortable sharing their views.

3.10 Questionnaire Design

It is vital for the research that the questionnaire is fully completed with the answers needed. For this to happen, the researcher aimed to design a questionnaire that the respondents understand and answer confidently. The researcher used more conversational English for the questionnaire as opposed to academic English to avoid confusion. If the questions were too complicated or challenging to understand, respondents may give up halfway through the questionnaire (De Vaus, 2014, p. 128). To ensure that the questionnaire was easy to comprehend, a small sample of people were asked to fill in the questionnaire and give their thoughts on it, giving ideas on how to improve the questionnaire.

The use of both open and closed questions was included in the questionnaire, allowing the researcher to gather quantitative and qualitative data. Some questions allow the respondent to enter their own opinions about the subject; half of the questions were multiple options, allowing the researcher to get a quicker and easier answer that was simpler to analyse and present (Saunders et al., 2016, p. 452). The closed questions were used to find out, for example, if the respondents have been the victim of rural crime and if they think rural crime rates have improved or worsened over the years. The open questions allowed "respondents to express themselves using their own words" (Foddy, 1993, p. 128). Open questions were used to establish the respondents' views on how police deal with rural crime and what the police can do to improve their response.

3.11 Reliability and Validity

Newman & Benz (1998, pp. 32-33) believe that "validity cannot exist without reliability", one-way other researchers can estimate the validity of the research of others is by measuring the reliability of their work. According to Creswell (2013), there are two types of errors that could affect a study's reliability: systematic error and random error. Systematic errors are caused when something systematically compromises the variable's measurement within the sample, and random error is caused by any factors that randomly affect the variable's measurement randomly (Trochim, 2020). To decrease the chances of random error, the sample size needs to be bigger; as stated before, the sample size is 40, which is high enough that there is less chance of random error. High reliability indicates that a measurement is valid; a method cannot be valid if it is not reliable. However, having high reliability does not guarantee the validity, as real situations may not be accurately reflected in the research (Middleton, 2020).

3.12 Analysis of Findings

Google Docs was used to create the questionnaire, and all the results were analysed through the use of the tools on the website. When analysing the data, the results of the questionnaire is shown through the use of graphs and tables; displaying the data like this ensures that the findings are easily understood. The analysis of the data collected during the focus group and interviews searched for patterns or themes between each discussion.

When analysing all the data, the researcher determined whether the research results are in line with the existing literature or if the research shows different results, explaining what could have made this difference in results occur.

3.13 Limitations of the Study

There were few limitations in this study. One of those limitations would be the possibility of demand characteristics; the questionnaire participants, focus group and interviews may answer the questions in a way they think the researcher wants and not providing truthful answers, or possibly giving answers that are false or embellished. With distributing the questionnaire online through social media sites, there was a possibility that participants who complete the questionnaire may live outside of the Dyfed Powys Policing area; this could affect the validity of the research.

The sample collected represents some of the rural community; this is because some farmers and members of rural communities may be harder to reach out to. However, as the researcher predicted, due to the questionnaire being distributed online through social media, the questionnaire did not reach as many farmers as hoped as there are, for example, a lot of small rural farms that are being run by older generations; reaching them was challenging due to the questionnaire being online and they most likely do not have social media. This may have left a gap in the results, as older generations and small farms typically get targeted more than the bigger farms as they are more vulnerable and hidden. Also, as the questionnaire was shared using the researcher's social media account, many participants are from the same county as the researcher (Carmarthenshire / Ceredigion). The questionnaire might not have reached as many people in other counties like Powys or Pembrokeshire.

Chapter 4: Analysis of Results

4.1 Introduction

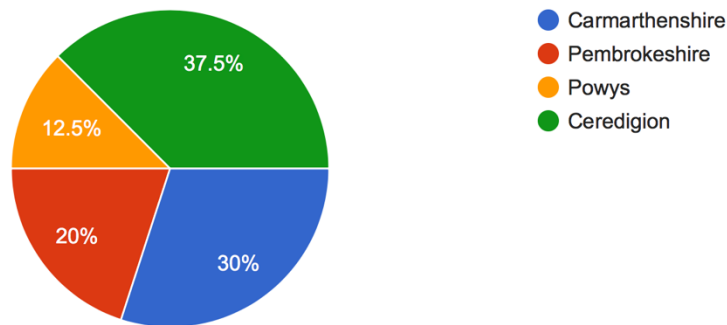
This chapter will both analyse and discuss the results of the primary data collected for this research into farm crime and how that might affect farmers, and the steps Dyfed Powys police are taking to combat the issue. The data collected from the questionnaire will be shown in the form of pie charts and examples. The data collected through the use of a focus group and interviews will be discussed by finding commonalities and themes between each interview. For the questionnaire, a total of 40 responses were received from across the whole of Dyfed Powys. Two interviews were conducted through online video chats; one interview was with Dafydd Llywelyn, the Police and Crime Commissioner (PCC) of Dyfed Powys and the other with a rural crimes officer in Ceredigion, PC Esther Davies. Additionally, a focus group was also held using online resources; there were four respondents in total, each from a different area of Dyfed Powys and all senior members of a Young Farmers Club.

This chapter will also compare the data analysis results to the information and data found during the literature review and determine if there are differences in the data or if the data is consistent. (Fields, 2013)

4.2 Questionnaire Breakdown

Figure 4.1: What county in Dyfed Powys are the participants from?

1. In which county are you based?
40 responses



The results of this question show a larger number of participants living in Ceredigion and Carmarthenshire than Powys and Pembrokeshire. Most of the forty participants that answered the questionnaire are from Ceredigion with 37.5% (15) with Carmarthenshire at 30% (12), Pembrokeshire 20% (8) and Powys 12.5% (5). As the researcher anticipated, most participants were either from Ceredigion or Carmarthenshire as the questionnaire was distributed on Facebook. Due to the researcher being based in Carmarthenshire, the researcher's acquaintances were mostly based around the same area.

Question 2 was a long answer question (see appendices B). It asked the respondents what they thought farm crime was, their definition of farm crime. All 40 respondents had a similar answer; most mentioned the theft of machinery, livestock and damage to building fences and crops. A few said trespassing and sheep worrying, and others answered that farm crime is any crime that affects farmers or linked to a farm. These responses show that everyone understands what farm crime is and what it involves.

Some answers include:

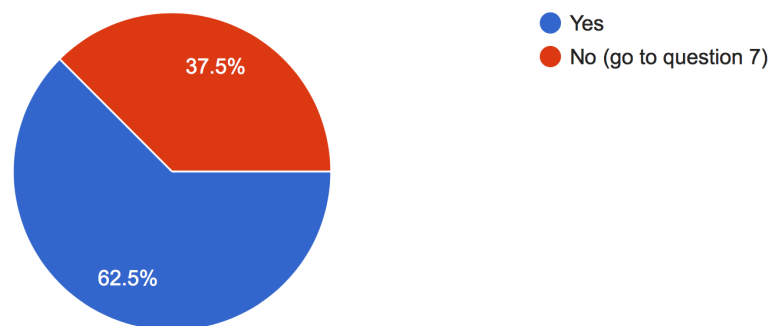
- Theft of farmers property
- Any crime committed on a farm
- Theft of farm equipment or stock also trespassing and poaching.
- Stealing/crop damage/ trespassing- leaving gates open

- Crime committed against farms and farmers
- Stolen machinery and livestock, damage to buildings, fences, crops and land etc.
- Stealing machinery and or stock. Damage to farm fences and gates – e.g., using cutters to cut the fence or padlocks
- Animal theft, Machinery theft, fuel theft, damage to farm property or livestock
- Crime taken place in relation to agriculture (farms) and on farming land

Figure 4.2: Number of participants who have been targeted by criminals.

3. Have you or anyone you know been a victim of farm crime?

40 responses

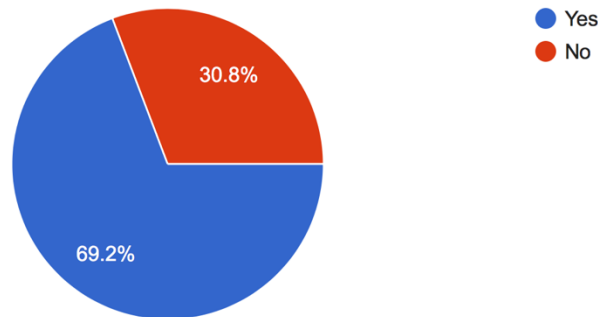


From looking at the chart, it is clear to see that a majority of people that filled in the questionnaire have been or know someone who has been a victim of farm crime, with 62.5% (25) of the respondents answering Yes and 37.5% (15) answering No. This shows that farmers are targeted more often than not and that the National Rural Crime Network's (NRCN) findings that farmers are some of the most vulnerable to rural crime are correct.

**Figure 4.3: Did the farmers who answered yes in the previous question call the police?
If not, why?**

4. Did you report the crime to the police?

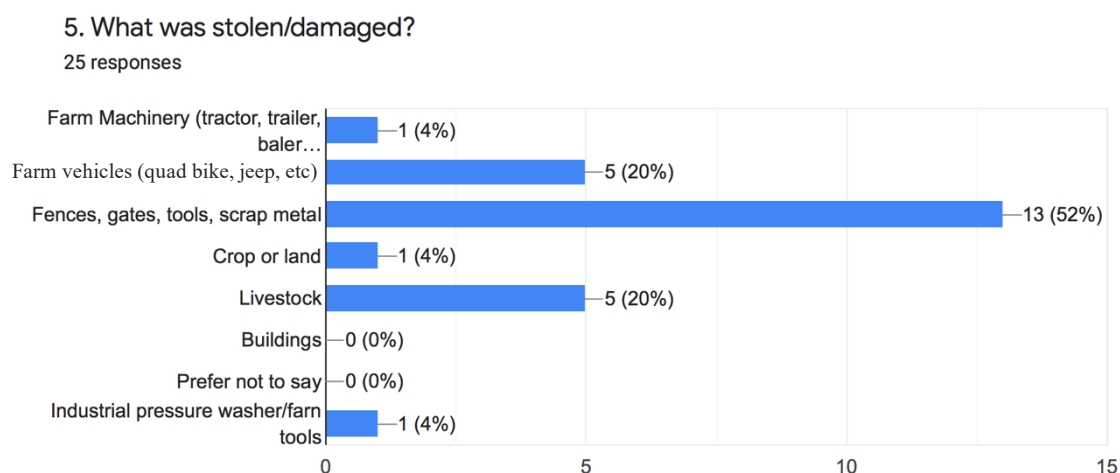
26 responses



As noted previously in the literature review, the National Rural Crime Network's survey showed that farmers noticeably do not report farm crimes to the police. The results from the questionnaire distributed online by the researcher show something different. The diagram reveals that it is quite the opposite and that most of the participants targeted by criminals did contact Dyfed Powys Police. The difference in the results could be due to many different factors; it could be due to the number of participants; NRCN would have had a higher number of participants compared to this questionnaire due to the fact that NRCN's survey was a nation-wide survey whereas the researcher's survey was only distributed to the people who live within the Dyfed Powys policing area. Although, the rural crime report released by the Police and Crime Commissioner in 2017 also mentioned that rural crime was under-reported, they believed this was due to farmers and others in the agricultural field having little to no faith in the police and that they rarely get a good outcome when they do contact the police.

When asked why the people who answered No (8 participants) did not contact the police, most of them answered by saying that there was no point calling the police as the chances the police will do anything or be able to get the stolen item back would be returned. (see appendices B)

Figure 4.4: What was stolen or damaged?

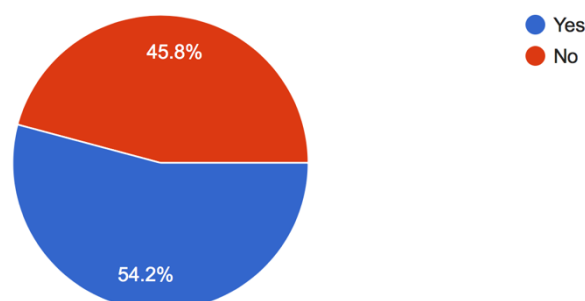


To find out what items are typically stolen from farms in Dyfed Powys, the questionnaire included a multiple answer question so that if respondents have been targeted more than once or had multiple things stolen at the same time, they could choose a selection of answers. As the graph above shows, 13 of the 25 respondents said that the items stolen from their farms were fences, gates, tools, and scrap metal; five respondents had livestock stolen or damaged. Another five said that farm vehicles were what the criminals targeted. These figures support what NFU Cymru found in 2019, where they established that the items that criminals across Wales commonly targeted were quad bikes, tools and livestock.

Figure 4.5: Did the respondents who contacted the police think they were helpful?

6. Do you think the police were helpful? (If you contacted them)

24 responses



This chart shows that 54.2% (13) of the respondents believed that the police were helpful, and 45.8% (11) believed the police were not much help when called. Though the data is close in number, the fact that more people have received good service from the police is encouraging. This could potentially make farmers trust the police more—those who answered no show that the police might need to be more helpful and investigate more thoroughly.

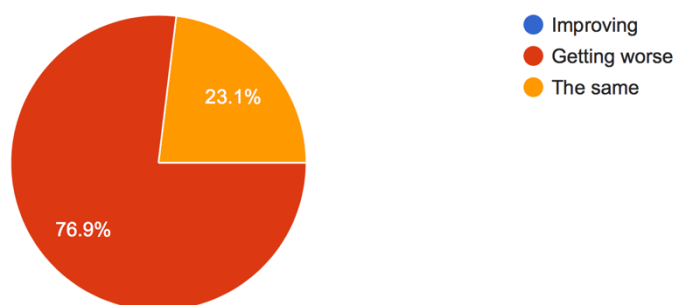
Question 7: What can the police do more of to help protect farmers and their community?

This is an open question, and the respondents could enter any answer they wanted. A significant number of respondents wrote that there needs to be an increase in police presence in rural areas, especially on small country roads, as they are the roads that farms are mostly located. Others mentioned that police need to support farmers more and that all police officers that work in rural areas should have basic training on dealing with rural and farm crime. Many respondents believe that the police should be able to educate farmers on a range of different security measures they can put in place on the farm to protect their property and be more involved within the farming community (see appendices B)

Figure 4.6: Is farm crime getting worse, better or has it stayed the same? Is there a reason you feel this way?

8. Do you think the rate of farm crime is improving or getting worse or the same?

39 responses



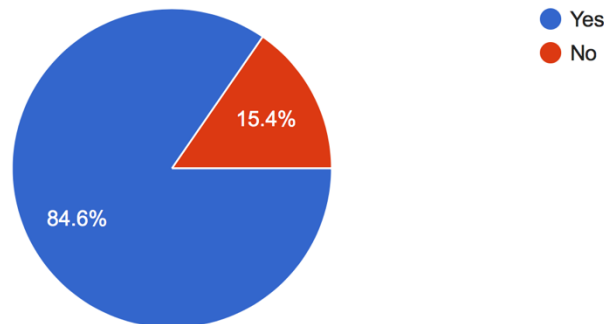
As seen on the chart above, it is clear that the respondents feel that farms crime is getting worse, with some saying that it is the same and no one saying that they think that the rates of farm crime are improving. 30 of the 39 respondents who filled in the questionnaire believe that farm crime is getting worse; this could be evidence that the steps that Dafydd Llywelyn mentioned in his crime plan to make Dyfed Powys more inhospitable has not worked as effectively as they had hoped. This could potentially have a negative effect on the trust between the farming community and the police.

The second part of the question asked respondents what the reason was behind their answer. A large number of respondents wrote that there are not enough police patrolling rural area and that the penalties the criminals receive are too lenient; one respondent said that no sentences are severe enough, and another said that inadequate policing and sentencing is the reason behind crime rates rising. Other respondents believe that farm crime is getting worse because criminals view farms as easy targets and that the fact that most farms do not have any security measures in place makes them even more vulnerable. Many also believe that the current climate the country as a whole is in may be the cause of rates of farm crime rising; more people are out of work due to the covid-19 pandemic and also Brexit. (see appendices B)

Figure 4.7: Are the respondents ever afraid or worried about being targeted?

9. Do you ever fear of being targeted by criminals?

39 responses

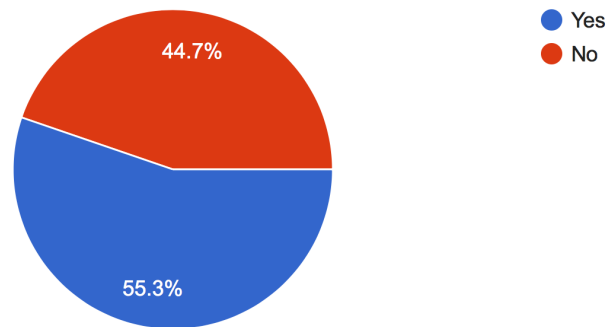


The number of respondents who fear being targeted is shockingly high, with 33 of the 39 answering 'Yes' and only six answering 'No'. This shows that most people are feeling the same about the current issue of farm crime and that maybe the police need to do more to reassure the farming community and that if 33 people across Dyfed Powys fear being targeted, then there must be thousands more who feel the same. In Jane Jones and Jen Phipps's research into policing farm crime in England and Wales in 2012, they found that rural areas have become hotspots for crime and the crime being committed now is a whole new breed of crime that targets farmers and their property. This data shows that farmers know what is happening around them and hear about others being targeted and are worried it might happen to them.

Figure 4.8: Did you know there was a Dyfed Powys rural crime team?

10. Are you aware there are rural crimes teams across Dyfed Powys?

38 responses

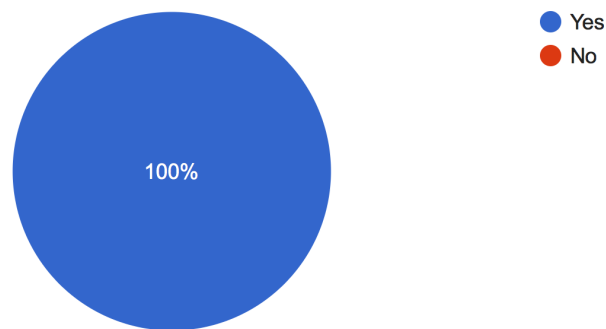


Nearly all of the respondents who have filled in the questionnaire are most likely from rural areas, so the fact that 44.7% (17) people had no idea a rural crimes team existed shows that the rural crimes team need to do more to communicate and inform their community on who they are and what they do. Everyone in rural areas should know that there is a rural crime team in their county. According to the Police and Crime Commissioner, the officers on the rural crime team are supposed to interact and communicate with their local community. However, the lack of awareness that the team even exists shows that maybe in some areas, the rural crime team are not communicating with the rural community about who they are and what they do. Even though 21 of the respondents know about the team, which is a positive thing, a policing area that is mostly rural, the rural crime team should be prominent in communities.

Figure 4.9: Should there be more rural crime officers on the team? (currently 10 on the team)

Do you think there should be more specially trained officers on the rural crimes team? (As it stands there are 10 officers on the team)

40 responses



This is a clear indication that there needs to be additional officers on the rural crime team. All 40 respondents believe that having ten officers for the whole of Dyfed Powys is not enough. Dyfed Powys police cover two-thirds of the landmass of Wales, and most of that is rural; with thousands of farms across it, there should be more officers.

4.3 Key findings in the interviews and focus group

4.3.1 Relationships

One of the main themes that stand out throughout the data collected for this study is the relationship between the police, farmers and their community. A few sources point out the importance of having a good relationship between the police and farmers. Aust and Simmons (2002) believed that one of the critical ways to deter criminals and protect the agricultural community is for the police to work on strengthening their relationship with farmers and their surrounding community. Additionally, the literature review shows a quote from Dafydd Llywelyn, the Police and Crime Commissioner of Dyfed Powys, when he spoke about rural crime at the beginning of 2020; he says that ‘having an open and honest dialogue with farmers and those in the agricultural community is at the heart of trying of understanding the impact rural crime has’. Llywelyn reiterates the importance of having a partnership between the police and agricultural communities during his interview; he wants the agricultural community to know that he, the police and crime commissioner and the police force are listening to the issues that farmers raise and emphasises of the plans to work on having close communication and partnership work with farmers, farmers union and young farmers; he believes that this is a key element within the infrastructure of the rural community and that when an incident or crime occurs, that the farming community rely on the police and feel like they have received a good service from the police. He does point out in the interview that at this point in time, the relationship between farmers, their community and the police are not quite mature enough yet to be able to share information like they want to but that he will continue to work on strengthening that.

PC Esther Davies is a rural crime officer in Ceredigion and is part of the Dyfed Powys rural crime team; she also believes that building relationships between the police and farmers is key to helping police to protect farmers and the surrounding community and prevent crime. PC Davies understands how crucial information and intelligence is when investigating a crime; she says that farmers are often ‘the eyes and ears of their communities’. Therefore, they can provide the police with essential pieces of information that assist them with their enquiries. Both Llywelyn and Davies have said that there is a need to create a relationship between both sides, but that implies that there is currently no relationship or communication there; the rural crime team has been in operation since September 2018, yet one of the main aims of the team

is to gain the trust of farmers and work together to tackle rural crime. This has not been fully achieved.

This is clear from the information collected during a focus group discussion with four individuals who are senior members of different Young Farmers Clubs across Dyfed Powys. The main consensus between the individuals of the focus group is that there is a significant lack of communication between farmers and the police. One respondent felt that if the police talked with the people who work on the farm all day every day, that know the ins and out of farming and get their perspective on farm crime and share ideas on how both parties can help each other and protect farmers and their property instead of talking to the people who sit in offices all day that have no idea about the reality of the issue. All the other respondents agreed with this statement which shows that from the farmer's standpoint, the police are not doing enough to create that dialogue and trust between farmers and them.

4.3.2 Security

While doing background research, the researcher noticed that throughout the Police and Crime Commissioners rural crime plan, he never mentioned the steps that farmers themselves can take to protect their property; this is why it has been brought up during the interview with the PCC and also with a rural crime officer; additionally, the researcher wanted to know what security measures farmers have taken and what are their views are. Security seems to be one of the best ideas in order to protect property; both interviews and the focus group pointed out that having security measures is the best way to protect machinery, building and other valuables on the farm, but trying to protect livestock seems to be one area that seems to be a lot more challenging to protect. Dafydd Llywelyn mentioned many different ways of ensuring the safety of property, from the simple act of locking things up and removing keys from vehicles and machinery to more technological ideas. For Llywelyn, crime prevention is an important step; he thinks that having that 'extra security layer' will help farmers. One idea that has been proposed to him is to have grants available to allow farmers to have CCTV on their property, which will hopefully encourage more farmers to install CCTV. One of the projects that Llywelyn is currently working on in Carmarthenshire is the 'No Cold Calling Zone'. This project is to stop people from turning up on a farm with the intention of gathering information on the valuables they might have and roughly what the layout of the farm is; farmers can sign up and receive signage that they can place in visible places around the farm. A simple fix would

be locking the buildings that can be locked even though, sadly, locks are not sufficient enough because criminals will turn up with the tools to cut off the chain or lock.

Other options include CCTV, Smart Water, floodlights and even more technological opportunities that are coming online now; one example Llywelyn gave was Lorawan, a low-frequency wireless network; he has already invested in a project using this technology in Cardigan. This device will allow for things like switches to be placed on gates, and if that gate is opened, the landowner will get a notification on their phone telling them that a gate has been opened. Llywelyn is trailing this project at the Cilgerran wildlife centre in Cardigan due to the amount of anti-social behaviour they have in that area as they found that young people would congregate there late at night; due to this, they have set parameters on the gates of the wildlife centre so if the gates are opened after 10 pm and before 5 am the individuals who are guardians of the centre are notified of potential anti-social behaviour at play. This device will be beneficial for farmers. Fields are the main area where farmers cannot keep an eye on as some farmers have a lot of land in a range of different areas, so by having the Lorawan device; they can be notified if the gates to their land is opened, and they can potentially stop criminals from stealing their livestock. He believes that 'Lorawan is a very innovative solution that could help farmers protect their livestock'. However, until the time where Lorawan is available farmers, there are more technological opportunities that are cheaper alternatives to CCTV or Lorawan; the classic option is to put trackers on the machinery and quadbikes, maybe putting the tracker in the petrol tank where criminals are less likely to be able to find it. The PCC did point out that 'having these measures in place requires an investment by the farmer, and the farmer will have to make a judgement call'.

PC Esther Davies explained that criminals are often targeting farms due to the high value of some of the machinery and tools farmers have on their property and that often, the lack of security farmers have in place to protect their property makes them an easier target. She believes that the lack of security is one of the main issues with farm crime, making farms even more vulnerable to thieves. One of the questions asked during the interview was 'What can farmers do to protect their farm and belongings?' Davies believes that as a rural crime officer that crime prevention plays a big part in her role. She named some of the simple and basic crime prevention measures, which are similar to the measures Llywelyn mentioned, such as signs, security lighting, chains/locks, CCTV, security alarms, smart water and removing keys from vehicles and securing them when they are not in use. PC Davies noted that if quad bikes

have trackers installed, there is a high chance that the stolen item can be located and retrieved in a short time frame. Also, it is imperative that once a farmer realises that a crime has taken place, they should call the police immediately as time is of the essence. These suggestions made by the Police and Crime Commissioner and PC Davies are similar to the suggestions made by NFU Mutual, one being installing trackers and immobilisers; NFU Mutual have, over the years, tried to encourage farmers to invest in Thatcham approved trackers and if farmers did fit them on their vehicles, they could offer discounts on specific policies (NFU Mutual, 2020).

During the focus group, farmers agreed with the PCC and PC Davies on the fact that farms are easy targets as there is no way farmers can keep an eye on all their land and property at all times. However, they do feel that all officers who are working or based in rural areas should have basic knowledge and advice for farmers on how to protect their property and that rural officers should do more to engage with farmers on security measures as some of the members in the focus groups had never been advised on different security measure and had never heard of Smart Water. In the focus group, it was clear that CCTV is one measure that seems to be a more popular option, but one of the main issues about security measures for farmers is that more of the measures are not very affordable. One respondent said that he owns a small farm with not much cash flow. Due to Covid-19, the cash flow is even smaller as the prices of milk has fallen drastically, so for him 'installing CCTV does not financially make sense'. However, he does see the use in possibly getting tracking devices for vehicles, especially for the quad bikes, as that is the item that gets stolen the most even though it is kept in a locked garage. Another respondent agreed and said that 'if I had the money to buy CCTV, I would install them without hesitation'. However, he found that there was no point in investing in any cameras and having a blurry image as that would not be much help when trying to identify the thieves. The respondent had looked into good quality cameras, but unfortunately, good quality cameras tend to be more expensive and that for his farm, he would probably need 5/6 cameras to capture different angles, which would cost him upwards of £2000/£3000 maybe more. Another respondent added that while he was doing work experience on a few large-scale farms that only a few of them had security measures such as cameras, trackers and floodlights, he found that even though the bigger farms had more yearly income, they still found that installing cameras was a significant investment, as their farms are double or triple the size of other farms, they would need to have 10-20 cameras to cover their property which would cost them dearly. If Dafydd Llywelyn could make the idea of having grants in place for farmers to have CCTV a

reality, many farmers would be interested in it, which would in turn help deter criminals across most rural areas and assist the police in finding the thieves.

4.3.3 Rural Crime Team

In 2019, the Country and Landowner Association (CLA) conducted research into how police forces across England and Wales police rural crime; during their research, they found that nearly two-fifths of the police forces in England and Wales do not have a dedicated rural crime team. One of the PCC's primary goals in his rural crime plan 2017 was to make Dyfed Powys an inhospitable environment for criminals and crime groups to operate in. During the interview, the researcher asked the PCC what step he had taken since then and continue to make in order to make Dyfed Powys inhospitable. Llywelyn mentioned a couple of things he has done over the past few years, one of those being more visible policing and not only being visible on the main arterial roads but also in rural communities, but it is a challenging task due to the fact that Dyfed Powys police two-thirds of the landmass of Wales. Additionally, in September of 2018, the Police and Crime Commissioner of Dyfed Powys launched a Dyfed Powys rural crime team; this is one of the biggest steps Dyfed Powys Police has done to combat rural crime. The team currently have ten officers that solely deal with farming and wildlife crime. They work alongside police community support officers; the PCC admitted that ten rural crime officers does not sound like a lot but that these officers do not have to deal with other day to day crime; they are purely dedicated to rural crime. They can cover a wide geographical area. Llywelyn also added that 'over the coming weeks of January 2021, there would be a Sergeant appointed to oversee and lead the Dyfed Powys rural crime team', which means that there will be additional resources going into the team. The introduction of the team to the rural area should help with the issues that Aust and Simmons (2002) found when they researched rural crime where they reported that due to the rural environment of Dyfed Powys, there were longer response times, and that the allocation of other resources was made difficult. Having a rural crime team should decrease the response time, and they should have more resources at their disposal to deal with rural crime.

Furthermore, Llywelyn conveyed that Dyfed Powys's rural crime team has been working in partnership with the team in North Wales and that both teams have had joint training and are regularly sharing information and intelligence. Llywelyn is also trying to develop a partnership

with Gwent and south Wales police so that an all-Wales rural crime team can be created; this will allow for extra resources and more information being shared on rural crime throughout Wales. Another thing that Llywelyn is doing to help with rural crime rates is to authorise more stop checks; he does not want people arriving into Dyfed Powys with the intention of targeting farms to steal metal gates, quad bikes or farm animals for illegal slaughterhouses to feel like they are not going to be detected by the police. By doing more stop checks and thorough investigations, word will spread that the police are doing stop checks, and that will deter criminals. Though Llywelyn's main aim at the moment is to improve the service provided and improving immediate response times.

PC Davies believes that 'by having a dedicated rural crime team, they are better able to engage with their respective rural communities and build a better relationship' which will reassure the community and that if and when they report an incident involving rural issues that the incident will be dealt with as effectively and efficiently as possible. Davies knows that rural crime and farm crime is an especially unique area of criminality and that dealing with those crimes requires specialist knowledge and understanding, which is what the rural crime team can provide as the officers have had training in dealing with farm crime, and some officers may have a farming background.

The focus group respondents mostly agreed with the basics of what Llywelyn and PC Davies had said. However, when asked what the police can do more of to protect farmers, they all agreed that the police should patrol rural areas more; they frequently pointed out that they personally never see police cars pass their property and only see them on main roads occasionally, or they see them only if something has already happened in the area. Australian researchers Barclay, Donnermeyer, Scott and Hogg (2007) mentioned in their study that crimes that are mostly committed in rural areas are hidden and are done at night, which means that farms on small country roads are more vulnerable, the results from the focus group shows that since their research in 2007 the issue is still ongoing and that farmers in Dyfed Powys are still seeing a lack of police presence in obscure places where farms are typically based.

A couple of the respondents also noted that, yes, there needs to be a lot more police presence. However, 'the penalties that the criminals receive needs to be stricter'; if they were to be made stricter, it would be a warning to others who plan on stealing from farms; many of the participants of the questionnaire also mentioned that there needs to be stricter penalties (See appendices B). One respondent said that 'some criminals who steal from farms get away with

a fine' or only being in prison for a few months when the farmer that was targeted by them spends double the amount of time trying to make up for the money they lost because of the crime as explained by Barclay (2001). Farmers put a lot of time and money into their farm whether it be land, crop or animals and in one night it could all be destroyed stated one respondent. They did agree that having a rural crime team that know what they are doing will be a big help to them as farmers when dealing with farm crime as one respondent had an officer arrive at his farm, and that officer was clearly a 'city officer' that was afraid of the animals and did not want to get their shoes dirty, and the officer had no idea what the farmer was talking about so he could not help at all in that situation. For the respondents who all have or work farms, having an officer who understands the basics of farming is a big help to them as they will know how what the farmers in dealing with and understand the repercussions that the farmer will have to deal with if for example a tractor is stolen during the summer season where farmers harvest their crop; the tractor is a very valuable part of collecting that harvest. Although the respondents believe that having one or two rural crime officers for one county is not good enough, those officers have a large area to cover. If the officers are in the middle of other cases, they will not have time to go to the next victim and add another case to their already extensive workload.

4.3.4 Farm crime rates

In the NFU's rural crime report released in early 2020, the claim figures showed that rural crime had cost the United Kingdom £54.3 million, which is the highest the number has been in over eight years. However, NFU Cymru (2019) found that rural crime rates have been declining over recent years, with the rural crime rates in 2018 showing a 7.1% fall in the cost of rural crime compared to the previous year. In 2016/17, Dyfed Powys Police found that around 1.4 farm crimes were being committed on a daily basis across the force area. Dafydd Llywelyn says that statistically, farm crime does not equate to a large proportion of crime happening in Dyfed Powys, livestock theft, theft of machinery and sheep worrying, among other things, are very serious in nature and very organised, but the rates are not too significant in term of volume. However, Llywelyn is trying to ensure that the police give the farming community a service that perhaps a few years ago, the force was struggling to provide. The PCC said that if anyone compared the crime rates of today to figures from 10-20 years ago, there would be a significant difference in crime rates that show how crime rates have worsened since then; an example he

gave was that ‘the older generation of farmers might say that compared to when they were in their early years of farming the amount of crime committed in rural areas is worse’. However, since their early years, everything has become increasingly more expensive, and machinery is worth more. In terms of the annual comparison between 2018, 2019 and 2020, Llywelyn believes that the crime rates are about the same from a statistical point of view. When asked if he thought that the increasing use of social media had impacted public perception of crime rates, he agreed and said that even the police are using social media more now than ever to put messages out and ask for information. Social media has become a fast way for farmers and others to share information about thefts in their area. In contrast, historically, people would hear about crimes at local livestock markets. He also believes that due to the current economic climate with covid-19 and Brexit, that more people are under pressure than ever before and is expecting things might get even tougher over the next year.

On the other hand, PC Davies has seen an increase in thefts of quad bikes and farm machinery in Powys and Carmarthenshire over recent years. She has also seen a rise in cases involving livestock worrying; it has become clear to her that this rise is mostly due to the covid-19 pandemic; because the majority of people are confined to their home for most of the day, more people are taking the time to walk their dog compared to before the pandemic where they would not have the time to and in rural areas people tend to let their dogs run loose which leads to livestock worrying and in some cases the death of livestock. Davies also thinks that quad bikes are desirable to thieves as they are relatively easy to steal and conceal. They have a high monetary value which explains why quad bikes are targeted more than anything else.

When asked if they thought farm crime was getting worse, better or the same, all four respondents agreed that from their personal perspective, farm crime was getting worse. However, one respondent brought up the same point that the PCC made: if the rates of farm crime now were compared to a few years ago, it will show an increase in the number of farm crimes happening. Additionally, they agreed that ‘social media has, without a doubt, increased people’s awareness of farm crime’ which makes it seem as though rates have been rising. Furthermore, the respondents who live in Carmarthenshire and Pembrokeshire strongly believe that farm crime around their area has worsened over the covid-19 period, especially with the theft of dogs, quad bikes, metal gates, tools and livestock.

4.4 Discussion

Barclay et al. (2007) found that rural communities in Australia feel that rural/farm crime is increasing exponentially. However, the rural crime statistics in Australia did show a slight rise in crime rates; the statistics only showed a small increase. Marshall and Johnsons (2005) findings showed that most of the 598 staff members of NFU Mutual who lived in rural areas were worried about being targeted by criminals. However, figures from 2005 and the previous year's show that rural crime rates were decreasing. As seen in figure 4.6, people in rural communities across Dyfed Powys also believe farm crime is rising. The PCC agrees that rural and farm crime has been increasing across the UK. However, he says that from a statistical point of view, the farm crime rates in Dyfed Powys has stayed roughly the same over recent years; NFU Cymru (2018) have also seen a decrease in farm crime rates. The focus group participants also believe that farm crime is getting worse, but they did point out that social media has a lot to do with that. Yarwood (2005) and Countryside Agency (2003) found that the public's perception of crime is heavily influenced by television programmes, news broadcasts and social media; with the increasing use of social media worldwide and people posting about the things happening in their area, people are more aware of the things happening around them. The police and crime commissioner agreed that social media is a very big reason people think farm crime is worsening; the police post more information on social media about what is happening in Dyfed Powys and the public post about the thefts in their area.

The public's perception of farm crime rates rising could account for the increase of people in rural communities using modern technology to safeguard their property. Aransiola and Ceccato (2020) wrote that because rural areas are stereotyped as calm and idyllic places with low crime rates, people from urban areas do not associate rural areas with security measures like CCTV, floodlights and alarm systems. Welsh & Farrington (2008) and Tseloni et al. (2017) also found that measures like CCTV, car immobilisers and trackers are some of the most effective to protect an individual's property and nearby neighbours. Llywelyn and PC Davies listed many different security measures that farmers could use on their property (as seen above 4.3.2). Both agreed that the use of new modern technology is helpful when deterring criminals. However, as the focus group participants mentioned, some of the security measures listed are not cheap to have; so, farmers might need other ways to ensure their machinery and tools are safe. Bunei, Rono and Chessa (2014) wrote that farmers lack understanding and knowledge of the different crime prevention measures they could be doing

daily and are available to them. They found that most farmers had minimal knowledge of the simple steps they could take to protect their property by locking all machinery, not in use and limiting their visibility. Farmer's lack of security knowledge was also brought up during the focus group. Some participants said that the police should be educating farmers on the simple things they could do to reduce their chances of being targeted. Another deterrent that many respondents from the questionnaire and focus group brought up was penalties; they say that penalties are too lenient. Mears et al. (2007) also found this to be true in America. He found that the police, prosecutors and judges did not take rural crime seriously and that the perpetrator's penalties were not enough to deter others from committing the same offence.

Chapter 5: Conclusion

5.1 Introduction

This chapter of the dissertation will accumulate the critical data and information collected during this research and compare it to some of the previous literature in more detail to conclude where the finding of the research support or contradict the findings from studies carried out by other researchers into rural and farm crime. Following the discussion, we will determine whether the objectives that were set at the beginning of this research have been met.

5.2 Discussion

The results of the primary data collected through the use of a questionnaire and interviews and a focus group appear to support a large amount of the research conducted previously. However, there are some areas where the primary data for this research contradicts previous research findings. The evidence shows that the items that were targeted most a few years ago are still some of the most desirable items to steal, as shown in the data collected for this research; these items being livestock and quad bikes (as seen in Figure 4) and NFU Mutual found that the cost of quad bikes had risen by £500,000 and livestock had risen by £200,000. When Jones and Phipps researched farm crime in 2012, they found that there is a new wave of crime happening in rural areas that specifically aim farms. The data collected through the use of the questionnaire shows that there is a worry and fear within the farming community of being targeted by criminals now more than ever. The findings of this study also show the developments that Dyfed Powys have made since Aust and Simmons (2002) research and the County Landowners Associations (2019) research, which recognised the lack of specialist support farmers were receiving from the police since their research the Police and Crime Commissioner has introduced a rural crime team that has officers who are trained in dealing with rural and farm crime. As those officers are solely dedicated to rural crime, it should improve response times, and they will have better resources at their disposal.

There were apparent contradictions between the findings of the interviews and the focus group. One of the things that was obvious during this research was that from a policing standpoint, they are doing all they can to protect rural communities by patrolling main roads and country roads and attending local livestock markets. However, from the farming community's standpoint, the police are not patrolling enough, especially on small country

roads and that they do not communicate well with farmers. This shows that there is a disconnect between the police and the farming community. According to Aust and Simmons (2002), one of the critical ways to deter criminals from rural communities is by having a healthy relationship and trust between both parties.

5.3 Objective one

Cost of farm crime and why are some items targeted more than others?

When researching how much farm crime costs the UK and Wales, it became increasingly evident that over the last few years, this is primarily due to the increased monetary value of the items that are stolen or damaged (NFU, 2020). This leads to the next sections in the objective, which is why some farming equipment and machinery are targeted more than other farming items. During this research, it became clear that livestock, quad bikes and farming tools and gates were the items that were most likely to be targeted. Llywelyn mentioned during his interview that the rates of theft of livestock are high as the criminals then sell the livestock to illegal slaughterhouses for a reasonable price. PC Davies also noted that quad bikes are relatively easy to steal depending on where they are kept overnight, and the value of a good quality bike is continually rising.

5.4 Objective two

What steps farmers and others in the agricultural community could take to deter criminals.

To achieve this objective, the PCC and rural crime officer were asked during their interviews what their advice would be to farmers to protect their property. Both interviewees gave similar answers such as, Smart water, lock everything up and remove keys, floodlight but the one security measure that was reiterated the most was CCTV. CCTV is the one security measure that everyone thinks of straight away to use as that first layer of protection. Additionally, by doing this study, the researcher was able to find out information on the projects the PCC is currently working on, such as Lorawan, which could eventually be used as a deterrent for criminals targeting farms.

5.5 Objective three

If the work that Dyfed Powys Police is doing to prevent and deter criminals from targeting farms is improving farm crime rates.

The Country and Lanownders Association (2019) mentioned that many police forces lack the proper training and resources to tackle rural and farm crime. One thing that Dyfed Powys has that most police forces do not have is a rural crime team, the team is dedicated to fighting rural crime and farm crime. Each member of the team has specialist training, so they are better equipped to deal with the crimes affecting their local rural community. Although the PCC says that the rates of rural crime have not changed much over the last few years, the farming community feels that the rates have been getting worse; this could mean that the work that Dyfed Powys Police is doing might not be working. The researcher asked in the questionnaire why they thought that crime was getting worse, and a significant number of participants said that the police need to patrol more around the rural area, and this was also brought up during the focus group; it seems as if those who have farms or live-in rural areas feel as if police presence is absent.

5.6 Objective four

What do people who have been affected by farm crime think about rural crime and the police response

To achieve this objective, the researcher asked in the questionnaire if the people who had been targeted previously found the police to be useful, and the results from this question are close. Just over half the respondents say they the police were helpful, and the others said that they were not helpful; the PCC mentioned several times during his interview that one of the key things he wants farmers to feel is that they have received a good service from the police, but that does not entirely seem to be the opinion of the farming community.

Appendix A
Questionnaire

Farm Crime in Dyfed Powys Policing area and its affects on farmers and the surrounding community.

Dear participants,

Thank you for taking the time out of your day to participate in my online questionnaire 'Farm Crime in Dyfed Powys Policing area and its effects on farmers and their community and what Dyfed Powys Police are doing to support and protect farmers.'

This questionnaire forms part of the data collection for my Criminal justice and Policing Masters dissertation at the University of Wales Trinity Saint David.

There will be 10 questions to answer and should take no longer than 5 minutes to complete. All the answers that will be given during this questionnaire will be confidential between you and me the researcher; each person who participates will remain anonymous.

If you have any questions about the research or would like a copy of the final dissertation (available from the 31st of March 2021) please feel free to contact me on eevans.149262@student.uwtsd.ac.uk

In order to complete this research an ethics form was submitted to the University in June 2020, which was approved allowing for the continuation of this research.

By continuing with this questionnaire, you are agreeing to give consent for the data collected to be used in the study and you have agreed to the statement shown above.

1. In which county are you based?

- ☐ Carmarthenshire
- ☐ Pembrokeshire
- ☐ Powys
- ☐ Ceredigion

2. What do you think Farm Crime is?

Long answer text

3. Have you or anyone you know been a victim of farm crime?

- ☐ Yes
- ☐ No (go to question 7)

4. Did you report the crime to the police?

- ☐ Yes
- ☐ No

If no, why not?

Long answer text

5. What was stolen/damaged?

- ☐ Farm Machinery (tractor, trailer, balers, etc)
- ☐ Farm vehicles (quad bike, jeep, etc)
- ☐ Fences, gates, tools, scrap metal
- ☐ Crop or land
- ☐ Livestock
- ☐ Buildings
- ☐ Prefer not to say
- ☐ Other...

6. Do you think the police were helpful? (If you contacted them)

☐ Yes

☐ No

7. What can the police do more to help protect farmers and their community?

Long answer text

8. Do you think the rate of farm crime is improving or getting worse or the same?

☐ Improving

☐ Getting worse

☐ The same

Why do you think this?

Long answer text

9. Do you ever fear of being targeted by criminals?

☐ Yes

☐ No

10. Are you aware there are rural crimes teams across Dyfed Powys?

☐ Yes

☐ No

Do you think there should be more specially trained officers on the rural crimes team? (As it stands there are 10 officers on the team)

☐ Yes

☐ No

Appendix B

Open answers of the questionnaire.

Question 2: What do you think farm crime is?

- Any crime linked to a farm
- Theft of machinery and hustling.
- Mostly theft.
- Crime against farms
- Theft or damage to vehicles, livestock or equipment
- When people steal things from farms
- Theft of farmers property
- Crime taken place in relation to agriculture (farms) and on farming area's
- Any crime committed on a farm
- The theft of farm equipment or stock, also trespassing and poaching.
- Animal theft, machinery theft, fuel theft damage on farm property or livestock
- Stealing livestock and equipment
- Crime associated with farms
- Stealing/crop damage/trespassing-leaving gates open
- Crime against farm/farmers
- Theft or damage on a farm
- Farm crime is very bad when you work hard and someone steals your livestock or machinery
- Stealing property could be machinery or livestock or damage to property/livestock
- Theft, trespassing
- Crime against farms
- Stealing machinery and or stock. Damage to farm fences and gates - eg using cutters to cut the fence or padlocks
- Theft/damage to farm property
- Any crime on a farm
- Theft - machinery/stock. Vandalism. Trespass.
- Farms being targeted by criminals
- Criminals on farm
- Crime that affects farmers directly
- Someone taking a belonging from a farm
- Rural crimes
- Stealing cows and sheep and stuff from farms
- Theft of livestock, deadstock and a financial loss to a farmer
- Stealing livestock, animals and farming machinery
- People breaking the law on farms
- When criminals steal thing off farms
- Any crime in rural area
- Crimes committed against farms and farmers
- Any crime against farm property, machinery or animals
- Stolen machinery and livestock, damaged buildings, fences, crops / land etc.

- When criminals target farmers and their land and property

Question 4: Did you report the crime. If no, why not?

- We have no cameras for proof
- No point
- Because what they stole i was getting rid of anyway
- Wasn't there at the time
- No point - nothing will be done!
- No pint - the police won't do anything
- Been lucky no farm crime
- Because the police were already notified before i knew of the crime.

Question 7: What can the police do more of to help protect farmers and their community?

- Educate those living in the countryside re damage loose dogs can do to sheep in particular. Put signs up that even if there's a public footpath through a farm it must be followed & dogs need to be on a lead at all times. Visit farms (not easy while covid-19) & talk to farmers re CCTV, tracking devices on quad etc keep dogs locked as theft of dogs is increasing.
- More support
- Employ more rural beat officers to increase police presence in the countryside to deter would be thieves.
- Visit farms to check their security precautions are good enough for example machinery and livestock locked away, diesel tanks locked, CCTV cameras etc.
- More police officers / local CCTV footage in the area.
- Show themselves more often in the community
- Teach farmers on how to keep their property safe
- Install motion sensor cameras in problem areas e.g Dyfi forest
- Be more involved and count the reality of farmers rather than picking unrelated 'crimes'
- Offer agricultural education to all officers
- Information for farmers on how to prevent crime, more rural patrols in high-risk areas.
- Be more visible
- Like everywhere a greater presence in the area. An organisation similar to neighbourhood watch but county wide not just towns and villages
- Police could give more advise to farmers on how to keep their farm safe and protected.
- I think there should be more police officers appointed to the rural crime team so that they can make sure the majority of the area is observed and looked after and to keep on top of it!!
- Quicker response and more understanding to the industry
- More police presence

- More patrols? Follow up reported crimes.
- The police could get more involved with the farming communities and go around explaining new ways of protecting themselves against farm crime.
- Have more police presence and educate farmers on how to protect themselves
- Have a dedicated farm officer for each parish/area so there is more reliability and help for people
- Promote the use of CCTV cameras and be more responsive to rural crimes
- Have more police patrols
- Stricter penalties and better surveillance
- Stricter penalties
- Have more police officers
- More patrols in rural areas
- More police officers
- Have a rural crime team in Powys
- Have a greater presence in the area/community
- Stricter penalties and more police
- Have a specialised team
- Have more presence in rural areas
- Give ideas to farmers on how protect themselves
- The penalties are way too lenient
- More police around farm that actually know how to deal with farm issues
- Have more police

Question 8: Why do you think farm crime is getting worse, better or the same

- Covid-19 has a lot to answer to, theft of dogs increasing as puppies are now selling for crazy money, machinery & gates can be sold on....
- Farmers seem to be less careful with locking things up
- Lots of people in my locality (Rhydlewys) have been victims of farm theft
- Because there are still farmers being victims of rural crime and there is no significant drop in the amount of rural crime happening in our area.
- Lack of police officers, people seeing background images of farms, machinery, stock etc.
- Criminals coming from the towns thinking farms are easy targets
- People thinking that they are above the law
- Not sure if it is getting better or not
- Don't hear much about it
- Difficult to justify this question as you are made aware of the crime more now through social media, but the level of crime might have been the same 10 years ago.
- More people out of work because of covid 19
- Money, cash flow, unstable times. Brexit, covid
- No extra policing
- Farms are too easy to access and people can easily get away with crime.

- Because so many people out of work and items have gone so expensive and valuable it's worth the risk to steal these items to make some money!! Also, more and more people have been moved down to Wales from rough parts of the UK and the majority of them are council house wasters that make their living by stealing stuff that other people have worked hard for unlike themselves!!!
- No sentences are serious enough for the theft/ trespassing therefore the criminals keep committing the crime
- Hear/read weekly of stealing reports
- Society in general seems more prone to stealing. Inadequate policing. Hopelessly inadequate sentencing/deterrents.
- Most crime is getting worse.
- due to cover many people are out of work so people are desperate for any income and farms are easy targets.
- When it happens it's not priority for the police, so they think it's easier to get away with it
- It might be due to social media - people uploading pictures of their dogs and so forth, also farms have become bigger
- Lack of staff
- Criminals know that they can get away with it
- criminals get away with crimes
- State of country
- Criminals are desperate
- Less police officer
- Because there are less police
- Police have not got enough power
- The climate we live in
- Covid-19 has caused mass unemployment and people are looking for any way to make money (stealing)
- it sounds like it's getting worse, but I think it's because people talk about it more on social media than ever before.
- The people breaking the law know the police have difficulty proving crime
- people have realised that farmers can't keep watch on all their property so they have the freedom to steal and these is a low risk that police will catch them because they are never around unless there is a crime
- Law breakers know the police are unable to do anything

Appendix C

Interview questions

PC Esther Davies

1. What do you think about the issue of Farm Crime in Dyfed Powys?
2. Do you think Farm Crimes have increased over the past few years and specifically since covid-19?
3. From a policing standpoint what do you think could be the reason farm crime seems to be getting worse?
4. What can farmers and the surrounding community do to protect their farm and belongings?
5. Do you think the Rural Crime Team in Preseli and South Ceredigion area have had an impact on Farm Crime?
6. What do criminals typically target most on farms?
7. What is the success rate on finding and returning stolen property?

Dafydd Llywelyn, Police and Crime Commissioner of Dyfed Powys

1. What do you think about the issue of farm crime in Dyfed Powys?
2. In the rural crime plan that you published in 2017, you mentioned early intervention and making Dyfed Powys an inhospitable environment for criminals and crime groups, how did you plan on doing that, what were the steps you took to make Dyfed Powys inhospitable for criminals?
3. Going back to what you said about the rural crimes team, I know there is one in Preseli and south Ceredigion area and from the questionnaire I have distributed on social media, all respondents believe there should be a rural crimes team across Dyfed Powys, do you think that a viable idea and have you thought about increasing the number of officers on the rural crimes team?
4. In the questionnaire I asked if the respondents believed that farm crime was either getting better worse or has stayed the same over that last few years and most had

said that it has gotten worse especially since covid-19. Do you agree with that? Or is it that we think it's getting worse because there is more awareness of it due to sharing on social media?

5. Speaking of Covid-19, do you think it has had an impact on farm crime at all?
6. Do you have any plans to try and improve the rates of farm crime if Dyfed Powys?
7. From the questionnaire, I asked what the police can do more of to protect farmers and their communities and it from the results of the questionnaire many people believe that there should be more police patrolling in rural areas as they find there is a significant lack of police presence. What do you think about that?
8. What do you think farmers and their community can do more of to protect their property and livestock?

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