



Published 30 July 2013

Animal Health and Welfare Practices on Farm 2011/12, England

This release provides the results of questions on animal health and welfare practices adopted by farmers from the 2011/12 Business Management Practices module from the Farm Business Survey. Results on business management practices were published separately on 21 May 2013.

The results suggest that many farms are regularly discussing their animal health plan with a vet, and that over half of dairy farms are doing this at least monthly. There is, however, a significant minority of farms (30%) that never discuss animal health plans with a vet.

Whilst it is not surprising that the vast majority of farms are currently carrying out at least one disease prevention practice, it is slightly surprising that less than 10% of farms will be undertaking *additional* practices in the next 12 months.

Many farmers cite pursuit of good economic performance and animal welfare as drivers of uptake of animal health practises, but only a minority consider consumers and the 'market' as a key driver.

The key results are given below.

Vet visits to discuss or implement animal health plans ([section 1](#))

- For more than half (57%) of farms with livestock, a veterinary surgeon visits the farm at least once a year to discuss or implement preventative animal health plans.
- On nearly a half of dairy farms, a vet visits at least monthly to discuss or implement the plans. This is a much higher proportion than for other farm types.
- For 30% of farms with livestock, a veterinary surgeon never visits the farm to discuss or implement preventative animal health plans.

Animal disease prevention practices ([section 2](#))

Dairy enterprise

- 97% of dairy enterprises were undertaking at least one animal disease prevention practice.
- The most common practice in the dairy enterprise is to '*implement a farm health plan in consultation with vets*' (80%). Higher performing farms were more likely (94%) to implement a farm health plan than lower performing farms (59%).
- Around 8% of dairy enterprises indicated they would carry out additional practices in the next 12 months.

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Beef enterprise

- 94% were undertaking at least one animal disease prevention practice.
- The most common practice was to *'control spread and multiplication of disease within farm'* with 61% of beef enterprises doing this. Larger farms (69%) are more likely to undertake this practice than smaller farms (53%).
- *'Undertaking training in disease management'* was the least common practice (31%). Larger farms are more likely to undertake training than smaller farms (23%).
- Around 6% of beef enterprises indicated they would carry out additional practices in the next 12 months

Sheep enterprise

- 94% of sheep enterprises were undertaking at least one animal disease prevention practice.
- The most common practice was *'prevent new disease being brought on farm by separating new livestock from existing livestock'* (69%).
- The least common practice was *'Farmer/keeper/herdsman/stockman training in disease management'* (24%). Uptake of this practice increased with farm size.
- Around 7% of sheep enterprises indicated that they would carry out additional practices in the next 12 months.

Pigs

- 90% of pig enterprises were undertaking at least one animal disease prevention practice.
- The most common practice undertaken was to *'prevent new disease being brought onto farm by visitors'* (82%).
- *'Undertaking training in disease management'* was the least popular practice (38%).
- Around 7% of pig enterprises indicated that they would carry out additional practices in the next 12 months.

Poultry meat

- Around three quarters of poultry meat enterprises were carrying out at least one animal disease prevention practice.
- The most common practice was to *'prevent new disease being brought onto farm by visitors'* (79%).
- The least common practice was to *'use strict stock replacement policies and avoid buying through markets'* (53%).

Eggs

- Nearly two thirds of egg production enterprises were undertaking at least one animal disease prevention practice.
- The most common practice was *'prevent new disease being brought onto farm by visitors'* (69%). *'Undertaking training in disease management'* was the least popular practice (45%).
- Around 7% of egg production enterprises indicated they would carry out additional practices in the next 12 months.

Reasons for carrying out animal health practices ([section 3](#))

- The most common reason cited for carrying out animal health practices was *'animal welfare'* (86%).
- Around 80% of farm businesses gave *'financial'* as one of the top three reasons why they are carrying out practices.
- A quarter of farm business gave *'market/customer'* as one of the reasons they are carrying out practices.

Detailed results

The results are presented together with [confidence intervals](#) . The full breakdown of results, by region, farm type, farm size, farm tenure and farm economic performance, can be found at: <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/farm-business-survey#publications>

Figures in italics are based on fewer than fifteen observations and should therefore be treated with caution. In order to preserve the anonymity of respondents, asterisks (*) are used to replace results that are based on fewer than five observations or could be used to reconstruct these results.

1 Vet visits to discuss or implement animal health plans

Farm businesses with livestock were asked how often the veterinary surgeon visits the farm to discuss/implement preventative animal health plans.

Table 1: How often the veterinary surgeon visits the farm to discuss/implement preventative health plans

	% farm businesses	95% CI
At least monthly	11	±2
Every 2 or 3 months	13	±2
Every 6 or 12 months	33	±3
Less than once a year	13	±3
No visits	30	±4

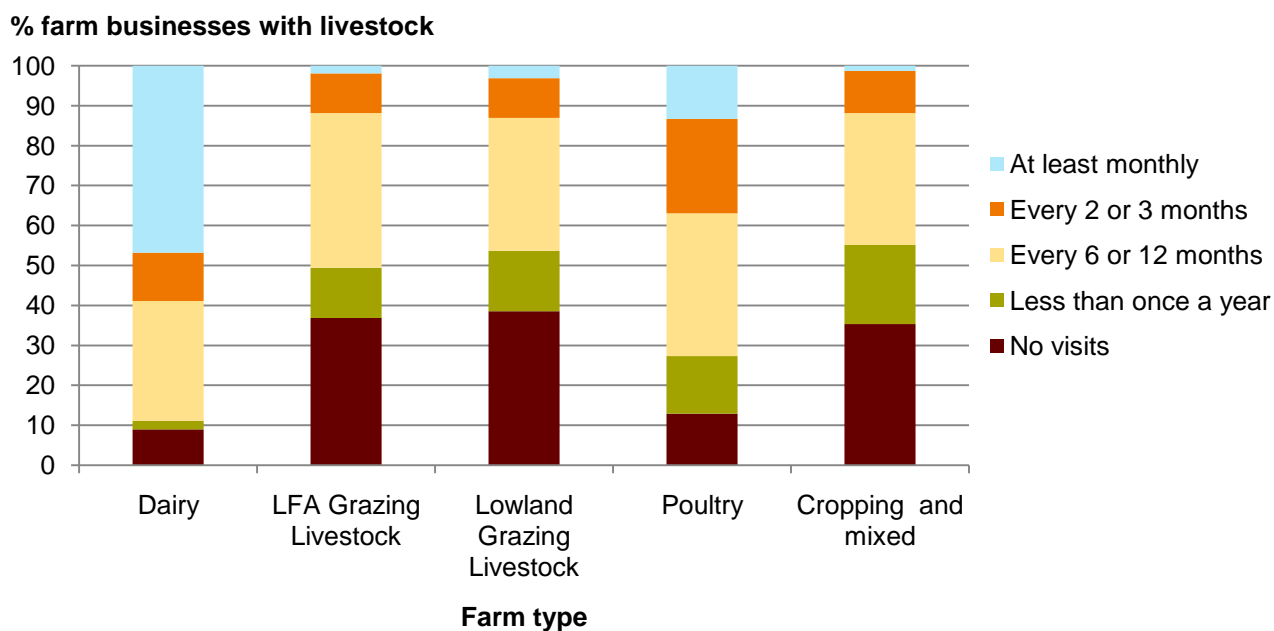
Based on responses from 979 farm businesses with livestock in 2011/12.

In 2011/12, for more than half (57%) of farm businesses with livestock, a veterinary surgeon visits the farm at least once a year to discuss or implement preventative animal health plans. For 30% of farm businesses with livestock a veterinary surgeon does not visit the farm at all to discuss or implement preventative animal health plans. Farm businesses with no visits from a veterinary surgeon were predominately small farms and grazing livestock farms.

For 89% of Dairy farms (figure 1) a veterinary surgeon visits the farm at least once a year to discuss/implement preventative animal health plans, On nearly a half of dairy farms, a vet visits at least monthly to discuss or implement the plans. This is a much higher proportion than for other farm types.

For 39% of lowland grazing livestock (beef or sheep) farms a veterinary surgeon does not visit the farm at all to discuss or implement preventative animal health plans.

Figure 1: How often a veterinary surgeon visits the farm to discuss/implement preventative health plans by farm type, 2011/12 ^(a)



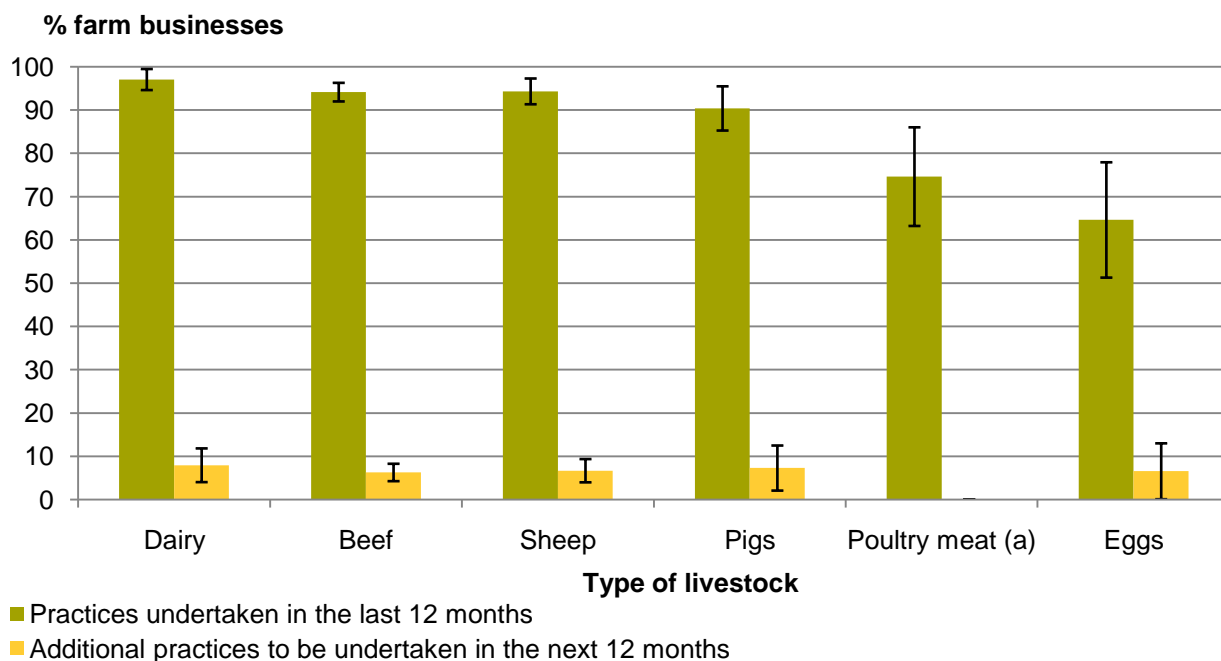
(a) No figures are available for pig farms due to insufficient observations.

2 Animal disease prevention practices

Farm businesses with livestock were asked what animal disease prevention practices they are currently undertaking and what additional practices they are likely to undertake in the next 12 months. The questions were asked for each of the following types of livestock enterprises: Dairy, Beef, Sheep, Pigs, Poultry Meat and Eggs. The questions were asked for each type of livestock enterprise as it is likely that different practices would be undertaken for each.

Figure 2 shows the percentage of farm businesses currently undertaking at least one animal disease prevention practice for each type of livestock enterprise. For dairy, beef, sheep and pig enterprises over 90% of farm businesses are currently undertaking at least one animal disease prevention practice. Uptake of practices in the egg production enterprises is the lowest (65%). The percentage of farm businesses indicating they will carry out additional animal disease prevention practices in the next 12 months is less than 10% across all types of livestock enterprises.

Figure 2: Percentage of farm businesses currently undertaking at least one animal disease prevention practice and those planning to undertake at least one additional practice in the next 12 months by type of livestock enterprise, 2011/12



(a) No figures are available for additional practices to be undertaken for poultry meat due to insufficient observations.

2.1 Dairy

In 2011/12, 97% farm businesses with dairy cows were undertaking at least one animal disease prevention practice (table 2.1.1).

Table 2.1.1: Percentage of farms with dairy cows that are undertaking animal disease prevention practices, 2011/12

	% farm businesses	95% CI
Practices undertaken	97	±2
No practices undertaken	3	±2

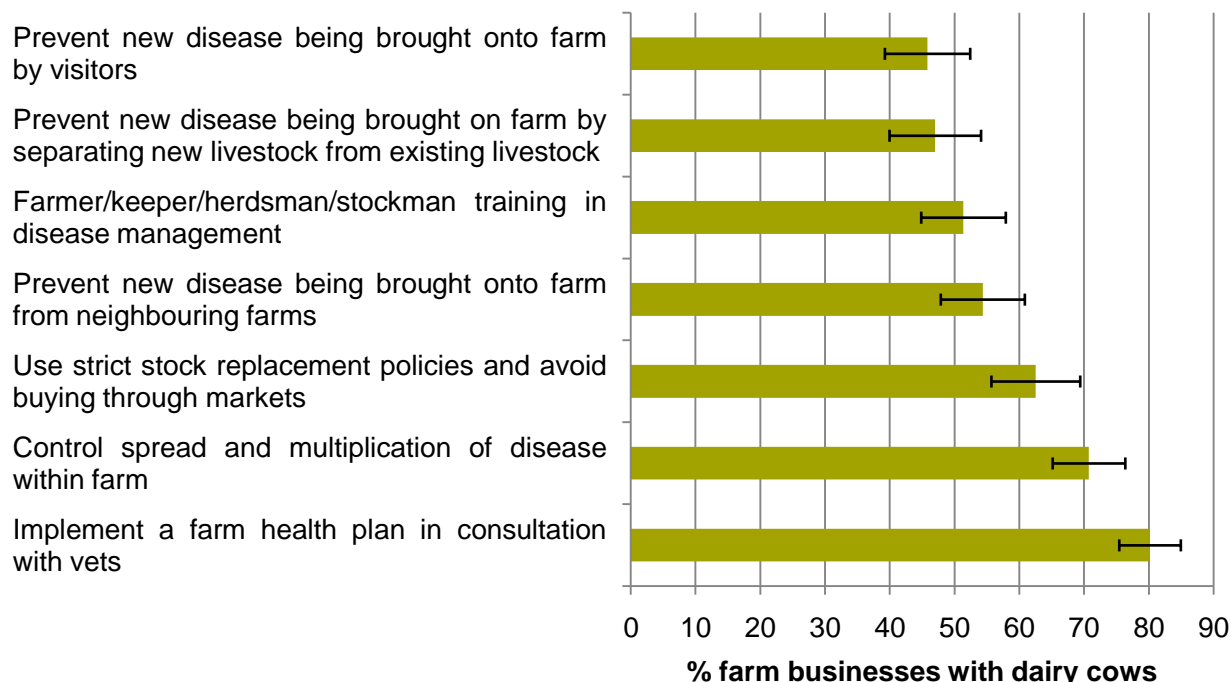
Based on responses from 256 farm businesses with dairy cows in 2011/12.

Of those farm businesses, with dairy cows, that are undertaking animal disease prevention practices, the most common practice (figure 3) is to *'implement a farm health plan in consultation with vets'* (80%). Higher performing farms are more likely (94%) to implement a farm health plan than lower performing farms (59%). The 2013 Farm Practices Survey¹ found that 87% of dairy farms had a health plan with had been completed with the assistance of a vet or adviser. The results from these two surveys are very similar, with the main difference being that the FBS just asks where a vet is involved whereas the FPS included other advisors.

The least common practice was to *'prevent new disease being brought onto farm by visitors'*, with 45% of farm businesses carrying this out.

¹ For the 2013 Farm Practices Survey detailed results please see: <https://www.gov.uk/government/publications/farm-practices-survey-february-2013-greenhouse-gas-mitigation-practices>

Figure 3: Percentage of farms with dairy cows that are undertaking various animal disease prevention practices, 2011/12



Based on responses from 250 farm businesses with dairy cows that are undertaking animal disease prevention practices in 2011/12. Respondents could select more than one option.

Around 8% of farm businesses with dairy cows indicated they would carry out additional practices in the next 12 months. For those undertaking additional practices in the next 12 months, 62% are planning on further practices to prevent/control the spread of disease, whilst 72% are planning to implement farm health plan and/or undertake training.

Table 2.1.2: Farms with dairy cows; additional animal disease prevention practices to be undertaken in the next 12 months

	% farm businesses	95% CI
Preventing/controlling spread of disease ^(a)	62	±26
Farm health plans/training ^(b)	72	±21

Based on responses from 17 farm businesses with dairy cows that are planning to undertake additional animal disease prevention practices in the next 12 months. Respondents could select more than one option.

Figures in italics are based on a small sample so care should be taken when interpreting it.

(a) Preventing/controlling spread of disease includes: Prevent new disease being brought on farm by separating new livestock from existing livestock, use strict stock replacement policies and avoid buying through markets, prevent new disease being brought onto farm by visitors, prevent new disease being brought onto farm from neighbouring farms and control spread and multiplication of disease within farm

(b) Farm health plans/training includes: Implement a farm health plan in consultation with vets and Farmer/keeper/herdsman/stockman training in disease management

2.2 Beef

For those farm businesses with beef cattle, 94% of them were undertaking at least one animal disease prevention practice in 2011/12 (table 2.2.1).

Table 2.2.1: Percentage of farms with beef cattle that are undertaking animal disease prevention practices, 2011/12

	% farm businesses	95% CI
Practices undertaken	94	±2
No practices undertaken	6	±2

Based on responses from 771 farm businesses with beef cattle in 2011/12.

For those farms with beef cattle that are undertaking practices, the most common practice was to '*control spread and multiplication of disease within farm*' with 61% of farm business doing this. Larger farms (69%) are more likely to undertake this practice than smaller farms (53%). Regional variation also occurs with 81% of farm businesses in the North West controlling the spread and multiplication of disease, compared to 41% in the South East.

Undertaking training in disease management was the least common practice (31%). Larger farms (43%) are more likely to undertake training than smaller farms (23%). As the age of the youngest person with managerial input increases, uptake of this practice decreases (figure 4). The percentage of farm businesses undertaking training is lower for those farms inside the SDA (relative to those outside the SDA).

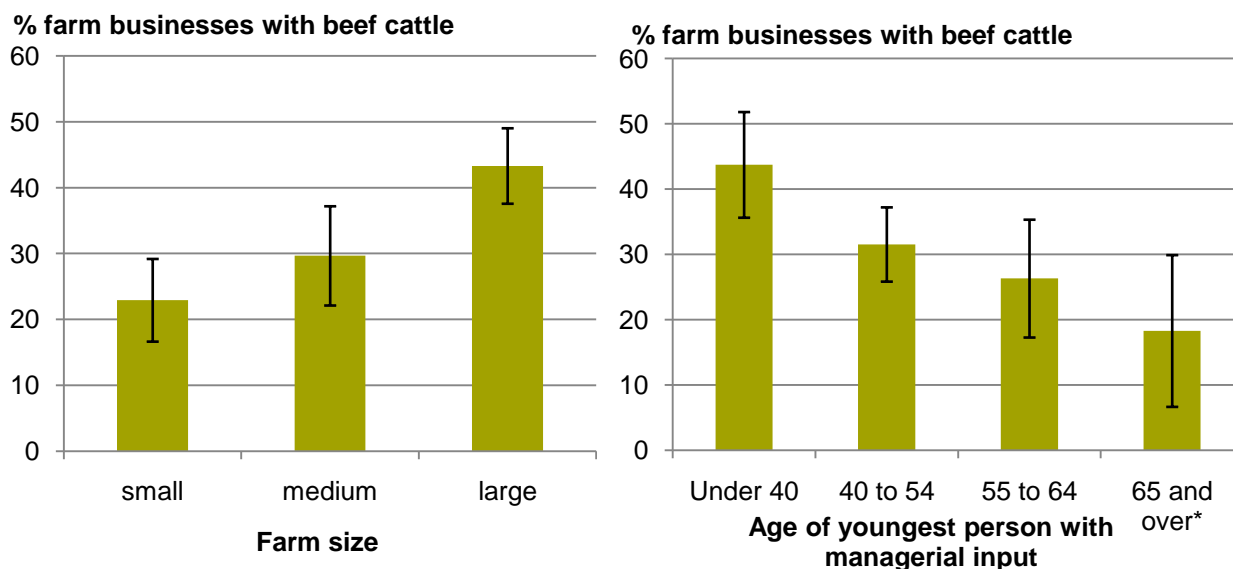
Table 2.2.2: Percentage of farms with beef cattle that are undertaking various animal disease prevention practices, 2011/12

	% farm businesses	95% CI
Control spread and multiplication of disease within farm	61	±4
Prevent new disease being brought on farm by separating new livestock from existing livestock	57	±4
Implement a farm health plan in consultation with vets	54	±4
Use strict stock replacement policies and avoid buying through markets	45	±4
Prevent new disease being brought onto farm from neighbouring farms	40	±4
Prevent new disease being brought onto farm by visitors	33	±4
Farmer/keeper/herdsman/stockman training in disease management	31	±4

Based on responses from 728 farm businesses with beef cattle that are undertaking animal disease prevention practices in 2011/12.

Respondents could select more than one option.

Figure 4: Percentage of farm businesses with beef cattle who are undertaking training in disease management by farm size (left) and by age of youngest person with managerial input (right), 2011/12



*based on a small number of observations.

The majority of farm businesses (94%) with beef cattle indicated they would not be carrying out any additional practices in the next 12 months. For those undertaking additional practices in the next 12 months, 59% are planning on further practices to prevent/control the spread of disease²; the same proportion are planning to implement a farm health plan and/or undertake training³.

2.3 Sheep

In 2011/12, 94% farm businesses with sheep were undertaking at least one animal disease prevention practice (table 2.3.1).

Table 2.3.1: Percentage of farms with sheep that are undertaking animal disease prevention practices, 2011/12

	% farm businesses	95% CI
Practices undertaken	94	±3
No practices undertaken	6	±3

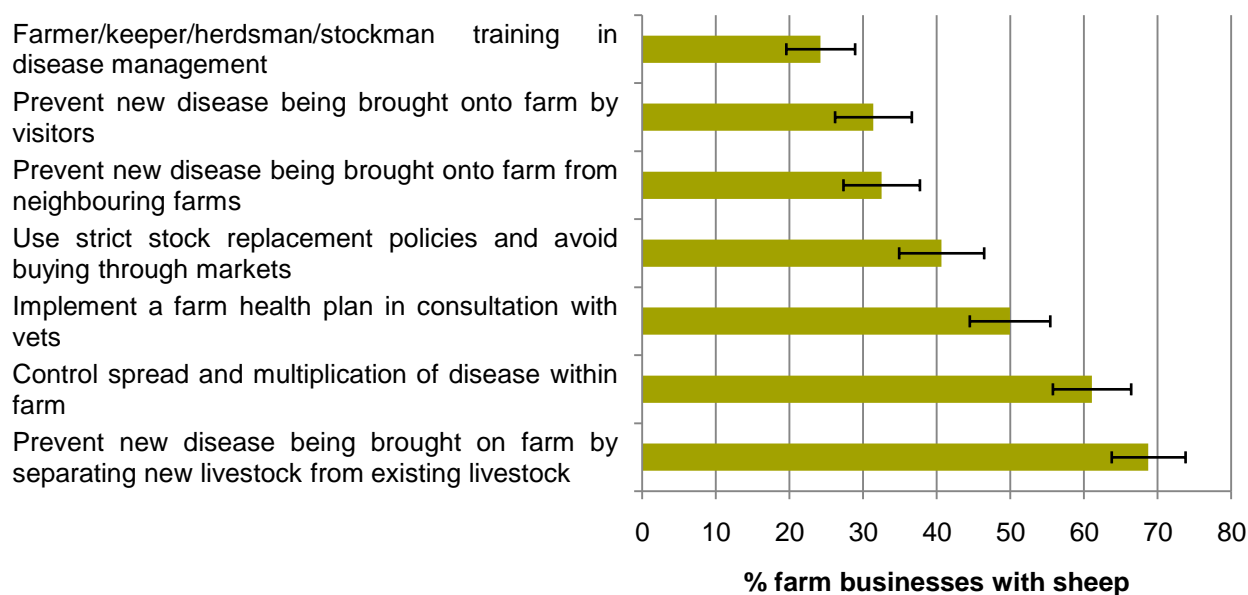
Based on responses from 474 farm businesses with sheep in 2011/12.

For those farm businesses, with sheep, that are undertaking animal disease prevention practices, the most common practice (figure 4) is to 'prevent new disease being brought on farm by separating new livestock from existing livestock' (69%). Regional variation occurs with 89% of farm businesses in the South East carrying this practice out, compared to 61% in the North West. There were also significant differences in uptake between age groups, with the oldest farmers being the least likely to carry out this practice.

² Preventing/controlling spread of disease includes: Prevent new disease being brought on farm by separating new livestock from existing livestock, use strict stock replacement policies and avoid buying through markets, prevent new disease being brought onto farm by visitors, prevent new disease being brought onto farm from neighbouring farms and control spread and multiplication of disease within farm

³ Farm health plans/training includes: Implement a farm health plan in consultation with vets and Farmer/keeper/herdsman/stockman training in disease management.

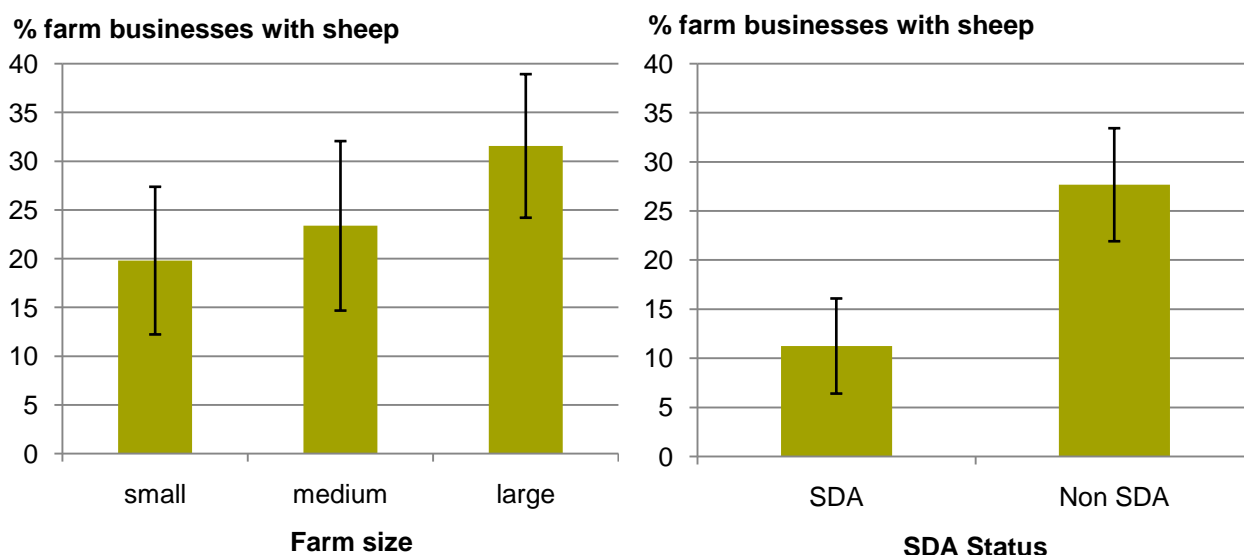
Figure 5: Percentage of farms with sheep that are undertaking various animal disease prevention practices, 2011/12



Based on responses from 447 farm businesses with sheep that are undertaking animal disease prevention practices in 2011/12. Respondents could select more than one option.

The least common practice was ‘Farmer/keeper/herdsman/stockman training in disease management’, with 24% of farm businesses carrying this out. Uptake of this practice increased with farm size (figure 6) and was greater for those farms outside the SDA (relative to those inside the SDA). There were also significant differences between age groups, with older farmers being less likely to undertake training.

Figure 6: Percentage of farm businesses with sheep who are undertaking training in disease management by farm size (left) and by SDA status (right), 2011/12



Around 7% of farm businesses with sheep indicated that they would carry out additional practices in the next 12 months. For those undertaking additional practices in the next 12 months, 62% are planning on further practices to prevent/control the spread of disease whilst 66% are planning to implement a farm health plan and/or undertake training (table 2.3.2).

Table 2.3.2: Farms with sheep; additional animal disease prevention practices to be undertaken in the next 12 months

	% farm businesses	95% CI
Preventing/controlling spread of disease ^(a)	62	±21
Farm health plans/training ^(b)	66	±20

Based on responses from 34 farm businesses with sheep that are planning to undertake additional animal disease prevention practices in the next 12 months.

Respondents could select more than one option

- (a) Preventing/controlling spread of disease includes: Prevent new disease being brought on farm by separating new livestock from existing livestock, use strict stock replacement policies and avoid buying through markets, prevent new disease being brought onto farm by visitors, prevent new disease being brought onto farm from neighbouring farms and control spread and multiplication of disease within farm
- (b) Farm health plans/training includes: Implement a farm health plan in consultation with vets and Farmer/keeper/herdsman/stockman training in disease management

2.4 Pigs

For those farm businesses with pigs, 90% of them were undertaking at least one animal disease prevention practice in 2011/12 (table 2.4.1).

Table 2.4.1: Percentage of farms with pigs that are undertaking animal disease prevention practices, 2011/12

	% farm businesses	95% CI
Practices undertaken	90	±5
No practices undertaken	10	±5

Based on responses from 127 farm businesses with pigs in 2011/12.

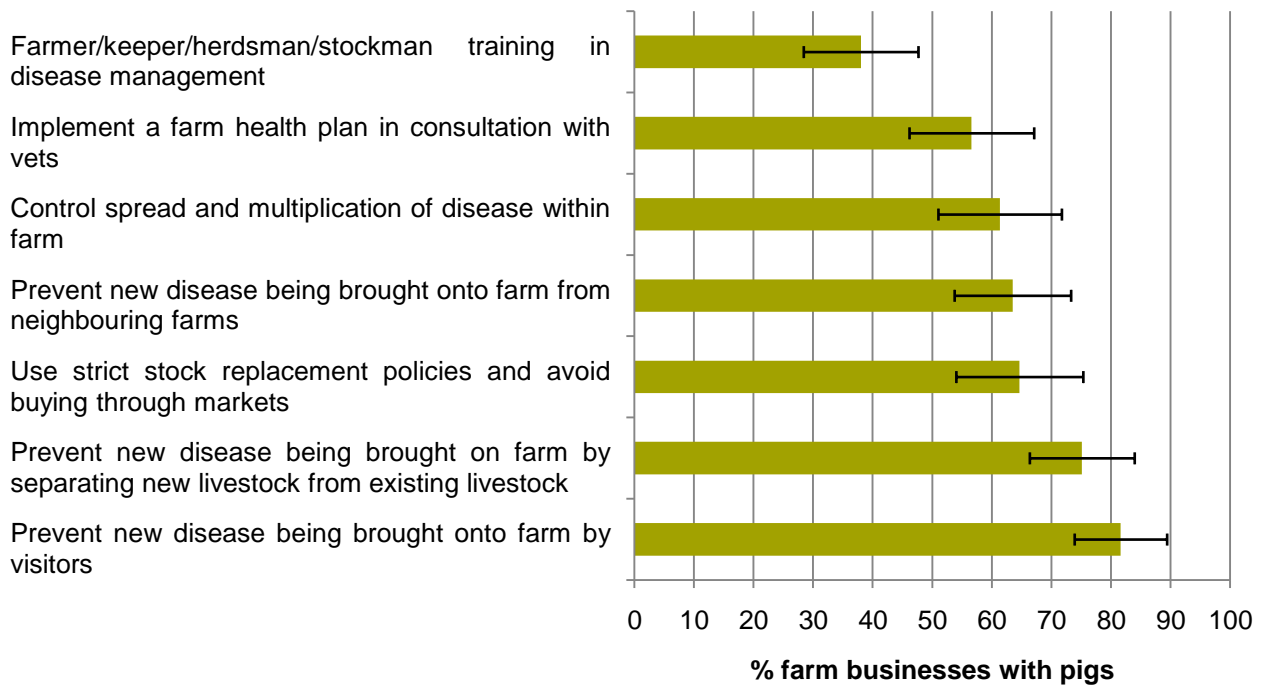
Of those farm businesses, with pigs, that are undertaking animal disease prevention practices, the most common practice (figure 7) is to '*prevent new disease being brought onto farm by visitors*' (82%). Uptake of this practice varied by region, with 97% of farm businesses in the North East and Yorkshire & Humber doing this, compared to 53% of farm businesses in the West Midlands (figure 8). Care should be taken when interpreting these figures, as the number of farms citing they are carrying out this practice in each region is small and the confidence intervals are large. There were also significant differences in uptake between farm size groups (figure 8), with the largest farms being the most likely to carry out this practice (91%). Undertaking training in disease management was the least common practice (38%).

Around 93% of farm businesses with pigs indicated they would not be carrying out any additional practices in the next 12 months. For those undertaking additional practices in the next 12 months, 48% are planning on further practices to prevent/control the spread of disease⁴ whilst 81% are planning to implement a farm health plan and/or undertake training⁵.

⁴ Preventing/controlling spread of disease includes: Prevent new disease being brought on farm by separating new livestock from existing livestock, use strict stock replacement policies and avoid buying through markets, prevent new disease being brought onto farm by visitors, prevent new disease being brought onto farm from neighbouring farms and control spread and multiplication of disease within farm

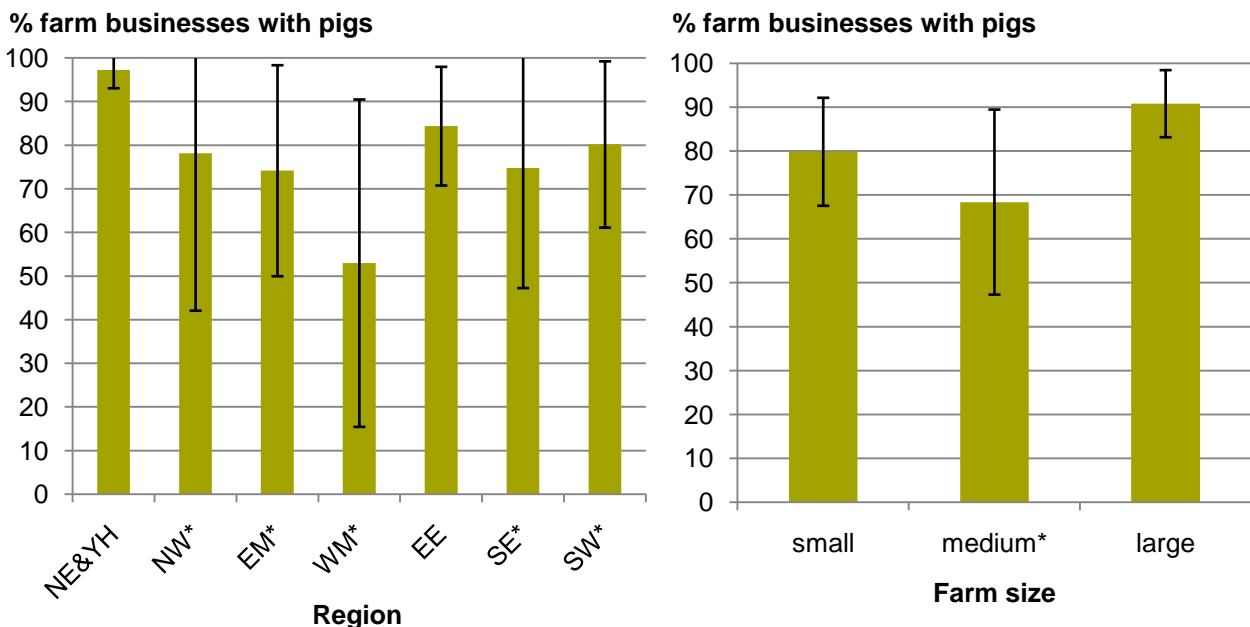
⁵ Farm health plans/training includes: Implement a farm health plan in consultation with vets and Farmer/keeper/herdsman/stockman training in disease management.

Figure 7: Percentage of farms with pigs that are undertaking various animal disease prevention practices, 2011/12



Based on responses from 113 farm businesses with pigs that are undertaking animal disease prevention practices in 2011/12. Respondents could select more than one option.

Figure 8: Percentage of farm businesses with pigs who are carrying out practices to prevent new disease being brought onto farm by visitors by region (left) and farm size (right), 2011/12



*based on a small number of observations.

2.5 Poultry Meat

Around three quarters of farm businesses with a poultry meat production enterprise, were carrying out at least one animal disease prevention practice in 2011/12 (table 2.5.1).

Table 2.5.1: Percentage of farms with a poultry meat production enterprise that are undertaking animal disease prevention practices, 2011/12

	% farm businesses	95% CI
Practices undertaken	75	±11
No practices undertaken	25	±11

Based on responses from 67 farm businesses with a poultry meat production enterprise in 2011/12.

For those farms undertaking practices, the most common practice was to *'prevent new disease being brought onto farm by visitors'* with 79% of farm business doing this (table 2.5.2). There were significant differences in uptake between farm size groups (figure 9), with the largest farms being the most likely to carry out this practice (98%). Significant differences also occurred between economic performance bands (figure 9).

The least common practice was to *'use strict stock replacement policies and avoid buying through markets'* (53%).

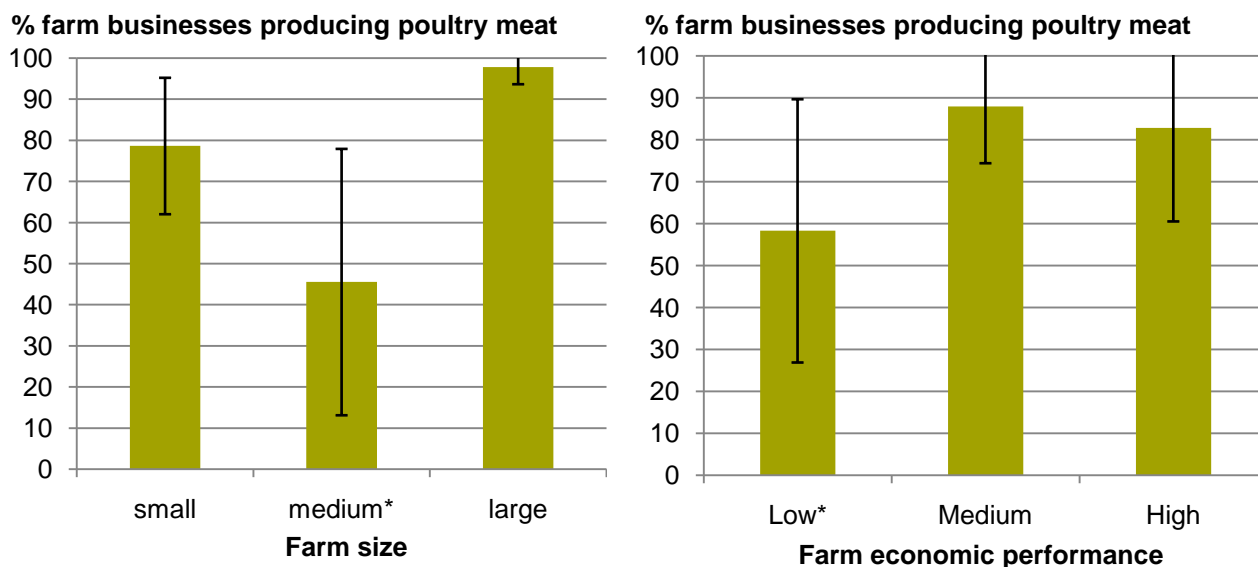
Table 2.5.2: Percentage of farms with a poultry meat production enterprise that are undertaking various animal disease prevention practices, 2011/12

	% farm businesses	95% CI
Prevent new disease being brought onto farm by visitors	79	±12
Control spread and multiplication of disease within farm	77	±12
Prevent new disease being brought on farm by separating new livestock from existing livestock	68	±14
Implement a farm health plan in consultation with vets	62	±14
Farmer/keeper/herdsman/stockman training in disease management	62	±14
Prevent new disease being brought onto farm from neighbouring farms	55	±15
Use strict stock replacement policies and avoid buying through markets	53	±15

Based on responses from 51 farm businesses with a poultry meat production enterprise that are undertaking animal disease prevention practices in 2011/12.

Respondents could select more than one option.

Figure 9: Percentage of farm businesses with a poultry meat production enterprise who are carrying out practices to prevent new disease being brought onto farm by visitors by farm size (left) and farm economic performance (right), 2011/12



*based on a small number of observations.

2.6 Eggs

In 2011/12, nearly two thirds of farm businesses with an egg production enterprise were undertaking at least one animal disease prevention practice (table 2.6.1).

Table 2.6.1: Percentage of farms with an egg production enterprise that are undertaking animal disease prevention practices, 2011/12

	% farm businesses	95% CI
Practices undertaken	65	±13
No practices undertaken	35	±13

Based on responses from 79 farm businesses with an egg production enterprise in 2011/12.

Of those farm businesses, with an egg production enterprise, that are undertaking animal disease prevention practices, the most common practice (table 2.6.2) is '*prevent new disease being brought onto farm by visitors*', with 69% of farm businesses doing this. Undertaking training in disease management was the least common practice (45%).

Around 7% of farm businesses with an egg production enterprise indicated they would carry out further practices in the next 12 months.

Table 2.6.2: Percentage of farms with an egg production enterprise that are undertaking various animal disease prevention practices, 2011/12

	% farm businesses	95% CI
Prevent new disease being brought onto farm by visitors	69	±14
Prevent new disease being brought on farm by separating new livestock from existing livestock	61	±14
Implement a farm health plan in consultation with vets	59	±15
Prevent new disease being brought onto farm from neighbouring farms	59	±14
Use strict stock replacement policies and avoid buying through markets	58	±15
Control spread and multiplication of disease within farm	54	±15
Farmer/keeper/herdsman/stockman training in disease management	45	±14

Based on responses from 56 farm businesses with an egg production enterprise that are undertaking animal disease prevention practices in 2011/12.

Respondents could select more than one option.

3 Reasons for carrying out animal health practices

Farm businesses that were carrying out animal health practices were asked to provide their top three reasons why they were doing so. The most common reason cited was '*animal welfare*' (86%). Regional variation occurs with 91% of farm businesses in the North East and Yorkshire & Humber giving this reason, compared to 78% of farm businesses in the South East (figure 10). Around 80% of farm businesses gave '*financial*' as one of the top three reasons why they are carrying out practices. A quarter of farm business gave '*market/customer*' as one of the reasons they are carrying out practices. Pig farms were the most likely (figure 11) to give this reason (58%), whilst LFA grazing livestock farms were the least likely (13%). Regional variation also occurs with 55% of farm businesses in the East of England giving '*market/customer*' as one of their reasons, compared to 16% of farm businesses in the North East and Yorkshire & Humber.

Table 3.1: Reasons why farm businesses carry out animal health practices, 2011/12

	% farm businesses	95% CI
Animal Welfare	86	±3
Financial	80	±3
Disease outbreak	55	±4
Regulatory	33	±4
Market/Customer	26	±3
Other	2	±1

Based on responses from 953 farm businesses with livestock that are undertaking animal disease prevention practices in 2011/12.

Respondents could select more than one option.

Figures in italics are based on a small sample so care should be taken when interpreting it.

Figure 10: Percentage of farm businesses citing 'animal welfare' as the reason they carry out animal health practices by region.

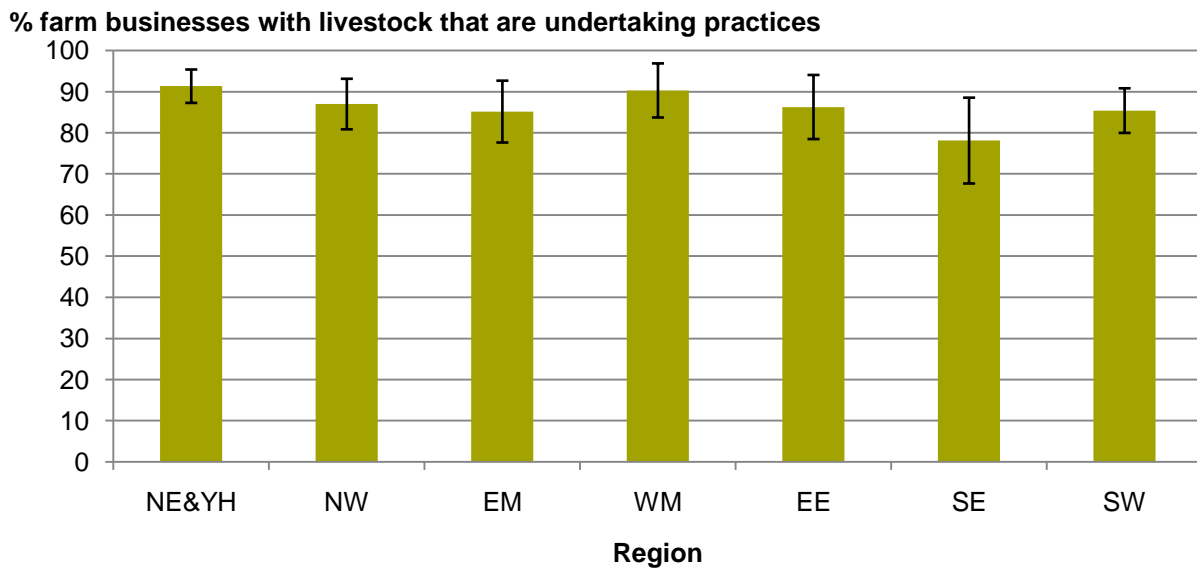
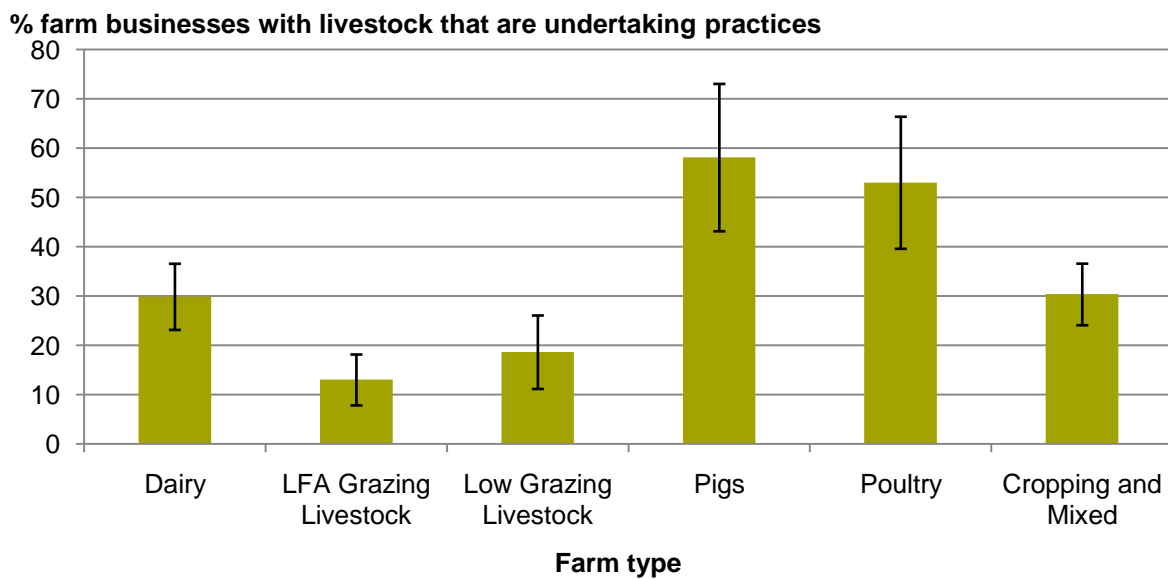


Figure 11: Percentage of farm businesses citing 'market/customer' as the reason they carry out animal health practices by farm type.



Survey details

Survey content and methodology

The Farm Business Survey (FBS) is an annual survey providing information on the financial position and physical and economic performance of farm businesses in England. The sample of around 1,900 farm businesses covers all regions of England and all types of farming with the data being collected by face to face interview with the farmer. Results are weighted to represent the whole population of farm businesses that have at least 25 thousand Euros of standard output⁶ as recorded in the annual June Survey of Agriculture and Horticulture. In 2011 there were just over 56 thousand farm businesses meeting this criteria⁷.

In the 2011/12 survey, an additional module was included to collect information on business management practices from a sub-sample of farm businesses. Interviewers collected responses between January and October 2012 for practices relating to the 2011/12 accounting year (generally ending around February 2012). The information collected covered:

- i) business management practices such as benchmarking, risk management, IT usage and management accounting,
- ii) practices specific to animal health and welfare e.g. biosecurity, veterinary strategy, animal health plans,
- iii) the environmental footprint of farming, GHG abatement, energy use and
- iv) climate change adaptation.

When combined with other data from the survey this helps to explain farm businesses' behaviour and how this varies with parameters such as farm type, farm size and performance.

Completion of the business management practices module was voluntary with a response rate of 71% in 2011/12. The farms that responded to the business management practices module had similar characteristics to those farms in the main FBS in terms of farm type and geographical location. There was a smaller proportion of large and very large farms in the module subset than in the main FBS. Full details of the characteristic of responding farms can be found at Appendix A.

This release includes the results for the questions asked on animal health and welfare practices. Results on computer usage, business management practices and climate change mitigation and adaptation have been published, for the detailed results please see:

Computer usage published 20 March 2013:

<https://www.gov.uk/government/publications/farm-practices-survey-october-2012-computer-usage>

Business management practices published 21 May 2013:

<https://www.gov.uk/government/publications/farm-business-management-practices>

⁶ For a definition of standard output please see the UK classification document here <https://www.gov.uk/farm-business-survey-technical-notes-and-guidance>

⁷ Prior to the 2010/11 campaign, the coverage of the FBS was restricted to those farms of size ½ Standard Labour Requirement (SLR) or more. For a definition of SLR please see the UK classification document here: <https://www.gov.uk/farm-business-survey-technical-notes-and-guidance>

Climate change adaptation and mitigation published 30 May 2013:
<https://www.gov.uk/government/publications/farm-practices-survey-february-2013-greenhouse-gas-mitigation-practices>

For further information about the Farm Business Survey please see:
<https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/farm-business-survey>

Data analysis

The results from the FBS relate to farms which have a standard output of at least 25,000 Euros. Initial weights are applied to the FBS records based on the inverse sampling fraction for each design stratum (farm type by farm size). These weights are then adjusted (calibration weighting⁸) so that they can produce unbiased estimators of a number of different target variables. Completion of the business management practices module was voluntary and a sample of around 1,350 farms was achieved. In order to take account of non-response, the results have been reweighted using a method that preserves marginal totals for populations according to farm type and farm size⁹ groups. As such, farm population totals for other classifications (e.g. regions) will not be in-line with results using the main FBS weights, nor will any results produced for variables derived from the rest of the FBS (e.g. farm business income).

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. For the Farm Business Survey, the confidence limits shown are appropriate for comparing groups within the same year only; they should not be used for comparing with previous years since they do not allow for the fact that many of the same farms will have contributed to the Farm Business Survey in both years.

We have also shown error bars on the figures in this notice. These error bars represent the 95% confidence intervals (as defined above).

For the FBS, where figures are based on less than 5 observations these have been suppressed to prevent disclosure and where they are based on less than 15 observations these have been highlighted in the tables.

⁸ Further information on calibration weighting can be found here:
<https://www.gov.uk/farm-business-survey-technical-notes-and-guidance>

⁹ The UK classification document provides details of how farm type and farm size groups are derived. See:
<https://www.gov.uk/farm-business-survey-technical-notes-and-guidance>

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 business, 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 business, 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

The *Severely Disadvantaged Areas* (SDA) are more environmentally challenging areas. They are largely upland in character and together with Disadvantaged Areas (DA) form the Less Favoured Areas (LFA) classification established¹⁰ in 1975 as a means to provide support to mountainous and hill farming areas. A map showing the SDA can be found at Appendix B.

Economic performance for each farm is measured as the ratio between economic output (mainly sales revenue) and inputs (costs + unpaid labour). The higher the ratio, the higher the economic efficiency and performance. Performance bands based on economic performance percentiles are as follows:

- **Low performers** - farmers who took part in the Business Management Practices survey and were in the bottom 25% of economic performers in this sample
- **Medium performers** - farmers who took part in the Business Management Practices survey and were in the middle 50% of performers in this sample
- **High performers** - farmers who took part in the Business Management Practices survey and were in the top 25% of performers in this sample.

These are based on economic performance in 2011/12.

Availability of results

This release contains headline results for each section. The full breakdown of results, by region, farm type, farm size, farm tenure and farm economic performance, can be found at: <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/series/farm-business-survey#publications>

Defra statistical notices can be viewed on the Food and Farming Statistics pages on the Defra website at <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics>. This site also shows details of future publications, with pre-announced dates.

¹⁰ Council Directive 75/268/EEC.

Appendix A: Characteristics of responders to the FBS and the business management practices module

Farm Type	Full FBS sample	Business management practices subset
Dairy	17%	17%
LFA Grazing Livestock	13%	12%
Lowland Grazing Livestock	14%	15%
Cereals	17%	17%
General cropping	9%	9%
Pigs	4%	4%
Poultry	5%	5%
Mixed	10%	10%
Horticulture	11%	11%
All types	100%	100%

Government Office Region	Full FBS sample	Business management practices subset
North East and Yorkshire & Humber	15%	14%
North West	13%	11%
East Midlands	13%	14%
West Midlands	10%	10%
East England	16%	17%
South East	12%	13%
South West	21%	21%
All farms	100%	100%

Farm Size	Full FBS sample	Business management practices subset
Small	36%	38%
Medium	19%	19%
Large	46%	43%
All farms	100%	100%

Appendix B: Severely Disadvantaged Areas in England

