

THE SOUTH WEST FARM SURVEY 2020



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THE SOUTH WEST FARM SURVEY 2020

This report should be cited as:

Wilkinson, T., Lobley, M. and Winter, M. (2023) *The South West Farm Survey 2020*. Centre for Rural Policy Research, University of Exeter.

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Acknowledgements

We would like to thank Vanessa Rowan Johnstone and David Andrews for their generous donations, which supported Timothy Wilkinson's time on this project. We also thank Devon County Council for their support of the survey costs.

Thank you to all those who completed the survey.

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1. INTRODUCTION

1.1. Background

The Centre for Rural Policy Research (CRPR) at the University of Exeter has a longstanding reputation as one of the leading groups in the UK in the study of land, environment and agriculture. The forerunner of the Centre was an Agricultural Economics Unit funded by the Ministry of Agriculture, Forestry and Farming (MAFF) and then the Department for Environment, Food and Rural Affairs (DEFRA) from the 1960s, though its roots go back earlier to the launch of a national Farm Management Survey in the 1930s. This legacy has created an enduring interest in the farm business and the experiences of those who run them. The South West Farm Survey 2020 builds on this by providing regional, policy-relevant insights into agriculture.

The South West Farm Survey is a large-scale longitudinal survey of farmers in the South West of England, including Cornwall, Dorset, Devon, Gloucestershire, Somerset, Wiltshire and the Isles of Scilly. The CRPR conducted a South West Farm Survey in 2006, 2010 and 2016 and again in 2020. A further survey is anticipated for the mid-2020s subject to the availability of funding. The survey comprises a range of questions:

some about the characteristics of farms (e.g. land area) and the farm business (e.g. farm type, number of employees), others about farmer behaviours and attitudes (e.g. to policies, to future change). It includes questions from prior surveys -providing an opportunity to map longitudinal change- and new questions tailored to current issues.

Farming in the UK faces a range of uncertainties arising from Brexit, the COVID-19 pandemic and the 2022 Russian invasion of Ukraine, alongside the broader challenges of the global climate and biodiversity emergencies.

Agricultural policy change, supply chain issues, and rising commodity and input prices are significantly impacting the sector. This report gives an insight into agriculture in the South West in the autumn of 2020, approximately 7 months after the first UK national lockdown for COVID-19 and during 'Lockdown 2.0', which lasted from 5th November 2020 to 2nd December 2020. Any survey is a snapshot in time; these results should be interpreted in the context of winter 2020, when there was hope that COVID-19 restrictions might abate in early 2021 and Brexit negotiations were high on the political agenda.

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1.2. Methods

We initially designed the questionnaire for the fourth South West Farm Survey in winter 2019/2020, intending to launch the survey in March 2020. We took the decision to delay in spring 2020 due to the outbreak of the COVID-19 pandemic and the first UK lockdown. The survey questions were updated between June and early October 2020, to reflect the rapidly changing circumstances. In late October, we posted 4000 paper questionnaire surveys to farm occupiers in the South West. Two reminders were sent by post in October and November 2020. We received responses until early December 2020, when the survey closed.

We received 1117 valid responses; a 28% response rate. The questionnaire and cover letter requested that the person who completes the survey was the farmer or farm manager if possible. Participants were free to skip questions; not all participants answered every question. Data were inputted into Excel from postal survey returns. Descriptive statistics were completed in SPSS v.28.0.1.0 (142). Graphs were produced in Microsoft Excel. The report was designed on Affinity Publisher. The research was approved by the University of Exeter Social Science and International Studies Research Ethics Committee (ID number 201920-066).



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2. RESULTS

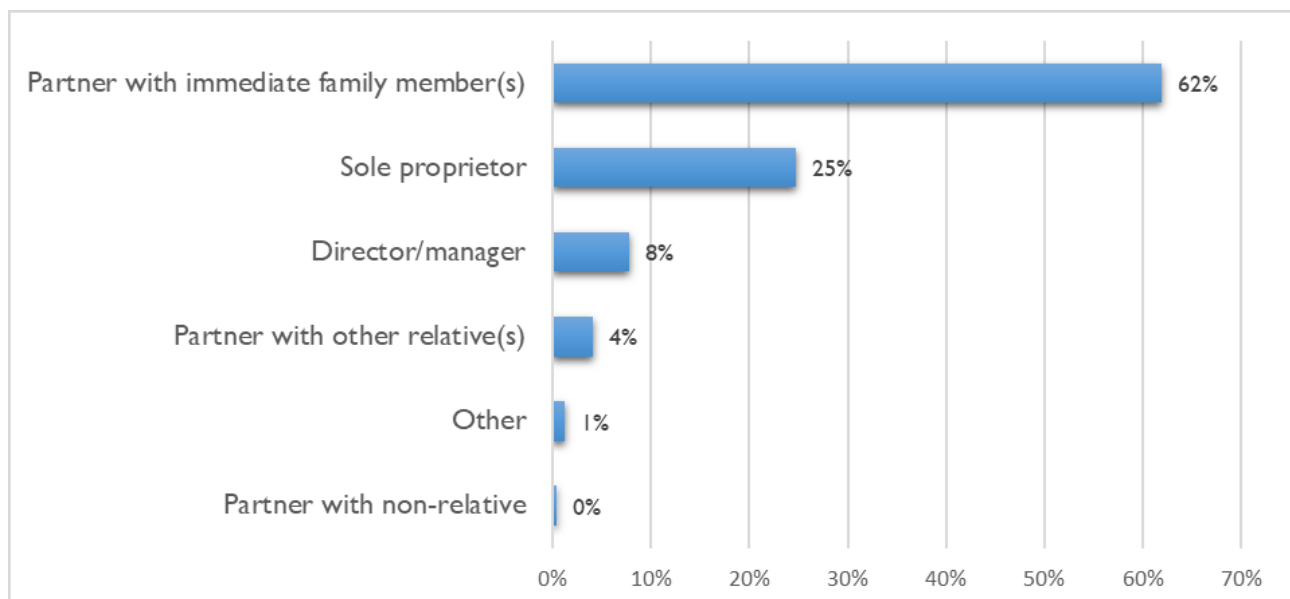
2.1. Profile of respondents

Respondents included a range of people involved in farm businesses and were from a variety of farm types. Almost two-thirds (62%) were partners in the farm business with an immediate family member, and an additional (4%) were partners with another relative (see Figure 1). A quarter (25%) were sole proprietors. While these data are about those who completed the survey, they are indicative of how often the farm business involves family members. Just 0.4% of respondents reported being a partner in the business with a non-relative. Most respondents (85%) said they were not a first generation farmer, i.e. were at least a second generation. A wide variety of dates given for when the family started farming in the South West, ranging from the 1200s to 1996. The mean year that

respondent's families started farming was 1917. Just 15% of respondents classified themselves as first generation farmers; a figure comparable to previous South West Farm Survey results as well as our research elsewhere in England, see for example Lobley and Potter (2004). Most respondents to the survey are part of a long family history of farming.

Nearly half (45%) of respondents were over 65 years old; only a tenth (10%) were under 45 years old (see Figure 2). Participant ages ranged from 23 to 98 years old. The mean age was 62.85 years. The majority (90%) of respondents classified their gender as male and a tenth (10%) as female. This reflects a similar split to the 2016 Farm Survey, where 88% gave their gender as male, and 12% female. This age and gender

Figure 1. Respondent status in farm business (n=1108)



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profile broadly corresponds with DEFRA's Farm Structures Survey 2016, which found that 40% of farm holders were aged over 65 and 84% were male (DEFRA 2016, 1).

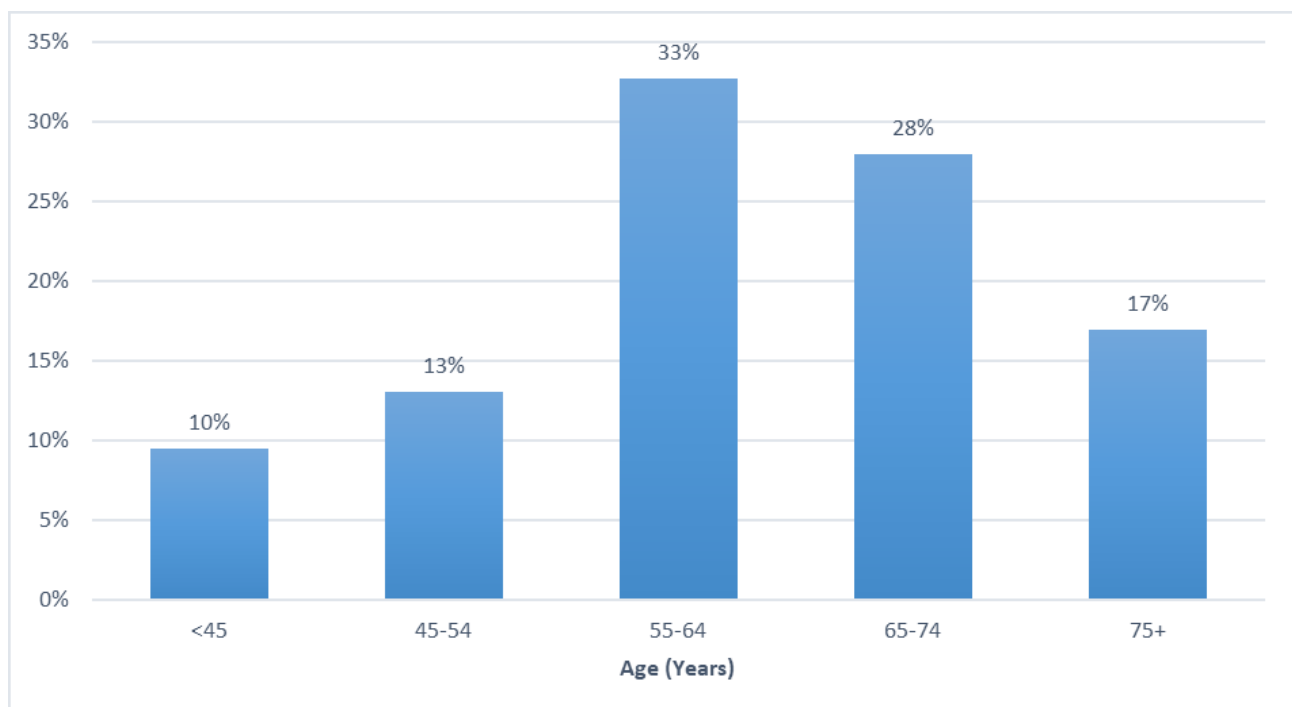
2.2. About the farm

We received responses from a range of farm types and sizes. In terms of type, Grazing Livestock (Lowland and Less Favoured Areas combined) comprised just over a third of the sample (34%), Mixed Farming almost a third (29%) and Dairy almost a fifth (19.5%) (see Figure 3). As would be expected given the topographic characteristics of the region, particularly the far South West, there were fewer Cereal (4%) or General Cropping (3.6%) farms, however see comparison with DEFRA (2019) data

below. Of the 8.4% of respondents who classified their farm type as 'Other', approximately half of these described themselves as Grazing Livestock farms (but did not classify themselves as either LFA or Lowland). The other half noted a variety of environmental, specialist and land letting activities, including: 'conservation', 'pedigree goats', 'grass keep'.

In Table 1, we compare farm type proportions our Farm Survey, with DEFRA (2019) June Survey data for the South West. DEFRA record farm type in terms of area of land farmed and in terms of number of holdings. The proportions of different farm types in the South West Farm Survey 2020 broadly aligns with DEFRA data, but there are some notable differences. The proportions of General Cropping and Cereals farms in the South

Figure 2. Age of respondents (n=1109)



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Figure 3. Farm type as a proportion of total response to the South West Farm Survey 2020

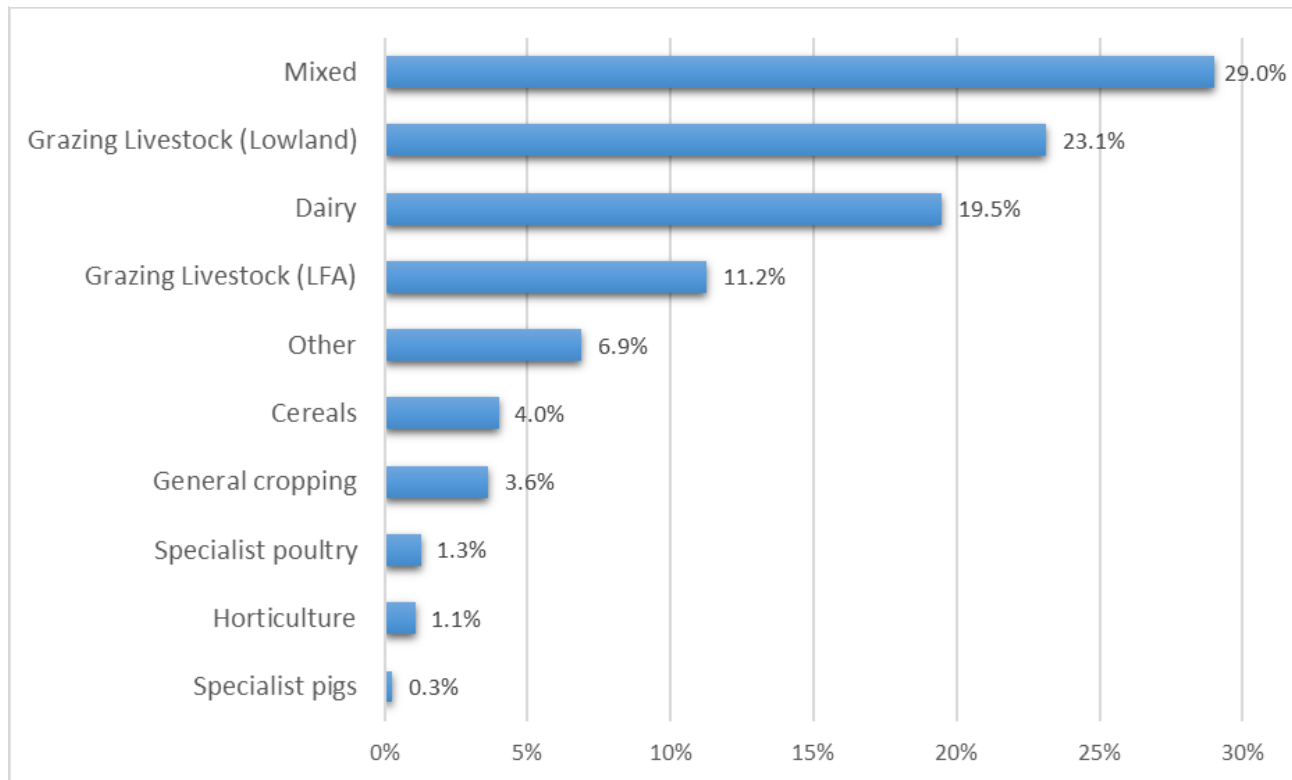


Table 1. Farm type comparison with DEFRA (2019). Contains public sector information licensed under the Open Government Licence v3.0.

	SW Farm Survey 2020		DEFRA (2019)	
	Reported farm type	Farm type as proportion of total farmed area of respondents	DEFRA-defined farm type as a proportion of total farmed area in South West (ha)	DEFRA-defined farm type as proportion of total number of holdings in South West (ha)
Grazing Livestock (Lowland)	23.1%	11.5%	26.6%	39.1%
General Cropping	3.6%	4.9%	11.4%	19.1%
Grazing Livestock (LFA)	11.2%	12.7%	9.8%	8.8%
Cereals	4.0%	7.3%	19.6%	8.5%
Dairy	19.5%	22.4%	18.1%	8.4%
Mixed	29.0%	36.6%	11.1%	8.2%
Horticulture	1.1%	0.2%	1.8%	3.3%
Specialist Poultry	1.3%	0.5%	1.0%	2.2%
Specialist Pigs	0.3%	0.2%	0.6%	1.2%
Unclassified/ Other	6.9%	3.8%	0.0%	1.2%

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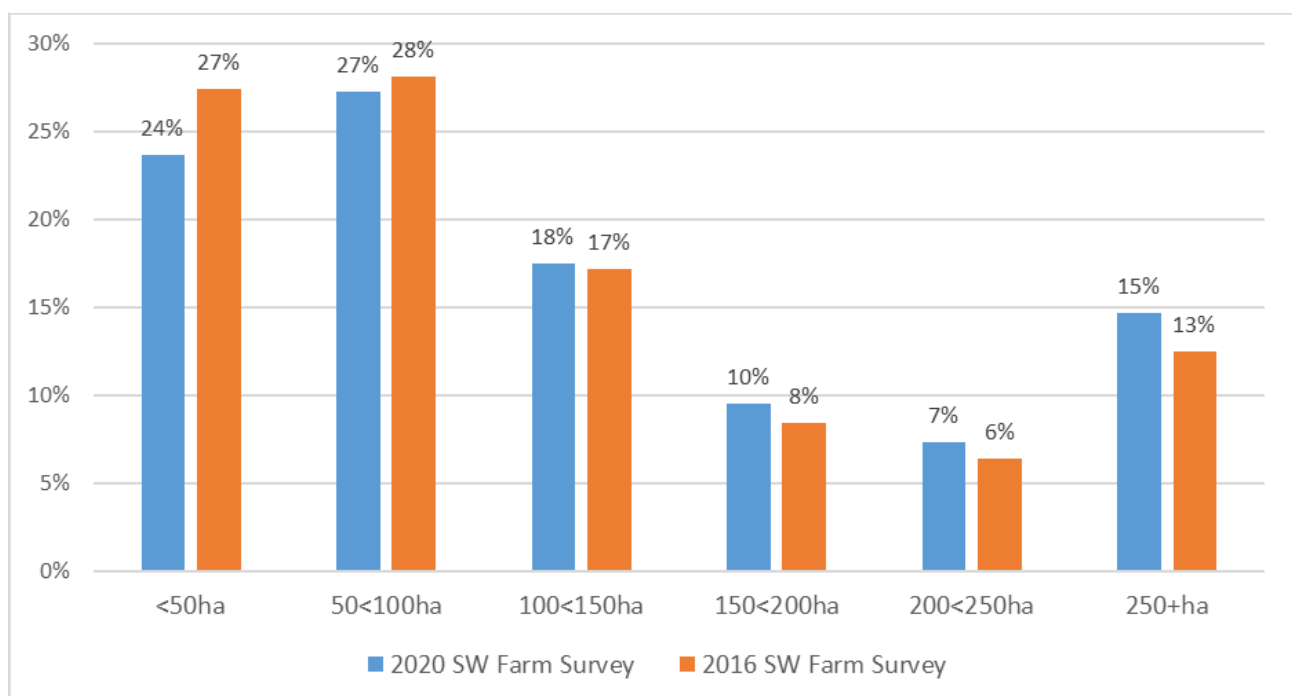
West Farm Survey are lower than in the June Survey (DEFRA 2019) and the proportion of Mixed farms is higher. This may be an indication that the South West Farm Survey underrepresents Cereals and General Cropping farms and over-represents Mixed farms, or it may be a reflection of the different methodologies used to determine farm type.

DEFRA calculate farm type based on standard output values for different enterprises. This requires the collection of detailed data about the outputs of enterprises, whereas we asked respondents to define the main farm type. In our experience, this tends to lead to an apparent over-representation of Mixed farms. Many farmers consider their farms to be 'Mixed', whereas the DEFRA approach might allocate them to a different farm type. Furthermore, some

respondents who classified themselves as 'Other' in terms of farm type, but indicated multiple farm types in the text box (e.g. Cereals and Grazing Livestock). This resulted in the researcher recoding responses as Mixed farms. Due to the topography of the South West, the number of farms pursuing only Cereal or General Cropping are likely to be low; arable strategies may often be complemented with other farm activities, and therefore may be classified in the survey as Mixed farms.

Farms in the sample managed a total of 182,178ha in the South West. This is 10.2% of the total farmed area in the South West as defined by DEFRA (2019). A minority (15%) of respondents were from farms certified as organic; however, the area of land managed by organic farms was 23.1% of the total land area managed

Figure 4. Farm size in hectares. South West Farm Survey 2020 (n=1107) compared with 2016



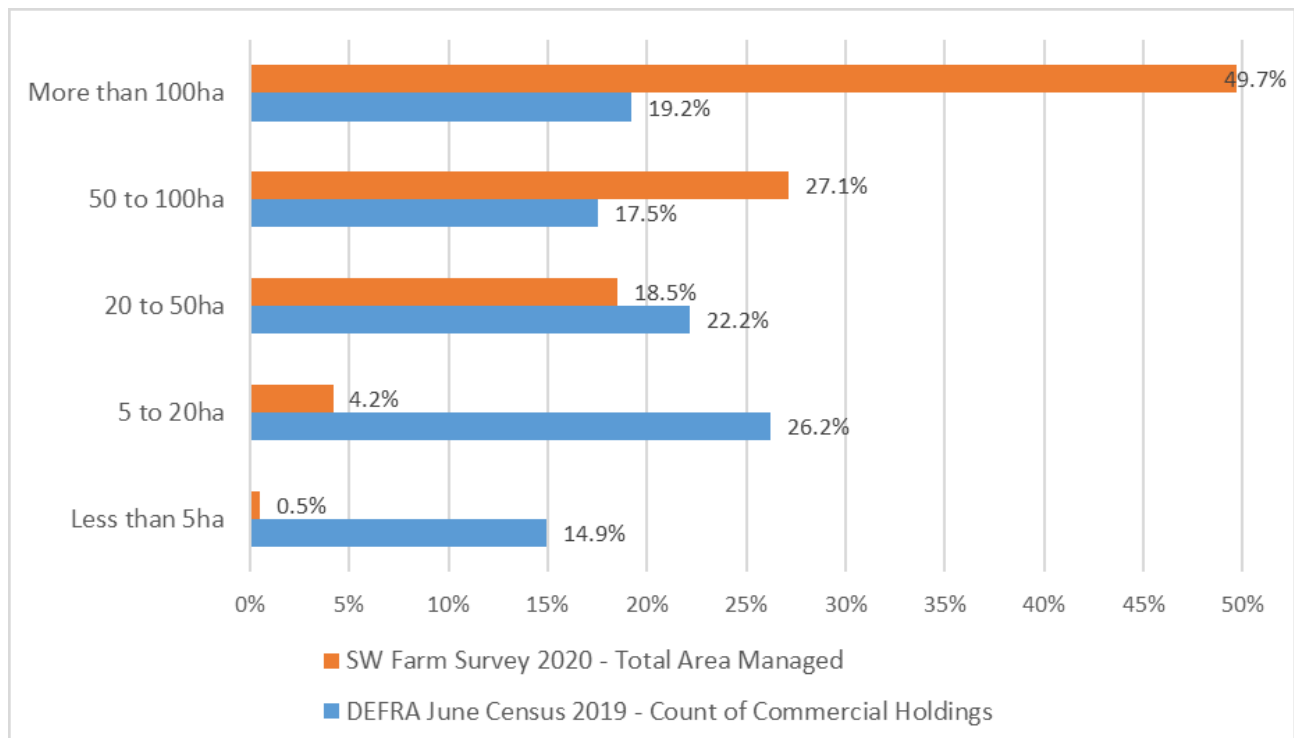
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by respondents. Compared to the proportion of land in the South West classified as organic by DEFRA this is an over-representation. DEFRA (2022) reports that 134,300ha of land was fully converted to organic in 2019; this corresponds to 7.5% of the total farmed area in the South West that year. The South West Farm Survey sample therefore captures 27.9% of the total fully organic and conversion land area in the South West in 2019 (DEFRA 2022). This over-representation may be due, in part, to the large proportion of fully organic land located in the South West; 48% of all fully organic land in England is located in the South West in 2019 (DEFRA 2022).

A range of farm sizes is represented in the sample. Approximately 41% of respondents reported managing less than 100ha, however larger farms were represented too, with 15% managing over 250ha. The profile of farm sizes from respondents to the 2020 survey was similar to that in our 2016 survey (see Figure 4). This may be partly a function of farms participating in both surveys.

A direct comparison between farm size recorded in the South West Farm Survey and DEFRA (2019) regional data on South West holdings from the June Survey is not possible. This is because DEFRA record the number, and area, of holdings not the total area managed by an individual farm (which may comprise multiple holdings).

Figure 5. Total area of land managed (South West Farm Survey 2020) compared to DEFRA 2019 Count of Commercial holdings in the South West (as proportion of total number of holdings in the South West). Contains public sector information licensed under the Open Government Licence v3.0



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Figure 6. Total area of land managed (South West Farm Survey 2020) compared with DEFRA 2019 Commercial Agricultural Holdings Area in the South West (as a proportion of total agricultural area in the South West). Contains public sector information licensed under the Open Government Licence v3.0.

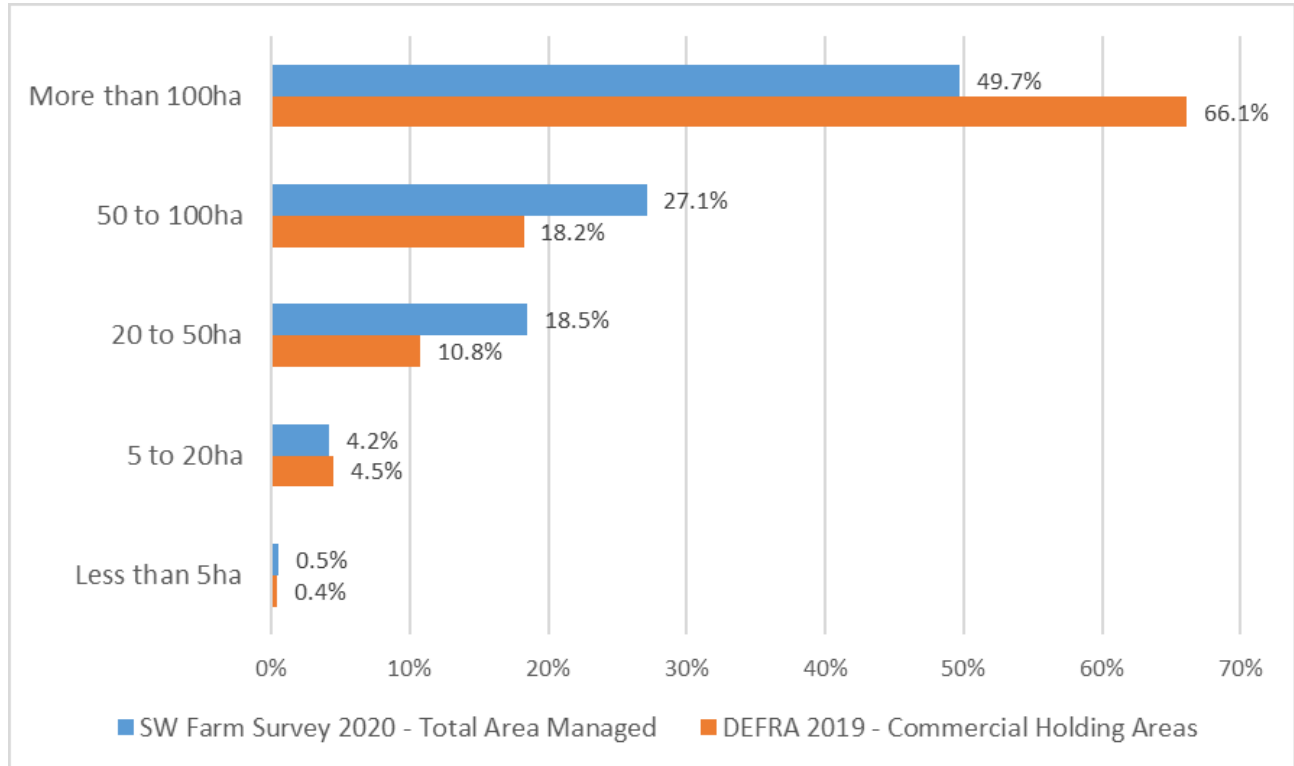
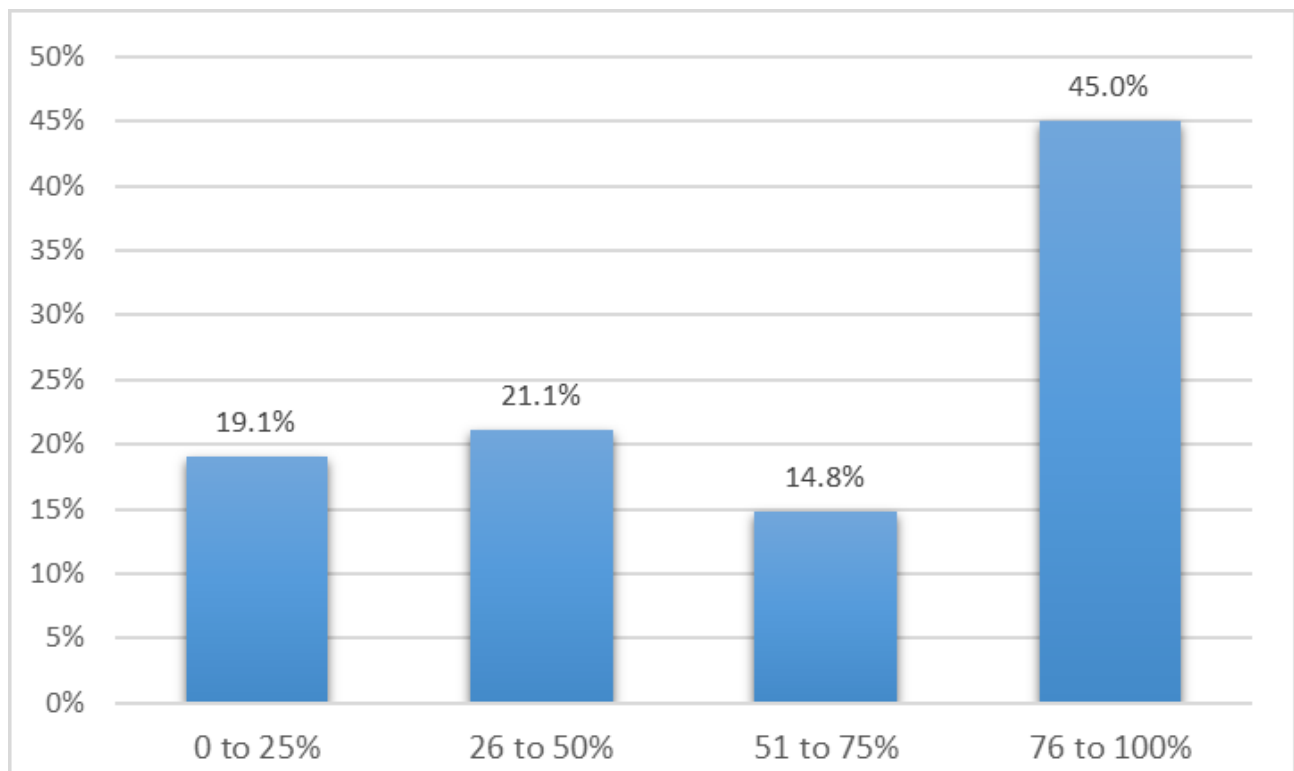


Figure 7. Proportion of income from agriculture (n=1060)



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This means DEFRA data can underestimate farm size. In the South West Farm Survey, we ask respondents for farm level, not holding level, information. As we would expect, there are more farms over 100ha than there are holdings of that size, and there are more smaller holdings (e.g. under 15ha) than there are farms of that size (see Figure 5). Comparison between the total area managed and the area of commercial holdings (DEFRA 2019) shows broad similarity (see Figure 6), while suggesting a slight over-representation of farms from 20-100ha and an under-representation of farms over 100ha in the South West Farm Survey 2020.

2.3. The Farm Business

2.3.1. Income and diversification

Only a minority (20%) of respondents reported that all of their household income was from agriculture (see Figure 7), highlighting that the majority of farm businesses operate non-farming enterprises or support themselves to some extent through other sources of income. That said, for almost half (45%)

of the sample, most of their household income (76% to 100% total income) was generated by agriculture. For two-fifths (40%), agriculture was responsible for less than 50% of household income. This highlights the extent to which farm businesses in the South West are economically pluriactive. For most (80%) income from agriculture is one of several sources of income. A small proportion (3%) of farms earned no income from agriculture. These are likely to be hobby farms.

We classify household reliance on agricultural income from low to high in Table 2. This classification is to aid discussion of the results below. It is not a value-judgement on the significance of agricultural income for individual households. Whether agriculture is a smaller or larger proportion of income, it will still play an important role in the farming enterprise.

Analysis found an association between the proportion of household income generated by farms and farm size (ha). Farms that manage smaller areas of land tend to derive a smaller proportion of

Table 2. Classification of reliance on agriculture

Proportion of household income from agriculture	Degree of household reliance on agricultural income
0-25%	Lower
26-50%	Lower middle
51-75%	Higher middle
76-100%	Higher

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Table 3. Farm size and proportions of income from agriculture

Farm characteristic		More likely to have...reliance on agricultural income
Size	<50ha	Lower
	201-250ha	Higher
	250+ ha	Higher
Type	Dairy	Higher
	Lowland Grazing Livestock	Lower

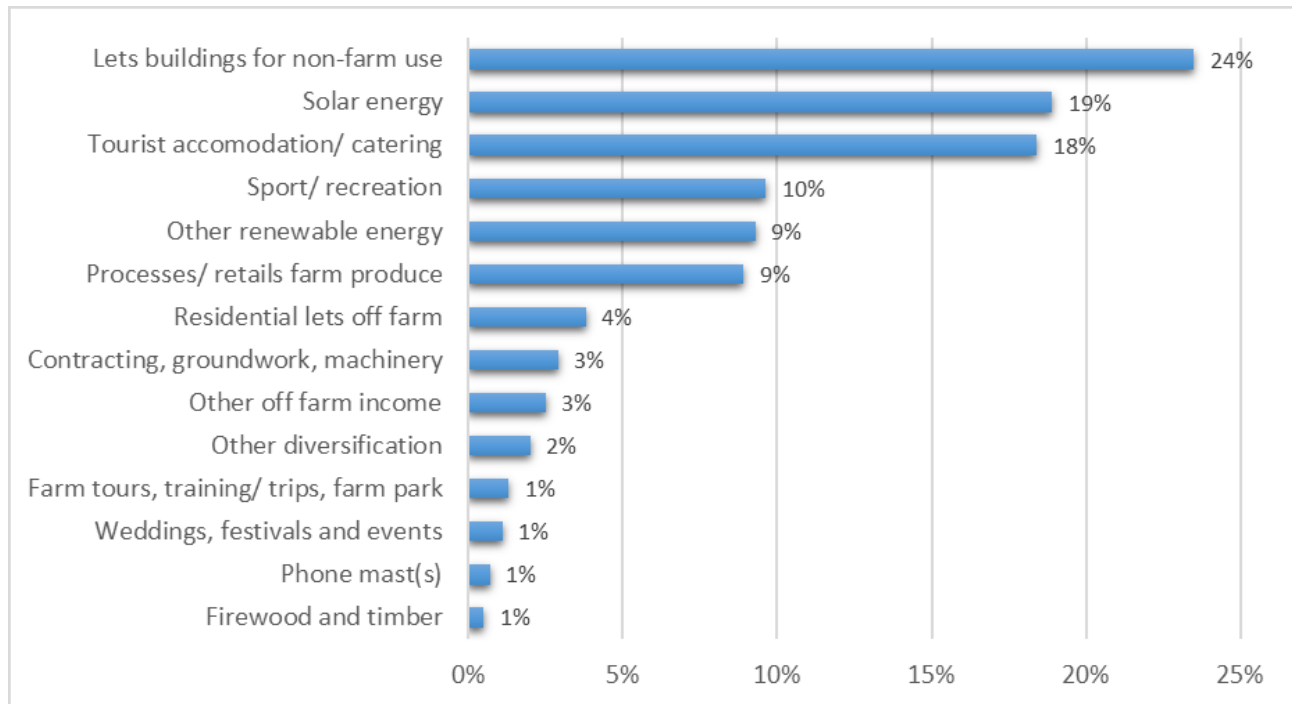
their overall household income from agriculture (and more from other sources) than larger farms (see Table 3). Farms managing less than 50ha, were more likely than statistically expected to have a lower reliance on agriculture (defined as generating 0%-25% of their income from agriculture) (see Table 3). In contrast, larger farms (those managing 201-250ha or over 251ha) were more likely than statistically expected to be highly dependent on agriculture as an income source. For instance, 42% of farms under 50ha farms derived less than 25% of their income from agriculture compared to 8% of farms over 250ha; while 19.6% of farms under 50ha generate 76-100% of their income from agriculture, compared to 62.0% of those over 250ha.

Household dependency on income from farming was also associated with farm type. Dairy farms were more likely than statistically expected to generate 76-100% of their income from farming and less likely to generate 0%-25%. Lowland Grazing Livestock were more likely to generate 0%-25% and less likely to generate 76%-100%. For instance, 76.8% of Dairy farms generated 76-100%

of their income from agriculture compared to 25.6% of Lowland Grazing Livestock farms. This is perhaps unsurprising given the capital-intensive nature of dairying and the concentration of dairying in fewer and fewer hands. Lowland Grazing Livestock farms may have been 'pushed' into diversification and finding alternative income streams due to lower returns from farming.

A wide variety of non-farming enterprises were operated by survey respondents (see Figure 8): for instance, 24% let buildings for non-farm use, 19% generate income from solar energy and 18% operate hospitality businesses in tourism or catering. Others noted income from off-farm work, pensions/savings, property letting and tax credits, with many respondents using the 'other' category. We did not ask respondents what proportion of their income was generated from every non-farming enterprise they operate. Some categories, for example solar energy, are likely to include enterprises of various sizes and scales, from field scale installations to a few panels on roofs.

Figure 8. Non-farming enterprises operated (n=1117)



2.3.2. Economic performance

Despite the survey being conducted just before and during the second national lockdown in 2020, half of respondents said that the economic performance of the farm business was ‘about the same’ as five years ago (see Figure 9). This perspective is reiterated by a comparison between farmer perceptions of their economic prospects over the next five years from 2020 to 2025 (see Figure 10). Figure 10 compares economic prospects in 2016 and 2020. The results are almost identical, with approximately half of respondent seeing prospects as ‘fair’, almost a third seeing prospects as ‘poor’, and 15% seeing them as ‘good’ in 2020 and 2016. This is somewhat surprising as between 2016 and October 2020, the UK has exited the European Union and undergone a national lockdown, although

it should be noted that farm incomes rose in 2020/21 for most farm types nationally. In the Autumn of 2020, farmers’ perceptions of the future appears to have been resilient in the face of political uncertainty and health crises. This may have been because the impacts of COVID-19 and Brexit may not have translated to farms at that point though, as supply chain crises and inflation gathered momentum from early 2021.

There was an association between farm size and perceptions of economic prospects over the next five years. Smaller farms (managing less than 50ha) were more likely than statistically expected to report that their economic prospects for the next five years were ‘poor’. More farms over 250ha said that their prospects were ‘good’ than statistically expected. As discussed

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Figure 9. Economic performance of the farm business compared to five years ago (n=1101)

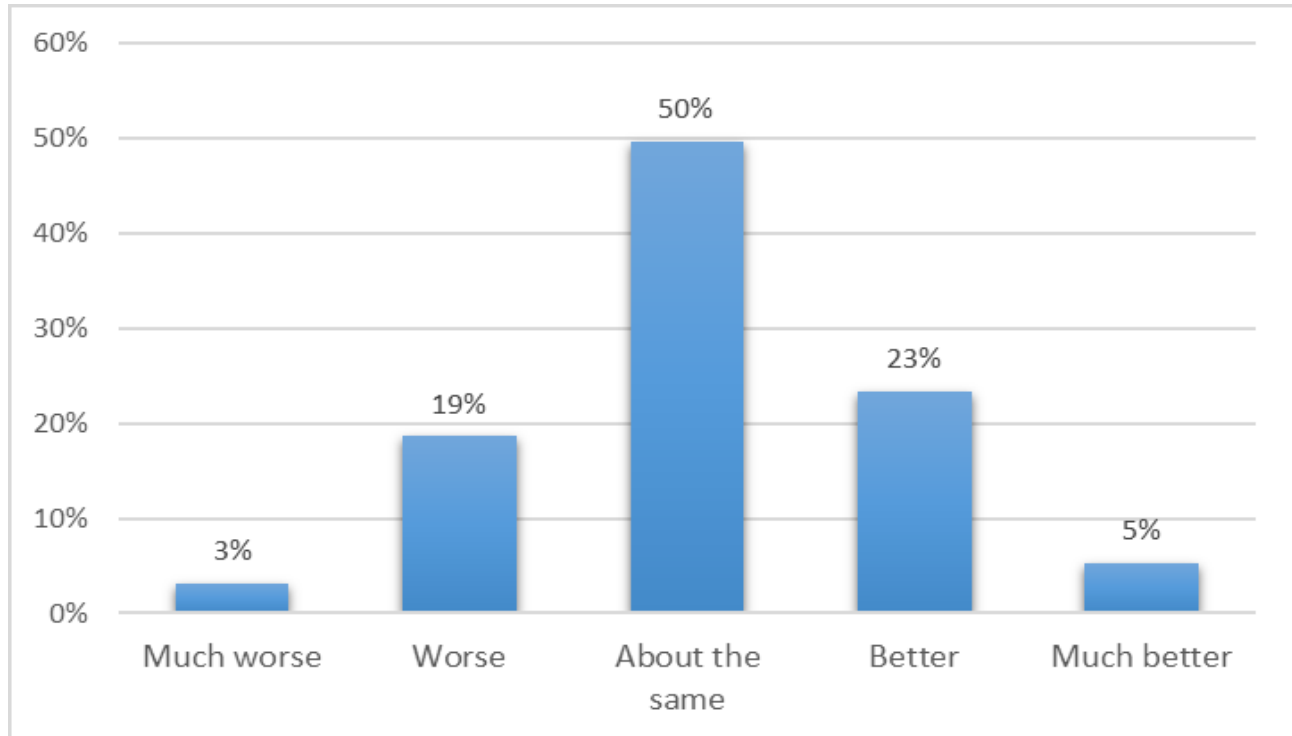
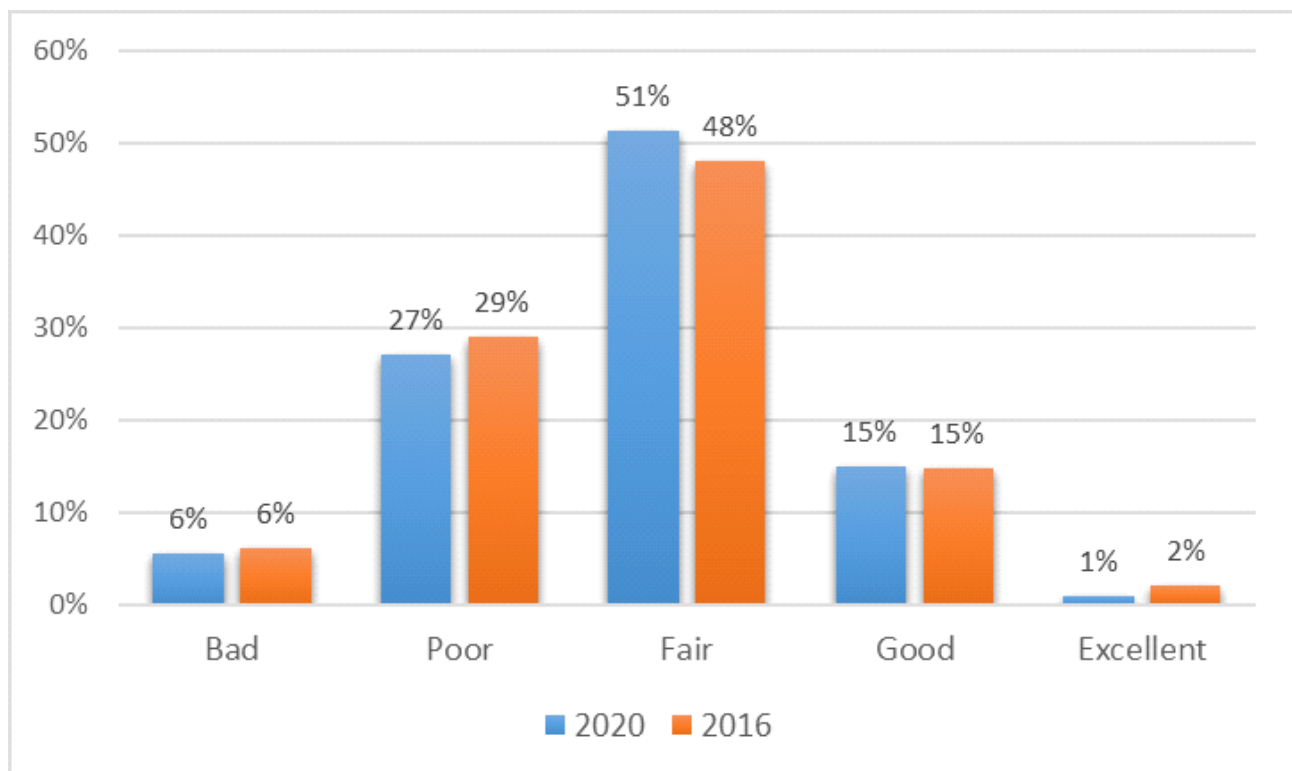


Figure 10. Perception of economic prospects over the next five years; comparison of South West Farm Survey 2020 (n=1055) and 2016 (n=1189)



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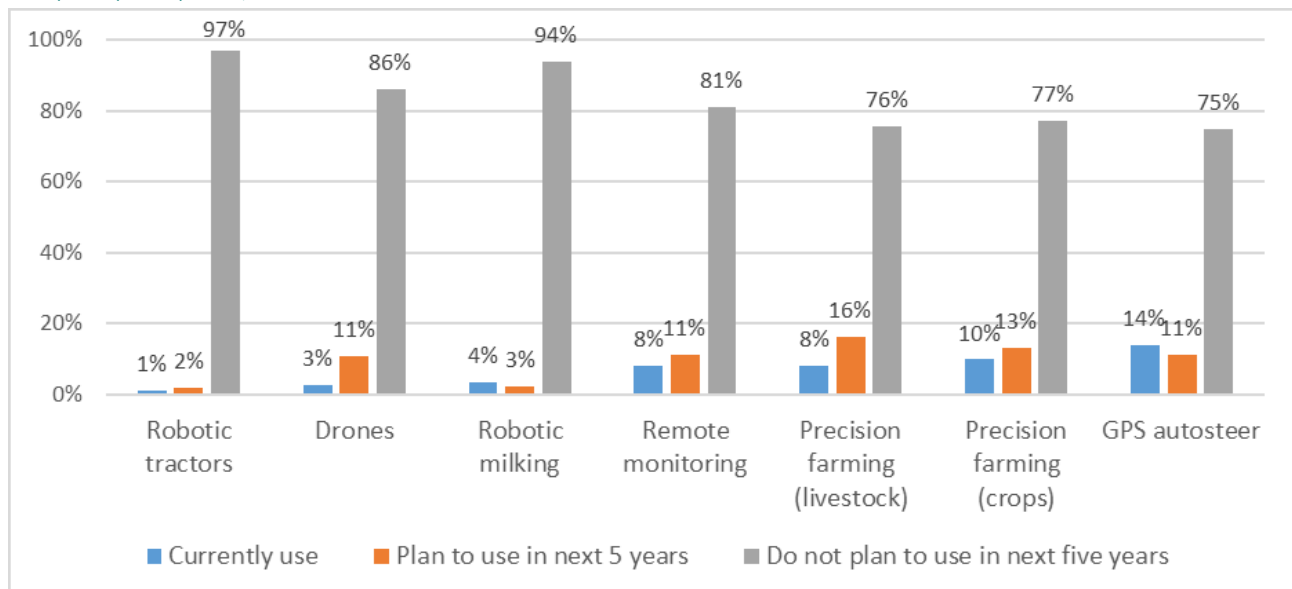
above, smaller farms tend to derive a smaller proportion of household income from agriculture; their future economic prospects are therefore likely to be spread across a number of agricultural and non-agricultural enterprises. By Autumn 2020, these smaller farms may have experienced some impacts of COVID-19, for instance the hiatus in tourism or food supply chain issues. Larger farms have the advantage of scale, and tend to derive a larger proportion of household income from agriculture.

2.3.3. Technology

Much has been made in recent years in the farming press and elsewhere of the possibilities of technological and digital

advances in agriculture. While some respondents recorded use of technologies like GPS autosteer (16%), precision farming for crops (10%) and livestock (8%), and remote monitoring (8%), most farms had no plans to use a range of technologies (see Figure 11). This seems to suggest that most farmers are yet to take up high-tech, data-driven equipment in large numbers. This is likely due to a combination of attitudes towards farming practices, labour availability, economic constraints and the topography of the South West. A small proportion said they were planning to use precision farming for livestock (16%) in the next five years, and 11% said they had plans to use, drones, remote monitoring or GPS autosteer.

Figure 11. Current use and future plans to use various technologies in agriculture (n= 943, 944, 890, 932, 927, 934, 964)



2.4. Labour

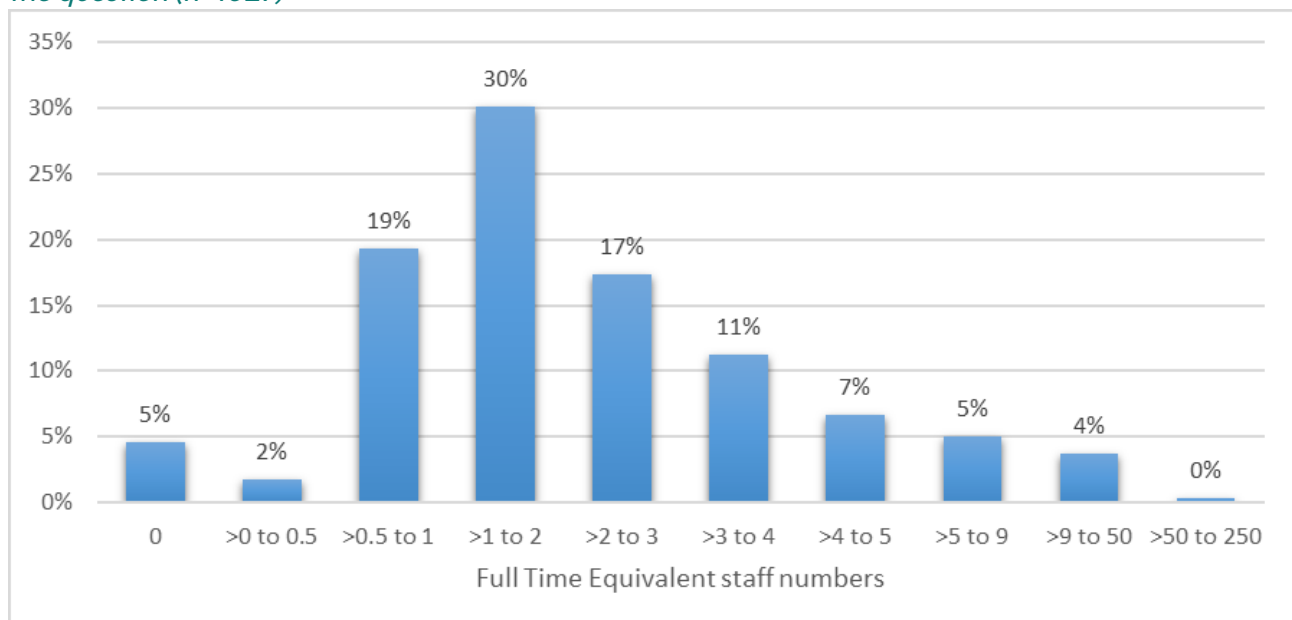
We asked respondents how many people were typically employed in the farm business, including both farming and non-farming activities, requesting that figures included the individual respondent and family members. Excluding casual, intern and volunteer staff, almost all (91%) farms in the sample could be classified as a micro-business, employing less than 9 full time equivalent members of staff (see Figure 12). Indeed, most employed far less than that; half of farms (51%) surveyed employed 2 or fewer members of staff, and could be classified as ‘small family farms’ (Winter and Lobley 2016: 3). A small proportion of the sample (4%) were small businesses employing 9 to 50 workers, and just 0.4% would be classified as medium sized (>50 to 250 members of staff). There were no large businesses in

the sample (in terms of number of people employed).

We note that although we asked respondents to include themselves in figures for number of staff, 8% of respondents left the question entirely blank. An additional 5% completed the question but reported that they did not employ any salaried, casual, volunteering or internship labour. Participants were free to skip questions, however it seems likely that a proportion of the 13% who did not answer the question were farms operated by just one person. The proportion of small family farms in the sample is therefore likely to be higher than our results indicate.

Given the proportion of micro-businesses, it is unsurprising that 84% reported using contractors for some work. Three quarters (77%) agreed that they ‘can always find contractors when

Figure 12. Number of Full Time Equivalent staff working on farm, excluding 90 missing responses to the question (n=1027)



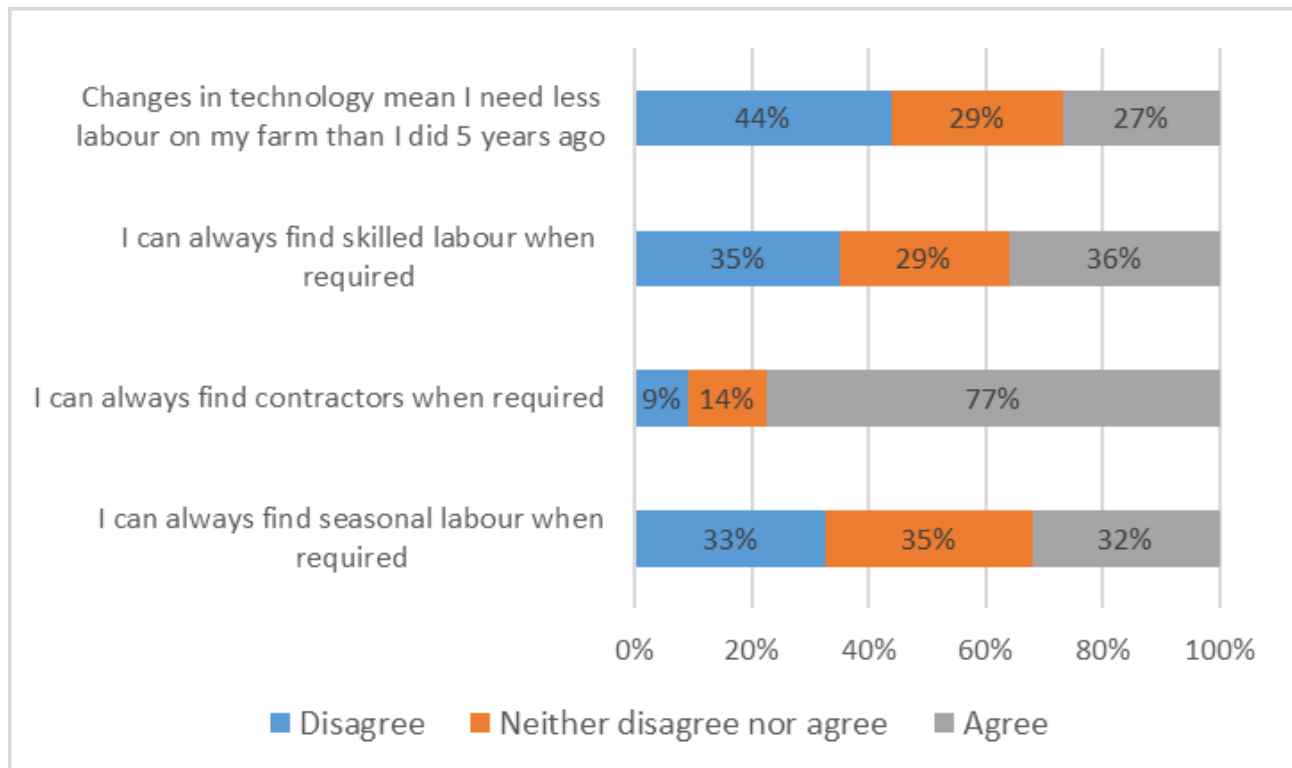
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required' (see Figure 13), however for skilled and seasonal labour, answers were more equivocal. With approximately one third disagreeing that they can always find such labour when required, and a further third neither agreeing nor disagreeing. This is indicative of wider challenges and pressures on agricultural labour with the sector facing a shortage of permanent and casual/seasonal labour (Nye and Lobley 2021).

Given that most farms were not using, or planning to use various forms of technology (see Figure 11), it is unsurprising that 44% of respondents

disagreed that changes in technology meant they need less labour on their farm than they did five years ago (see Figure 13). Nevertheless, just over a quarter (27%) agreed that technology was reducing labour needs. Almost half (48.6%) of those that agreed derived 76% to 100% of their income from agriculture; 31.8% were Mixed Farms, 23% were Dairies, and 20.3% were Lowland Grazing Livestock. For farms where agriculture produces the majority of household income there may be more incentive to invest in labour-saving technology.

Figure 13. Experience of labour availability and change (n= 817, 784, 972, 578)



2.5. Changes to the farm

The last ten years has seen many changes on the farms in our sample (see Table 4). Notably, significant proportions - around two-fifths (43.4%) - of farms reported increasing environmental management or output since 2010. It was also striking that almost a quarter (23.0%) reported reduced output over the last 10 years.

As we might expect, changes to farm size were associated with changes to output. There appears to be an association between changes to farm size and output. Most (81.4%) farms that had increased in size since 2010 also increased their output, while many (69.1%) of those who decreased in size also reduced output. Only 12.5% of farms decreased in size and increased output. Furthermore, using DEFRA farm size categories, analysis found that more

smaller farms (under 20ha and 20-50ha) than statistically expected reduced output than larger farms (100-200ha and over 200ha). For instance 41.1% of farms under 20ha and 38.0% of farms 20-50ha reduced output compared to 12% of farms over 200ha (see Table 5). We found that 21.2% of farms 20-50ha increased output, compared to 68.5% of farms over 200ha.

The proportion of household income from agriculture were also statistically associated with changes in output. Farms that increased output tended to be those relying primarily on income from agriculture (76-100% of income) - nearly three fifths (58.5%) of farms that increased output were in this group. Farms earning 0-25% of household income from agriculture comprised just 11.8% of those that increased output. On farms where household income relies

Table 4. Changes to the farm since 2010

Change to...	Increased	No change	Decreased	N/A
Amount of env. management	43.4%	47.2%	4.1%	5.3%
Output	42.2%	33.0%	23.0%	1.9%
Level of diversification	35.1%	52.8%	2.4%	9.7%
Size of farm	30.2%	55.0%	12.9%	2.0%
Amount of work contracted out	26.5%	53.9%	13.9%	5.7%
Amount of family labour	19.8%	59.0%	14.6%	6.7%
Level of off-farm work	17.3%	54.8%	7.6%	20.2%
Amount of employed labour	14.0%	51.8%	21.8%	12.3%

Table 5. Proportion of farm size groups changing output since 2010

Farm Size	Decrease	No change	Increase
Less than 20ha	41.1%	32.1%	26.8%
20ha to under 50ha	38.0%	40.8%	21.2%
50ha to under 100ha	26.5%	41.2%	32.4%
100ha to under 200ha	17.0%	34.0%	49.0%
More than 200ha	12.0%	19.5%	68.5%

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primarily on agriculture there may be specialisation and/or investment in technology to facilitate increased output. Farms where agriculture is a secondary income stream are likely to be smaller in size (see Section 2.3.1) and may therefore experience limitations on the resources - financial, staff and land- that they can mobilise towards increasing output.

Farm type was also associated with changes to output. Approximately one third of both LFA and Lowland Grazing livestock farms reported reducing output and around 40% reported no change in output. In comparison, more than two-thirds of Dairy farms reported increasing output. These results suggests that smaller grazing livestock farms, where agriculture is one of multiple household income streams are particularly likely to have reduced agricultural output since 2010.

Age was significantly associated with changes in farm output (see Table 6). More younger farmers reported increases in output since 2010 than older farmers. For instance 75% of those under

45 years old reported an increase, whereas 26.1% of those over 75 years old reported an increase. This may indicate varying ambitions for agricultural output among farmers of different ages, or it may reflect contrasting reporting styles or perceptions of change.

We found a statistically significant association between changes to farm output and changes to environmental management. Half (53.5%) of farms who had increased output also increased levels of environmental management, while almost two-thirds (61%) of farms who saw no change in output, also reported no change in environmental management. Most farms who reduced output did not decrease environmental management though, they increased (46%) or did not change (45.1%) it. These results suggest that increases in output and environmental management often go together, but that levels of environmental management tend not to reduce if output decreases. Indeed, a reduction in output may drive an increase in environmental management.

Table 6. Association between farmer age and farm output change since 2010

Age	Decrease	No change	Increase
<45	12.5%	12.5%	75.0%
45-54	20.1%	25.2%	54.7%
35-64	23.8%	31.0%	45.2%
65-74	24.5%	40.2%	35.3%
75+	29.2%	44.7%	26.1%

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Table 7 describes the changes respondents reported expecting on their farm over the next five years. Planned changes over the next five years are quite likely a reflection of the changing policy and economic environment; many farms plan to increase their level of environmental management and diversification (see Table 7). Just over 25% also plan to increase livestock numbers, although time will tell how financially sustainable that is. Few farmers in the South West plan to increase off-farm working suggesting that survival strategies very much centre around the farm and associated, diversified, businesses.

There was an association between farm size and changes to output in the next five years. Over half (55.3%) of large farms (over 200ha) said they would increase

output, compared to 22.2% of farms 20ha-50ha. More smaller farms (20ha-50ha) said they would decrease output than statistically expected. There was an association between farm type and changes to output too. There were more LFA Grazing Livestock and Lowland Grazing Livestock farms than statistically expected who said they would reduce output in the next five years; 54.6% of all LFA Grazing Livestock farms and 47.8% of Lowland Grazing Livestock said they would reduce output. However, more than expected –about a fifth– in each group also said they would increase output. Fewer than expected Dairy farms said they would increase output in the next five years; just 9.6% said they planned to do that.

A greater proportion of larger farms said they planned to increase environmental

Table 7. Expected changes to the farm over the next five years

Change to...	Increase	No change	Decrease	N/A
Amount of env. land management	56.3%	35.4%	2.3%	6.0%
Level of diversification	41.6%	46.8%	1.7%	9.9%
Output	39.5%	42.3%	14.5%	3.8%
Number of livestock	25.6%	46.1%	18.2%	10.2%
Size of farm	16.5%	71.7%	8.6%	3.2%
Level of off-farm work	14.3%	57.2%	5.9%	22.6%
Amount of work contracted out	13.2%	69.2%	9.9%	7.8%
Amount of employed labour	9.5%	64.8%	9.5%	16.2%
Amount of family labour	9.0%	69.2%	12.7%	9.1%

Table 8. Proportion of farm size groups changing environmental management in the next five

Farm size	Decrease	No change	Increase
Less than 20ha	4.10%	55.10%	40.80%
20ha to under 50ha	1.20%	56.10%	42.40%
50ha to under 100ha	4.40%	36.70%	59.00%
100ha to under 200ha	1.40%	33.90%	64.60%
More than 200ha	2.20%	25.20%	72.60%

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management in the next five years than smaller farms (see Table 8). Two-fifths (40.8%) of small farms less than 20ha said they planned to increase environmental management, compared to 72.6% of farms over 200ha. Higher proportions of smaller farms (less than 20ha, 20ha to 50ha) said that would not change levels of environmental management. There was no association between farm type or proportion of income from agriculture.

How do changes reported on farm since 2010 relate to future changes that respondents said they expected on their farms? Two-thirds (66%) of farms who had increased output since 2010 reported they would increase output in the next five years. This suggests that for those who had increased output in the past, there was likely to a continuation of that strategy in the future. Past performance was not a predictor of future activity for those who had decreased output since 2010 however. A third of farms (32%) who had decreased output said they would decrease further in the next five years, almost half (44.3%) said there would be no change in output, and a quarter (23.5%) said they would increase it. This could be a reflection of the diversity of business strategies available to those who have decreased output; increasing output being but one of a diversified range of options available.

The relationship between past increases in environmental management and reported future changes was statistically significant. Most (82.3%) farms who reported increasing environmental management since 2010 said they would increase land management in the next five years. Half (48.8%) of those who had decreased environmental management said they expected to increase it the next five years. Overall 60.5% of those who increased environmental management said they would increase it in the next 5 years and 37.0% said there would be no change. Very few respondents said they expected to reduce environment management suggesting a combination of support for such practices and an awareness of the changing subsidy landscape.

Taken together these changes in the recent past and plans for the future suggest a lot of 'churn' and dynamism within our sample of farms. Of course, we do not know to what extent this is representative of 'SW Farming PLC' but it points a polarisation between small and large farms with many of the former being associated with declining agricultural production while larger farms often appear to be on a trajectory of increasing agricultural output and environmental management. There is also evidence that farms of different types are on quite distinct trajectories with grazing livestock (i.e. beef and sheep) farms associated with reductions

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Over a third (38%) of farms said they had no problems on the farm arising from COVID-19. Of those who reported problems, 21% said they had lost non-farming income such as from tourism rental, 15% noted reductions in the price of farm products, and 12% reported a reduction in the price of milk (12%). There were those (11%) for whom the pandemic meant they had less time available due to caring responsibilities (such as childcare, or caring for relatives). In addition to these challenges a large range of other problems were reported, including public trespass, stress, lower staff productivity and availability, shielding and production being capped.

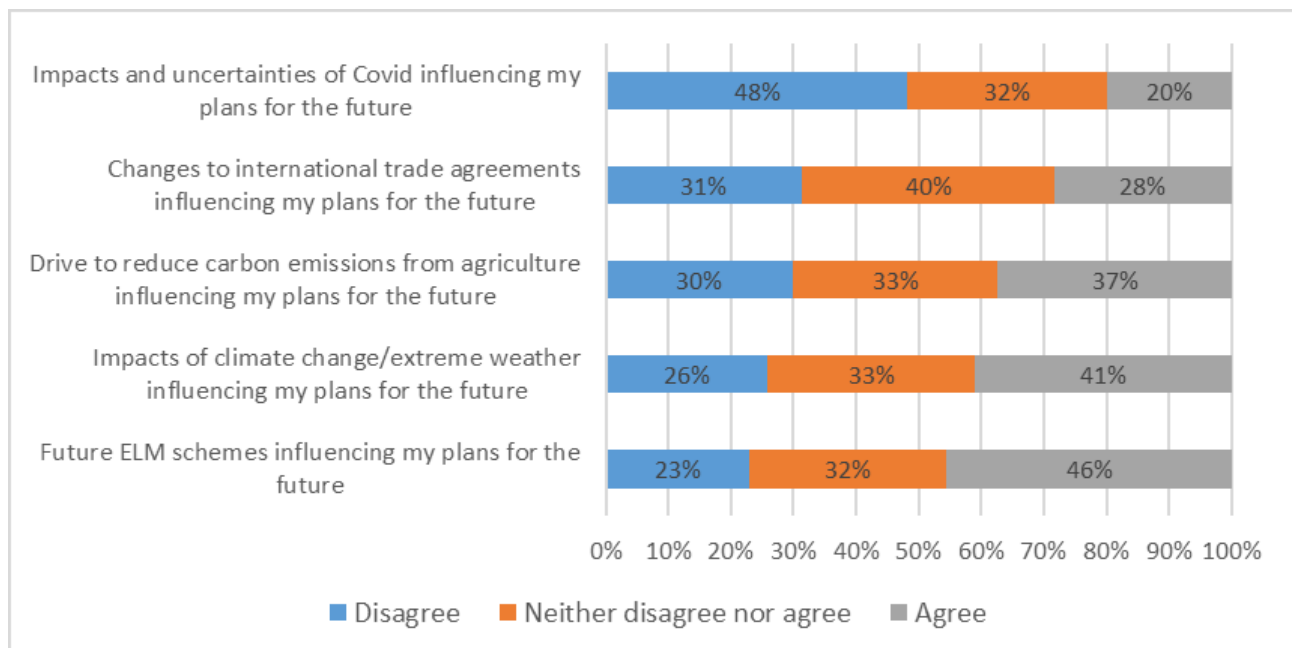
A quarter (25%) of respondents said they saw no benefits for their farm arising from the pandemic. Of those who reported benefits, 24% reported higher prices of farm products. Interestingly,

several of the other most noted benefits were about relationships; 23% reported improved relations with the local community, 9% reported more positive interactions with other farmers and 9% reported closer relationships with buyers. New markets (7%) and demand for direct sales (1%) were mentioned as benefits, but not as frequently as we might have expected.

2.7. Factors influencing future plans

We asked respondents how much they agreed or disagreed that various factors were influencing their plans for the future. Almost half of respondents (46%) agreed that uncertainties about ELM schemes were influencing plans for the future (see Figure 15). Just one fifth (20%) agreed that the impacts and

Figure 15. What is impacting plans for the future (n= 1023, 1027, 1028, 1025, 1037)



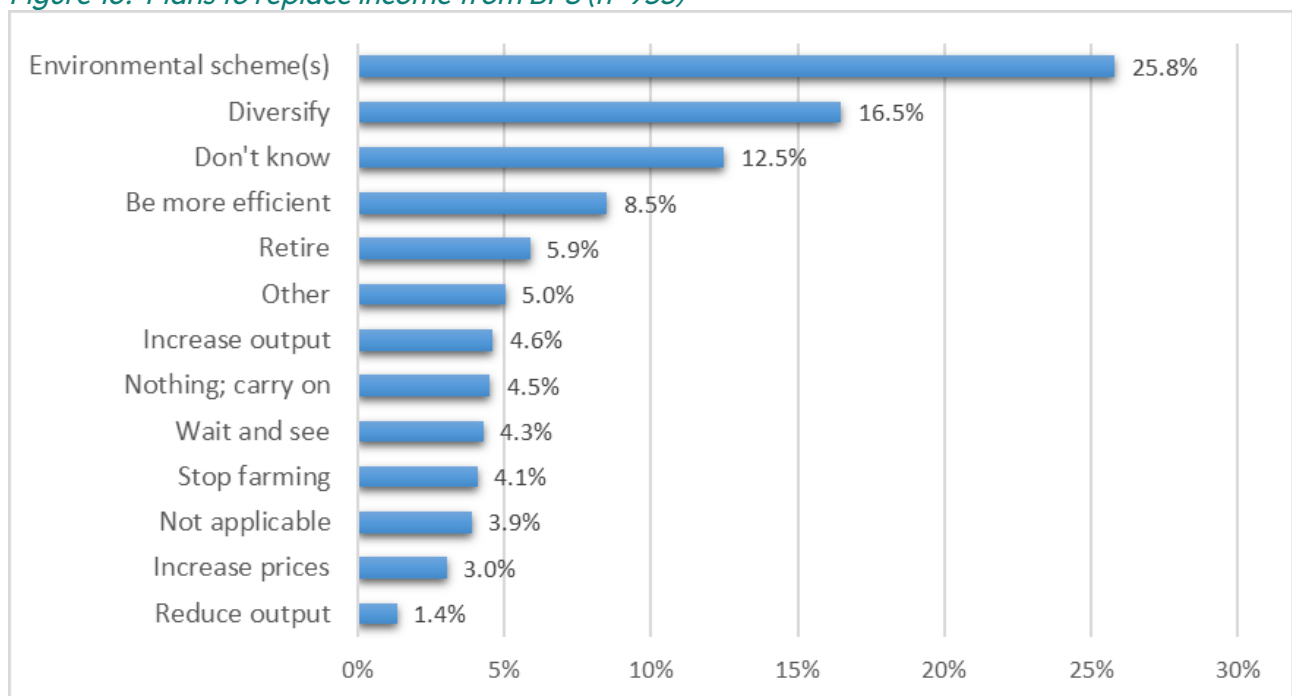
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uncertainties COVID-19 was influencing future plans. Over two fifths (41%) agreed that the impacts of climate change or extreme weather were influencing future plans. This indicates that in winter 2020, COVID-19 was seen relatively unimportant compared with other factors influencing future plans. We note that there was hope in October and November 2020 that there would be a relaxation of restrictions and relatively 'normal' Christmas, so broader social expectations may have been at play.

We asked respondents in a free text question what their plans were to replace income from BPS. The results indicate that the majority of farmers in our survey are planning to take active steps to adjust to life without BPS with few responding by leaving farming. Just over a quarter (25.8%) suggested that they would take up

new environmental schemes (see Figure 16). Of these, 8% explicitly mentioned Environmental Land Management (ELMs), while others referred to stewardship agreements, agri-environment schemes, or environmental work (e.g. tree planting) in a more general way. A significant minority (16.5%) said they would diversify the farm business or rely more on other sources of income. Many of these referred to tourism, but there were range of answers including letting buildings, relying on other investments. There were also those who did not know what to do or were undecided, who comprised 12.5% of respondents, and there was a further 4.5% who said they would wait and see what the new scheme looked like before making a decision. Almost 6% said they would retire, and another 4% said they would withdraw from farming. While

Figure 16. Plans to replace income from BPS (n=953)



some of those who said they would retire will have successors, that is just 10% of respondents who said they would cease farming as a plan to replace BPS income.

2.8. Retirement and succession

2.8.1. Retirement age

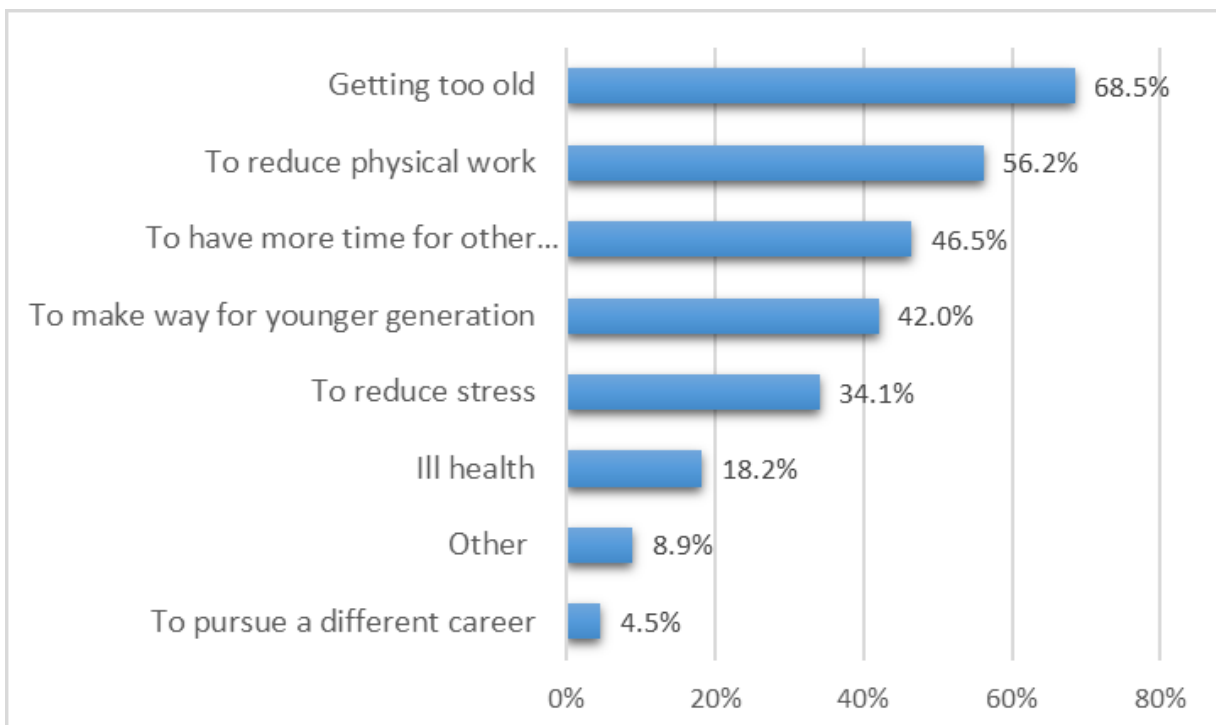
The mean age that farmers in the South West reported planned to retire or semi-retire was 69.79 years (n=588), however there was a range from 50 to 100 years! It is interesting that around half of the sample (52.6%) answered this question, with 47.2% leaving it blank. Participants were free to skip questions, but the high level of non-response may well be an indication that a large proportion of farmers do not plan to retire or do not wish to consider the possible implications.

2.8.2. Reasons for retiring

Two thirds of farmers in the sample (66%) said they did not expect to retire or leave farming in the next five years, while a third (34%) planned to retire. Wheeler, Lobley and Soffe (2020: 41) describe a range of practical and emotional reasons farmers tend to retire later than the wider population, including where to live and how to finance retirement, especially in the case of tenant farmers.

Respondents to the South West Farm Survey 2020 who said they would retire in the next five years gave a range of reasons (see Figure 17). Over two thirds (68.5%) said they were 'getting too old' and more than half (56.2%) said they wanted 'to reduce physical work'. Almost half (46.5%) wanted to have more time for other interests. Very few respondents said they were retiring to pursue a different career (>5%).

Figure 17. Reasons for retiring in next five years (n=314)



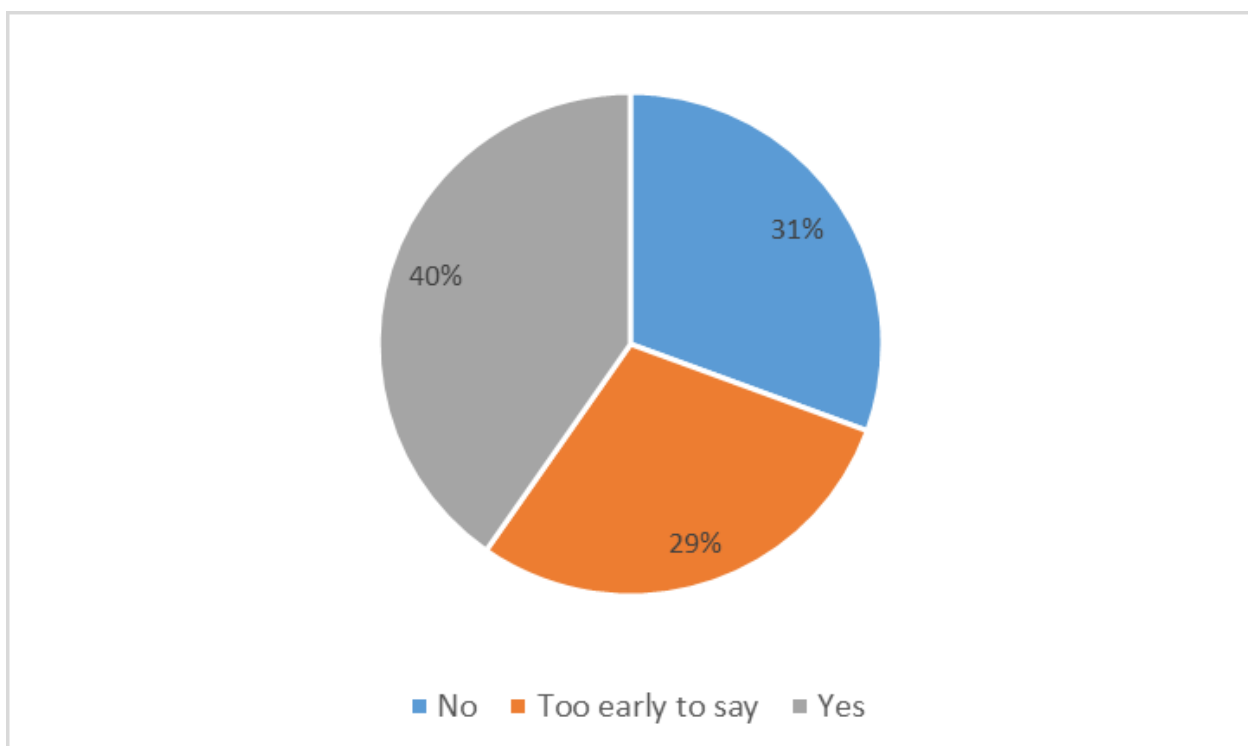
2.8.3. Successor identified

Two fifths (40%) of farmers had identified a successor, however almost a third (31%) had not. Those who had identified a successor managed 46.1% of the land covered by the survey (see Figure 18). So for more than half of the land managed by respondents, a successor had not yet been identified. In 2016, 39.9% of respondents had not identified a successor, while 33.5% had. So a greater proportion of farmers had identified a successor in 2020 than in 2016 indicating that more farmers were considering the transfer of responsibility and assets to the next generation.

Unsurprisingly, older farmers are more likely to have identified a successor; in the 2020 survey 59.9% of 75+ years old farmers said they had a successor, compared to only 4% of under 45 year

olds. Two-thirds (66%) of under 45 year olds and half (51.4%) of 45-55 year olds said it was too early to say who would succeed them. It was notable, however that approximately a third of 55-64 year olds (36.4%) and a third of 65-74 year olds (32.6%) had not identified a successor. We found a similar pattern in terms of the age profile of response of responses in the 2016 South West Farm Survey. One interesting difference is that in 2016, 46.1% of 55-64 year olds had not identified a successor, compared to 36.4% in 2020. Although this proportion has dropped 10% between 2016 and 2020, it is still higher than statistically expected. This is an important age group for succession planning and while the results indicate progress, this group should remain the focus of interventions.

Figure 18. Potential successor identified (n=1056)



2.9. Farmer attitudes

2.9.1. Skills and learning

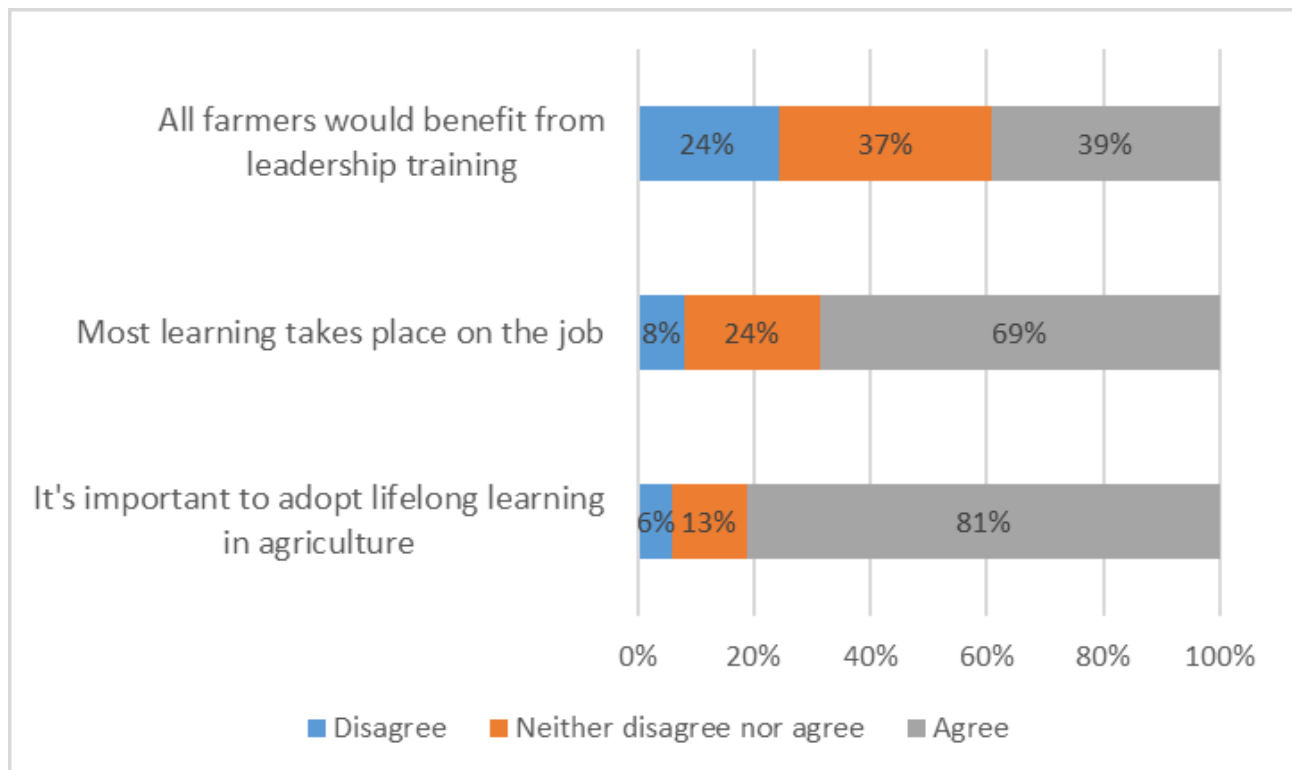
Farming is a knowledge-rich activity and many farmers are business leaders as well as practical farmers. There was ambivalence however, about whether all farmers would benefit from leadership training (see Figure 19), with over a third (37%) neither agreeing nor disagreeing with the statement. However, there was broad agreement (81%) that it is important to adopt lifelong learning in agriculture, with most (69%) agreeing that learning takes place on the job. Nevertheless, plans to invest more in training for staff and for respondents were relatively low, with just 17% saying that they planned to invest more in

training for themselves (see Figure 20). This could be significant given the need for farmers to improve their business skills as well as environmental management skills in the new operating environment being created by Brexit and the agricultural transition.

2.9.2. Farming outside EU

There was limited optimism about the future of farming outside of the EU, with only around a quarter of respondents agreeing that their farm, UK farming or South West farming would prosper, and broad ambivalence to the three statements about prosperity (see Figure 21).

Figure 19. Attitudes towards training and learning (n=1002, 1060, 1035)



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Figure 20. Plans to invest in training in the next five years (n=990, 859)

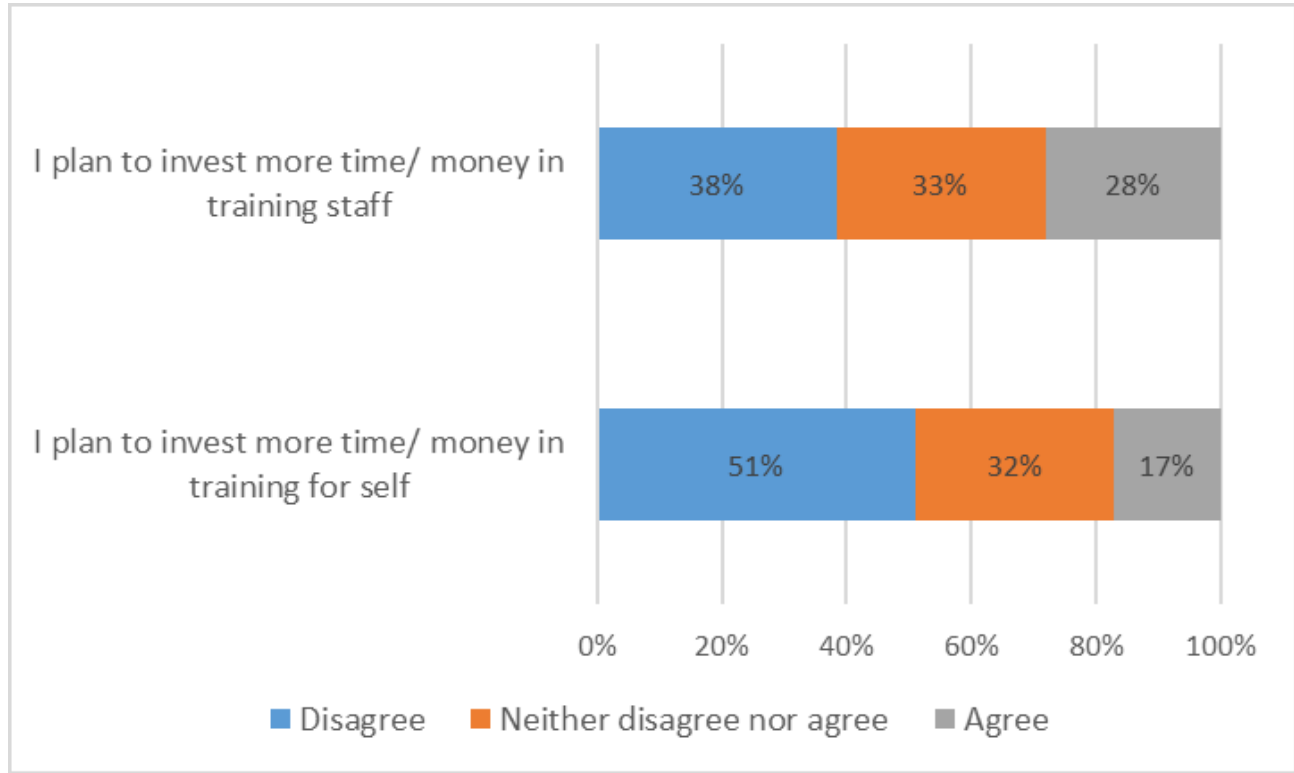
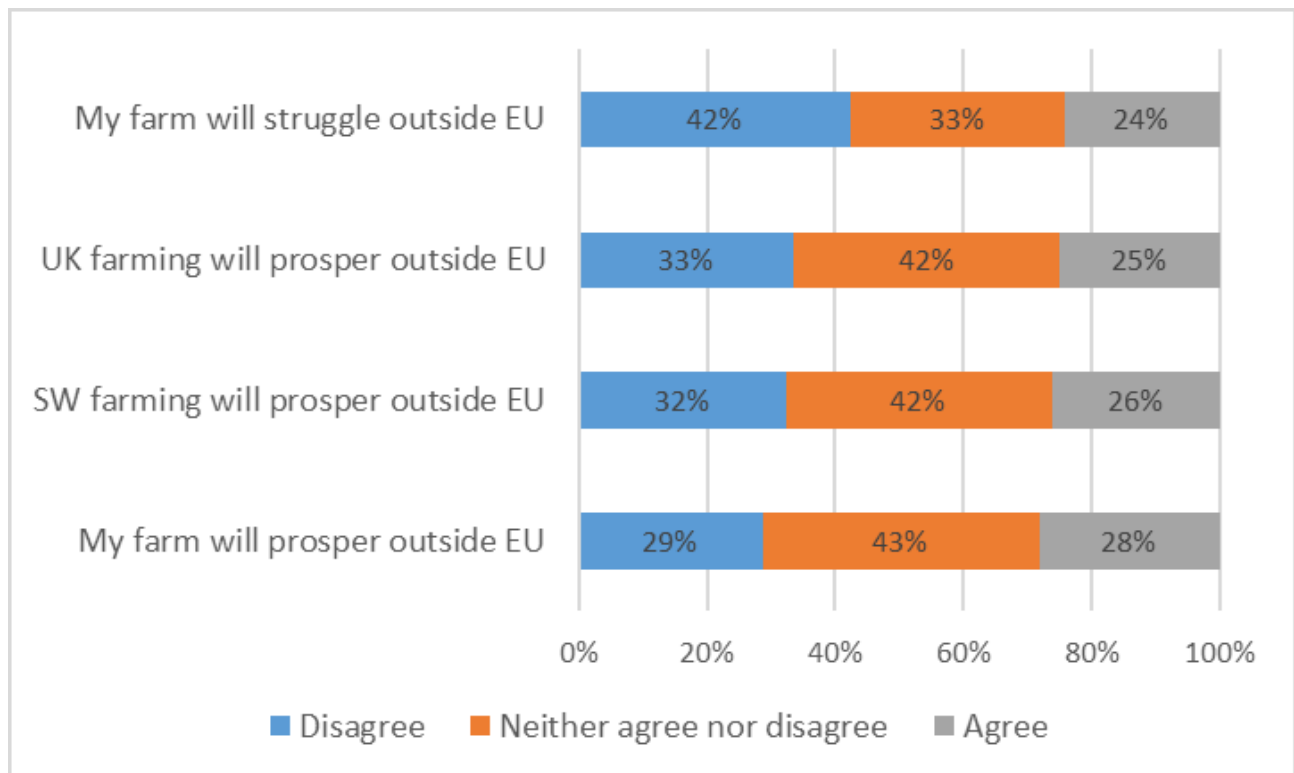


Figure 21. Attitudes towards farming outside the EU (n= 996, 997, 998, 1000)



2.9.3. Environment

Respondents were asked what they saw as the biggest challenge to improving biodiversity on their farm. This was a free text question, and answers were coded by a researcher. A very wide range of challenges were highlighted, including financial reasons, time, farm size, topography, farm tenure, weather and climate, regulations, inappropriate schemes, concerns about controlling pests, the location of farm, practices on neighbouring farms, soil health, TB and insufficient knowledge. Some farmers felt they were already doing all they could for wildlife. Over a third (34%) noted financial challenges of one form or another; this included specific issues around economic viability of improving biodiversity, the costs of investment and insufficient government incentives, as well as financial challenges in general. Aside from the financial issues, the wide range of challenges identified by respondents indicate that any single policy aiming to develop biodiversity on farmland land will need to try account for a wide range of farm specific issues and circumstances.

Attitudes to tree planting on farmland DEFRA has ambitious plans for woodland expansion, much of will inevitably take place on farmland. Respondents were relatively well disposed towards tree planting on farmland with more agreeing that tree planting on farmland was important to store carbon, than agreeing that tree planting was important for

natural flood management. That said, a significant minority (32%) did not see tree planting as important for flood management and a quarter (25%) did not view carbon storage via tree planting as important (see Figure 22).

2.9.4. Veganism

Half of farmers agreed that veganism was a threat to their business, but the other half were ambivalent or disagreed (see Figure 23). A majority (83%) of respondents disagreed that veganism was an opportunity for their business. Not surprisingly, there was an association between farm type and these attitudes. Fewer Cereal, General Cropping and Horticulture farms agreed that veganism was a threat to the business than statistically expected. More General Cropping and Horticulture farms than statistically expected agreed that veganism was an opportunity. More Dairy and LFA Grazing Livestock farms disagreed that veganism was an opportunity. These results indicate, unsurprisingly, that where primary business activity is related to livestock, less opportunity is perceived, and where agriculture focuses on arable and horticulture more opportunity and less threat is perceived. For Mixed farms – where perhaps we might also expect to see lower levels of threat and higher levels of opportunities perceived – broadly followed the pattern of the overall sample.

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We do not wish to add to the polarised debate around veganism with these results, there are multiple and complex reasons why individuals may perceive

threats and opportunities. The results provide population level insights that do not apply to every individual farm.

Figure 22. Attitudes towards trees on farmland (n=1025, 1046)

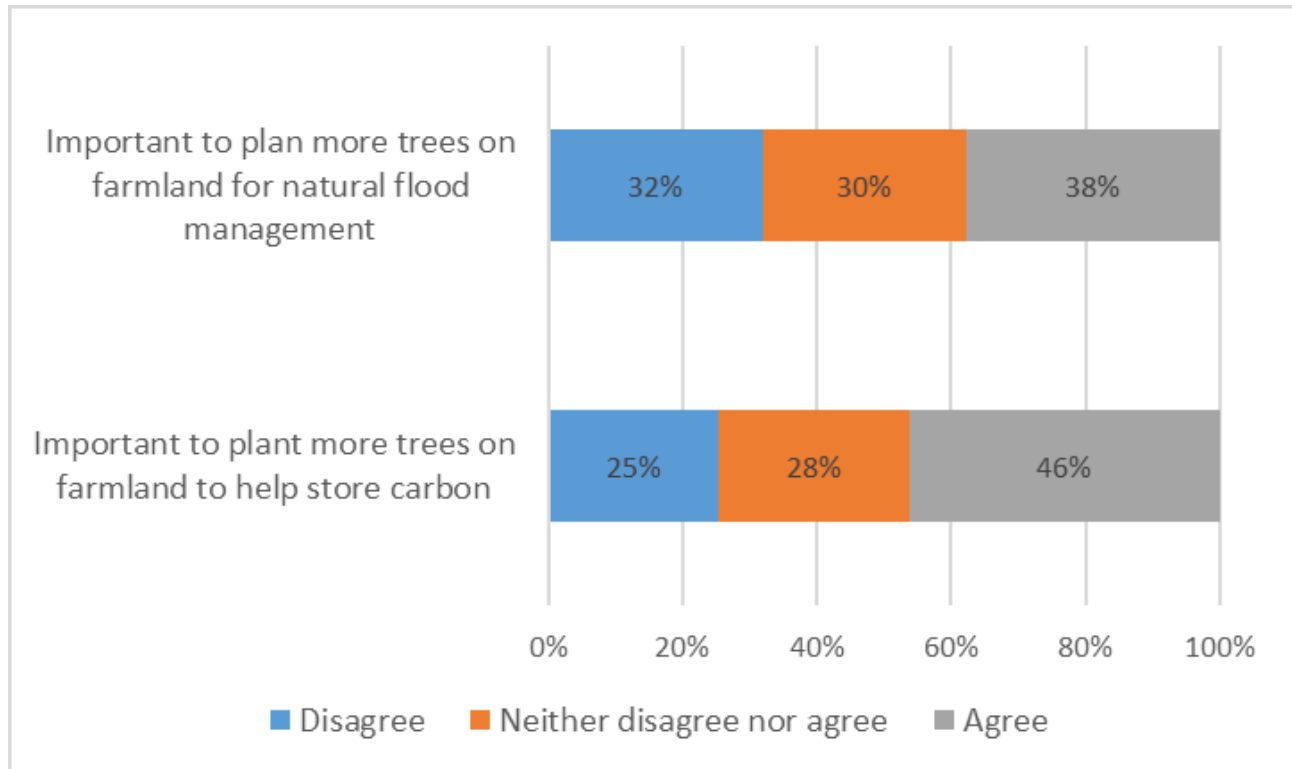
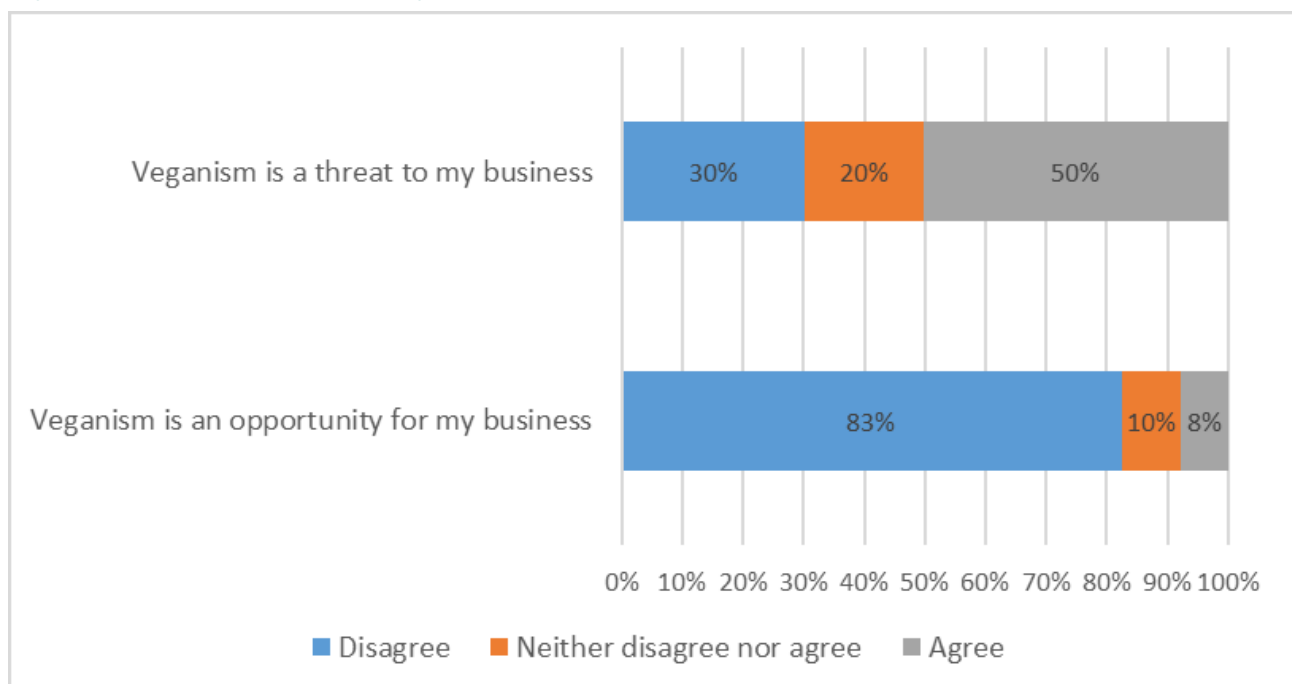


Figure 23. Attitudes towards veganism (n=1048, 1035)



3. CONCLUSION

Farmers faced a variety of new challenges in 2020 as a result of COVID-19 lockdowns and the transition period following the UK exit from the European Union. However, against the background of unprecedented time and global crises, the South West Farm Survey in 2020 indicates some important continuities around farm management practices and attitudes. Established farming families remain dominant in the region. High rates of planned succession persisted and for most, there was a determination to stay on the farm. Perceptions of future economic prospects in the farm business had a very similar profile in 2016 and 2020. These continuities do, however, mask what appears to be a widespread incidence of output changes in the last five years and a considerable incidence of planned change over the next five years, including those who plan to farm their way out of trouble by increasing farm size and livestock numbers.

The results of the survey should be seen in the context of autumn 2020, when there was hope that COVID-19 restrictions might be lifted in early 2021. Some of the consequences of Brexit-related supply chain and labour issues in 2021 were yet to come. Farmers reported how difficult it was to be farmer in 2020, however our results situated COVID-19 and Brexit impacts in the context of wider climate, environment and policy-related challenges. The climate emergency was influencing plans for the future. Uncertainty about DEFRA's Environmental Land Management programme was leading South West farmers to consider a wider variety of options for replacing income when the Basic Payment Scheme was withdrawn. Although the COVID-19 crisis was a key global issue in 2020 and rightly so, it is notable that farmers highlighted other critical challenges they were facing: putting the significance of COVID-19 significance for agriculture in the South West.

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