Department for Environment Food & Rural Affairs

Published 4 April 2019

Farm Practices Survey 2018 - England
Farm business practices, soil management and cattle housing

This release contains the results from the October 2018 Farm Practices Survey which included questions on business practices, soil management and cattle housing. The key results are given below.

Innovation (Section 1)

54% of farms had introduced a significant change to their business (innovated) in the last 12 months. A third of farms (33%) indicated that they intended to introduce a significant change in the next 12 months.

Market Prices (Section 2)

75% of farms use data on market prices to inform business decisions. 76% thought input prices were readily available and 66% thought them reliable. For output prices, the proportions were 84% and 69% respectively.

Risk management (Section 3)

88% of farms indicated that they positively managed price risks to their business. 40% indicated that they did not have all the risk management tools they needed.

Collaboration (Section 4)

29% of farms were members of buying groups, the most common form of collaboration.

Accounting packages (Section 5

38% of farms used financial or management accounting software. Usage was more common on large farms than smaller farms.

Grants and payments (Section 6)

92% of farms had applied for some type of funding from Defra Group or the Forestry Commission. The most common schemes were the Basic Payment (86%) and agri-environment schemes (60%).

Soil management (Section 7)

55% of farms carry out a soil structure survey.

Cattle housing (Section 8)

27% of farms with cattle used outdoor, unroofed, hard standing collecting or feeding yards for cattle in 2018.

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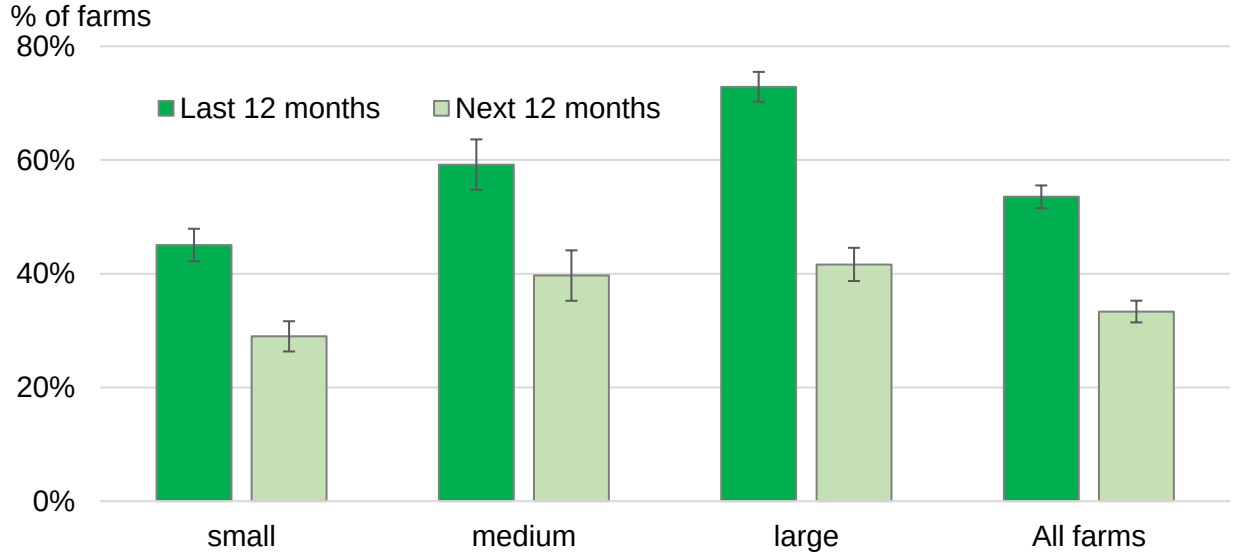
Section 1. Innovation

Key findings

- Just over half of farms (54%) had introduced a significant change to their business (innovated) in the last 12 months. A third of farms (33%) indicated that they intended to introduce a significant change in the next 12 months.
- Those that had innovated in the last 12 months were more likely to be cereal farms than other farm types. Large farms were more likely to have innovated in the last 12 months than smaller farms.
- The most common innovation in the previous 12 months was new or specialist machinery (23% of farms).
- The most commonly selected motivations for innovation in the previous 12 months were to "increase productivity" (67%), "lower costs" (65%) and "make things easier for me and my staff" (64%).

Innovation is the successful exploitation of new ideas and is important for productivity growth. New ideas can take the form of new technologies, often embodied in capital equipment, new products or new ways of working. For this survey, innovation was defined specifically as being "*any significant change to the farm business from a change in practice (e.g. installing cow tracks to enable longer grazing) to using the latest hi-tech equipment*". Farmers were provided with a list of options and asked to indicate in which areas they had innovated in the previous 12 months and, separately, the areas they intended to innovate in the following 12 months. Farmers were also asked about their motivations and drivers for innovation. The survey took place in autumn 2018.

Figure 1.1: Proportion of farms that have introduced or intend to introduce a significant change to their business, by farm size.

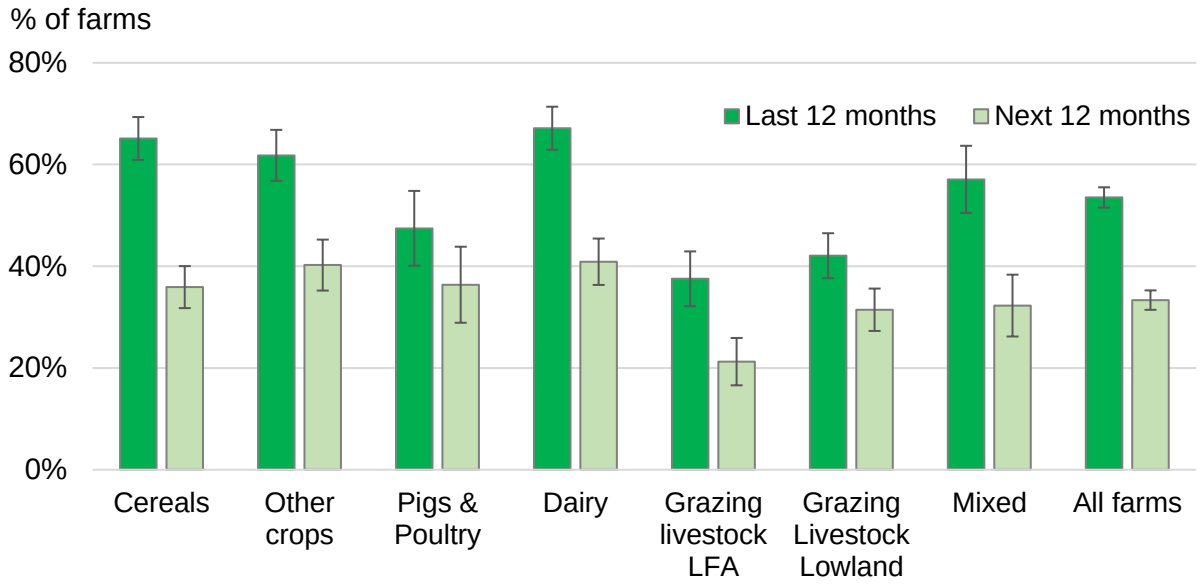


A third of farms (33%) indicated that they intended to introduce a significant change to their business in the following 12 months. These farms were less likely to be small farms than larger farms (Figure 1.1) and less likely to be LFA grazing livestock farms than other farm types (Figure 1.2).

Just over half of farms (54%) had introduced a significant change to their business in the previous 12 months. These were more likely to be large farms than small farms (Figure 1.1). Although dairy, cereal and other cropping farms appear more likely to have innovated

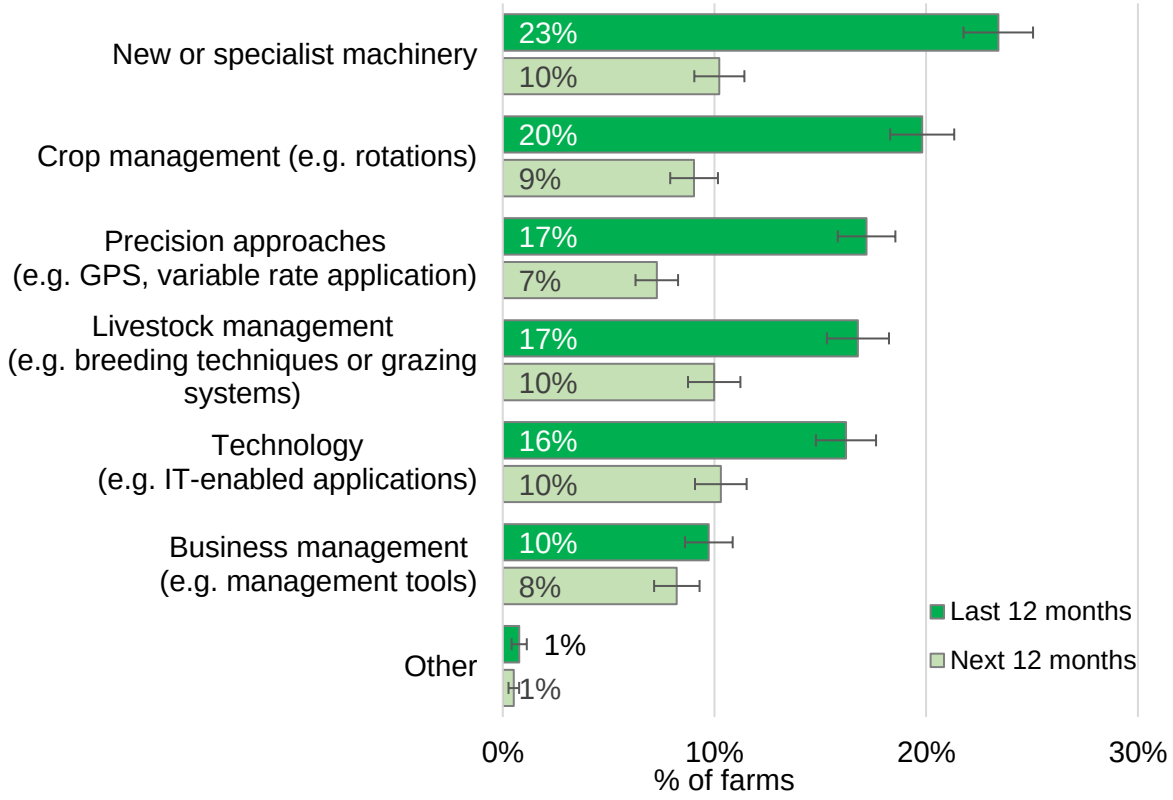
in the previous 12 months (Figure 1.2), after allowing[1] for farm size cereal farms were significantly more likely to have introduced a significant change in the previous 12 months than other farm types.

Figure 1.2: Proportion of farms that have introduced or intend to introduce a significant change to their business, by farm type.



New or specialist machinery was the most common innovation in the previous 12 months, by around a quarter (23%) of farms (Figure 1.3). Dairy farms (35%) were most likely to have introduced new or specialist machinery; grazing livestock farms were least likely (16% of those in lowland areas, 18% of those in Less Favoured Areas (LFA))

Figure 1.3: Types of innovation introduced or intended to be introduced



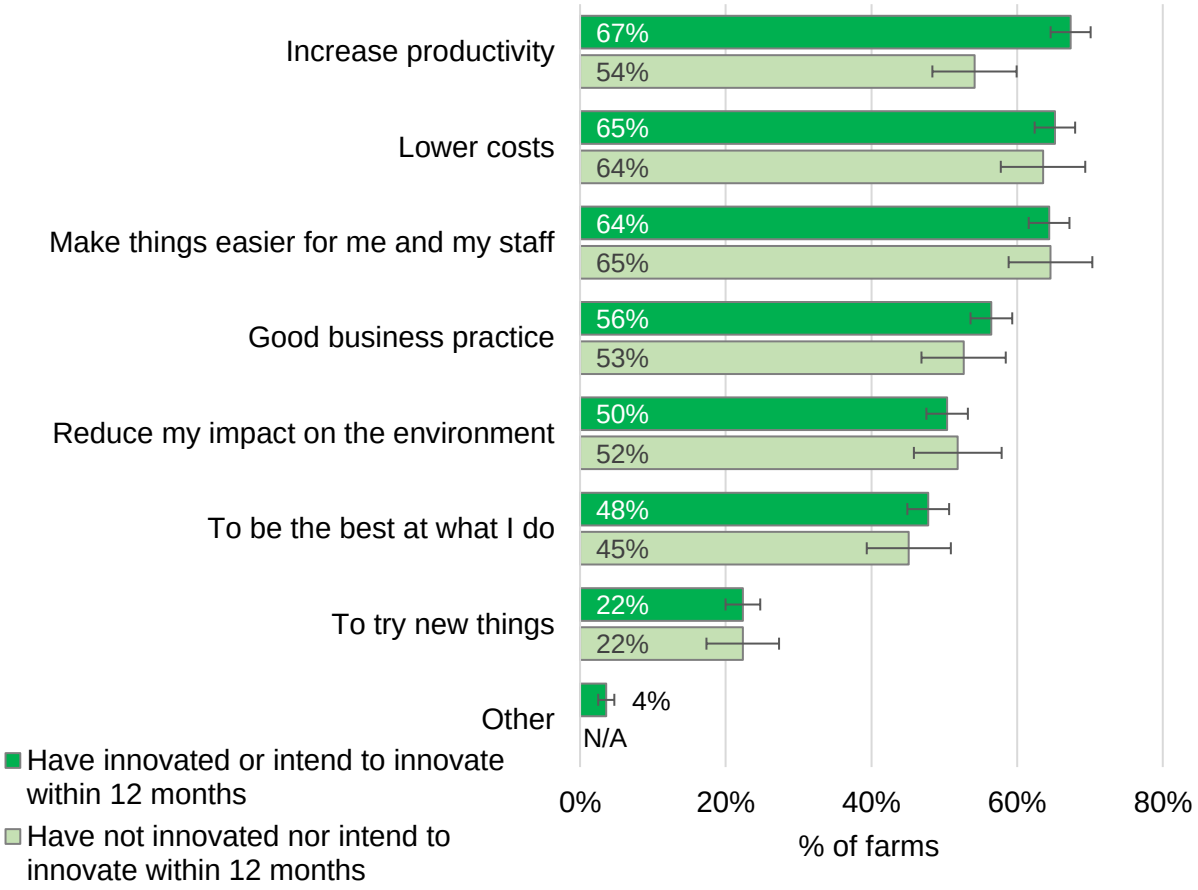
Note: Farms could select more than 1 option.

[1] A logistic regression model was fitted using farm type, economic size, tenure type, region and LFA status. Farm type and economic size were significant at the 5% level.

One in five farms had made changes to crop management ranging from 38% of cereal farms to less than 10% of grazing livestock farms. A third of dairy farms and 20-24%[2] of grazing livestock and mixed farms had made changes to livestock management practices in the previous 12 months. There was little difference between the type of practice that farmers intended to take up in the following 12 months.

Farmers were asked about their motivation for adopting any innovation. The most commonly selected options were to "increase productivity", "lower costs" and "make things easier for me and my staff". There was very little difference in the motivation selected between those that had innovated or intended to within 12 months and those that did not. Responses included within the "other" motivation category, included "making tax digital", improving soil quality and improving animal health and welfare.

Figure 1.4: Motivations for innovation

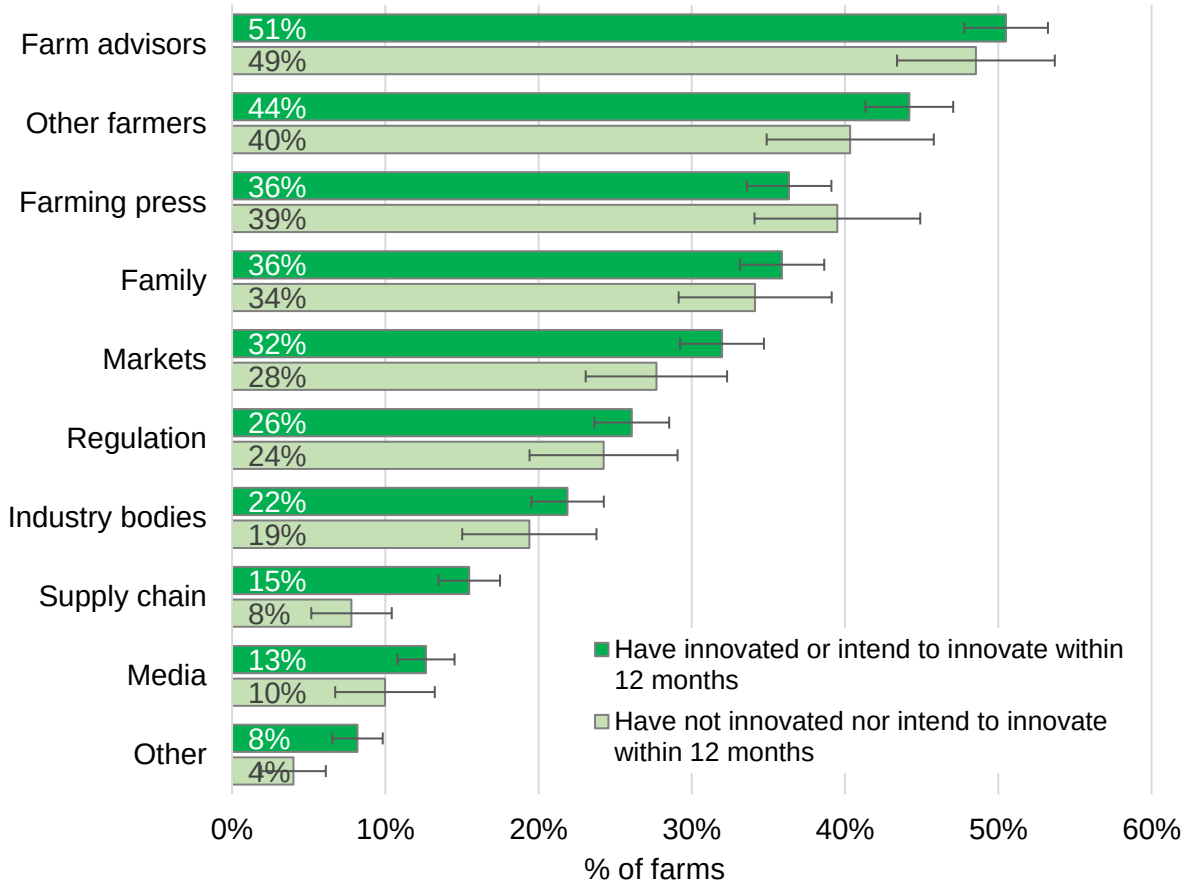


Note: There were insufficient responses to report the "other" category for those that had not innovated or intend to innovate within 12 months.
Farms could select more than 1 option.

Farmers were also asked who or what encouraged them to innovate. The most common response overall and for most farm types was "farm advisors" (Figure 1.5). However, only a quarter of LFA grazing livestock farms and a third of pig & poultry farms selected this option. For these farm types, the most common responses were "other farmers" (45% of LFA grazing, 40% of pig & poultry farms) and "family" (43% of LFA grazing, 37% of pig & poultry farms).

[2] 24% of lowland grazing livestock, 22% of mixed farms and 20% of LFA grazing livestock farms recorded changes to livestock management practices in the previous 12 months.

Figure 1.5: Who or what encourages innovation?



Note: Farms could select more than 1 option.

Section 2. Market Prices

Key findings

- More than three quarters of farmers thought that input (76% of farmers) and output prices (84% of farmers) were **readily available**.
- Around two thirds of farmers thought that input (66% of farmers) and output prices (69%) were **reliable.**
- A quarter of farms do not use data on market prices to inform business decisions. These farms are more likely to be small farms than larger farms and to be pig/poultry farms than other farm types.

Controlling costs and/or maximising the value of produce are key to improving profitability. Farms were asked if they used data on input and output prices to inform business decisions, where they sourced the data and whether they thought the data was readily available and reliable.

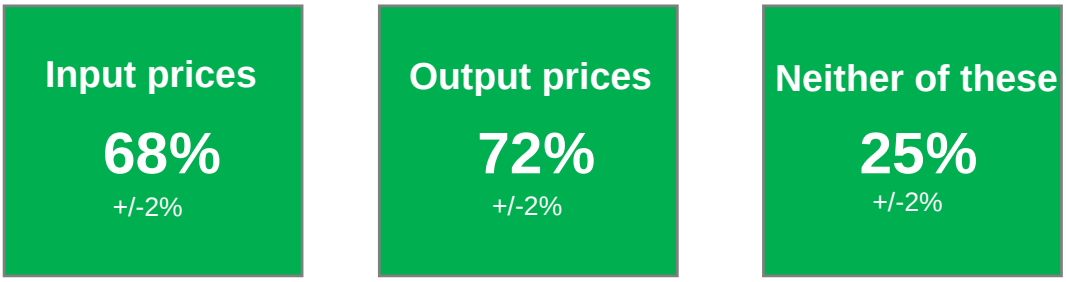
More than three quarters of farmers thought that input (76% of farmers) and output prices (84% of farmers) were readily available (Table 2.1). Around two thirds of farmers thought that input (66% of farmers) and output prices (69%) were reliable.

Table 2.1 Do you think data on market prices is readily available and reliable?

	Input prices		Output prices	
	Yes	No	Yes	No
Readily available	76% (±2%)	24% (±2%)	84% (±2%)	16% (±2%)
Reliable	66% (±2%)	34% (±2%)	69% (±2%)	31% (±2%)

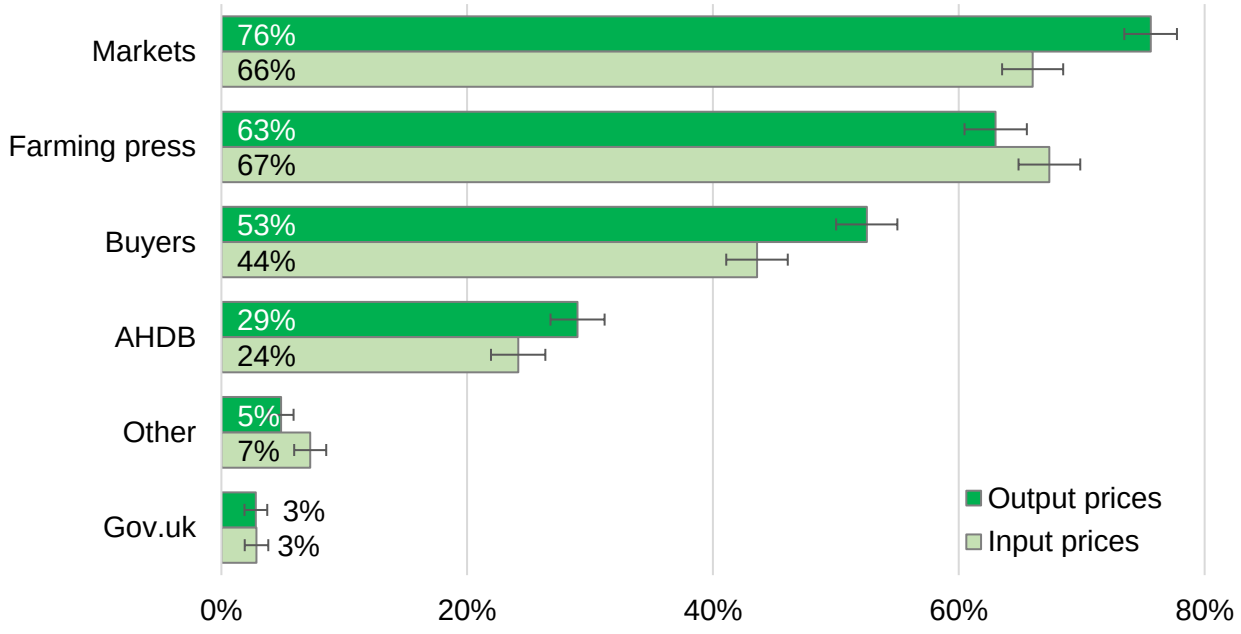
Three quarters of farms used data on either output or input prices to inform their business decisions (Figure 2.1). Most farms used data for both inputs and outputs. Those that did not use either input or output prices were more likely to be small farms than larger farms and to be pig/poultry farms than other farm types. Pig and poultry farms are likely to have close relationships within the supply chain e.g. rearing livestock under specified contracts where external market data is less important for business decisions. Cereal farms are significantly more likely than other farm types to use either input or output prices.

Figure 2.1: Do you use data on market prices to inform business decisions?



For those that used market prices, the most common sources for both input and output prices were markets and the farming press.

Figure 2.2: If you use data on market prices where do you access this data?



Note: Farms could select more than 1 option.

Section 3. Risk management

Key findings

- 88% of farmers indicated that they positively managed risk. Those that did not actively manage price risks were more likely to be small farms than medium or large farms and less likely to be cropping or dairy farms than other farm types.
- The most commonly selected risk management practice was “Good business practice”, by 51% of farms.
- 40% of farms indicated that they did not have all the risk management tools that they needed to manage price risks for their business.
- The most commonly selected barriers, by around a third of farms were “high insurance premiums”, “Risk management tools not suitable or too expensive”, “Lack of knowledge or skills” and “Difficullty in implementation”.

Farmers were asked how they managed price risks to their business. 88% of farms indicated that they actively managed price risk by selecting one of the options provided. Those that did not actively manage price risks were more likely to be small farms than medium or large farms and less likely to be cropping or dairy farms than other farm types.

Figure 3.1: How do you manage price risks to your business?

Note: Farms could select more than 1 option.

Dairy farms were mostly likely to have selected “Good business practice” (64%) compared to just under half of pigs/poultry farms (44%) and grazing livestock farms (45% Lowland and 47% LFA). A third of farms indicated that they managed risk on a case by case basis. There was no difference in response for this option between farm types, sizes, region or

tenure status. Less than 10% of grazing livestock farms were part of a buying group or cooperative compared to 41% of cereal farms and 36% of other cropping farms.

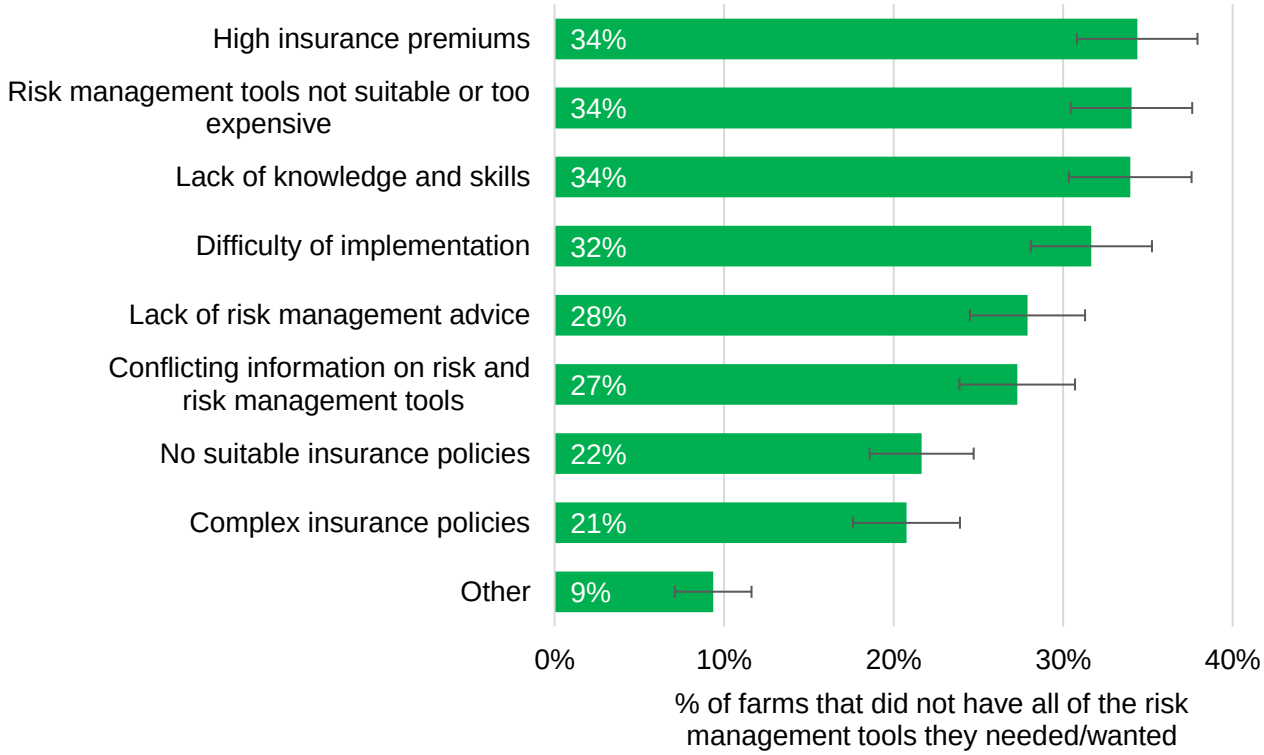
Table 3.1 Do you have all the risk management tools that you need or want in order to manage price risks to your business?

	Yes		No	
	% of holdings	95% CI	% of holdings	95% CI
Do you have all the risk management tools that you need to manage price risk?	60%	±2%	40%	±2%

40% of farms indicated that they did not have all the risk management tools that they needs to manage price risks for their business (Table 3.1). There were some differences between farm types with a slightly greater proportion of LFA grazing livestock farms in this group (47%) compared to a third of cereal farms. There was no difference in response between farm size groups.

The most commonly selected barriers (Figure 3.2), selected by around a third of farms were “high insurance premiums”, “Risk management tools not suitable or too expensive”, “Lack of knowledge or skills” and “Difficullty in implementation”. However at least one in five farms selected the other options given on the survey form.

Figure 3.2: If you do not have all the tools that you need or want in order to manage price risks, what are the barriers?



Note: Farms could select more than 1 option.

Section 4. Collaboration

Key findings

- The most common type of collaborative practice selected by farmers was membership of buying groups (29%). Around a quarter of farms (22%) undertook short term keep of livestock for or by other farmers.
- Almost all farms in 2018 reported that they had been undertaking these activities for at least a year.

Collaboration offers opportunities for farm businesses to work together, reducing costs, sharing overheads, supplying markets and providing landscape environmental outcomes

In 2018, the most common type of collaborative practice selected by farmers was membership of buying groups (29%), a similar proportion (33%) to 2016. Almost all farms that collaborated in 2018 reported that they had been undertaking these activities for at least a year.

Table 4.1: Are you involved in any of the following forms of co-operation or joint working with other farmers?

Type of collaboration	2016		2018*	
	% of holdings	95% CI	% of holdings	95% CI
Member of buying groups	33%	*±2%*	29%	*±2%*
Short term keep of livestock for or by other farmers	24%	*±2%*	22%	*±2%*
Sharing machinery[(a)]	28%	*±1%*	19%	*±2%*
Member of formal Producer Organisation[(b)]	*n/a*		15%	*±1%*
Member of business performance discussion groups[(c)]	*n/a*		15%	*±1%*
Sharing labour[(a)]	16%	*±1%*	12%	*±1%*
Contract rearing or growing of any livestock or crops for or by other farmers[(d)]	18%	*±1%*	12%	*±1%*
Share farming	7%	*±1%*	10%	*±1%*
Joint environmental management scheme[(e)]	*n/a*		6%	*±1%*
Other	1%	*±1%*	1%	*±0%*

Based on 1839 responses in 2016 and 2550 responses in 2018

(a) In 2016 these categories were separated into formal and informal arrangements.
(b) Included co-ops in 2016.
(c) Membership of discussion groups only in 2016.
(d) Collected separately for crops and livestock in 2016.
(e) Collected as Environmental management (e.g. joint agri-environment scheme agreement) in 2016.

*Note: In 2018 farms were asked which of these practices in the last year and for longer than a year. This might have led to a different response to farmers compared to 2016.
Farms could select more than 1 option.

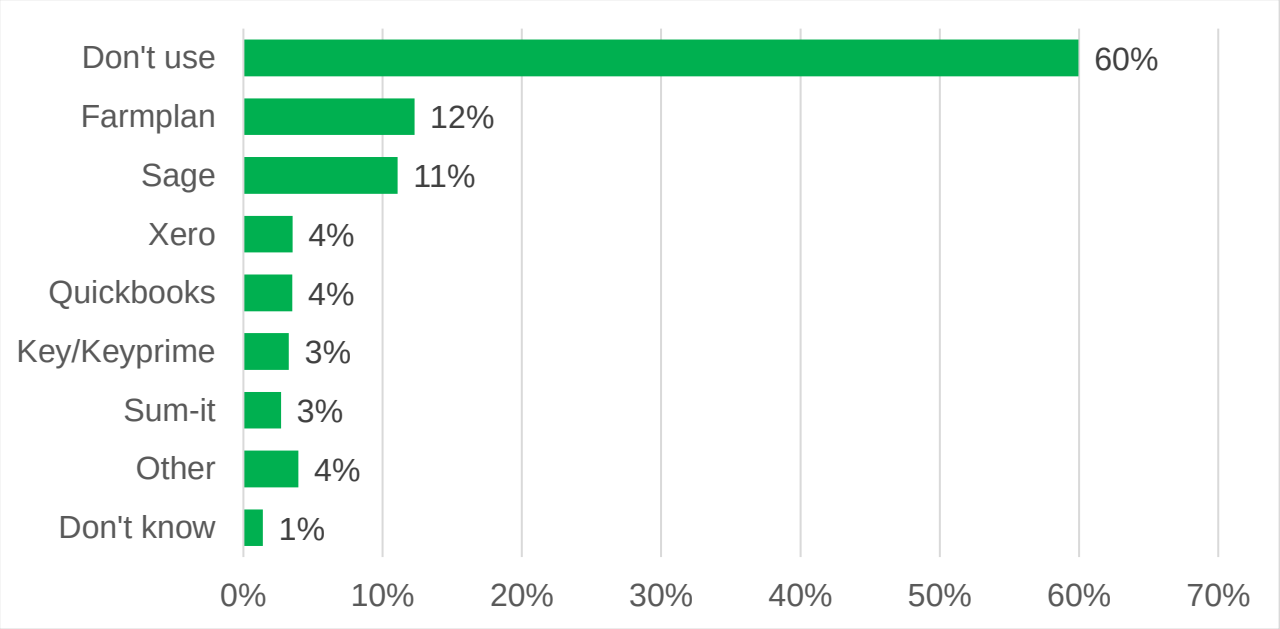
Section 5. Accounting software

Key findings

- 38% of farms used financial or management accounting software.
- Usage was more common on large farms (64%) than small farms (28%). Around half of cropping, pig/poultry and dairy farms used financial or management accounting software compared to less than a quarter of grazing livestock farms.
- The most common packages in use were Farmplan (12% of all farms) and Sage (11% of all farms).

This question was asked in autumn 2018, before "Making Tax Digital". The question specifically asked whether the farm itself used financial or management accounting software. Some farms may use accountants to prepare their accounts.

Figure 5.1: Type of financial or management accounting software package used by farms



Note: Farms could select more than 1 option.

Figure 5.2: Proportion of farms using a financial or management accounting software package by farm type

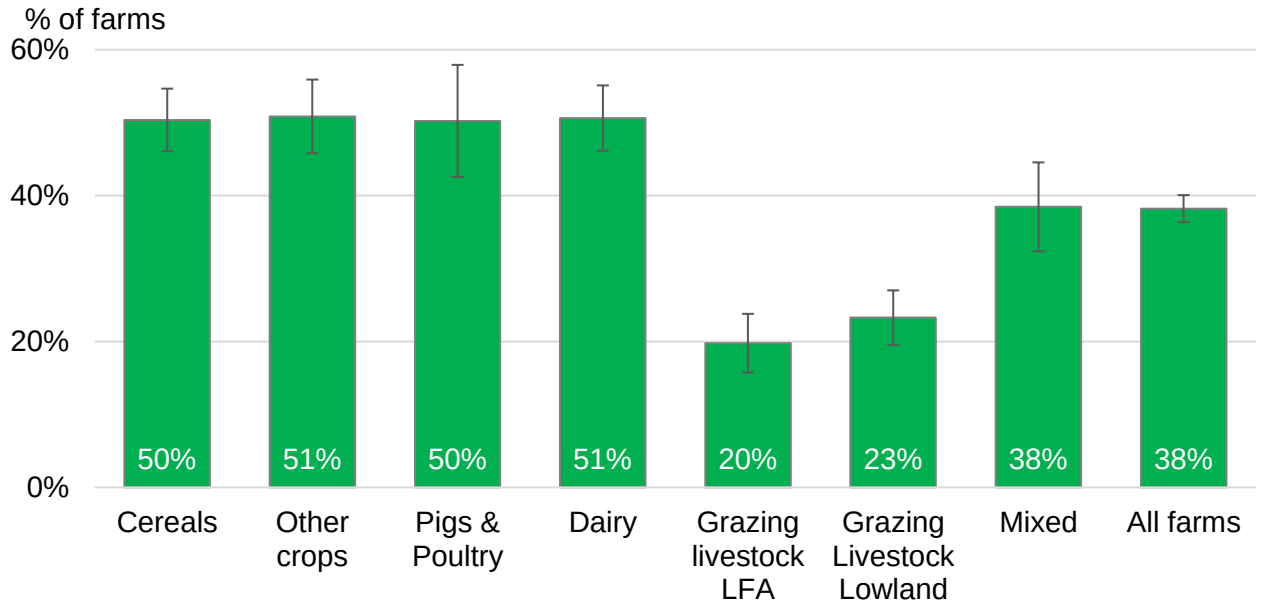
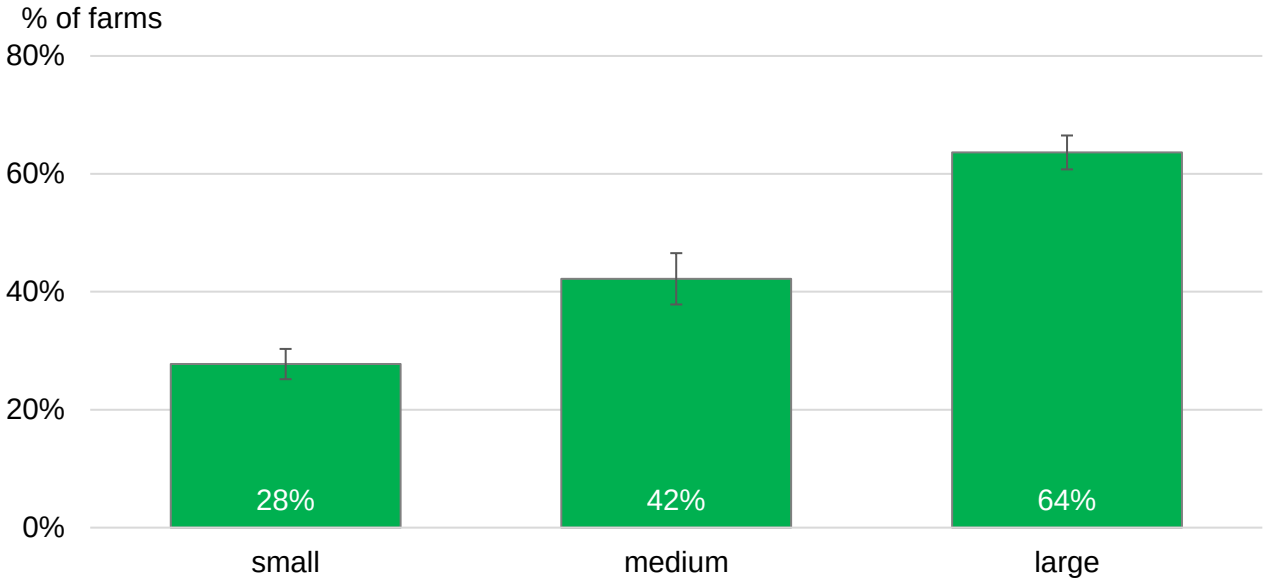


Figure 5.3: Proportion of farms using a financial or management accounting software package by farm size



Section 6. Grants and payments

Key findings

- Almost all farms (92%) had applied for some type of funding from the Defra group or the Forestry Commission. Those that had never applied were more likely to be pigs/poultry farms than other farm types and more likely to be small farms than medium or large farms.
- The most common schemes were the Basic Payment Scheme (86% of farms) and Agri-environment Schemes (60% of farms). Fewer than 10% of farms had applied for funding from LEADER (7%), Countryside Productivity (6%) or the Growth Programme (1%).
- The farming press (61% of farms) and farm advisors (50% of farms) were the most common sources selected by farmers for hearing about funding opportunities from Defra and the Forestry Commission.
- The most common reasons selected by farmers to make funding more accessible were a simpler application process (66% of farms) and greater awareness of funding (59% of farms).

Farmers were asked:

- whether they had applied for any funding from the Defra group (including the Rural Payments Agency, Natural England) and the Forestry Commission,
- reasons for not making an application,
- how they heard about funding opportunities from the Defra group and the Forestry Commission,
- how funding could be made more accessible.

Almost all farms (92%) had applied for some type of funding from the Defra group or the Forestry Commission. Those that had never applied were more likely to be pigs/poultry farms than other farm types (Figure 6.1) and more likely to be small farms than medium or large farms. There is also limited evidence that wholly tenanted farms were more likely to have never applied than owner occupied farms or farms of mixed tenure.

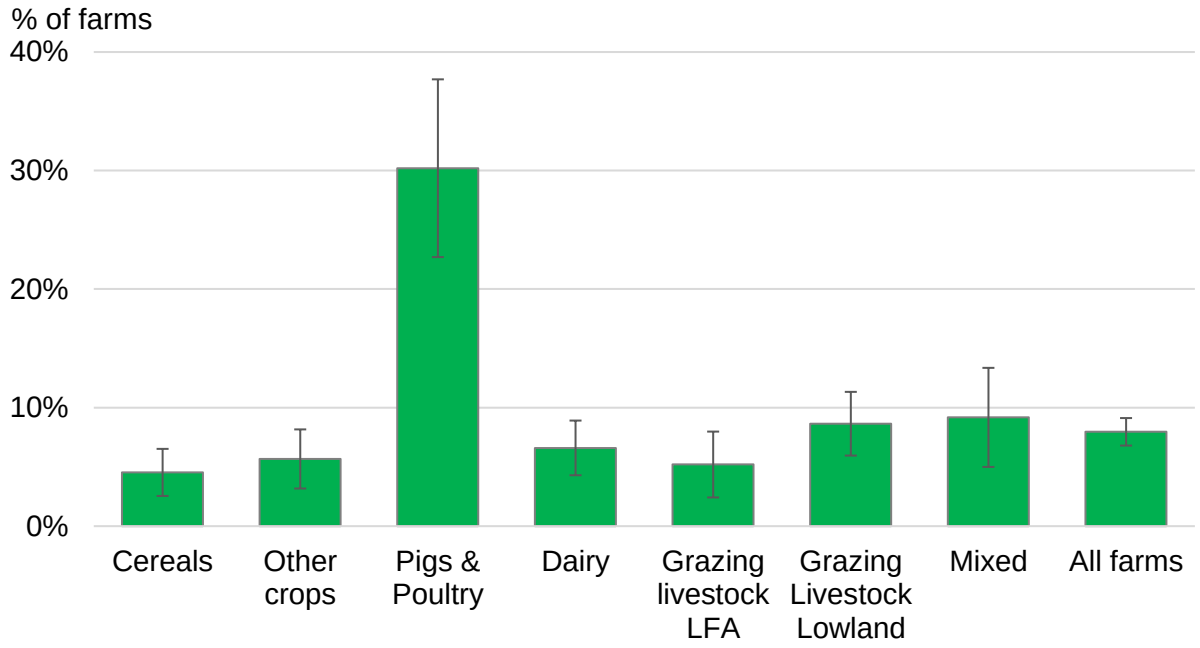
Table 6.1 Have you ever applied for grants or payments from Defra group (including Rural Payment Agency, Natural England) and Forestry Commission?

Grant or payment type	% of holdings	95%CI
Basic Payment Scheme	86%	± 1%
Agri-environment Schemes	60%	± 2%
LEADER	7%	± 1%
Countryside Productivity	6%	± 1%
Growth Programme	1%	± 0.5%
Other	2%	± 1%
Never applied	8%	± 1%

Note: Farms could select more than 1 option.

Farms that had not applied for any grant or payment were asked what prevented them from applying. Fewer than 200 farms in the sample answered this question and so the results should be treated with caution. The most common responses were that schemes were too confusing (38%) or that they were unaware of funding opportunites (28%). A fifth of farms also responded that the application process is too confusing, potential benefits are unclear and that grant thresholds are too high. Just over 400 farms that had applied for funding also chose to answer this question. For these the most common reasons given from around 20% of farms were that the scheme and application process are confusing and that grant thresholds are too high.

Figure 6.1: Proportion of farms that have never applied for funding from Defra group or Forestry Commission



The two most common sources of funding applications were the Basic Payment Scheme (86% of farms) and Agri-environment schemes such as Environmental or Countryside Stewardship (60% of farms). Fewer than 10% of farms had applied for funding from LEADER (7%), Countryside Productivity (6%) or the Growth Programme[3] (1%). "Other" funding sources cited by farmers included Farm Woodland schemes and Catchment Sensitive Farming.

Basic Payment Scheme

The Basic Payment Scheme is the biggest of the European Union's rural grants and payments to farmers. Farmers must have at least 5 hectares of agricultural land and 5 'entitlements' to apply. Certain animal and public health, welfare and environmental standards must be met (known as Cross Compliance). 86% of farms reported applying for the Basic Payment Scheme. These farms were significantly less likely to be pigs/poultry than other farm types, and (after allowing[4] for farm type) less likely to be small farms than medium or large.

[3] The RDPE (Rural Development Program for England) Growth program provides funding for projects in England which create jobs and growth in the rural economy. There are grants available for business development, food processing and rural tourism infrastructure.
[4] A logistic regression model was fitted using farm type, economic size, tenure type, region and LFA status. Farm type and economic size were significant at the 5% level.

Agri-environment schemes

Agri-environment schemes are designed to encourage farmers to protect and enhance the environment on their farmland by paying them for the provision of environmental services. The current Countryside Stewardship Scheme is a competitive, targeted scheme launched in 2016 to replace Environmental Stewardship. 60% of farms reported applying for agri-environment schemes. These farms were less likely to be small farms than medium or large farms and (after allowing[5] for farm size) significantly less likely to be pigs/poultry and dairy farms than other farm types.

Figure 6.2: Proportion of farms that have applied for the Basic Payment Scheme and Agri-environment schemes by farm type

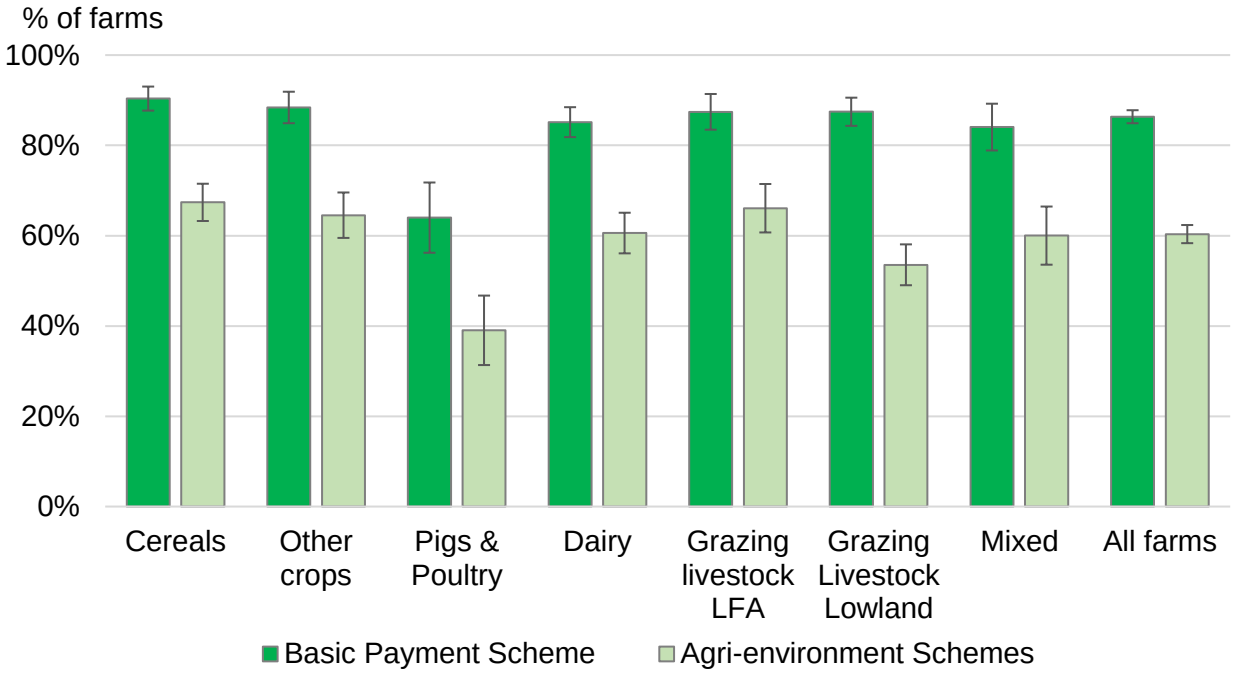
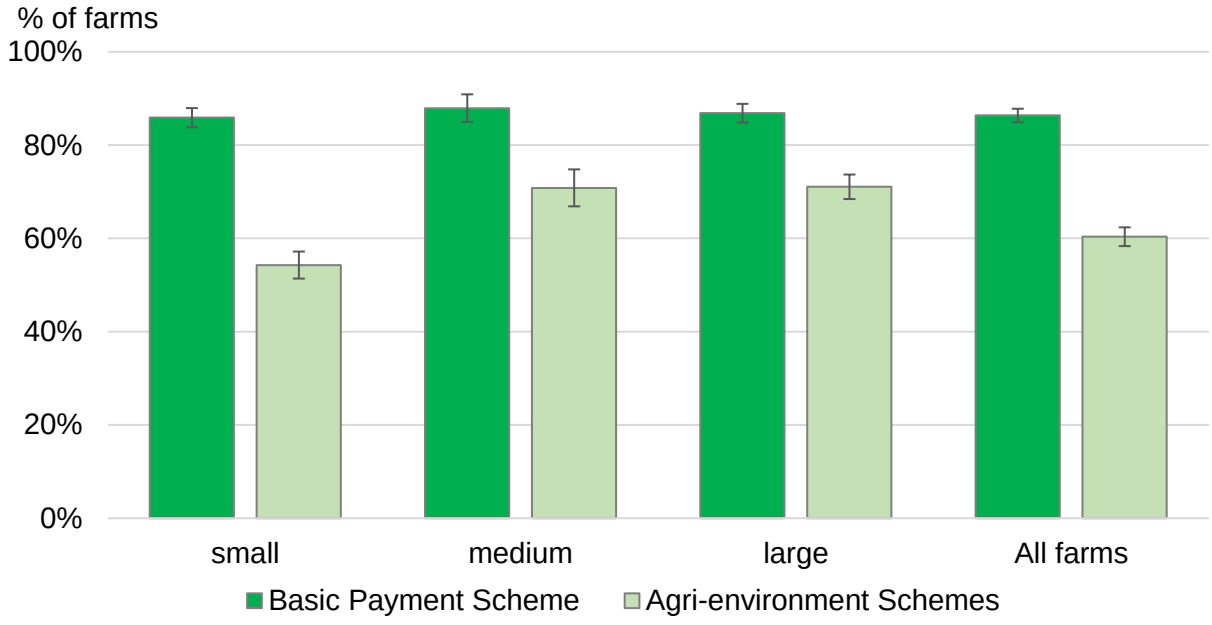


Figure 6.3: Proportion of farms that have applied for the Basic Payment Scheme and Agri-environment schemes by economic size

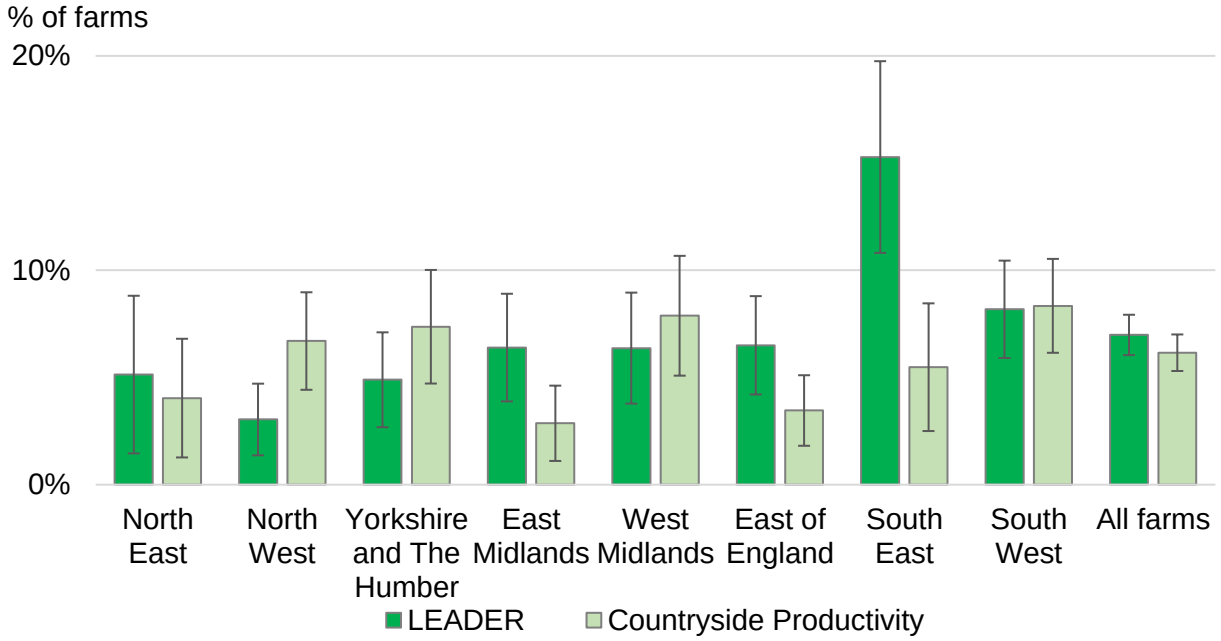


[5] A logistic regression model was fitted using farm type, economic size, tenure type, region and LFA status. Farm type and economic size were significant at the 5% level.

LEADER

LEADER[6] is part of the Rural Development Program for England (RDPE). It provided funding to local businesses, communities, farmers, foresters and land managers through Local Action Groups (LAGs). Each LAG decides which projects they will fund in their area. All projects must support one of the 6 LEADER priorities which include increasing farm productivity and supporting farm diversification. There are some areas of England that are not covered by LAGs.

Figure 6.4: Proportion of farms that have applied for the Countryside Productivity and LEADER funding by Region



7% of farms had applied for LEADER funding. Region, farm type and economic size were significantly[7] related to LEADER applications. Farms in the South East were more likely to apply for LEADER funding than those in other regions, as were larger farms. Dairy and other cropping farms were more likely to have applied than other farm types.

Countryside Productivity Scheme

The RDPE Countryside Productivity Scheme provides funding for projects in England which improve productivity in the farming and forestry sectors and help create jobs and growth in the rural economy. There are grants available for water resource management/reservoirs, improving forestry and farm productivity and adding value to agri-food. A small grants scheme provided funding for farmers to purchase equipment to improve the productivity of their farm. The scheme is targeted at supporting investment for specific pieces of agricultural equipment. 6% of farms had applied for the Countryside Productivity Scheme. Farm type, economic size and region were significantly[8] related to applications. Dairy farms were more likely to have applied for the Countryside Productivity

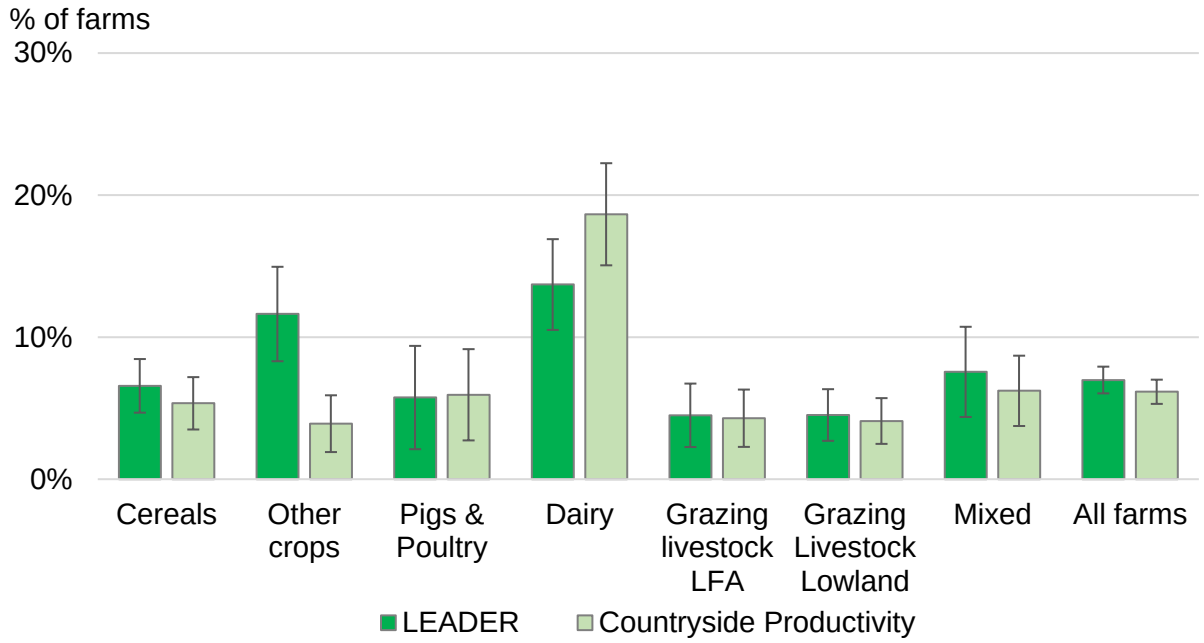
[6] LEADER is a French acronym (Liaison Entre Actions de Développement de l'Économie Rurale) which roughly translates as 'Liaison among Actors in Rural Economic Development'. More information on LEADER funding can be found at https://www.gov.uk/guidance/rural-development-programme-for-england-leader-funding.

[7] A logistic regression model was fitted using farm type, economic size, tenure type, region and LFA status. Farm type, region and economic size were significant at the 5% level.

[8] A logistic regression model was fitted using farm type, economic size, tenure type, region and LFA status. Farm type, region and economic size were significant at the 5% level.

Scheme than other farm types as were larger farms. Farms in the East Midlands and East of England were less likey to have applied than those in other regions.

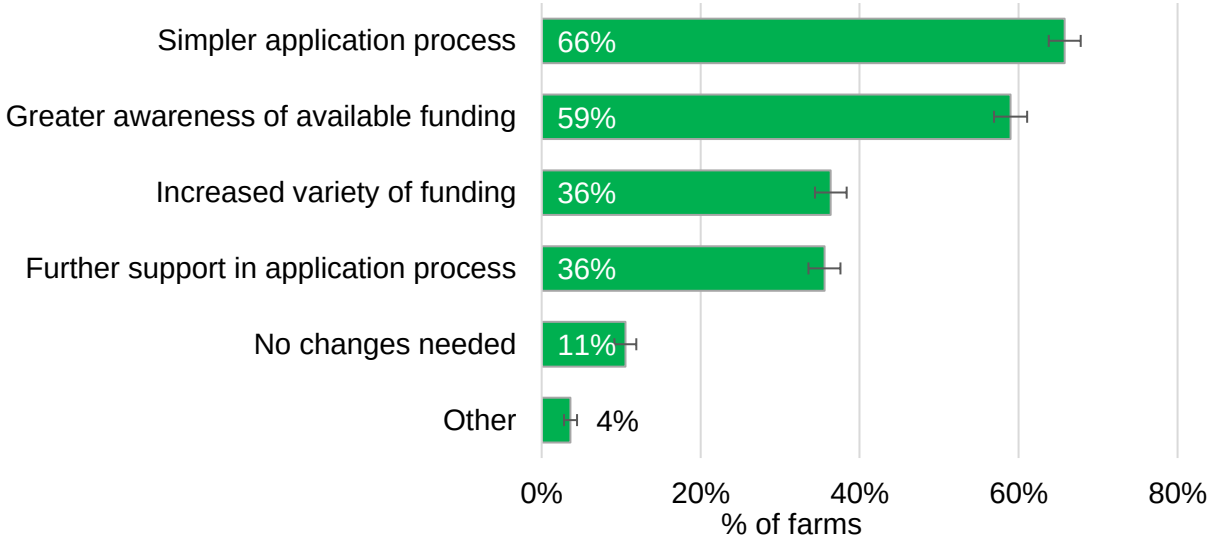
Figure 6.5: Proportion of farms that have applied for the Countryside Productivity and LEADER funding by farm type



How could funding be made more accessible?

The most common reasons selected by farmers to make funding more accessible were a simpler application process (66% of farms) and greater awareness of funding (59% of farms). More than a third of farms selected an increased variety of available funding and further support in the application process (both 36% of farms).

Figure 6.6: How could funding be made more accessible?

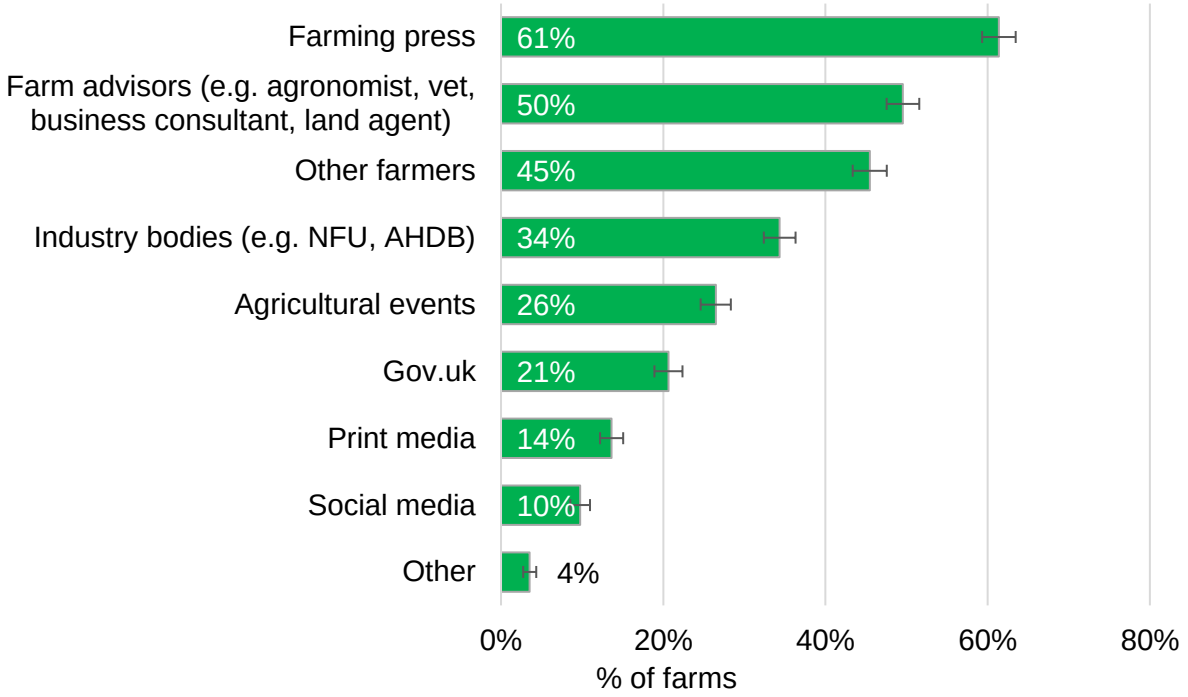


How do you hear about funding opportunities from Defra group and the Forestry Commission?

The farming press (61% of farms) and farm advisors (50% of farms) were the most common sources selected by farmers for hearing about funding opportunities from Defra and the Forestry Commission. Interestingly farms that are mainly in Severely Disadvantaged Areas

(SDA), i.e. upland farms, were significantly more likely to hear about funding opportunities from other famers (61%), compared to less than 50% of farms in more lowland areas.

Figure 6.7: How do you hear about funding opportunities from the Defra group and the Forestry Commission?



Section 7. Soil management

Key findings

- Just under half (45%) of farms do not carry out a soil structure survey in their fields, 32% do so only when there is obvious compaction and just under a quarter (23%) dig one or more holes in each field.
- Of those who do carry out soil structure surveys, 37% had discovered soil compaction in the top 12 inches in the last 12 months, 29% had discovered compaction at plough depth and 15% had discovered compaction through the soil profile. Large farms were more likely to find soil compaction than small and medium sized farms.

Farmers were asked whether they carry out a soil structure survey in their fields to examine the soil profile and whether, in the past 12 months, this had revealed soil compaction.

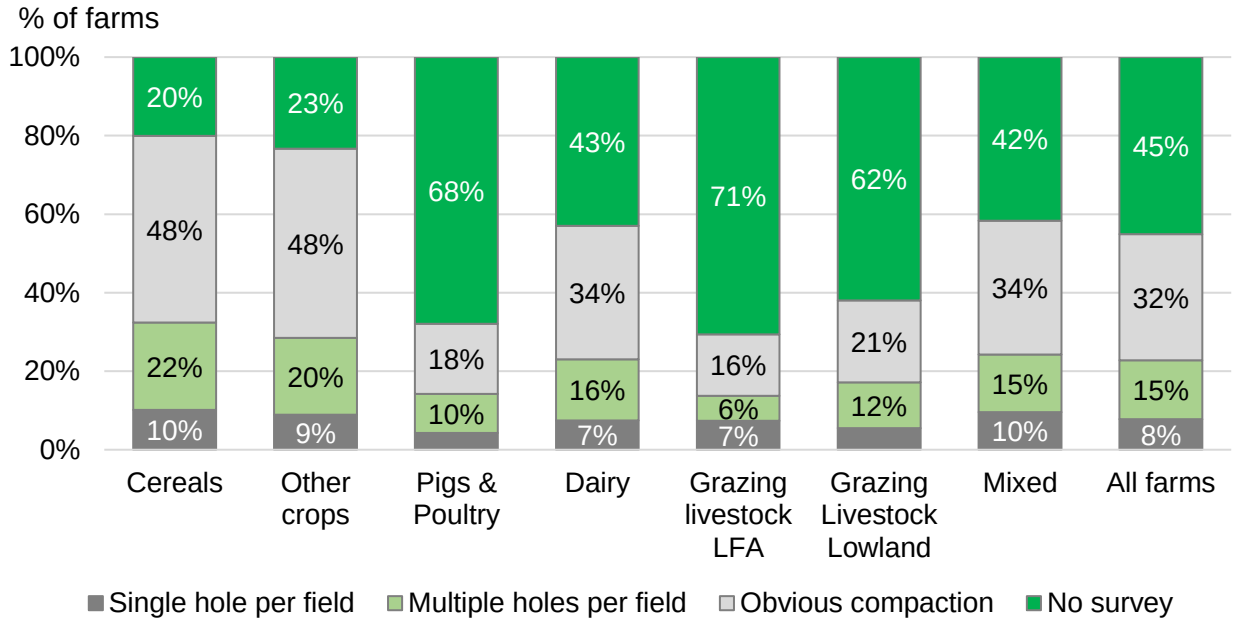
Just over half of farms (55%) undertook a soil structure survey in 2018, compared to 47% in 2012 (Table 7.1). In 2018, just under half (45%) of farms reported that they do not carry out a soil structure survey in their fields, around a third (32%) do so only when there is obvious compaction, 15% dig multiple holes per field and 7% dig just one hole per field.

Pigs & poultry farms (68%) and grazing livestock farms (71% in the LFA and 62% for Lowland) were the least likely to carry out a soil structure survey (Figure 7.1). In comparison, cereals and cropping farms were the most likely to carry out a soil structure survey, 80% and 77% respectively. Large farms were more likely to carry out a soil structure survey than small and medium farms.

Table 7.1: Do you carry out a soil structure survey (dig a hole) in your field to examine the soil profile prior to cultivation or other soil husbandry activity

Soil structure survey undertaken?	2012		2018	
	% of holdings	95% CI	% of holdings	95% CI
Yes, single hole per field	8%	*±1%*	8%	*±1%*
Yes, multiple holes per field	11%	*±1%*	15%	*±1%*
Yes, where there is obvious compaction	28%	*±2%*	32%	*±2%*
No	53%	*±2%*	45%	*±2%*
Based on 2880 responses in 2016 and 2632 in 2018				

Figure 7.1: Do you carry out a soil structure survey (dig a hole) in your field to examine the soil profile prior to cultivation or other soil husbandry activity, by farm type?



Of those who do carry out soil structure surveys, 37% had discovered soil compaction in the top 12 inches in the last 12 months, 29% had discovered compaction at plough depth and 15% had discovered compaction through the soil profile (Table 7.2). Large farms were more likely to find soil compaction (53% in the top 12 inches, 41% at plough depth and 21% through the soil profile) than small and medium farms. Dairy farms were more likely than other farm types to find soil compaction in the top 12 inches (53%) and other cropping farms were the most likely to find it at plough depth (49%).

Table 7.2: Over the last 12 months, has your soil survey revealed soil compaction?

Soil structure survey undertaken?	2012		2018	
	% of holdings	95% CI	% of holdings	95% CI
In the top 12 inches	51%	*±3%*	37%	*±3%*
At plough depth	43%	*±3%*	29%	*±3%*
Through the soil profile	20%	*±3%*	15%	*±3%*

Section 8. Cattle housing

Key findings

- Just over a quarter of farms (27%) with cattle used outdoor, unroofed, hard standing collecting or feeding yards for cattle in 2018.
- On average, dairy cows spent 7.5 months a year in outdoor, unroofed, hard standing collecting or feeding yards compared to 6.1 months for other cattle.
- When yards were in use, almost all of those with dairy cattle who scraped the yards did so either once daily (58%) or more frequently (36%).

Just over a quarter of farms (27%) with cattle used outdoor, unroofed, hard standing collecting or feeding yards for cattle in 2018. This was more common on larger farms (35%) than on small farms (22%). Half of dairy farms (52%) used outdoor, unroofed, hard standing collecting or feeding yards compared to a third of lowland grazing livestock farms with cattle, a quarter of mixed farms with cattle and just under a quarter of LFA grazing livestock farms with cattle.

For those with this facility, dairy cattle spent 7.5 months a year, on average, in outdoor, unroofed, hard standing collecting or feeding yards (Table 8.1). When in use, dairy cows were in these yards for 8 hours a day. Other cattle spent an average of 6.1 months a year in these yards and 13 hours a day when in use.

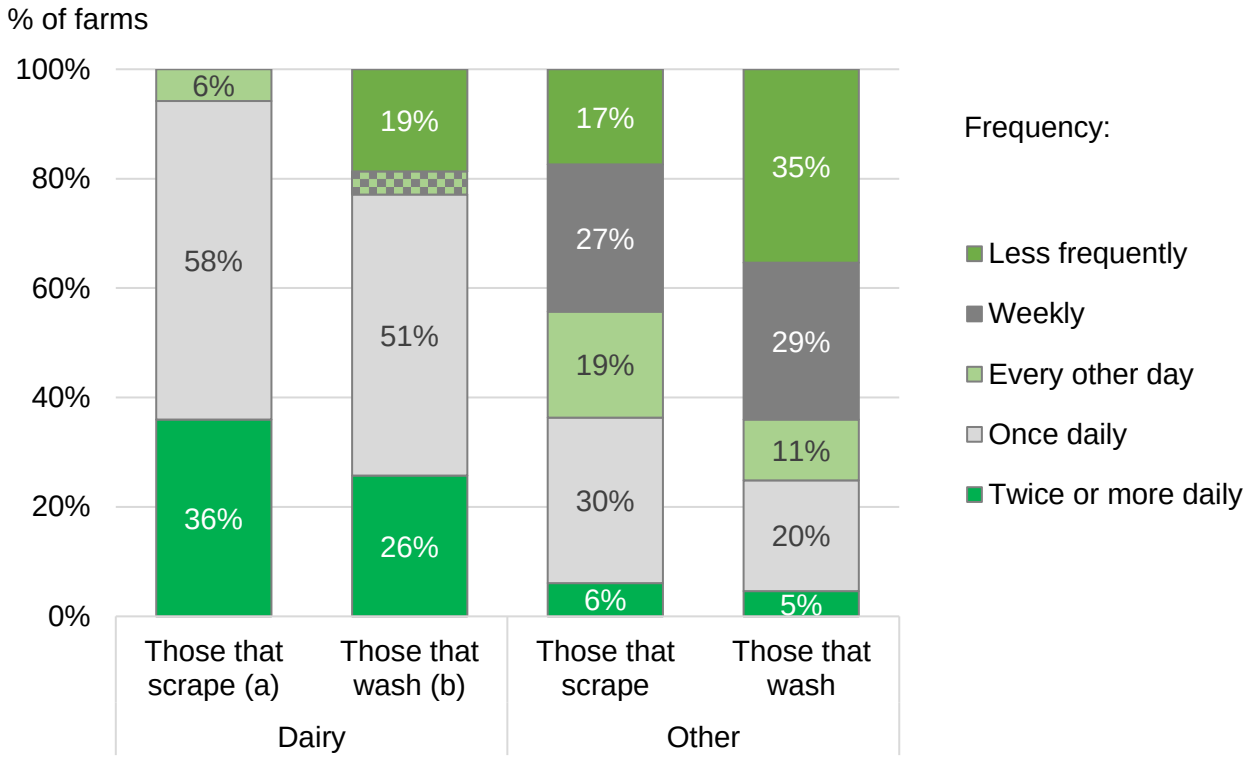
Table 8.1 Average time spent in outdoor, unroofed, hard standing collecting or feeding yards

	Dairy Cattle		Other Cattle	
	Number	95% CI	Number	95% CI
Months a year	7.5	±1.0	6.1	±0.4
Hours a day [(a)]	8.1	±1.5	13	±2.5

(a) when in use

When yards were in use, almost all of those with dairy cattle who scraped the yards did so either once daily (58%) or more frequently (36%). The most common frequency for those with dairy cattle that washed their yards was once daily (51%). This differed from those with other cattle (Figure 8.1). Those with other cattle who scraped their yards were most likely to do so once daily (30%) or weekly (27%). Those with other cattle who washed their yards were most likely to do so weekly (29%) or less frequently (35%).

Figure 8.1: When in use, how often do you scrape and wash the outdoor, unroofed, hard standing collecting or feeding yards?



Survey methodology

Survey content
The Farm Practices Survey (FPS) collects information on a diverse range of topics. Each year, stakeholders are invited to request new questions to help inform policy decisions.

This release includes the results from the FPS run in October 2018. The survey largely focused on practices relating to how farmers run their farm businesses. Topics covered include innovation, market prices, risk management, grants and payments, collaboration, use of accounting packages, soil management and cattle housing. Where comparisons with earlier years are possible, the results are displayed alongside those from previous years.

The results provided in this release are based on questions sent to approximately 7,000 holdings in England. These holdings were targeted by farm type and size to ensure a representative sample. The survey was voluntary and the response rate was 39%. Thank you to all of the farmers who completed a survey form.

Thresholds were applied to ensure that very small holdings with little agricultural activity were not included in the survey. To be included in the main sample, holdings had to have at least 50 cattle, 100 sheep, 100 pigs, 1,000 poultry or 20 hectares of arable crops or orchards. Therefore, all results given in this statistical release reflect just over 60 thousand holdings that exceed these thresholds out of the total English population of almost 107 thousand commercial holdings.

A breakdown of the number of holdings within the population and the sample are shown below.

Farm type	Number of eligible holdings in England	Number of holdings sampled	Response rate %
Cereals	16 205	1 519	44
Other crops	5 954	847	41
Pigs & poultry	3 763	529	33
Dairy	5 932	1 216	35
Grazing livestock (less favoured areas)	8 490	823	40
Grazing livestock (lowland)	15 783	1 436	37
Mixed	5 603	630	40
All farms	**61 730**	**7 000**	**39**

Data analysis
Results have been analysed using a standard methodology for stratified random surveys to produce national estimates. With this method, all of the data are weighted according to the inverse sampling fraction.

Accuracy and reliability of the results
We show 95% confidence intervals against the results. These show the range of values that may apply to the figures. They mean that we are 95% confident that this range contains the true value. They are calculated as the standard errors (se) multiplied by 1.96 to give the 95% confidence interval (95% CI). The standard errors only give an indication of the sampling error. They do not reflect any other sources of survey errors, such as non-response bias.

Definitions
Where reference is made to the *type of farm* in this document, this refers to the 'robust type', which is a standardised farm classification system. *Farm sizes* are based on the estimated labour requirements for the holding, rather than its land area. The farm size bands used within the detailed results tables which accompany this publication are shown in the table below. Standard Labour

Requirement (SLR) is defined as the theoretical number of workers required each year to run a holding, based on its cropping and livestock activities.

Farm size	Definition
Small	Less than 2 SLR
Medium	2 to less than 3 SLR
Large	3 or more SLR

Availability of results
This release contains headline results for each section. The full breakdown of results, by region, farm type, and farm size, will be available by mid-April at:
https://www.gov.uk/government/collections/farm-practices-survey.

Other Defra statistical notices can be viewed on the Defra website at:
https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics.

Data uses
The Farm Practices survey is used to provide up-to-date information on current issues to help inform policy decisions. The survey has a wide customer base within Defra and its agencies and other external bodies.

Additional information
For more information on how the data was collected you can view the questions asked on our survey form in Annex I over the page.

Finally, we are keen to hear your thoughts on this statistical release. If you found the data useful or if you have any other comments please let us know. You can contact us via the phone number on the front page or alternatively email us at farming-statistics@defra.gov.uk.

National Statistics Status

National Statistics status means that our statistics meet the highest standards of trustworthiness, quality and public value, and it is our responsibility to maintain compliance with these standards.

The continued designation of these statistics as National Statistics was confirmed in 2014 following a full assessment by the UK Statistics Authority against the Code of Practice for Statistics.

Since the last review of these statistics in 2014, we have continued to comply with the Code of Practice for Statistics, and have made improvements including:

- Improvements to the commentary to aid user interpretation
- Adding a section on data users