

Feasibility study into the financial viability of a
rare breed free range pork business in the
central belt of Scotland

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Declaration

I declare that the work reported in this thesis was carried out by myself and has not been accepted in any previous application for a degree. All information drawn from other sources, and assistance received, have been acknowledged in the appropriate place.

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Acknowledgements

Chapter 1. Literature review

1.1 Introduction to Literature review

With agricultural subsidies potentially becoming less available diversification could be ever more important in agriculture. Rootin' and Roamin' free range pork, was set up in 2018 with the aim to sell high quality pork to the public at a premium price. Before committing to the business it is important to assess market avenues and look at how they are performing.

Since it is being sold for a premium it would help if the selling location is affluent. It is also important to look at how the pork industry is performing in general and how self-sufficient in pork the country is. Public perception of labels along with how they are performing would be important to decide upon a target market. Finally looking into consumer trends such as veganism to see how this is affecting the industry and if it is a threat.

1.2 Diversification of farm incomes

1.2.1 Subsidies

Agricultural subsidies have been in existence in one form or another since 1947 (Bowers, 1985). There were no subsidies to start with and support money was given to farmers through setting minimum prices that they should receive for their goods. How this worked was that if the market price was below the minimum price set by the government, the government would pay the difference. The main reason behind this was food security as it would encourage farmers to grow as much as they could knowing they would receive a fair price on the final product.

In the 70 years since the original 1947 Agriculture Act was put in place to give farmers a minimum price a form of subsidies has remained although there have been many changes. The most recent change was made in 2018 when the Common Agricultural Policy (CAP) was revised. This change has moved away from paying on the amount of land farmed to paying farmers based on land use and started to bring in legislation on

how to pay farmers for preserving the landscape for the public. It has a focus on environmental care and climate change along with generational renewal. This is all covered in the 9 CAP objectives set by the European Union (European Commission, 2018).



Figure 1.1: The 9 CAP Objectives (European Commission, 2018)

Overall CAP currently provides almost £4 billion to UK farmers through subsidies and grants (Downing, et al., 2018). This money brings a lot of uncertainty to the industry with Brexit so close as farmers are worried how they will continue without it. So far the UK government has guaranteed subsidies till 2022 but the future of subsidies after this is unknown. What is known is that Scotland will receive devolved powers and be in control of its own subsidy system. After 2024 it is thought that there will be a new system put in place that will focus more on the environment and land management (Downing, et al., 2018).

With all the uncertainty behind Brexit it will be important that farmers assess each part of their business and diversification could become an important part of their businesses. Without subsidy 50% of farms would be making a loss (Department for Food & Rural Affairs, 2018). This shows how reliant the bottom performing 50% of farmers are on subsidies. The report also shows that the farm types most likely to make a loss before subsidy are mixed farms and LFA grazing farms. See figure1.2.

(Figure 1.2) also shows how important diversification is on farm with it being a contributing factor to all farm types. The average income generated by the 64% of farmers that have undertaken diversification on farm is £17,100 per year and that for 27% of farmers who carried out diversification this income is greater than their income from farming. This shows how important diversification is to some farmers and how vital it could become to more farms if subsidies are reduced in the upcoming years.

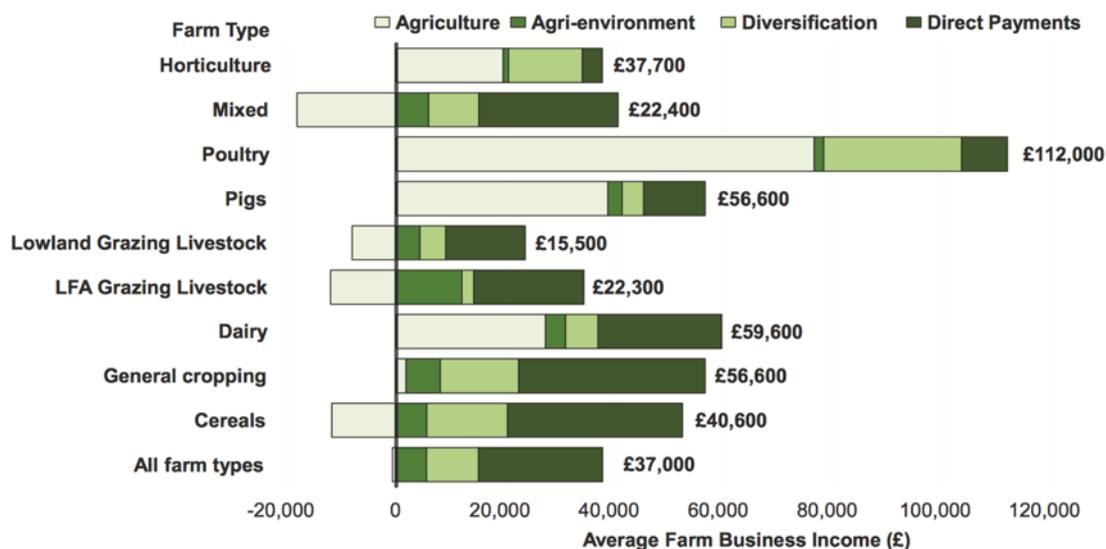


Figure 1.2: Farm income variation across farm business types (Department for Food & Rural Affairs, 2018)

2.2.2 Different types of Diversification

Diversification on farms can take many forms and can range from on farm holiday lets to farm shops and retailing of farm produce direct to the consumer. The Department for Food & Rural Affairs (DEFRA) found that uptake of diversification projects has risen from 51% in 2009 to 64% in 2017 (Department for Food & Rural Affairs, 2018). Of these diversifications, letting building out for non farming use was the most common with 43% of farmers carrying this out. This was also the best paying diversification with farmers averaging £17,900 income from it every year. Other popular options were solar energy and sport and recreation with 20% and 13% respectively. The income from these diversifications was lower overall however with solar generating £2,400 and sport and recreation £3,600

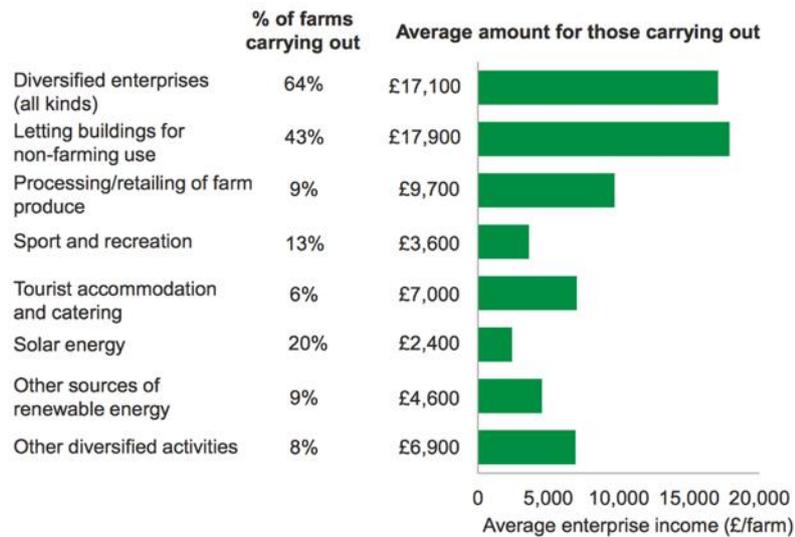


Figure 1.3: Average income of diversification enterprises (Department for Food & Rural Affairs, 2018)

Diversification opportunities vary as external factors such as location, building availability and capital available along with personal skills and family support differs from farm to farm. Within the averages there will be a range of income generated depending on the scale of diversification and also the location. This also makes it difficult to put a cost on diversification as every case is different even within the same diversification category.

2.2.3 Processing/ Retailing of farm produce

Back in 1998 there were more butchers, around 15,000 over the UK but in 2015 it was reported that there were only 6,000, this is a drop of 60% (EBLEX, 2015). This suggests that there has been a shift from customers buying meat from butchers and purchasing their meat from supermarkets. The reason for this is thought to be because of how convenient supermarkets are, people prefer to do their shopping in one place. There could be a shift back to using local butchers however after some recent supermarket scandals the biggest being the Tesco horse meat scandal in 2013 the short term effect saw a reduction in frozen ready meal sales by 43% in the following month (Nevile, 2013). The long term effect is very little as Tesco are seeing growth again with between 2016-17 seeing their operating profit rising 80.6% (Tesco PLC, 2018).

Selling on farm produce is becoming a more popular diversification route for farmers with the number of farm shops increasing from 1,200 in 2004 to 3,500 in 2017 (Morley,

2017). Along with this it was found that in a survey of 2000 people that 39% had visited a farm shop in the last year and that a further 47% said they were planning to. This shows that consumers have an interest in farm shops and could be an indication that they are interested in local produce.

2.3 Outlets for farm produce

2.3.1 Farm shops

As mentioned before the number of farm shops across the UK has increased over the last 15 years with the number estimated around 3,500 in 2017. There is also an increase in visitors and potential visitors with 47% of people in an AHDB survey saying they were planning on visiting one in the next year (Morley, 2017).

Income from a farm shop depends on the size and the location but they do have the potential to turn over £250,000 to £1,000,000 depending on size (Sac Consulting, 2018). It is estimated that 20-40% of this turnover is spent on staff costs. As for building the shop, prices differ greatly depending on whether it is a new build or a conversion, a new build is estimated to cost £88 per square metre and a converted farm building is estimated to cost £100 per square metre (SAC Consulting, 2018).

One of the most important factors in deciding the success is location. Although it is likely that the location of a farm shop will be rural and this is good in the way that there is less local competition, it also presents a challenge. The challenge is to convince consumers that it is worth the drive to have local produce, one strategy can be to make the farm shop a destination instead of just a shop. Other important considerations are what the local roads are like and if they can support an increase in traffic, parking space is also important and it is important to make sure that there will be adequate space for customers (Sac Consulting, 2018).

2.3.2 Farmers Markets

Farmers markets are now common around the UK with an estimated 500 registered markets happening either weekly or monthly, 70 of these are in Scotland (SRUC, 2018). Two larger markets in Scotland are Cupar which is organised by the Fife Farmers Market Association and Perth farmers market which is run by the council. Both these markets run monthly and show how stall price can vary between markets with Perth being £95 per stall and Cupar being £45 (price was found on application).

It is important to visit potential farmers markets before attending to see what range of products is already being offered and whether the product will fit in. Other considerations are to make sure the stall looks appealing to the consumers as this can boost sales. Finally, it is important to make sure the business can afford the stall and the labour to run it over the 3-4 hours (Sac Consulting, 2018).

2.3.3 Home delivery

Home delivery of food is an increasing market segment with more people choosing to buy food online than ever. This is due to the convenience of food being delivered straight to the home thus saving time. Millennials are also moving away from doing a large weekly shop instead choosing to shop online and pick up items at local convenience stores. This is backed up by the fact that 45% of 2000 millennials when surveyed said they would prefer to buy online (Hall, 2018).

The other side of home delivery that is growing in popularity is home meal kits supplied by the likes of "Hello Fresh" and "Gusto". These allow people to make fresh, healthy food with all the ingredients being delivered to the home in pre measured packs and with clear instructions. Hello Fresh saw sales growth of 68% over 2017 (Hello Fresh Group, 2017) which shows that this is a market segment increasing in popularity. Other popular home delivery services such as "Wiltshire Farm Foods" are catering to the older population with their ready meals for those that cannot always make it to the shops or they don't always want to cook and just want a simple meal that can be heated up in minutes. Looking at their accounts shows that they are a growing business and that they

have increased their net profit from £15 million to £16 million from 2017-2018 (Apetito Limited, 2018).

2.4 Consumer trends

2.4.1 Pork

Pork is the 3rd most consumed meat in the UK behind chicken and beef at 1.67 million tonnes in 2017 (AHDB pork, 2017). The overall trend for pork consumption is also rising slowly each year. However despite this the UK is only 56% sufficient in pork with the rest being imported from the rest of the EU. Despite the low self-sufficiency rate the amount of pork being produced is only rising very slightly with the increase being 2.7% from 2017-2018 (Department for Food & Rural Affairs, 2018).

This is a far lower self-sufficiency rate than beef and lamb where lamb is around 95% sufficient (AHDB Beef and Lamb , 2017) and beef is 74.7% (AHDB Beef and Lamb, 2016). With Brexit on the 31st of March there could potentially be import tariffs on EU pork which could make it uneconomical for the EU to import pork as its price could be above UK pork. If this was to happen and there was a shortage of pork the price could rise and make it more economical for more UK farmers to produce pork and meet the demand.

One report by (Mintel, 2018) shows that 73% of people consume pork and 26% of people consume pork once a week. This is lower than beef and chicken which were the top two consumed meats but it is higher than lamb.

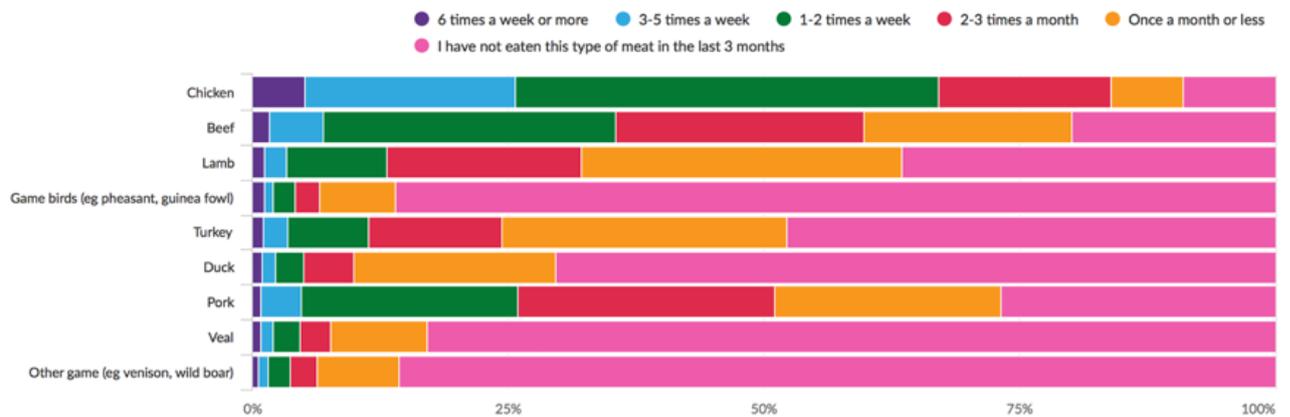


Figure 4: Frequency of eating unprocessed meat (Mintel, 2018)

2.4.2 Rare breed Pork

There is only one official label in the rare breed pork sector and it is with the Gloucestershire old spot society. They have what is known as a traditional speciality guaranteed (TSG) this protects the product under the EU protected food name schemes. The reason behind it is so that no one can wrongly advertise Gloucester old spot pork due to its superior taste agreed by the EU panel. Some of the rules are as follows, both parents must have been from registered pigs in the society's books, this is so they can control the breeding, as part of the TSG is that the pork is from traditionally unimproved pigs. Other rules include the pork has to be produced under guidelines that control what you can feed the pigs and how the pigs are kept. They can be kept indoors or outdoors but there are specific guidelines for both methods of production. The meat is defined by having a greater thickness of fat, smaller muscles, darker colour, higher tenderness and juiciness, and a different flavour when compared to conventionally produced pork. All information was taken from (European Union, 2009).

2.4.3 Free range

Free range is becoming an ever more popular label with the free range egg market now having over a 50% share for the first time in 2017 (British Egg Industry Council, 2017). Despite this it is not as popular in other sectors as it is with eggs. Free range chicken only has a 6% market share, part of this is because chicken is considered a cheaper meat and people who are buying it might be on a budget and not willing to spend the extra to buy free range (Farmdrop, 2017). To back the cost theory up when consumers were asked what they would do if they were short for money when buying meat 47% said they would look for better deals (Mintel, 2018).

The Free range market in the UK only covers 2 products being eggs and poultry. There is no official free range label for pork the closest being organic. There are also no free range products for lamb or beef as all lamb is technically free range already being outside all year round and beef's equivalent is grass fed which has more to do with feed than welfare. Dairy farmers have also started a free range label for milk but this is not in supermarkets and is usually sold by small producers. This is more of a marketing strategy as the cows are still inside for part of the year so it could be argued that it is not true free range.

There are a small number of small pork producers that do label their pork free range but there are no official guide lines for this so welfare standards could differ per farm. These systems usually involve selling the pork directly to the customer. Although there are no official guidelines RSPCA recommend that producers with free range pigs should have 40m² each, this is equivalent to 11 pigs per acre (RSPCA, 2016).

2.4.4 Organic

The organic market sector is one that has seen fluctuation over the past 10 years with the market sector's value decreasing by several percent from 2009 to 2013 with the worst year being 2012 with a decrease of 12.3% (Mintel, 2013). Its market share also decreased from 2.4% to 1.6% over this time scale. The market has continued to slowly decline to 1.4% in 2016. The organic sector fall was connected to the recession and people not having the money to spend on more expensive organic goods (Mintel, 2013).

The organic sector is said to be recovering now with in 2017 its market share reaching 1.5% again. The biggest problem for organic is that consumers think that organic is too expensive to buy, with one survey stating that 54% of consumers said that they thought organic produce was too expensive to buy regularly (Mintel, 2015). The sector within organic that has the biggest market share is dairy with 29% (Soil Association, 2017).

Looking at organic farm numbers it has also fluctuated over the past 20 years with there being an increase of organic farms up till 2010 with 730 thousand hectares including conversion and it has slowly decreased since then with the amount of ground farmed organically now at 480 thousand hectares lower than the 550 thousand hectares in 2003 (Department For Environment Food and Rural Affairs, 2017).

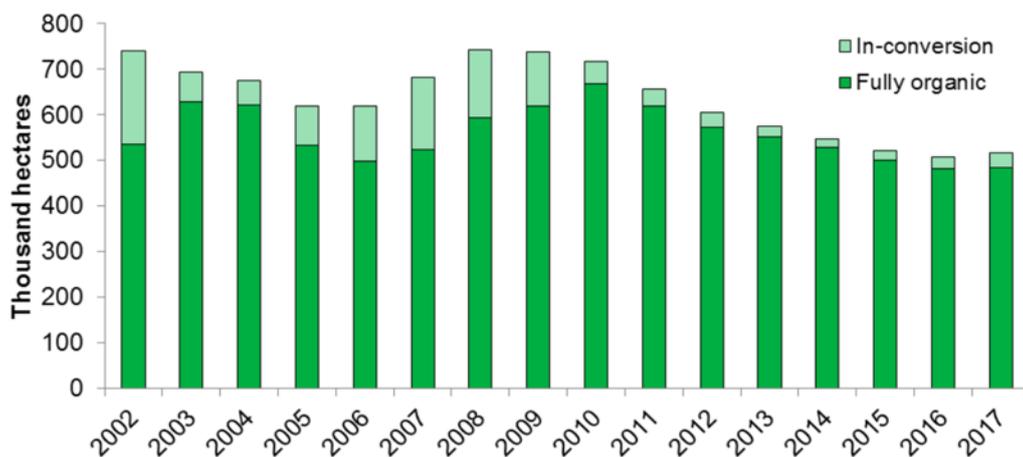


Figure 5: Amount of UK organic land (Department For Environment Food and Rural Affairs, 2017).

2.4.5 Ethical consumers

Ethical consumers are consumers that care about how their food is produced taking many different factors into consideration. 60% of 1500 consumers in one study said that they care about the impact their food is having on the environment (Mintel, 2015). The two main factors they take into consideration are environmental impacts of food, for example methane produced from meat products or food miles a product has travelled, and welfare standards with the ethical consumer being more drawn towards free range or organic products. Part of the reason for this is that it makes the consumer feel better

about them self for buying these more ethical products, 45% of people in a Mintel survey agreed or strongly agreed with this (Mintel, 2015).

Focusing on the environmental side again there are many aspects that a consumer might focus on and it can influence their buying behaviours depending on what they believe and value most. Some ethical consumers do not buy meat as its carbon footprint is damaging to the environment and they want to minimise their contribution to global warming. Again focusing on the environment some ethical consumers will not buy certain food because of the way it is packaged, usually because companies use too much plastic in their packaging. In fact one survey found that 42% of respondents thought that companies should use less plastic in packaging (The Grocer, 2018), this could be because people have realised that this ends up in the ocean and can injure wildlife. It is estimated that there are between 7000 – 236,000 tonnes and 40% of all plastic waste comes from packaging (Sebille, et al., 2017).

The Intergovernmental Panel On Climate Change (IPCC) state that if the earth's temperature is to rise by more than 1.5°C then there will be catastrophic effects on the worlds ecosystems (Intergovernmental panel of climate change, 2018). To help combat this Scotland's agriculture department want to have one of the most efficient agricultural food production systems in the world (Scottish Government , 2018). To help achieve this the government wants to reduce food miles and become more self-sufficient in all food stuffs. With a large amount of media coverage consumers are now more aware of the effects our current lifestyles have on the environment.

Welfare is also extremely important to the ethical consumer with 87% of consumers aware of the free range label and 77% aware of the red tractor label (Mintel, 2015). There are different consumer opinions on what is important in welfare though and different options on what makes welfare ethical, 74% said that meat from a company with good animal welfare standards is ethical whilst 57% also said that that a company that looks after their employees is ethical.

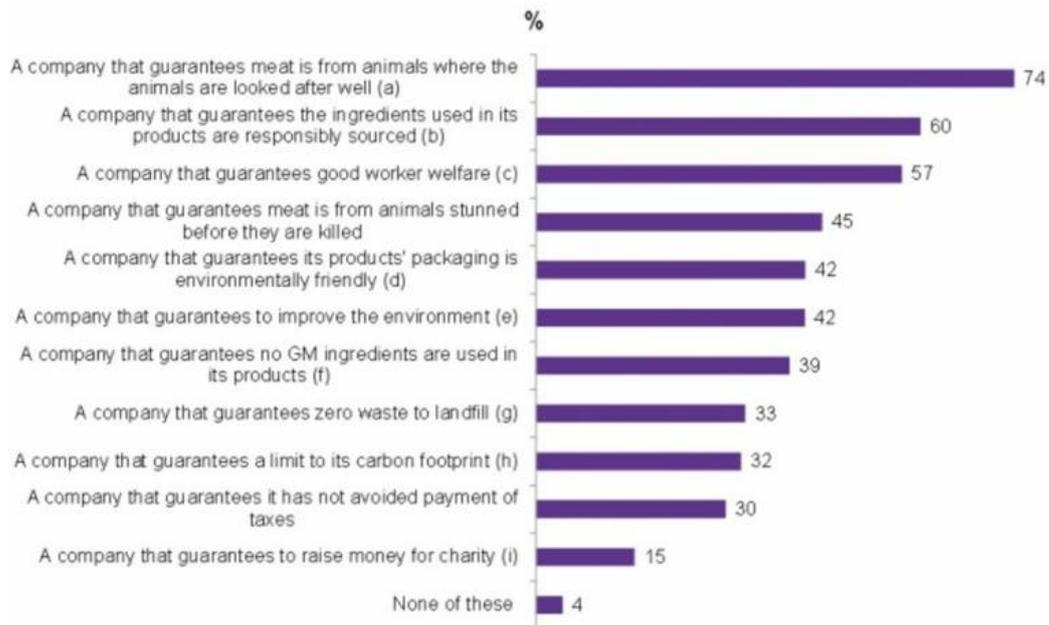


Figure 6: Public perception on what makes a company ethical (Mintel, 2015)

What is interesting is that whilst all these consumers agree that food should be ethically produced, 72% of consumers surveyed also think that companies should always aim to be ethical already and there should be no price increase for buying ethical products (Mintel, 2015). This is interesting as often ethical products come with an increased price tag which consumers do not think they should have.

Meat produced in labs is a new technology that has recently come to light in the last couple of years. Until this the only meat free alternatives have been plant based such as Quorn. It has not reached the market yet but there has been a significant leap in the technology. Part of the thinking behind it was that laboratory grown meat would be better for the environment as there would be not livestock on the ground producing methane but recent research by Oxford University (Lynch & Pierrehumbert, 2019) has stated otherwise. They state that it is worse for the environment because the emissions from it are carbon which stays in the atmosphere for around 200 years whilst methane only stays in the atmosphere for around 12 years (Lynch & Pierrehumbert, 2019). It is very early days to discount it but this report could damage its future.

2.4.6 Meat free sector

The meat free food sector is a rapidly growing sector having increased by 22% since 2013 (Mintel, 2018). This is because consumers are concerned about their health, ethics behind products and the environmental impact of products.

Over the next 5 years it is thought the market will continue to grow a further 30% and have an output of 1.65 million tonnes per year, this is more than the amount of pork sold throughout the UK in a year.

Looking more specifically at the consumer and their trends around meat consumption it can be found that 34% already have reduced their meat intake and a further 21% said they would like to (Mintel, 2015). It is often thought that it is just vegans and vegetarians that support the meat free sector but in fact it is also meat eaters who are moving towards a flexitarian diet.

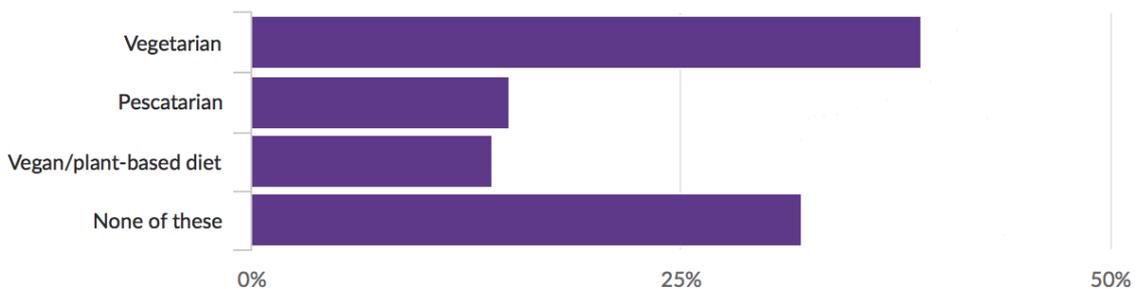
2.4.7 Veganism

Veganism is a lifestyle choice that has increased dramatically in the past 5 years with an increasing amount of people shifting to an animal free lifestyle shunning all animal food and animal products, such as leather. Evidence of this increase can be found when looking at how the “meat free” market sector is performing in the supermarkets. The sales of vegan products have increased by 22% from 2016 to 2018 with the market seeing a 34% growth in value (Mintel, 2018). The meat free market segment was also the fastest growing sector in supermarkets throughout 2018 with more meat free products being brought to market than any other category (Mintel, 2018).

The age group that is most likely to be vegan are 16-24 years old and the age group that is most likely to be meat eaters are 55+ years old. The significance of this is that there is an ageing population and with the 55+ years old numbers growing it could lead to their being less of a demand in this market sector since their highest age demographic is shrinking. On the flipside of this it could be said that as this age group grow older they will continue with their vegan lifestyles and influence the next generations more.

2.4.7 Vegetarianism

The percentage of vegetarians within the population that don't consume meat was estimated to be 39% followed by pescatarians at 15% (Mintel, 2018). The population percentage in the UK that don't eat meat is 10% which makes the percentage that is vegetarian 3.9%. This has almost doubled with a rise of 1.9% from 2012 (Vegetarian Society, 2018). There are two main groups of vegetarians, those that strictly consume no meat but still consume other animal products. There are also vegetarians that still consume fish this is more commonly known as being pescatarian but they still often identify as vegetarian.



Fieldwork: July 2018 Source: Lightspeed/Mintel

Figure 7: Different diets followed by non meat eaters (Mintel, 2018)

The most popular reasons for being a vegetarian are that it improves health, helps manage weight, saves money and is better for the environment (Mintel, 2018).

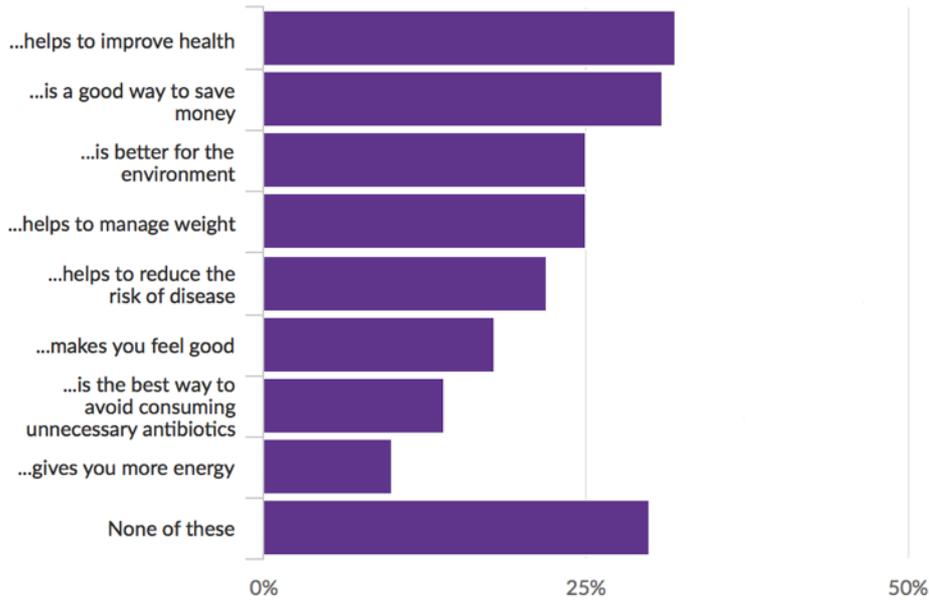


Figure 8: Benefits of not eating meat (Intel, 2018)

2.4.8 Flexitarians

A flexitarian diet is one where the consumer limits/ moderates their meat intake and only include meat in their diet some of the time. The amount of people that follow a flexitarian diet is predicted to be more than those that always eat meat and vegetarians/ vegans with 68% of the UK population predicted to be following it (AHDB, 2018). Following this it is predicted that 35% of all meals consumed in the UK are meat free which would back this up. It is thought that campaigns such as meat free Monday and Veganuary have helped contribute to this with these being heavily marketed. It is estimated that 168,000 tried veganism as part of Veganuary which will have shown people alternatives to meat meals that they could be implementing into their weekly diet now (Jones, 2018).

With animal welfare being a contributing factor to flexitarians cutting down on meat it also means that when they do buy meat it is thought they look for higher quality meat. One flexitarian website encourages their users to buy either free range or organic meat although they are not an independent source (The Flexitarian.co.uk, 2018).

2.5 Wealth Distribution in Scotland

On a whole when looking at Scotland compared to the rest of the UK it performs well with the average income per person averaging around £30,700 the same as most areas of England, apart from London and the south west and south east of England which were higher (HM Revenue & Customs , 2018).

When looking at average incomes per area the councils that have the highest are Aberdeen city at £36,000 and Aberdeen-shire at £34,600. After this the areas of highest income are all in the central belt with East Renfrewshire on £31,700 and Edinburgh on £30,800.

Another way to show the wealth distribution around Scotland can be to look at hourly wages and where pays the most. In 2016 Aberdeen City was the highest paying area with an average of £13.73 per hour, although this is the highest it is also down 2.3% on the year before so shows that it is dropping which is likely to be because of the drop in oil price.

The second best council area of pay is Edinburgh at £13.70 however this was up 0.2% on the year before and shows it to be rising. It is important to remember that living costs could be higher in these areas. When looking for up and coming areas it would be more important to look at the percentage increase in pay which would show that, West Dunbartonshire was best with a 17.2% increase in annual pay with Midlothian being second best to that with an annual pay increase of 15%. The base pay in Midlothian is still low after this increase but west Dunbartonshire is one of the highest in Scotland now (Aiton, 2016).

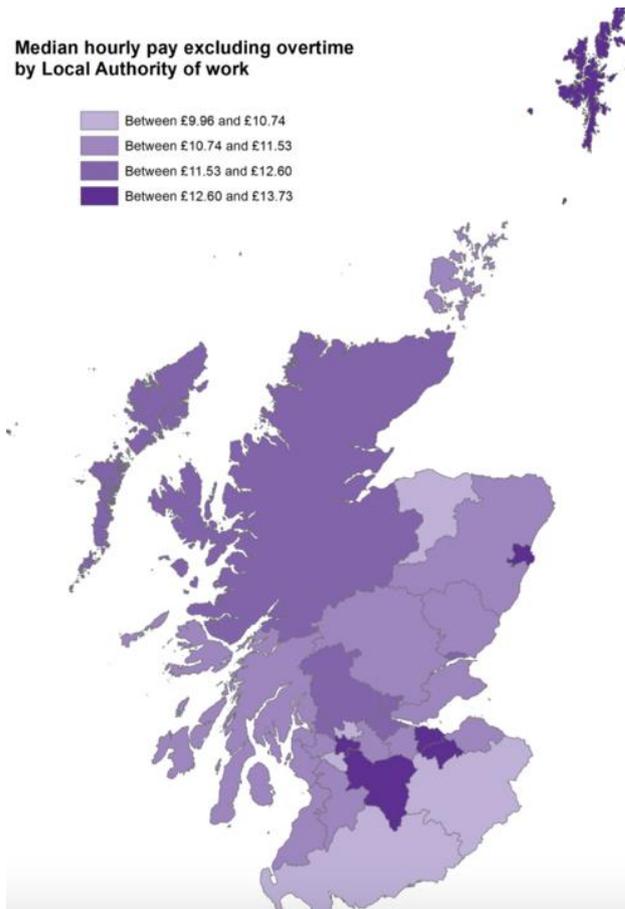


Figure 9: Median hourly pay per local authority (Aiton, 2016)

The final factor that will be looked at for wealth distribution is house prices and how these are changing. The most expensive area to buy a house in 2018 was Edinburgh with an average price of £254,251 following this also above the £200k mark are East Lothian and East Renfrewshire. Following this the most expensive areas with average prices above £170k are Aberdeenshire, Perth and Kinross, Midlothian and Stirling (HM Land Registry, 2018). House prices are just another way to see how affluent an area is and how desirable an area is to live in.

Overall there was very little information on farm shops and how they were performing. Due to flexitarian being a relatively new diet there is very little data on this and whether they incorporated high quality meat into their diets. Finally it was difficult to fully tell if an area was affluent but a few indicators were used.

Chapter 2 AIMS AND OBJECTIVES

2.1 Aims

The overall aim of this project is to assess if a free range pork business is economically viable and if it could provide sufficient income to support a second full time member of staff on Hardiston Farm.

2.2 Objectives

- Determine whether there is a market for free-range pork in the central belt of Scotland
- Assess how many breeding sows would be required to make the business viable
- Write a business plan for a free range pork business
- Construct a suitable marketing strategy

CHAPTER 3 METHODOLOGY

2.1 Free-Range pork market

A survey was carried out to assess the demand for pork in the local area to the business. The reason a survey was carried out rather than interviews or focus groups was to reach a larger demographic and get a greater range of views than either of these options. Along with this the views could be more accurate as the survey was anonymous and people might have been more likely to give more honest feedback. The survey was primarily used to find demand for certain products, what was important to consumers when buying meat and it also looked into demand for certain market avenues such as hog roasts and pastry products. The survey was posted online through "SurveyMonkey" on the 25th of November and the survey was closed on the 19th of January. The survey was posted on the researchers personal Facebook page which has 322 friends all aged between 18-27, based all over Scotland. The survey was then later shared through the private Facebook page the "Kinross-shire community group" which has 2800 members from the local area of various ages to give a wider demographic whilst also focusing specifically at the local area. The survey was also available in a paper form at three farmers markets that were being attended, these included the Kinross Christmas market, Kinghorn community market and a pop up shop. The surveys at markets were available alongside other information but were not specifically handed to the public to keep responses random. The information from surveys at markets could have been more biased than online due to the people filling them out potentially being customers already instead of random members of the public. The surveys on the community page and Facebook would likely give more a more accurate representation of what the public's opinions were.

The aim was to get 200 responses over all as it was thought that this would give enough academic rigour to do statistical tests on. The data that was collected was a mix of quantitative and qualitative depending on the question. The survey (appendix 1) was

used to meet objective 1 and provide data for that, it would also help meet objectives 3 and 4 as it would give market research for the business plan and help decide how to market the pork for objective 4.

3.2 Breeding sows

Objective 2, to assess how many breeding sows would be needed will met though the 2 years of financial statements provided alongside the business plan. From the statements it will be possible to see how much profit the business would make in its current state and how much it is projected to make in future years. Since the profit to make the business viable is based off a wage of £25,000 for one person and an investment of £5,000 per year the business will be scaled up to this level of profit. From this it will be possible to calculate how many kilograms of meat is required by dividing the profit by an average sale price per kg. The total number of kilograms required will then be divided by 50, the amount of pork that comes from a pig with an average weight of 95kg live weight, to calculate how many pigs would be required in total. Finally the number of pigs required will be divided by 20 as this is the amount of piglets one sow can produce in one year in a non-intensive system. From this it would be possible to calculate sow numbers and how much land and time would be required to keep them. Following this the number of sows could help decide what equipment will be needed to keep them.

3.3 Business plan

To meet objective 3 a business plan will be produced. This will look at all the equipment to set up various market avenues such as a small shop, a butchery and a hog roast service. Cost for these will be taken though research and speaking to the current butcher that butchers the pork. A full swot analysis will also carried out to look at the business and see what all the advantages, opportunities, drawbacks and disadvantages are. As part of the business plan 2 years of financial statements will be made up to project where the business would be in a couple of years. Figures used for this will be taken from the set up and operational costs that the business currently (appendix 2) has, to make it accurate along with machinery and costs that were found though research. Following this a sensitivity analysis will be carried out on costs of farmers markets, costs of feed and costs of butchering to see how the business would perform if these were to

increase. Finally grants and funding will be explored to see how it would be possible to fund expanding and fully setting up the business.

3.4 Marketing

Finally, to complete objective 4 the data taken from the surveys will be used to see what consumers' preferences were and what they felt most strongly about. From these results it will be decided what direction the business would be taken in. Information will be also taken from what was working well for the business already and included. Overall between the survey and marketing strategy already used by the business it will be possible to make a marketing strategy that also incorporated consumers thoughts and could guide the business in the future to success.

CHAPTER 4 BUSINESS PLAN

4.1 Products

Rootin' and Roamin' Free range pork will supply the local area with free range rare breed pork that is slow grown outside all year round. The USP of the product is that it is local, higher welfare, supporting rare breeds and that there is full traceability throughout the process.

The pork will be from a Saddleback sow crossed with either a Gloucestershire old spot or Tamworth boar. Native breeds of pigs tend to have a greater amount of back fat especially the Gloucestershire old spot but this is also said to have the best taste with it even being protected under a traditional speciality guaranteed (TSG) under EU law. The reason for crossing it with a Saddleback sow is that they provide larger litters and are also a leaner pig so it helps get more piglets on the ground but also cut back a bit of the back fat. The sows will only have 1.5- 2 litters a year which is lower than the 2.5 achieved by commercial units but should ensure the longevity of the sow and also ensures high welfare standards. This is also more in line with the ethos of the business because they are free range which is a less intensive system.

All piglets are weaned at 10- 12 weeks of age which is three times longer than commercial piglets. This allows them to take advantage of their mother's milk for longer and also makes the transition from milk to feed less harsh on their developing stomachs. Another reason for this is that it is more in keeping with the business's image of being free range and natural. The piglets are not tail docked and do not have their teeth clipped at birth and this is because they are outside all the time and the same issues with tail biting , which is a common issue for indoor systems, is not generally a problem outside. Following this it is also good for the business image but also banned for free range pigs.

Following weaning the piglets are slow grown over 10 months on an 18% protein mixture of barley and soya till they are around 95kg. The reason for growing them slowly is that with traditional breeds they will just put fat down if they are fed quickly so it is better to feed them slowly to get a leaner carcass which will result in a higher quality product. Most commercial pigs go to slaughter at this weight at 6 months old so a lot more feed and time is needed to grow the pigs but this does result in a higher sale price.

Once the pigs are ready for slaughter they are booked into Wishaw abattoir in Glasgow where they are killed and held for 3 days to undergo safety checks due to being outdoors. They are then delivered to the butcher through PR DUFF, a meat processing company based at the abattoir. Kenny Allan's of Auchterarder is the butcher used for all the pork as they are a traditional butcher that provides very high quality butchering and have vacuum packing facilities and curing facilities on site. The whole process takes 10 days from slaughter to final product.

4.2 Premises

The business is based at Hardiston farm near Cleish in Kinross-shire, the farm is 300 acres with a mixture of grade 3,4 and rough grazing. The farm is owned by the family and there will only be a small rent cost to the business to help get it started up. The farm includes a large grain store which is used to keep all the pigs feed and also has a good range of machinery available for the business to use. The business will need an ATV with a large loading bed, and a chiller van as it goes forward in the future.

Potentially in the future the pigs would have their own dedicated building on the farm which would store feed and all the machinery required for the business. Currently there is no shop or sales outlet on the farm due too it being to small scale to justify it. There are no buildings on the farm that would be ideal for conversion so a newbuild would be needed for a retail outlet. It is thought that a temporary retail outlet in the form of a log cabin will be installed in September of 2019. This will cost £7900 (Log Span, 2019) and offer the business a small outlet that will be open a couple of days a week to give customers some regularity in pork supply. This will also need to have a concrete base, be connected to electricity and have a chill room built in along with a small processing

room to allow some small scale butchery. This would add another £4,000 to the cost. The retail unit would be located a small distance away from the farm so that electricity and water connections would not be too expensive but it would keep it separate from the farm to avoid environmental health implications. As for staffing it would be done by the owner so there would be no short term costs unless it was busy enough to justify a full time member of staff.

4.3 Pricing policy

The pork will be sold at a premium over normally produced pork, but this is to be expected as it has a lot of additional costs to produce and far less economies of scale and it is a premium product. The price will differ between market outlets but also for the quantity sold.

For fresh pork sold at markets the average price per kg will be £11.70. There is some variation depending on cut so some prices are higher than this such as bacon at £15 per kg. There are also some lower such as sausages at £10 per kg as this is a processed product and at this price it makes it £5 per pack, a nice round price. The average cost of production is £6.63 per kg (table 1). This price is before labour however but as the business is run by one person it is assumed they will take a proportion of profits. By selling at £11.70 it produces a profit margin of £5.07 per kg or 76% as a percentage mark up.

For restaurants the selling price is £9.50 per kg which is again expensive for pork but the product is only offered to high end restaurants who have a clientele who will be willing to pay for a unique product. This gives a profit margin £2.87 per kg which is 43% as a percentage. This is lower than selling direct to costumers but it saves time on delivering and appearing at farmers markets.

For hog roasts the total cost for the pig is £223 which for an 80 kg pig dead weight would feed 180 people. Cost of rolls, sauces and plates add £41.40 to the cost. Following this the cost to have this at a farmers market would be £30, this is only for smaller markets but that is the target market for the hog roasts along with private functions. The cost

totals £294 for the hog roast. With 180 people being fed and each roll sold at £4.50 each the income from a hog roast is £810. This would give a profit margin of £516, as a percentage it is a 175% mark up on cost. What does have to be taken into consideration however is that there is a lot of time involved in cooking a hog roast. This means that although the money is good there is far more time involved and potentially more waste.

TYPE OF COST	PRICE PER PIG	PRICE PER KG FOR 60KG OF PORK	FOR HOG ROAST
SOWS AND BOARS *	£50	£0.83	50
FEED	£85	£1.41	85
TRANSPORT TO ABATTOIR *	£26.65	£0.44	26.65
SLAUGHTER COST	£21	£0.35	21
DELIVERY TO BUTCHER	£15	£0.25	15
INSURANCE *	£15.40	£0.26	15.40
MISC.	£10	£0.16	10
BUTCHERING	£175	£2.93	N/A
TOTAL	£398	£6.63	£223

Table 4.1 Current cost to produce pork

4.4 Market analysis

Rootin' and Roamin' aim to sell to most of the central belt but will focus around Edinburgh, west Fife, Kinross-shire, Clackmannanshire and south Perthshire. This is because one of the businesses main selling points is that it is local, after around 50 miles food is not considered local to that area.

There are a large number of competitors in the area with "Hunters" butcher in Kinross being very popular among the local population and offering high quality Scottish meat. There is also "Puddledub Pork"/ "Fifeshire Bacon" who are based just outside the village of Puddledub in Fife which is only 30 minutes away from Rootin' and Roamin'. Puddledub use a more intensive indoor system however and also use commercial

breeds. Located in the north of the target selling area is “The Good Life Farming” who also offer rare breed pork, however this is not their main product with them only having it available seasonally. They instead have a greater focus on rose veal and Shetland lamb. Local supermarkets are also large competitors offering pork at a far cheaper price to the consumer.

How Rootin’ and Roamin’ competes in this environment is that it singularly focuses on pork and aims to be completely specialised in pork, producing the highest quality product possible. Excluding “The Good Life Farming” all other pork producers in the area, including the local butcher, use commercially produced pork which is lighter in colour. It also does not tend to have the same taste or texture as rare breed, free range pork due to being quicker grown and having a less active lifestyle. There is also the benefit over butchers and supermarkets that the consumer is buying it straight from the farmer and have full traceability with any questions the consumers have being able to be answered at the point of sale. Along with this they work very closely with the butcher to make sure there is an excellent knowledge of the product and so that proper advice and knowledge can be offered to the consumer. Finally the price of the pork is higher but with this consumers can be sure that they are getting a high quality product and have full peace of mind when buying along with reducing their food miles.

The product is aimed at the ethical consumer who cares more about where their meat comes from and how good a life the pigs have had. It is also targeted at food enthusiasts who enjoy their food and are willing to pay extra for meat with superior taste. Due to flexitarian media recommending that their followers consume higher welfare meat the pork should also appeal to this market. The term flexitarian is fairly new and has a younger audience so it would be expected that a larger proportion of costumers would be under 30. The survey carried out shows that the biggest age group is under 18-25 with 32% of respondents.

4.5 Marketing strategy

Rootin’ and Roamin’ has a young but still professional feel with the name being a play on words explaining exactly what the pigs do. The logo contains a pig outside sitting in

a wallow to cool down from the sun whilst enjoying the outdoor life. The logo is based off a real picture taken of one of the breeding sows and gives a very accurate image of the business and how the pigs enjoy their lives. This image is passed on to the customer and makes the business appear genuine and trustworthy.



Plate 4.1: Picture of Rootin' and Roamin' free range pork brand logo

The main avenue of the business is Facebook with posts being uploaded twice weekly to keep customers updated on what the pigs are up to and what is for sale and when. This has been very successful in the first year with the page now having over 300 likes. More proof of this success is that a pop up shop was advertised on Facebook alone and around 60 people turned up and the business took more in that day than at a farmers market.

Other advertising includes local posters which are placed around the Kinross-shire area, this has helped create local awareness of the business but not resulted in many sales.

It has been considered to advertise in the local newsletter but at £37.50 a month it was deemed too expensive for the business at the moment but could be a future advertising method with 2000 copies sold locally and being available in 17 local shops. It is very cheap for the consumer at £1.10 so it will be one to look into once the business grows and has a greater budget to spend on advertising.

A website could also be a possibility in the future. If a website was made it would likely feature a blog to keep customers interested and updated on what is going on at the farm. This would help make customers feel more like part of the farm and potentially more likely to purchase pork or any other future products. The cost to make a professional website could vary between £1000- £2000 (Alston, 2018). On top of this there is likely to be a small monthly fee of around £7. Again it is likely this will be something done in the future once the business has the money to invest. One aspect that has to be taken into consideration is that the website would need updated every few years to keep it up to date and interesting.

Selling methods currently include selling at farmers markets, Pop-up shops and home delivery. These give flexibility to work the business around other commitments. These methods are working well currently but an increasing amount of customers are asking where to find us in between events so a small retail unit is being looked into.

4.6 Sales forecast

The business has already been trading for one year so the sales forecast will be for years 2 and 3.

From the Agricash results for the second year of trading the business is expecting to turn over £36,320 with £11,480 of this being profit. This gives a net profit percentage of 31% which is good for an agricultural business.

The turnover was worked out by predicting that there would 55 pigs sold over the year. The pigs are split between hog roasts, farmers markets, restaurants, a shop on the farm and home deliveries.

Sale location	Farmers markets	Home deliveries	On farm shop	Hog roasts	Restaurants	Total

Pigs sold year 2	36	5	4.5	4	5.5	55
Pigs sold year 3	60	5	18	8	13	104

Table 2 Number of pigs sold per Market avenue

As it can be seen in the second year the farmers market section is the biggest, this number is split between 3 farmers markets overall with them being in Cleish, Kinross and Culross. This number was calculated going off previous sales at markets and estimating what would be possible. The on farm shop sales are much smaller in the second year and this is because it is only open for the last few months of that year.

The second biggest section in year two is restaurants and this was estimated by taking what is sold to restaurants now and how this could potentially be scaled up by supplying numerous restaurants.

The on farm shop is just being constructed in September of the second year so the sales are not huge but it is hoped that in the third year this should be able to have a good yearly throughput of pigs. Finally there are Hog roasts which was estimated at only 4 to do in the first year to get used to it and learn more about it. There is a good margin but it was thought only to do a limited number in the first year due to time restrictions.

On top of this it was estimated that there would be 45 weaners sold in the first year as with each sow producing two litters a year there would be 45 left over which would supplement the income of the business.

In the second year everything is scaled up to 104 pigs with them being allocated to the market sectors that it was possible to grow in.

4.7 Finance

Cost list (Explanation in brackets)

Insurance: £67.50 per month (NFU) *

Butchering: £175 per pig *

Abattoir: £21 per pig *

Transport to abattoir: £26.50 per pig (1/3 tank of fuel + 2 hours driving) *

Transport From abattoir: £15 per pig (PR DUFF) *

Piglet Feed: £85 per pig (calculated at £190 per tonne for 18% barley soya mix, average pig consumes 446kg to get to 95KG) *

Sows/ boars keep: total £2194.50 per year (calculated from feed cost of £165 per tonne with an average consumption of 7kg per day each) *

Retail Unit: Costs £7800 from (Log Span, 2019) it's a log cabin which can be kitted out as a shop. Costs £2000 for concrete base, draining and electrical hook up (Cooper, 2019). Finally, it would cost £5000 to kit it out with a walk in fridge and preparation equipment (Capital Cooling, 2019).

Farmers market fees: £40 for Kinross, £80 for Edinburgh, £60 for Culross and £20 for Cleish *

Van costs: Hire purchase at 6% APR £15,000 van = £300 per month for 60 months. Van 2016- 25,000 miles. (Auto Trader, 2019).

ATV costs: Suzuki Jimny KAP Conversion costs £12,500 or £250 per month for 5 years at 6% APR (KAP suzuki, 2019)

The cost is taken from the businesses current operating costs (*)

4.8 Funding

All funding will be taken from working capital, small bank loans and hire purchase with no grants being used. There are grants available for businesses like Rootin' and Roamin' for example from Business Gateway. The reason no grants will be used for the business in the two years estimated is that there is no significant capital investment that would require grants. In the next five years a farm shop will be looked into and would require significant investment as it is on the farms land and would be completely built from scratch. Applications for grants will wait for this as it would require more investment. Grants could be applied for twice but advice from an accountant is to only do it once or they might decline. For this reason there will be no grants applied for and it will wait till a bigger project that would require initial capital to apply.

4.9 Summary

Overall the business would make a small profit of £11,480 in the first year then a more substantial profit of £23, 629 in year 2. This would only require 104 pigs in total and not require too much extra time to look after them. Some new equipment would be required such as an ATV for feeding the pigs in all weather. A temperature controlled van would also be required so that the restaurant sales could increase to transport the pork further afield outwith the one hour non-chilled legal limit. Finally an on farm shop would be built costing £10,000 in total to give customers a chance to buy more regularly and improve the businesses weekly cashflow. The business would not go for any grants immediately since only a small amount of capital is required, this would instead wait until the business wishes to invest more substantially.

CHAPTER 5 RESULTS

The survey that was carried out online was distributed through Facebook. This was used in part to meet three objectives.

- Determine whether there is a market for free-range pork in the central belt of Scotland
- Write a business plan for a free range pork business
- Construct a suitable marketing strategy

The survey was used to determine the market by asking questions on pork buying habits and what mattered to the consumer when it came to buying pork. This was done to see if there would be a difference in the national data found compared to the Kinross-shire area.

The survey helped when writing the business plan as it would be clearer who the target market was and also to help decide which market outlets would be the best to pursue. It also touched on what cuts the consumer would most likely buy to give an indication of what would sell best.

Finally the survey also played a part in helping come up with a marketing strategy specifically asking consumers what labels matter most to them when buying pork.

The survey received 108 responses over the 2 months and this section will describe the findings from the results and what was significant.

5.1 Respondent gender

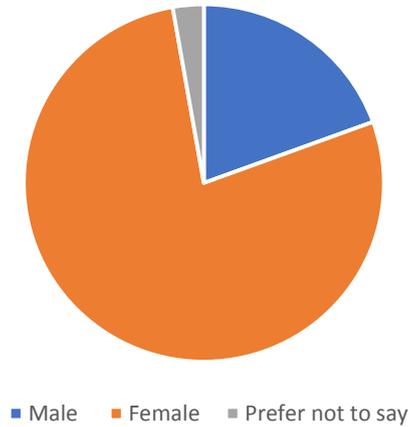


Figure 5.1: Gender of respondents

The gender of respondents in the survey was predominantly female with 83 of the respondents identifying as female and only 21 identifying as male. There were 3 respondents who preferred not to share their gender but this was only 3% of respondents.

5.2 Age of responders

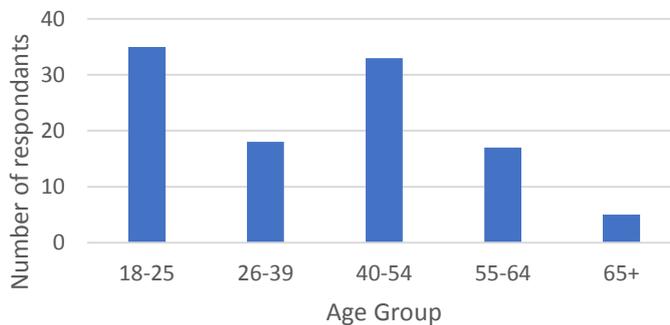


Figure 5.2: Age of respondents

There were two age groups that had more responses in the survey which were 18-25 and 40-54 year olds. 32.4% of respondents were aged between 18-25 and then 30.5% of respondents were aged between 40-54. Overall it was found that there was a very

even split of ages with 49% being under 40 and 51% being over 40. The smallest age group of respondents was 65+ but this was to be expected with people over the age of 65 being less likely to be active online.

5.3 Frequency that respondents buy pork

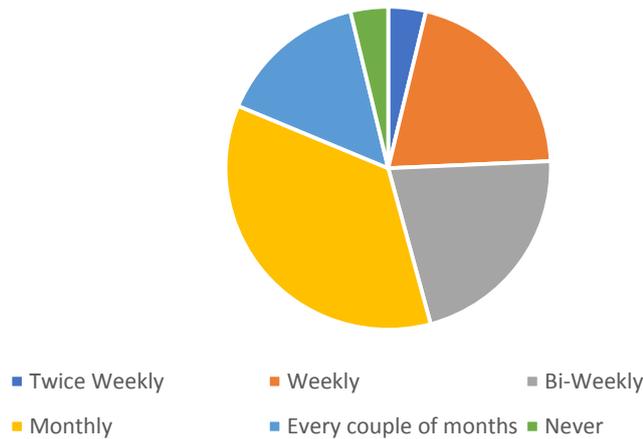


Figure 5.3: Frequency that respondents buy pork

Overall it was found that most respondents buy pork monthly or bi-weekly (Figure 3), with monthly buyers accounting for 36% of respondents and bi-weekly buyers making up 21%. Following this there was 21% of respondents buying weekly and 15% of respondents buying every couple of months. Finally there was the 4% that buy pork twice a week and 4% that never buy pork.

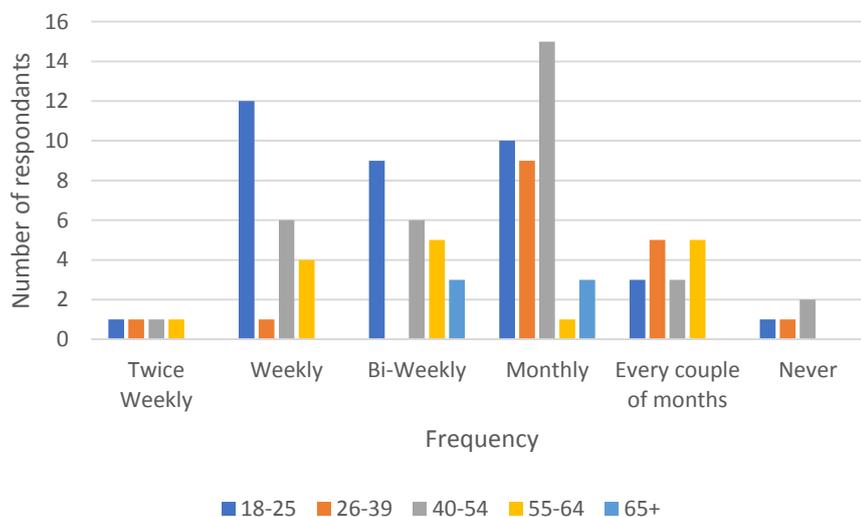


Figure 5.4: Frequency that respondents bought pork per age category

It can be seen from (figure 5.4) that the age group most likely to buy pork weekly is ages 18-25. They are also the age group that consume pork bi-weekly the most too. Ages 40-54 are the age group that are most likely to buy pork monthly. There is a small number of respondents that would buy pork twice weekly and also a small number that never consume pork.

A chi-square goodness of fit test was carried out on the data and there was a significant difference between the amount of respondents that bought pork monthly compared to bi-weekly, every couple of months, never and twice weekly $p=0.000$. This shows that weekly and monthly are the most popular but monthly is the overall most popular.

5.4 What labels respondents rated highest when buying pork

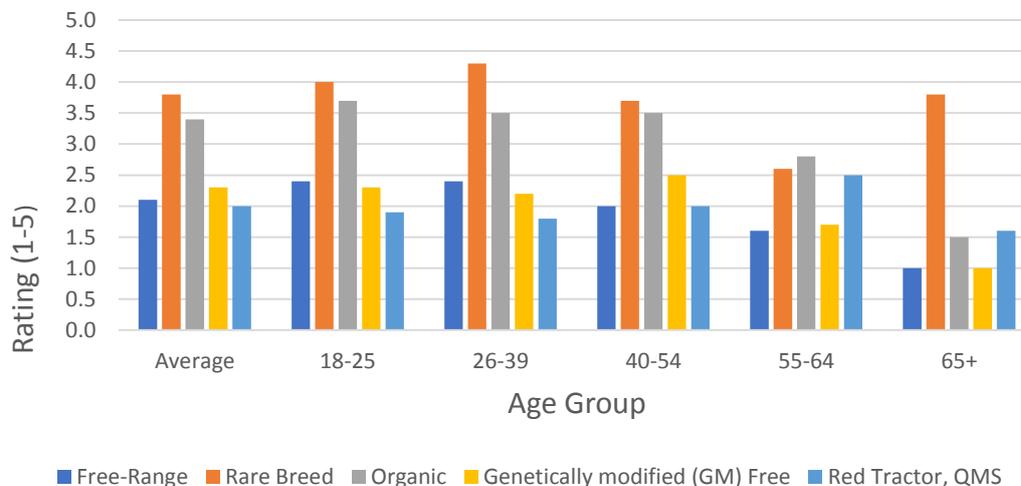


Figure 5.5: How different age groups rated each label

This looks at different pork labels that were rated 1-5 by all respondents, 1 being extremely important 5 being not important.

Looking at the average first respondents rated the Red Tractor label, free-range and GM free labels highest at 2, 2.1 and 2.3 respectively. They also rated rare breed as least important at 3.8.

Looking more specifically at age groups it was ages 26-39 that rated rare breed as least important at 4.3 with ages 55-64 rating this the lowest of all groups at 2.6. Ages 65+ rated free range as very important at 1 and also rated GM free at 1 also. Following this they rated organic next at 1.5 then red tractor at 1.6. There are only 5 respondents in the age group however so they make little effect on the averages. Overall organic was rated more important by ages 55+ with the rest of the age groups only rating it as low as 3.4.

The number of respondents that scored 1 or 2 was compared to the number of respondents that scored 3-5 for each age group and label and a chi-square table was made. It was found that there was no significant difference between age and how they scored for each label.

5.5 Respondent views on factors when buying meat

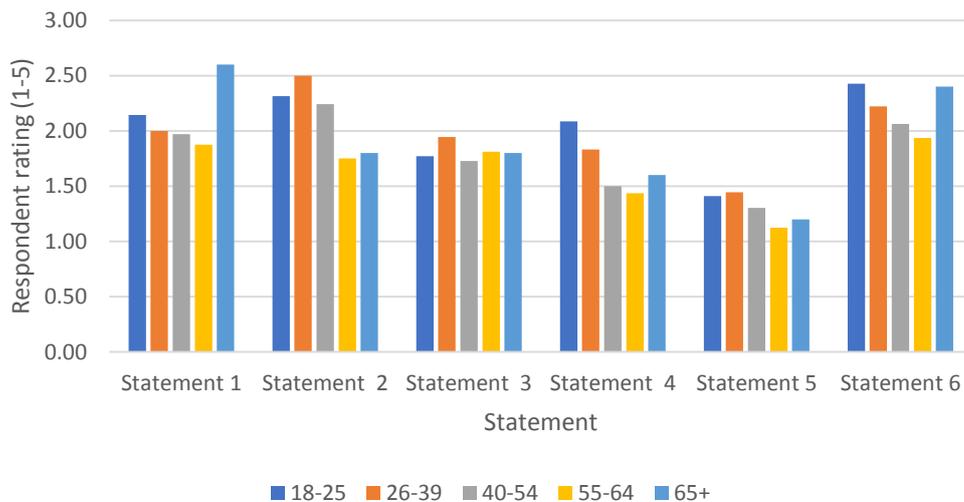


Figure 5.6 Respondents views on statements

Question 5 in the survey asked respondents their views on certain statements and were asked to rate how much they agreed with the statement on a scale of 1-5. One was strongly agree and five was strongly disagree. The questions start more general but then get more specific.

Statement 1 was “Low food miles is important to me” and it can be seen that on the whole respondents thought it was fairly important with an average score of 2 overall. Ages 65+ did not agree as much with a score of 2.6.

“I would be willing to pay more for food produced within 50 miles of me” was the second statement. It can be seen that there was more variation on this question with ages 55+ rating it lower around 1.8 meaning they would be fairly willing to pay more. However ages below 54 would not be so willing with an average score of around 2.4. It must be said that this is still a low score.

Statement 3 was “I would prefer to buy meat direct from a producer”. This question was more evenly scored with an average of 1.8, this would suggest that respondents would like to buy meat from a producer.

“Provenance is important to me when purchasing meat” was Statement 4. This question had different opinions depending on age there was an average score of 1.7 with ages 40+ rating it as more important at around 1.5. Ages 18-24 agreed less however with an average score of 2 this is still low however but when you look at the graph it can be seen how this brought up the average.

“Animal welfare is important to me when purchasing meat” was the 5th statement that was asked it was rated most important over all with an average of 1.3 meaning that most respondents strongly agreed with the statement. The higher the age the more the statement was agreed with.

“I believe there is a lack of high welfare pork with low food miles” This was the 6th and final statement. Overall it was the statement with the highest score with an average of 2.21. This is still low over all but slightly higher than the other statements. The age groups that agreed less were 18-24 and 65+. This could be down to Rootin’ and Roamin’ being trading already and them being customers already, overall however it was still a low score and shows a gap in the market for Rootin’ and Roamin’ to expand into.

5.6 What products the respondents would most be interested in.

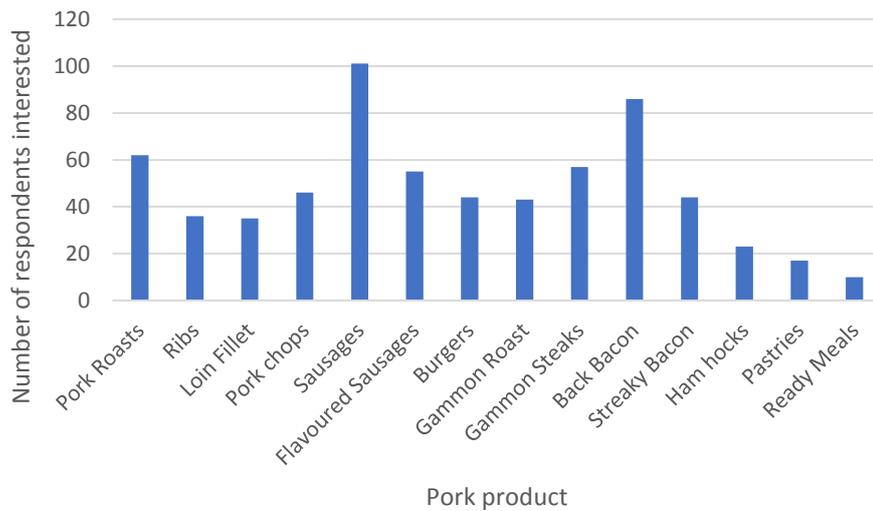


Figure 5.7: What products respondents were most interested in.

Overall 106 respondents answered this question which is worth keeping in mind when looking at (Figure 7). It could be seen that the most popular products from this list were sausages and back bacon with 101 and 86 respondents expressing interest in these products respectively. There was good interest in pork roasts at 62 and gammon steaks at 57 respondents each. Products that did not have as much interest were ready meals at 10 and pastries at 17, this is still 16% and 9.4% respectively so there is still a small amount of demand from the respondents.

5.7 How far respondents would be willing to travel for a small farm shop selling local pork

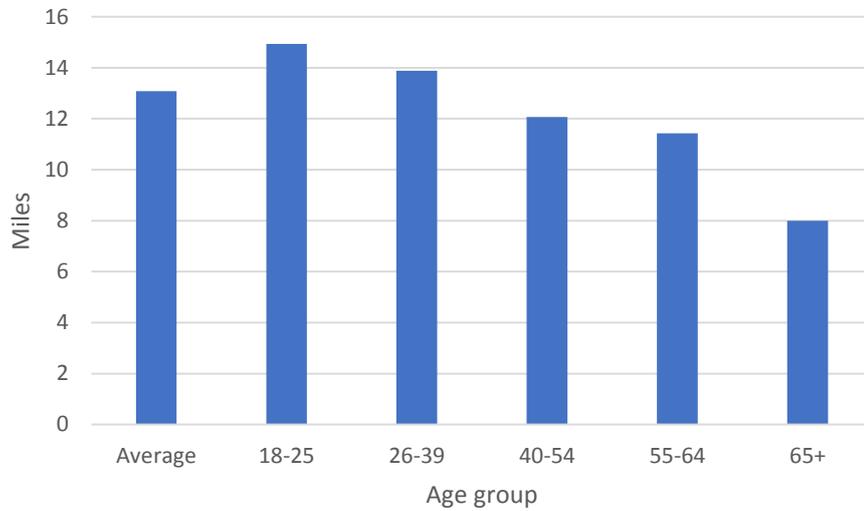


Figure 5.8: Distance respondents would travel per age group

This shows that respondents would be willing to travel an average of 13 miles to a small farm shop specifically for pork. It can also be seen that as the respondents get older they are less willing to travel. The age group most willing to travel are 18-25 at 15 miles and the age group least willing to travel were 65+ at only 8 miles.

An open question was used which left room for comments and there were a few notable ones. One comment by a 40-54 respondent is that they would have to be passing. This theme was continued with 2 respondents saying that if they were passing anyway they would be likely to travel further. Finally there was one 26-39 respondent that stated “realistically I would travel just to buy pork” not stating a distance.

5.8 Would respondents be willing to pay more for a free range hog roast

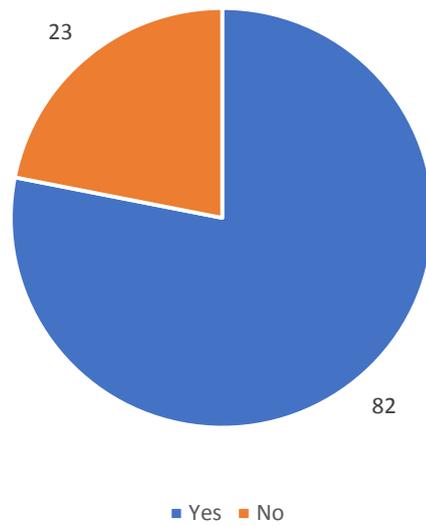


Figure 5.9: Would respondents be willing to pay more for a free range hog roast

This was the last question asked and it came back with 78% of respondents saying they would and 22% of respondents saying they would not. This shows that there would potentially be a market for up market hog roasts with higher welfare but also a slightly higher price tag.

Chapter 6 Discussion

Target market

From the survey it was found that 77% of the respondents were female and this could be because women are more likely to care about ethical meat. This was corroborated in a survey by YouGOV which found that women care more than men about the quality of meat they purchase (YouGOV, 2018).

There are two target age groups, based on the survey results, with the largest groups being 18-25 at 32% and 40-64 at 46%. The first is young professionals who are potentially flexitarian and want to buy less meat but high welfare meat. Although there is very little data on flexitarians it is known that younger people are more likely to follow a meat free diet and therefore more likely to be flexitarian (Mintel, 2018). The second target age group would be people in their mid to late careers as they have more disposable income and can afford higher value food.

Frequency of purchase

Overall it was found from the survey that consumers would prefer to buy pork monthly with 36% of respondents saying that is how frequently they would buy pork. The next most popular options were weekly and bi-weekly both at 20%. This does not necessarily mean more sales however as the person buying monthly could buy the same amount as those weekly and bi weekly. The problem with farmers markets is that they are just monthly so although they do meet 36% of customers requirements they would not be meeting the requirement of the 40% of consumers who wish to purchase more regularly. This would strengthen the case for an on farm shop to meet these customers' requirements.

Location

The research in the literature review showed that Kinross shire is in an affluent area with areas of high income, such as Edinburgh, close by. This is good for Rootin' and Roamin' as the pork is a premium product that demands a premium price and would benefit from being situated in an affluent area. In the survey respondents did think there was a lack of high welfare pork in the area with the score only being 2.1 out of 5 with 1 being there is a definite lack of high welfare pork. This shows that there is a demand for the pork in the local area and it would be a good place to start selling pork.

Pork products produced

Following the survey it is clear that there is a far greater interest in sausages and back bacon, along with this pork roasts and gammon steaks had good interest. These are all products with a high yield per pig which is good as there would be the supply to meet the consumer demand. Products that will not be focused on would be pastries and ready meals as there was a poor response and there would not be such a big market for them. This is good in some aspects as these products would require specialist equipment and more capital to set up. There is also a lot of local competition in the area with the local butchers doing ready meals and a number of local bakeries producing pastries.

How pork will be produced

The survey asked respondents to rate meat quality labels on a scale of 1-5, with one being very important and 5 being not important. These labels were to see how the business should market its self in the future. The labels that came back as least important were rare breed at 3.8 and organic at 3.4. From this the decision has been made not to go organic as the extra money involved to convert the farm to organic and feed the pigs would not result in the product being much more attractive to consumers. This can be backed up by the literature review that shows the decline in organic produce after the recession and how it has not fully recovered from that yet

having only reached 1.5% market share when it was at 2.4% before the recession (Soil Association, 2017).

Although rare breed was not important to consumers when it came to marketing, rare breed pigs will continue to be used on the farm as the meat has a superior taste as it is produced the same way as the traditional speciality guaranteed (TSG) Gloucestershire old pork which was confirmed by the European Union to have this superior taste and texture (European Union, 2009). Instead the goal will be to educate the public more on the benefit of these breeds and raise awareness of the superior quality.

Labels that were rated highly by consumers were Free-Range at 2.1, Red Tractor Assurance at 2 and genetically modified (GM) free at 2.2. Rootin' and Roamin' already market the pork as Free-Range and according to the survey this is definitely a good selling point and respondents found it important to them when buying meat. Following this in the UK the Free-Range label has greater awareness than Red Tractor.

Red tractor assurance is the same as QMS in Scotland and respondents thought this was the most important when buying meat. This contradicts the literature review which found Red Tractor has less awareness than free range, the reason for the survey finding different results could be because Kinross-shire is an agriculture based town and residents have a greater awareness of farming practices. This is something that Rootin' and Roamin' might take into consideration going forward in the future and have all the pigs QMS assured. One issue with this is that QMS does not have any specific rules for Free-Range so it would not influence the welfare standards of the pigs. The biggest part of becoming QMS assured is bio security of pig herds and keeping records of everyone on the farm and how long they have been pig free for. This might not be practical for such a small scale enterprise which only has around 110 pigs that are kept extensively and have a very low disease risk due to low stocking densities.

GM free was something that respondents felt very strongly about. Currently the pork is not GM free as soya is used in the feed as a protein source. Because of this

overwhelming response Rootin' and Roamin' will aim to cut soya out of its diet and replace it with an alternative protein source such as beans.

Animal welfare was also rated as the most important thing when buying pork in the survey, this shows that using the free range part in the businesses name is very effective and would encourage consumers to buy. Following this the literature review found that 72% of consumers would want to buy from a company that has good animal welfare standards.

On farm shop

The on farm shop that Rootin' and Roamin' has planned will definitely go ahead from the information gathered from the survey and literature review. The survey tested its viability by asking respondents how far they would be willing to travel to the shop. The reason this was the main question is that the farm is quite far from any town. The average mileage that respondents were willing to travel was 13 miles. Using Kinross as a benchmark it is 6.9 miles to the farm from Kinross. This shows that all customers would be willing to travel to the shop and that it could get custom. Looking at how farm shops perform in general it was found that 39% of people had visited a farm shop in 2017 and a further 47% planned on it in the following year (Morley, 2017). This shows that consumers are becoming increasingly aware of them and want to visit them. It was found however that as respondents got older they were less willing to travel, this shows that doing home deliveries will still be a crucial part of the business to include all customers.

Hog roasts

Hog roasts are being looked into as an alternative way to increase pig throughput. The survey asked respondents if they would choose a free range hog roast over a conventional one even if the price was higher. The response was that 78% of respondents said they would. This shows that there could be room in the market for a high welfare hog roast business. Looking at the financial side it costs less to produce as

there are no butcher costs and it gives a good profit margin of £516 per pig, this is higher than could be achieved butchering it and selling it.

Sows

The number of piglets needed overall in the second year would be 104 and this would require 6 sows in total to meet this target. They would have to farrow twice a year and average around 18 piglets each per year. There are already 5 sows in the herd at the moment so it would not require much more equipment or time to keep them.

To achieve the £30,000 profit required for the business to be viable in the long term there would need to be 150 pigs sold each year. This would require 2 more sows on the farm, again this would not be a dramatic increase and no extra equipment would need to be purchased to keep them. There would be more time involved with the piglets however and more space would be needed for them but using them as part of a rotation on the farm could make up this space and reduce need for major investment.

Local food

The survey asked respondents to rate a series of statement from 1-5 with one being strongly agree and 5 being strongly disagree. The first statement was 'low food miles is important to me'. This received a score of 2, this shows that respondents thought this was very important. This is likely because people are becoming more aware of where their food is coming from and with recent climate change statistics being released by the Intergovernmental Panel on Climate Change stating that the earth's temperature should not rise by more than 1.5° to prevent severe climate problems (Intergovernmental panel of climate change, 2018).

Statement 2 asked if respondents would be willing to pay more for local food, this scored 2.4. This is also a low score suggesting that they would partly agree with this. Again this could be related to recent climate statistics and people becoming more interested in the environment and are willing to pay more.

Meat provenance

From the survey the statement of 'I would prefer to buy meat from a producer' got a response of 1.8. This would show that the respondents thought this was very important also which would fit in with the previous paragraph with consumers wishing to know where their food is coming from. Another aspect of this could be related to the horsemeat scandal in the supermarkets and although it was found that this has had no long lasting effect on Tesco (Tesco PLC, 2018). People might still remember it and it could make them want to buy direct from the producer.

The statement of 'provenance is important to me when buying meat' scored well at 1.3. This shows that this is even more important and could definitely be related to the horse meat scandal. It shows that Rootin' and Roamin' can offer this advantage.

Limitations

The survey was mainly carried out online with only a few paper copies available. If a postal survey had been done there could have been a greater response and potentially a greater response from ages 65+, the smallest group of the survey.

The survey was shared only in a limited amount of groups, which did restrict how many results it had, if it had been shared in a wider amount of Facebook groups the response could have been greater.

There was a lack of scientific journals on a lot of the subjects researched so some of the data had to come from less trustworthy sources such as newspapers.

There were some interviews lined up but due to availability and schedules they never materialised. This could have given more results to analyse and make for a more rigorous discussion.

Conclusions

Overall it can be seen from the research conducted that the business is viable and would be able to produce adequate profit to support a full time member of staff. 8 sows in total would be required to meet the 150 pigs required to achieve this level of profit. The business will be marketed as free-range as this was found to have a positive response in the survey and is also very widely recognised over the country. It will also try to access the flexitarian market and provide them with a high welfare meat .

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