

# Overview and prioritisation of main themes from the Farming Connect baseline survey (2019).

Dr Cate L. Williams

The Knowledge Exchange Hub, IBERS, Aberystwyth University

### Contents

Introduction4
Survey results4
1. Do you benchmark (compare) your business performance against other similar businesses
Have you started benchmarking as a result of taking part in any of the following     Farming Connect activities in the last year?
3. Have you used your benchmarking figures to make changes in the way you manage your farm in the last year?
4. Does your business have a succession plan (someone to take over from you when you retire) in place?
5. Have you carried out any of the following on your farm in the last year (soil sampling or nutrient management planning, animal health monitoring, grass measuring and/or silage sampling?)
6. If you selected any of the above, have you used this information to make changes in the way you manage your farm in the last year?
7. Do you have a clear ambition for your business over the next 3-5 years? 8
8. Do you have a written business plan outlining how you will deliver your ambition 9
9(a). Are you currently using electronic recording software to manage the performance of your flock/herd?
9(b). If "yes", please provide a description of what type of system you operate: 10
10 (a). Are you intending to complete any training courses through Farming Connect in the next 12 months?11
10(b). If yes, what type of training do you require?
11. Are you aware of the large range of e-learning courses available through the Farming Connect programme?
12. Have you considered planting trees on your farm?
13. Other than bovine TB, what is the biggest animal health issue at the moment relevant to your holding?
14. On a scale of 1-6, how important is the management of the following to your business: (1 meaning not important, 6 being very important)
a) Biodiversity and habitats

c) Water quality	<u> 15</u>
d) Landscape	16
e) Water	17
f) Air quality	17
g) Waste	17
15. Have you diversified your business? If so, into what area?	18
16. If you have not diversified your business, do you intend to do so in the next 3 years?	
17. What other assistance would you like from Farming Connect to help improve	e the
efficiency and productivity of your business?	
18. Are you currently a member of any accreditation scheme(s)?	
19. If yes, please confirm which	<u> 22</u>
20. If no, have you been previously?	23
21. Do you think there are any benefits of being a part of an assurance or accre-	ditation
scheme?	
22. Geographical spread of survey participants	25
Concluding Remarks	25
References	26

#### Introduction

The Farming Connect baseline survey has been running for the past three years. This report concerns the results of the most recent 2019 questionnaire, which surveyed 705 farming businesses from across Wales.

Farming Connect works to deliver information, advice and support to farmers in Wales, drawing upon the latest scientific research and putting key findings into practice on demonstration and focus sites whilst also managing innovative projects via the European Innovation Partnership (EIP Wales). Farming Connect aims to transform business prospects for farmers across Wales by offering subsidised access to a variety of consultants and specialists, technical and practical training courses and by connecting local farmers with one another to share best practice.

In the 2019 baseline survey, members indicated the benefit of discussion groups and farm visits, a sentiment which has been echoed in past surveys. Farming is a traditional occupation that is often passed down from generation to generation and the associated farming practices are no exception. Using peer groups of local people and on-farm demonstrations of new concepts offers the opportunity to share ideas, discuss new practices and how to implement these on-farm. Research has demonstrated that information is much more likely to be taken up in such a setting, as there is a sense of credibility and trust between farmers. Farming Connect continues to tap into this method of education and brings together people in rural Wales to facilitate knowledge transfer.

The baseline survey provides the opportunity to record and analyse the opinions and thoughts of Farming Connect members which shapes future provision. The key findings of the report indicate that farmers are engaging in activities provided by Farming Connect and are able to interpret the resulting information to make improvements to their farm business. There is also a discrepancy between the ambitions of farmers and the lack of a written business plan to help them achieve these goals, which may suggest a gap in provision. Concerns are also voiced over Brexit and a strong interest in diversification and agro-environmental schemes emerges.

*NB*. For questions 2, 5 and 16, the total number of responses gathered is greater than 705. This is a consequence of respondents offering more than one answer to a given question as several different options were provided for some questions.

#### Survey Results

1. Do you benchmark your business performance against other similar businesses for any of the following?

Type of benchmarking	Number of	%
	responses	responses
Physical only	42	6
Financial only	81	11
Physical and financial	111	16
Total responders	233	33
Total non-responses	472	67

Overall, the majority of those surveyed (67%) did not respond to this question, possibly indicating that they do not undertook any benchmarking activity at all. Of the remainder of responses, most (16%) answered that they undertake both physical and financial benchmarking, followed by 11% undertaking financial benchmarking in isolation. Results indicate that the majority of participants do not undertake benchmarking, perhaps increasing the awareness of the support available from Farming Connect for benchmarking (*i.e.* 'Measure to Manage' workshops and advisory services) may be beneficial.

It is also well-documented that farmers will listen to farmers, hearing from a fellow farmer that is benchmarking to improve the business would likely be highly effective due to the sense of trust and credibility. This is a technique which has been used by Farming Connect at Farming for the Future events and at 'Accessing Technical Advice' events, but more case studies on benchmarking best practice may help.

2. Have you started benchmarking as a result of taking part in any of the following Farming Connect activities in the last year (multiple answers can be given per response)?

FC activity	Number of	%
	Responses	responses
Discussion groups	146	21
Agrisgôp	39	5
Agri Academy	11	1.6
Tesco (Future Farmer	3	0
Foundation)		
Aberystwyth University	2	0
Other	6	0
Total responders	171	24
Total non-responses or N/A	539	76

The majority of those surveyed (76%) did not answer this question or answered N/A, accounting for those that do not undertake any benchmarking activity as indicated in the previous question as well as those that do not benchmark as a result of Farming Connect activities specifically. Of those that do benchmark their business as a result of Farming Connect activities, the vast majority (21%) did so as a result of participating in discussion groups. Other influential activities include Agrisgôp (5%) and Agri Academy (2%).

This result suggests that farmers have found discussion groups highly beneficial and are adopting new practices as a result. Peer education is a highly effective method of training/teaching as participants are often more receptive to learning from others that have tried and tested a new concept, thus providing a sense of credibility. In the practice of farming, this concept is essential, where knowledge is often passed on from generation to generation or within tight-knit communities (Foster and Rosenzweig, 1995).

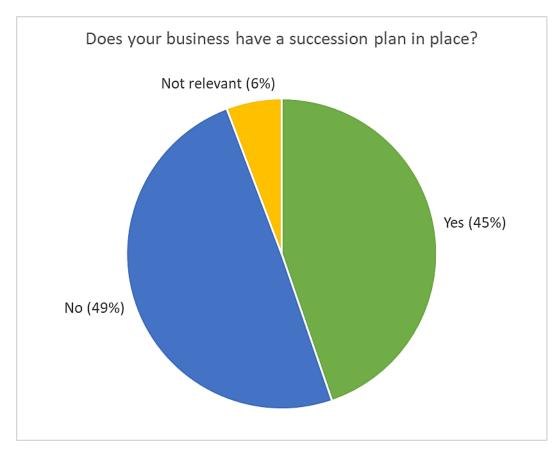
3. Have you used your benchmarking figures to make changes in the way you manage your farm in the last year?

Response	Number of	%
	responses	responses
Yes	175	25
No	85	12
Total responses	260	37
Total non-responses	445	63

As previously, the majority did not answer this question. When non-responses were added to those that answered "No" this equated to 75% which corresponds to the previous proportion of farmers that did not answer the question and therefore likely do not benchmark at all. Overall, 25% of those that answered this question agreed that they used their benchmarking figures to make changes to farm management in the past year. This is a step in the right direction, as farmers are clearly demonstrating the ability to synthesise the data they receive and apply it to their business to make improvements.

4. Does your business have a succession plan in place (someone to take over from you when you retire)?

Response	Number of	%
	responses	responses
Yes	311	44
No	344	49
Not relevant	40	6
Total responses	695	98
Total non-responses	10	2



The percentage of responses indicating 'yes' and 'no' were fairly evenly split for this question – with slightly more indicating that they did not have a plan in place (49% answered 'no' where 45% answered 'yes'). Ideally, all respondents to whom this is applicable would answer yes, that they do have a plan in place – whilst a 100% success rate is rarely ever possible in any sphere, there may be some improvement to be made in this area. Farming Connect already offers support and professional services relating to succession, so perhaps it's more a case of highlighting these services to Farming Connect members or considering alternative delivery methods (*i.e.* video content). This question received high levels of engagement, with only 10 non-responses (98.6% response rate).

## 5. Have you carried out any of the following on your farm during the last year (select all that apply)?

Activity	Number of	%
	responses	responses
Animal health monitoring	411	34
Grass measuring	80	7
Silage Sampling	258	22
Soil sampling or nutrient management planning	444	37
One activity	202	29
Two activities	211	30

Three activities	147	21
Four activities	32	4
Total responses	592	84
Total activities undertaken	1193	N/A
Total non-responses	113	16

Of the four individual activities listed, soil sampling was the most popular, with around 37% of responses having taken this action, this was followed by animal health monitoring (34%) and silage sampling (22%) with relatively fewer undertaking grass measuring. The majority of respondents also indicated that they undertook more than one activity. The most popular (17%) combination of which was soil sampling, silage sampling and animal health monitoring (data not shown). Of the cohort, 28% engaged in one activity, 30% engaged in two activities, 20% with three activities and 5% with all four activities. The second most popular combination of activities was soil sampling and animal health monitoring which accounts for 14% of responses. Overall, only 16% of those surveyed did not undertake any of the above activities, which is a relatively small proportion. Furthermore, it is encouraging to see a trend in participating in more than one activity – suggesting that farmers are finding the activities beneficial and worthwhile.

6. If you selected any of the above, have you used this information to make changes in the way you manage your farm in the last year.

Response	Number of	%
	responses	responses
Yes	546	77
No	51	7
Total non-responses	108	15
Total responses	597	85

Overall, the majority (77%) of respondents indicated that they had used the information from Farming Connect activities to make changes in management. This result suggests that farmers are not only participating in activities offered by Farming Connect but are interpreting and utilising the data they receive to make improvements to their business.

#### 7. Do you have a clear ambition for your business over the next 3-5 years?

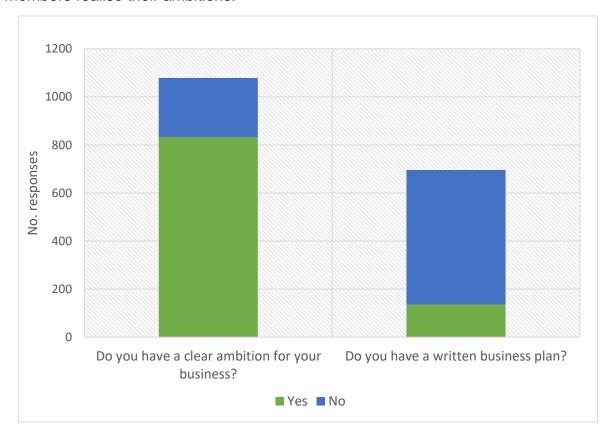
Response	Number of	%
	responses	responses
Yes	506	72
No	193	27
Total non-responses	6	0
Total responses	699	99

A high level of engagement was achieved in this question, with only six non-responses (99% response rate). The majority (72%) of responses indicated that those surveyed did have a clear ambition or aim in mind for their business over the next 3-5 years.

## 8. Do you have a written business plan outlining how you will deliver your ambition?

Response	Number of	%
	responses	responses
Yes	136	19
No	560	79
Total non-responses	9	1
Total responses	696	99

Again, this question received a high (99%) response rate; however, the majority (79%) indicated that they did not have a written plan. This suggests that of those who answered yes to having a clear aim previously, only 12% also have a written business plan outlining how they will achieve this. Farming Connect currently offers up to 80% funding towards business planning advice for farm businesses, so perhaps additional advertisement would be beneficial to engage participants in this service and help members realise their ambitions.



## 9. (a) Are you currently using electronic recording software to manage the performance of your flock/herd?

Response	Number of	%
	responses	responses
Yes	206	29
No	491	70
Total non-responses	7	1
Total responses	698	99

Question 9(a) was well answered with a 99% response rate and just 7 nonresponses. The results indicate that for the most part, those surveyed do not use EID (70%). A study by Lima et al., (2018) surveyed UK farmers on the use of EID and found that more than half of those surveyed did not use EID, nor did they intend to in the future. This number roughly correlates to results shown here; indicating that perhaps, communication of the evidence of positive effects of EID (e.g. reduced flock lameness levels) or on-farm demonstrations may be helpful. As with all new technologies, EID has its own set of teething problems, for example, a common issue is tags becoming dislodged. Anecdotally, it is thought that this is because of the extra weight associated with the devices in the tag, compounded by the fact that EID tags are much more expensive than typical ear tags to replace.

#### 9. (b) If "yes", please provide a description of the type of system you operate.

EID Software	Number of responses	% responses
Shearwell	15	2
Agri data	10	1
FarmIT	7	1
Scales/weighing	5	0
Summit	5	0
Farm Plan	4	0
Milk Recording/NMR	4	0
TrueTest	4	0
Allflex	3	0
BCMS	3	0
Uniform Agri	3	0
Dairy Plan	2	0
Farm Wizard	2	0
Gallagher	2	0
Unspecified	86	12
tag/reader/wand		
Other	20	3
Total Responses	175	25
Total non-responses	530	75

Overall, the most popular brand of EID used by farmers surveyed was Shearwell (2%). However, the majority (12%) that answered did not specify the brand of EID, but the type of EID. By far the most popular option is the stick or wand reader, likely in conjunction with an ear tag. A handheld reader such as a stick or wand is thought to be the easiest type of reader to use, as they are robust, affordable and portable, allowing the farmer to collect a list of individual EIDs from animals in a race, making it well-suited to sheep (Morgan-Davies et al., 2015).

10.(a) Are you intending to complete any training courses through Farming Connect in the next 12 months?

Response	Number of	%
	responses	responses
Yes	386	55
No	224	32
Depending on what courses	74	10
are available		
Total non-responses	21	30
Total responses	684	97

The majority (56%) of the surveyed cohort indicated that they were intending to complete training courses through Farming Connect in the next year and 11% stated that it would depend on what courses are available. In total, a potential 67% of the respondents intended to engage in training which is a positive outcome.

N.B. please note, that the number of 'yes', 'no' and 'depending' responses totals more than 684 as some responders answered both 'yes' and 'depending' together.

10. b) If yes, what type of training do you require?

Response	Number of	%
	responses	responses
Agricultural technical skills	249	35
Business skills	139	20
Environmental & public good skills	37	5
Total non-responses	280	40
Total responses	425	60



Of those that intended to undertake training through Farming Connect, most (35%) required courses on agricultural technical skills followed by 20% interested in business skills.

## 11. Are you aware of the large range of e-learning courses available through the Farming Connect programme?

Response	Number of	%
	responses	responses
Yes	392	56
No	294	42
Total non-responses	19	3
Total responses	686	97

The majority (56%) of responses to this question responded positively, that they were aware of the e-learning courses Farming Connect offers, although 42% indicated that they were unaware. This small majority suggests that advertising Farming Connect courses and disseminating information might be beneficial to engage farmers. In 2018, Ofcom reported a significant rural-urban divide in Wales in terms of 4G coverage meaning that many farmers must rely on hard copy post as opposed to e-mail for communication (Ofcom, 2018). The Ofcom study indicates that only 36% of rural premises receive 4G coverage and that 10% of Wales is not covered at all (Ofcom, 2018). This highlights the importance of communicating regularly via post as well as e-mail, to ensure that all members receive information and are able to participate in training.

#### 12. Have you considered planting trees on your farm?

Response	Number of	%
	responses	responses
Yes	362	51
No	341	48
Total non-responses	3	0
Total responses	702	99

The responses to question 12 were fairly evenly split, with 52% responding that they had considered planting trees and 48% indicating that they had not. This is perhaps surprising as over the past few years agroforestry has seen a surge in popularity, with organisations such as the Woodland Trust offering funding and grants for those planting tree on a large scale (30+) and funding through Glastir Woodland Creation (Gov.uk, 2019; The Woodland Trust, 2019; Glastir, 2019). Although, it is likely that a portion of those answering 'no' might already have woodland on their farm.

It is currently accepted that increasing the presence of trees in Welsh agricultural landscapes is a key climate change mitigation strategy. Understanding why farmers appear to be reticent with regards to this approach is therefore an important factor, worthy of investigation.

## 13. Other than bovine TB, what is the biggest animal health issue at the moment relevant to your holding?

Health issue	Number of	%
	responses	responses
Lameness (unspecified)	82	12
Sheep (specified)	28	4
Sheep scab	62	9
Fluke	38	5
Footrot	38	5
BVD/diarrhoea	37	5
Pneumonia	25	3
Johne's disease	20	3
Parasites/worms	16	2
Mastitis	14	2
Abortion	11	1
Fertility	9	1
Maggots & lice	8	1
Antibiotic/anthelmintic	6	1
resistance		
Blowfly	5	N/A
CODD	5	N/A
Ticks	5	N/A
Nutrition	4	N/A
African Swine fever	3	N/A

Flies/flystrike	3	N/A
IBR	3	N/A
Swine flu	3	N/A
Other	26	4
No problems	24	3
Total non-responses	287	40
Total responses	418	59

The most common health concern was lameness in general (12%; unspecified if in sheep or cattle) with 4% specifying lameness issues in sheep. Responses (5%) also indicated that footrot in sheep is of concern, in addition to CODD (Contagious Ovine Digital Dermatitis) both of which may fall under the umbrella of lameness in sheep. The topic of lameness is a broad one, as the causes can be extremely varied.

Sheep scab is also of concern to those surveyed, with 9% indicating that this was a central issue on their farm. Because the disease is transmitted via a mobile vector which can survive up to 17 days in the environment, it is highly contagious.

Some concern was also raised about fluke (likely the liver fluke, *Fasciola hepatica*) and BVD (Bovine viral diarrhoea) (5% and 5% respectively). Liver fluke is an economically important disease, causing significant production losses in both sheep and cattle, with the emergence of resistance to flukicides and climate change resulting in wetter, milder conditions, the control of fluke is becoming ever more urgent (Gordon *et al.*, 2012).

On a scale of 1-6, how important is the management of the following to your business: (one meaning not important, six being very important):

#### a) Biodiversity and habitats

Value	Number of	%
	responses	responses
1	9	1
2	21	3
3	59	8
4	150	21
5	280	40
6	177	25
Total responses	696	99
Total non-responses	9	1

Of total responses, 65% fall into the highest two options. This skew towards the higher end (25% selecting 6) suggests that participants are aware and concerned with biodiversity and wildlife on their farms.

#### b) Soil

Value	Number of responses	% responses
1	1	0
2	1	0
3	11	1
4	36	5
5	140	20
6	503	71
Total responses	692	98
Total non-responses	13	2

When asked how important the management of soil is to their farm business, participants responded strongly, with 71% selecting the highest number on the scale. A different, more direct linear relationship can be seen here, which strongly suggests that the management of soil is a primary concern to participants (91% of those surveyed rated the management of soil at 5 or 6 in terms of importance). This result is encouraging as it suggests a good understanding of the need to monitor and maintain soil in order to maximise productivity and profits.

#### c) Water quality

Value	Number of	%
	responses	responses
1	3	0
2	2	0
3	23	3
4	73	10
5	291	41
6	298	42
Total responses	690	98
Total non-responses	15	2

The response to water quality is similar to that of soil, although a little less pronounced, 84% of respondents ranked water quality at five or higher on the scale of importance.

#### d) Landscape

Value	Number of	%
	responses	responses
1	4	0
2	13	2
3	51	7
4	176	25
5	335	48

6	108	15
Total responses	687	97
Total non-responses	18	3

The importance of managing landscapes to participants in the survey is similar to that of the previous questions, showing a normal distribution skewed towards the upper end. This suggests that participants are moderately concerned with maintaining the landscape, although it is not as important as soil or water quality. Such a response is encouraging, as the iconic landscape of Wales is recognised as a public good, with the vast majority being managed and maintained by farmers (Welsh Government, 2017). With the approach of Brexit, there will be significant changes to payment schemes, involving the cessation of the Common Agricultural Policy (CAP) which includes the Basic Payment Scheme (BPS). It is proposed that these schemes will be replaced with a 'Sustainable Farming Payment', entered via a 'Farm sustainability review' (Welsh Government, 2019). This scheme will focus on rewarding continuation and adoption of sustainable farming practices. The expected response for farmers, in light of this information, would be increased concern about the landscape, air quality, waste management, their carbon footprint and biodiversity and habitats on their land.

#### e) Water

Value	Number of	%
	responses	responses
1	4	0
2	3	0
3	23	3
4	76	11
5	302	43
6	281	40
Total responses	689	98
Total non-responses	16	2

When asked about the importance of managing water overall, participants responded in a similar way to question (c). The majority (43%) selected five on the scale of importance and 83% of total responses fell into five and six on the scale. Slightly fewer non-responses were recorded for this question, likely due to disengagement as participants moved through the questionnaire.

#### f) Air quality

Value	Number of	%
	responses	responses
1	5	0
2	11	1
3	41	6
4	109	15
5	333	48

6	188	27
Total responses	687	97
Total non-responses	18	3

The importance of managing air quality to participants was again comparable to the responses to questions (d) and (e). The majority of responses fell at the upper-middle end of the scale (90% selected four, five or six on the scale) and most (47%) selected a level five of importance.

#### g) Waste

Value	Number of	%
	responses	responses
1	2	0
2	3	0
3	10	1
4	56	8
5	319	45
6	296	42
Total responses	686	97
Total non-responses	19	3

When asked about the importance of managing waste, the majority (45%) indicated a level 5 of importance on the scale. Overall, most (87%) responses were recorded at the upper end of the scale (5 and 6). The management of waste in the agricultural industry is extremely important, as poor management can lead to leaching into the environment causing contamination of land and water sources. Not only is excreted material found in waste but sometimes also antibiotics, chemicals, packaging and plastics. Particularly with regards the surge in popularity and media coverage of plastic contamination, farmers may be more concerned about recycling and plastic disposal. It is important that farmers are aware of and are following regulations for the correct disposal of agricultural waste to help preserve the environment and reduce contamination (CIWM, 2006).

#### 14. Have you diversified your business? If so, into what area?

Area of diversification	Number of	%
	responses	responses
Tourism/hospitality	123	17
Renewable energy	85	12
Food & drink	21	3
Contracting	19	3
Transport	6	1
Building/ conversion	4	0

Renting out land or	4	0
property		
Working off-farm	4	0
Change in	2	0
animals/livestock		
Pigs	5	0
Goats	2	0
Chickens	6	1
Growing crops	2	0
Selling machinery	2	0
Not diversified	344	49
Other	18	2
Total responses	661	94
Total non-responses	44	6

Overall, 55% of total respondents indicated that they have not diversified their business (combining non-responses with negative responses to this question) and 45% have. By far the most common type of diversification within this cohort was tourism and hospitality (17%) – e.g. glamping pods, pitching for tents, renting cottages or holiday homes etc. Tourism represents a significant portion of the economy in Wales, with many people from the UK, Ireland, Germany and the US flocking to enjoy the natural landscapes. It is estimated that tourism brings in approximately £5.1 billion per year to Wales, making diversification into this area an attractive choice, this option is compounded by the Wales Tourism Investment Fund – investing in new tourism businesses (Business Wales, 2016).

Another popular avenue for diversification is into renewable energy (12%), in light of changes post-Brexit to sustainability-focussed schemes this may result in increased interest in renewable energy. Previously, grants and funding were available to farmers interested in renewable energy, however such support is no longer available. Whilst the initial investment in systems such as biomass energy may be high, the long-term benefits speak for themselves, the declining cost of the technology and enhanced publicity surrounding climate change may provide additional motivation.

Other popular choices include food & drink (3%) and contracting (3%). Diversification into cafes, pub/restaurants and farm shops seems to be a logical choice as farmers are able to sell their own products directly from the farm – an attractive prospect for both producers and customers alike (NFU Mutual, 2018). However, this is a relatively small income which requires clever marketing, the investment of set up costs and conformation with food production regulations.

15. If you have not diversified your business, do you intend to do so in the next 3 years?

Response	Number of	%
	responses	responses
Yes	76	11

No	292	41
Still considering	156	22
Total responses	524	74
Total non-responses	181	26

It is fair to conclude, using data from questions 15 and 16, that of the surveyed cohort, approximately 45% have already diversified their business, and of those that have not diversified (55%) approximately half of them are considering doing so or have plans to do so within the next 3 years. DEFRA's farm business survey from 2016-17 suggests that 60% of UK farms have already diversified and Business Wales reports that as of July 2019, 40% of Welsh farms had done so too. It is likely that farmers will continue to seek diversification opportunities to boost their income and make their business more sustainable, as changes are made to subsidies and international markets are lost after exiting the European Union.



## 16. What other assistance would you like from Farming Connect to help improve the efficiency and productivity of your business?

Response type	Number of	%
	responses	responses
Financial support (incl. grants)	41	6
Information about and support in	56	8
applying for grants		
Funding for trailer test & HGV license	16	2

Support and advice about biodiversity, sustainability and the environment (Incl. tree planting & woodland management)	33	5
	30	4
Additional or more varied courses (Incl.	30	4
geographically)  Better communication about courses and what	20	4
Farming Connect has to offer	30	4
	26	1
Computing/ICT courses and support Farm technology (Precision agriculture,	26 9	1
EID, etc.)	9	'
Support with digital tax and VAT	6	1
Help with nutrient management & planning (incl.	26	4
soil sampling)	20	4
, ,,	25	3
Advice and support with diversification	20	3
Advice on Brexit and the government	18	2
Advice on animal health, welfare and	10	2
management	13	2
Business planning and advice	13	2
More discussion groups	13	2
Advice and training on grassland management	12	2
Support for new or young farmers Information and advice on the future of farming	12	2
Y		
Advice about (family) succession	7	1
More assistance for small businesses & small grants	/	1
More practical assistance and training	6	1
Mentoring and 1-2-1 advice	6	1
Advice and funding for renewable energy	5	1
Advice and training on first aid or health &	5	1
safety		
Support and advice about mental health	5	1
Advice and support on benchmarking	4	0
More support for organic farms	4	0
Other	11	1
Satisfied with current provision	33	5
Total responses	398	56
Total non-responses	309	44

Responses to question 22 were extremely varied as a free writing response was required. Although, the majority could be categorised into slightly wider subtopics for the purpose of clarity. The most frequent request for assistance was with grants and funding – with 6% requesting "more grants" and 8% wishing for more support and help during the process of applying for grants. Farming Connect is primarily responsible for knowledge exchange and transfer and does not provide subsidies or grants/funding for farm improvements (e.g. building sheds). Of perhaps of more interest here, is the request for assistance when applying for grants – help with paperwork, guidance on what makes a good application and notifications about availability. Farming Connect do offer support for farm businesses in preparing business plans to support grant applications and attendance at some Farming Connect events is a pre-requisite for applying for some Welsh Government grants.

The general consensus from respondents was that members find discussion groups and farm visits extremely useful. Many find training courses valuable (4%) but would like better communication about them and some flexibility -i.e. during weekends or in evenings. The request for more discussion groups and courses in different locations around Wales is difficult due to the rural nature of Wales, groups and training courses cannot be run in every area and as such Farming Connect must prioritise. Farming Connect already offers extensive e-learning materials to its members and whilst question 11 indicated members are aware of this, they may not be aware that the content could provide similar detail to that of some training courses (for example, Business Improvement).

As mentioned in question 14(d), BPS funding will come to an end in the coming years and replaced with more environmentally and sustainability-focussed schemes. As such it is no surprise that 8% of farmers surveyed would like additional information about how to increase biodiversity and protect habitats on their farm and reduce their environmental impact and carbon footprint. In particular, respondents were interested in tree-planting and agroforestry.

Another frequent request is for ICT training, with approximately 4% of the cohort expressing an interest. Farming Connect currently offers a variety of computer training – through online courses, group workshops or face to face tuition. This flexible approach provides members with options depending on the way they prefer to learn, making this clear to members and providing information well ahead of time may also help farmers to access these.

Finally, a popular topic in general society as well as in agriculture is Brexit and the future of farming. Around 4% of responses requested more information about Brexit and support in planning for the future. The uncertainty surrounding Britain's exit from the EU is far-reaching and is already an effect on UK businesses and the economy. Farming Connect currently delivers training and facilitates rural development with the future of farming in mind. Continuing to contribute to modernisation, encouraging diversification and boosting skills levels in agriculture will enable farmers to move forward with more confidence.

#### 17. Are you currently a member of any assurance or accreditation scheme(s)?

Questions 23-26 were introduced part way through the survey following a request from the Welsh Government. As such, a smaller number of responses (280) were recorded for these questions. Please note, that the percentage calculations for these four questions are based upon the number of responses, not necessarily on the full cohort.

Response	Number of	%
	responses	responses
Yes	200	71
No	80	29
Total responses	281	100

The responses to this question seem to indicate that most (71%) of the smaller cohort are members of assurance or accreditation schemes.

#### 18. If yes, please confirm which:

Scheme	Number of	%
	responses	responses
FAWL (Farm Assured Welsh	178	91
Livestock)		
Red Tractor	14	7
Organic (Unspecified)	10	5
Acoura	2	1
CLA	2	1
SAOS (Soil Association Organic	2	1
Standard)		
Other	9	5
Total responses	195	100

By far the most popular accreditation scheme amongst those that answered 'yes' to question 23, was Farm Assured Welsh Livestock (FAWL), with 25% of those surveyed indicating they were members. Wales is well known across the globe for producing excellent quality lamb and in recent times as disposable incomes have increased, consumers have begun to focus on the provenance of meat and health and welfare standards prior to slaughter (Duffy & Fearne, 2009; Kearney, 2010). As such, many consumers now look for assurance or accreditation scheme logos when buying meat as a quick and easy way to ascertain standard of care from the farm to the plate (Mills, 2018). Thus, it may pay for the farmer to be involved in such schemes which would enable them to demand a premium for their products, offer enhanced marketing opportunities and allow them to contribute to consumer confidence in Welsh agriculture (reasons for engagement with assurance schemes are discussed in question 26).

#### 19. If no, have you been previously?

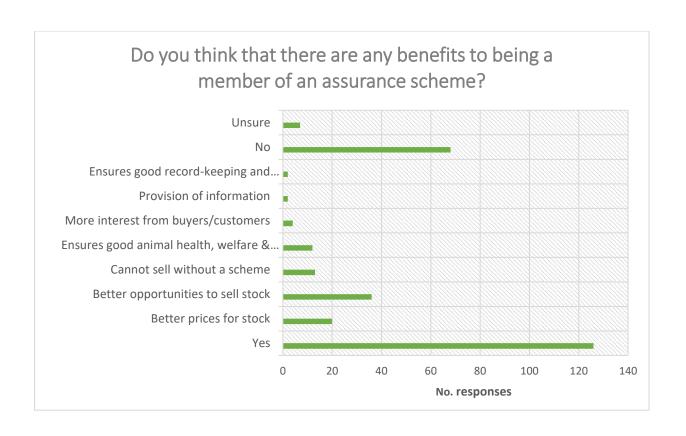
Response	Number of	%
	responses	responses
Yes	19	24
FAWL	10	13
Red Tractor	1	1
Caravan	1	1
council		
Trading Foods	1	1
No	60	77
Total responses	78	100

Amongst those that answered 'no' to question 23, the majority (77%) also indicated that they had never been a member of an assurance or accreditation scheme, such results may tentatively suggest that the decision to become a part of a scheme is a solid one and that those who join will likely remain a part of the programme. Whether this is solely due to the benefits received as part of the scheme, is unclear.

20. Do you think that there are any benefits from being a member of an assurance or accreditation scheme?

Response	Number of	%
	responses	responses
Yes	126	64
Better prices for stock	20	10
Better opportunities to sell stock	36	18
Cannot sell without a scheme	13	7
Ensures good animal health, welfare	12	6
(on-farm) & product quality (off-farm)		
More interest from buyers/customers	4	2
Provision of information	2	1
Ensures good record-keeping and	2	1
paperwork		
No	68	35
Unsure	7	4
Total responses	197	100

Of those that are members of a scheme, 64% agreed that there were benefits to being a part of an assurance or accreditation scheme, a small number were undecided and 35% did not think that there were any benefits. For most (18%), the main benefit was better opportunities to sell stock as there are more options in terms of slaughterhouses and processors that are willing to accept stock. Overall this makes the process easier and more profitable as farmers have a choice of where to send their stock. The second most popular response was that farmers receive a better price for their animals as members of the scheme - this is due to the quality assurance and standards imposed by the schemes which often means that a higher price can be demanded from the end consumer. A small number of responses indicated that they could not sell their stock without being a member of a scheme, corroborated by the increasing numbers of processors insisting that stock is procured from assured farms for Wales this tends to be FAWL. The assurance scheme gives producers the opportunity to prove their expertise, integrity and quality of their stock which in turn provides consumers with confidence and reassurance in the product that they are buying – regardless of the stage in the supply chain (FAWL, 2019).



#### 21. Geographical spread of respondents

County	Number of	%
	responses	responses
	2019	2019
Bridgend	5	1
Caerphilly	7	1
Cardiff	2	0
Carmarthenshire	95	13
Ceredigion	74	10
Conwy	41	6
Denbighshire	32	5
Flintshire	16	2
Gwynedd	79	11
Isle of Anglesey	37	5
Monmouthshire	30	4
Neath Port Talbot	11	1
Newport	2	0
Pembrokeshire	45	6
Powys	186	26
Rhondda Cynon Taf	7	1
Swansea	10	1
Vale of Glamorgan	7	1
Wrexham	14	2
Total responses	702	99

Total non-responses	3	1
i i otal non-responses	ا s	l l

A large proportion of respondents (26%) in this survey reside in Powys, followed by 13% in Carmarthenshire and 11% in Gwynedd. In the minority were Torfaen, Newport, Cardiff and Blaenau Gwent (with 2 respondents per county). Both Newport and Cardiff are more urban areas of Wales, perhaps explaining why fewer members reside there. Overall, this distribution is reflective of the geographical distribution of Farming Connect registered businesses.

#### Concluding remarks

Whilst the survey revealed that the vast majority of participants had clear ambitions for their farm business, it also revealed that very few have a written business plan in place. As Farming Connect already offers support for business planning, it may be valuable to increase the promotion of this service.

As highlighted throughout the report, the Farming Connect members surveyed have indicated that the discussion groups and also farm visits have been extremely beneficial and interesting. The ability to observe practice in action appeals to the reflective observation and active experimentation stages of Kolb's learning cycle – watching and doing are powerful tools for learning. Peer education in farming is also highly effective, as peers that are performing a practice hold a sense of credibility and are also relatable and trustworthy. Farmers are particularly concerned with diversification in the face of the current uncertainty surrounding UK economics and politics. There was a request for more assistance with diversification ideas.

It is also reassuring to see increasing interest in agro-environmental schemes. The farmers surveyed indicated a strong concern about biodiversity and habitats on their farms and expressed an interest in improving sustainability and environmental impacts. As the BPS set to be phased out and replaced by new environmental and sustainability-based systems, preparation for the change would likely be very helpful. Supporting farmers in engaging with schemes such as planting trees on their land will certainly be very valuable.

When asked about further assistance, around 8% of the cohort indicated that Farming Connect already provided a very useful service and did not indicate any areas for improvement. It is important to bear this in mind amongst the feedback, that many are finding the service valuable.

#### References

Chartered Institute of Waste Management (CIWM) (2006), Waste Management (England and Wales) Regulations 2006 (accessed 21/02/19 at: <a href="http://www.legislation.gov.uk/uksi/2006/937/pdfs/uksi\_20060937\_en.pdf">http://www.legislation.gov.uk/uksi/2006/937/pdfs/uksi\_20060937\_en.pdf</a>).

Duffy. R and Fearne. A (2009), Value perceptions of farm assurance in the red meat supply chain, *British Food Journal*, **111**(7): 669-685.

FAWL (Farm Assured Welsh Livestock) (accessed 31/10/19 at http://www.fawl.co.uk/index.php/about-fawl).

Foster. A. D and Rosenzweig. M. R (1995), Learning by doing and learning from others: Human capital and technical change in agriculture, *Journal of Political Economy*, **103**(6): 1176-1209.

Glastir (2019), Welsh Government (accessed 20/01/2020 at <a href="https://gov.wales/glastir">https://gov.wales/glastir</a>)

Gordon. D, Zadoks. R, Skuce. P and Sargison. N (2012), Confirmation of triclabendazole resistance in liver fluke in the UK, *Veterinary Record*, **171**: 159-160.

Gov.uk (2019), Woodland creation grant: Countryside Stewardship (accessed 28/10/2019 at <a href="https://www.gov.uk/guidance/woodland-creation-grant-countryside-stewardship">https://www.gov.uk/guidance/woodland-creation-grant-countryside-stewardship</a>).

Kearney. J (2010), Food consumption trends and drivers, *Philosophical Transactions* of the Royal Society B, **365**(1554): 2793-2807.

Lima. E, Hopkins. T, Gurney. E, Shortall. O, Lovatt. F, Davies. P, Williamson. G and Kaler. J (2018), Drivers for precision livestock technology adoption: a study of factors associated with the adoption of electronic identification technology by commercial sheep farmers in England and Wales, *PLOS One*, **13**(1).

Mills. G (2018), Assessing farm assurance schemes in the UK, *Veterinary Record*, **183**: 80-82.

Morgan-Davies. C, Wishart. H, Lambe. N. R, Kenyon. F, McBean. D, Waterhouse. A and McCracken. D. I (2015), EID and other technological advances in small ruminant research, *International Animal Health Journal*, **2**(4): 64-67.

NADIS (2019), Animal health skills: Lameness control in sheep (accessed 31/10/19 at <a href="https://www.nadis.org.uk/disease-a-z/sheep/lameness-control-in-sheep/">https://www.nadis.org.uk/disease-a-z/sheep/lameness-control-in-sheep/</a>)

NFU Mutual (2018), Diversification report (accessed 29/10/19 at <a href="https://www.nfumutual.co.uk/farming/farming-diversification/">https://www.nfumutual.co.uk/farming/farming-diversification/</a>).

Milne. C. E, Dalton. G. E and Stott. A. W (2007), Integrated control strategies for ectoparasites in Scottish sheep flocks, *Livestock Science*, **106**(2-3), 243-253.

Nixon. E. J, Vineer. E. R and Wall. R (2017), Treatment strategies for sheep scab: an economic model of farmer behaviour, *Preventative Veterinary Medicine*, **137**: 43-51.

Ofcom (2018), Getting rural areas connected in Wales (accessed 28/10/19 at <a href="https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2018/getting-rural-areas-connected-in-wales">https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2018/getting-rural-areas-connected-in-wales</a>).

Rose. H (2011), Ovine psoroptic mange: risk and management (*Doctoral dissertation, University of Bristol*).

The Woodland Trust (2019), Large scale planting (accessed 28/10/2019 at <a href="https://www.woodlandtrust.org.uk/plant-trees/large-scale-planting/">https://www.woodlandtrust.org.uk/plant-trees/large-scale-planting/</a>).

Welsh Government (2017), Future Landscapes: Delivering for Wales (accessed 22/02/19 at: <a href="https://www.afwdl.cymru/wp-content/uploads/2018/02/170508-future-landscapes-delivering-for-wales-en.pdf">https://www.afwdl.cymru/wp-content/uploads/2018/02/170508-future-landscapes-delivering-for-wales-en.pdf</a>).

Welsh Government (2019), Consultation: Sustainable Farming and our land (accessed 29/10/2019 at <a href="https://gov.wales/sites/default/files/consultations/2019-07/brexit-consultation-document.pdf">https://gov.wales/sites/default/files/consultations/2019-07/brexit-consultation-document.pdf</a>).