



Published 22 February 2018

Business Management Practices on Farms, England 2016/17

This release provides the results of additional questions on business management practices adopted by farmers, which were included within the 2016/17 Farm Business Survey. The results cover the year ending spring 2017 (including the 2016 harvest). Three areas are examined; Business planning, benchmarking and management accounting practices, risk management practices, and accessing advice. Key results are given below:

Business planning, benchmarking and management accounting practices (Section 1)

- Around four in every five farms (83%) undertook at least one of the practices listed. These farms were more likely to be cereal or general cropping farms than other farm types, to be larger rather than smaller farms, and to be younger rather than older farmers.
- The most common practice was producing an informal business plan, undertaken by 59% of farms businesses, unchanged from 2011/12.
- A third of farm businesses produced budgets, gross margins, cash flows or in-depth profit and loss accounts in 2016/17 compared to 25% in 2011/12.
- The main reason cited for not carrying out business management practices for those farms not undertaking any of the listed practices was lack of interest (37%). For those farms undertaking at least one practice, nearly half responded that they were already doing all that was required (45%).

Risk management practices (Section 2)

- Three quarters of farm businesses undertook one or more risk management practices. These farms were more likely to be dairy or cereal than other farm types, to be larger rather than smaller farms and to be in the East of England rather than other regions.
- The most common practices undertaken were the selling of commodities or buying of inputs on a contract basis, with 38% and 35% of farm businesses undertaking these practices respectively.
- For farms not carrying out any of the listed risk management practices, the most common reason cited was that the benefits of doing so were unclear (36%). For those farms carrying out some risk management, the most common reason was that all of those practices needed were already carried out (43%).

Accessing advice (Section 3)

- Business management advice and technical advice were undertaken by the vast majority of farm businesses, 91% and 99% respectively. In both cases, the farming media and free or subsidised advice were the most common sources.

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Background

The 2016/17 Farm Business Survey included some additional questions on business management practices adopted by farmers. Similar data was collected in 2007/08 and 2011/12¹ as part of more detailed modules. The results from 2011/12 have been widely used by both government and external bodies. Given the continued interest, it was decided to update the results to maintain relevance.

Detailed results

This release provides the main results from 2016/17 together with [confidence intervals](#). A full breakdown of results by farm type, farm size, farm tenure, region, farmer age, farm economic performance and Less Favoured Area (LFA) status can be found at: <https://www.gov.uk/government/collections/farm-business-survey>

Equivalent results from 2007/08 and 2011/12 have been presented alongside those for 2016/17 in many of the charts and tables. However, comparisons should be treated with caution due to changes in the coverage of the survey and the classification of farms.

To enable more robust [comparisons](#) between the 2011/12 and 2016/17 results, we have examined the subset of farms that participated in both years and carried out significance testing. Commentary alongside the charts and tables refers to this analysis rather than making direct comparisons with the 2011/12 data displayed.

Regression models were fitted to the key results to help determine the main factors driving response in 2016/17. Six factors were considered - farm type, farm size, farm tenure, region, farmer age, farm economic performance and Less Favoured Areas (LFA) status.

All percentage changes in the text are based on unrounded values so may not appear to correspond with the values in the figures and tables.

¹2011/12 results can be found at <https://www.gov.uk/government/statistics/farm-business-management-practices>

1 Business planning, benchmarking and management accounting practices

Key findings for 2016/17:

- Around four in every five farms (83%) undertook at least one of the practices listed. These farms were more likely to be cereal or general cropping farms than other farm types, to be larger rather than smaller farms, and to be younger rather than older farmers.
- The most common practice was producing an informal business plan, undertaken by 59% of farms businesses, unchanged from 2011/12.
- A third of farm businesses produced budgets, gross margins, cash flows or in-depth profit and loss accounts in 2016/17 compared to 25% in 2011/12.
- The main reason cited for not carrying out business management practices for those farms not undertaking any of the listed practices was lack of interest (37%). For those farms undertaking at least one practice, the most common response was that they were already doing all that was required (45%).

Farmers were asked about the business planning, benchmarking and management accounting practices that were undertaken for their business, either by themselves or by a third party. They were also asked about the barriers to undertaking more practices.

1.1 Business management practices

In 2016/17, 83% of farm businesses undertook at least one of the practices considered. Whilst this is a 5% increase since 2011/12², this change is not statistically significant³. Undertaking practices was significantly⁴ related to farm type, farm size, region, farmer age, and farm economic performance. These farms were more likely to be cereal or general cropping farms than other farm types, to be larger farms, and to be younger farmers. Those farms undertaking no practices were more likely to be smaller farms, to have a farmer aged 65 and over, to be lower performing farms (i.e. in lowest 25%) and to be grazing livestock or horticulture farms.

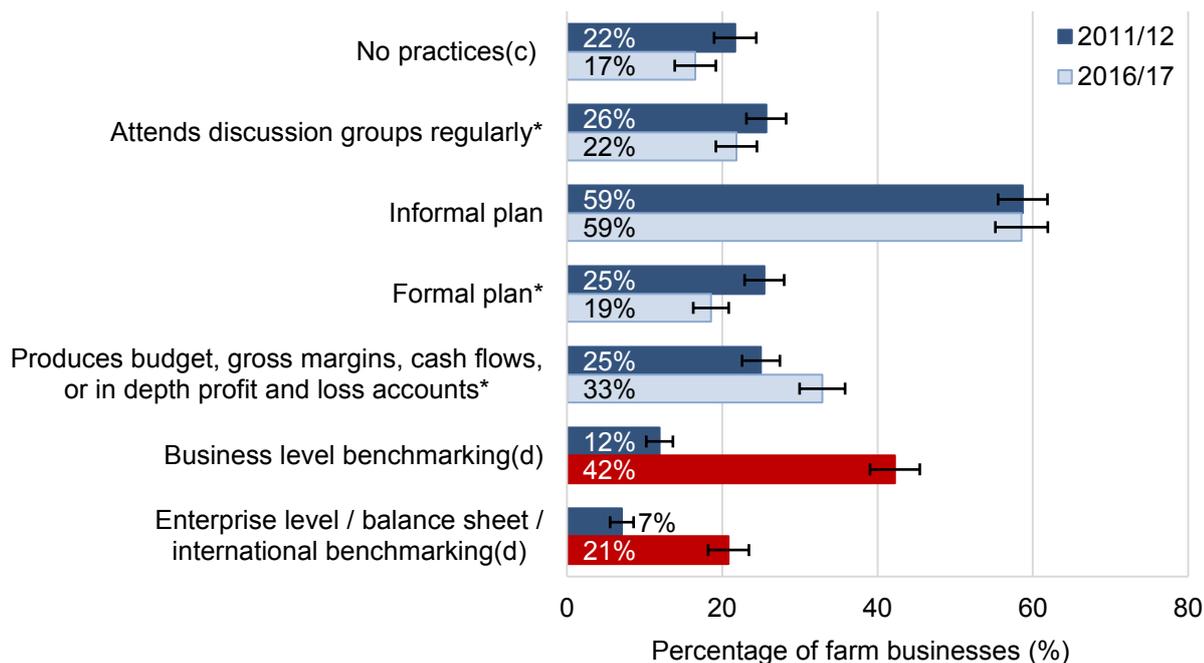
The most common practice undertaken by 59% of farms in both 2011/12 and 2016/17 was to have an **informal business plan** (Figure 1). Having an informal plan was significantly⁴ related to farm size and region. Larger farms were more likely to have an informal plan than smaller farms. Farms in the south of England were less likely to have an informal plan compared to other regions.

² A similar question was asked in 2011/12. Although the question did not specifically ask about third parties in 2011/12, it is likely to have been interpreted in the same way.

³ Significance tests conducted using McNemar's test on farms present in both 2011/12 and 2016/17 with 5% significant level. For more information please see the [comparisons](#) section.

⁴ A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level.

Figure 1: Percentage of farm businesses undertaking various business planning, benchmarking or management accounting practices^{(a)(b)}, England



Source: Farm Business Survey, England 2011/12 and 2016/17.

(a) Comparisons between years should be treated with caution. For more information please see the [comparisons](#) section.

^{*}Signifies statistically significant difference when comparisons made between farms present in both 2011/12 and 2016/17.

(b) Respondents could select more than one option.

(c) 'No practices undertaken' means none of the practices specified in the question were selected.

(d) Questions on benchmarking were asked differently in 2011/12 and 2016/17, and should not be directly compared between years. The bars are shown in red for the 2016/17 data.

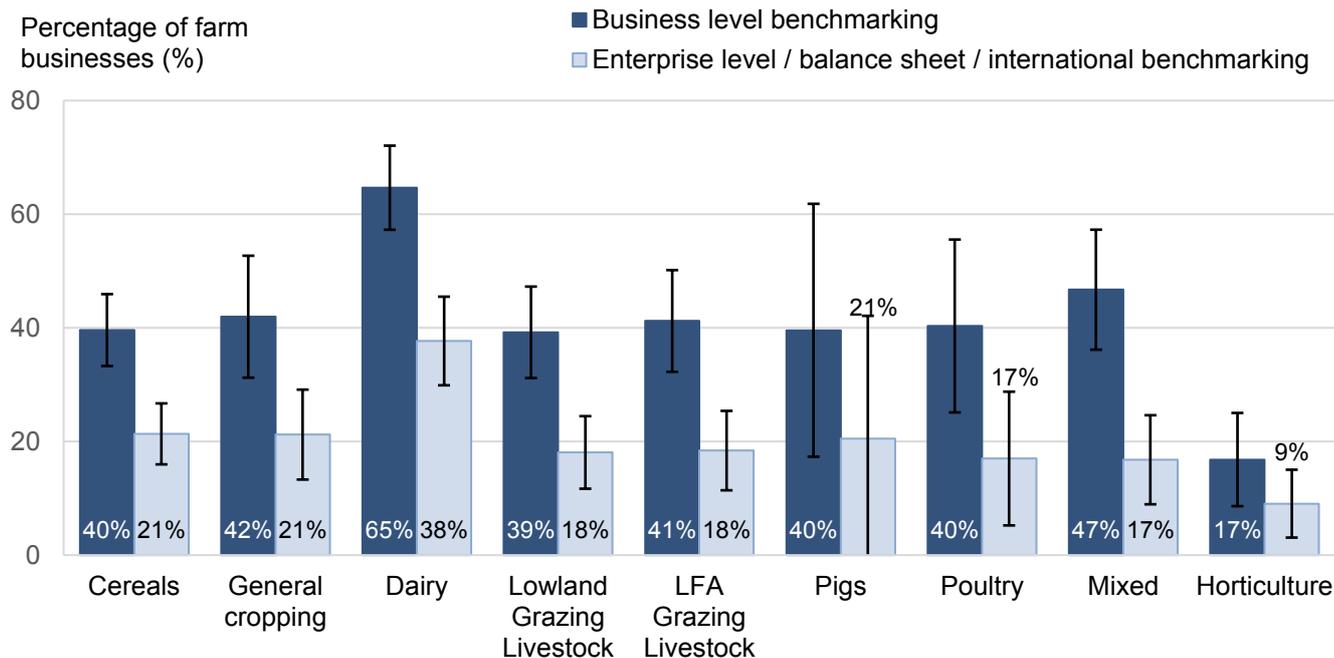
Nearly a fifth of farms (19%) had a **formal business plan** in 2016/17, 6% fewer than in 2011/12. This decrease is statistically significant for farms responding in both years⁵. Having a formal plan was significantly⁶ related to farm economic performance, size, and type. Higher performing and larger farms were both more likely to have a formal plan. Grazing livestock farms were less likely to have a formal plan, while cereal, general cropping, and dairy farms were more likely to have a formal plan than other farm types.

Around a quarter of farmers attended **discussion groups** regularly, which is 4% more than in 2011/12. The increase is statistically significant for farms responding in both years⁵. Attending discussion groups regularly was significantly⁶ related to farm size, farm type, and tenure. Larger farms were more likely to attend discussion groups, while grazing livestock, horticulture, and wholly tenanted farms were less likely to do so than other farm and tenure types.

⁵ Significance tests conducted using McNemar's test on farms present in both 2011/12 and 2016/17 with 5% significant level. For more information please see the [comparisons](#) section.

⁶ A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level.

Figure 2: Benchmarking by farm type^(a), England 2016/17



Source: Farm Business Survey, England 2016/17.
 (a) Respondents could select more than one option.

A third of farm businesses **produced budgets, gross margins, cash flows or in-depth profit and loss accounts** in 2016/17 compared to 25% in 2011/12. This increase is statistically significant for farms responding in both years⁷. Undertaking these activities was significantly related to farm type, size and economic performance⁸. The likelihood of producing budgets, gross margins, cash flows or in-depth profit and loss accounts increased with farm size and economic performance. Grazing livestock farms were less likely to undertake these activities than other farm types.

Business level **benchmarking** was the second most common practice (42%) in 2016/17 and 21% of farms reported carrying out enterprise level/balance sheet/international benchmarking. In 2016/17, active⁹ use of FBS feedback at both business and enterprise level was included as benchmarking. This means that the 2016/17 results cannot be directly compared to those for 2011/12, where this active use of survey feedback was not included. Caution should be taken in applying these results to farms not in the FBS, as they would not have direct access to survey feedback.

The likelihood of undertaking both types of benchmarking was significantly¹⁰ related to farm type, farm size and region. Larger farms were more likely to benchmark than smaller farms. Dairy farms were most likely to benchmark, whilst horticulture farms were least

⁷ Significance tests conducted using McNemar's test on farms present in both 2011/12 and 2016/17 with 5% significant level. For more information please see the [comparisons](#) section.

⁸ A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level. Note that the significance of tenure was borderline. After allowing for other factors use was greater for tenanted farms than farms of other tenure types.

⁹ Farmers who participate in the FBS receive a set of management accounts which includes information on how their farm performs compared to other farms of the same type nationally and locally, where possible. Actively using the feedback meant taking time to actually compare costs and returns to the average and premium data as well as the previous financial year, although not necessarily acting on this comparison.

¹⁰ A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level.

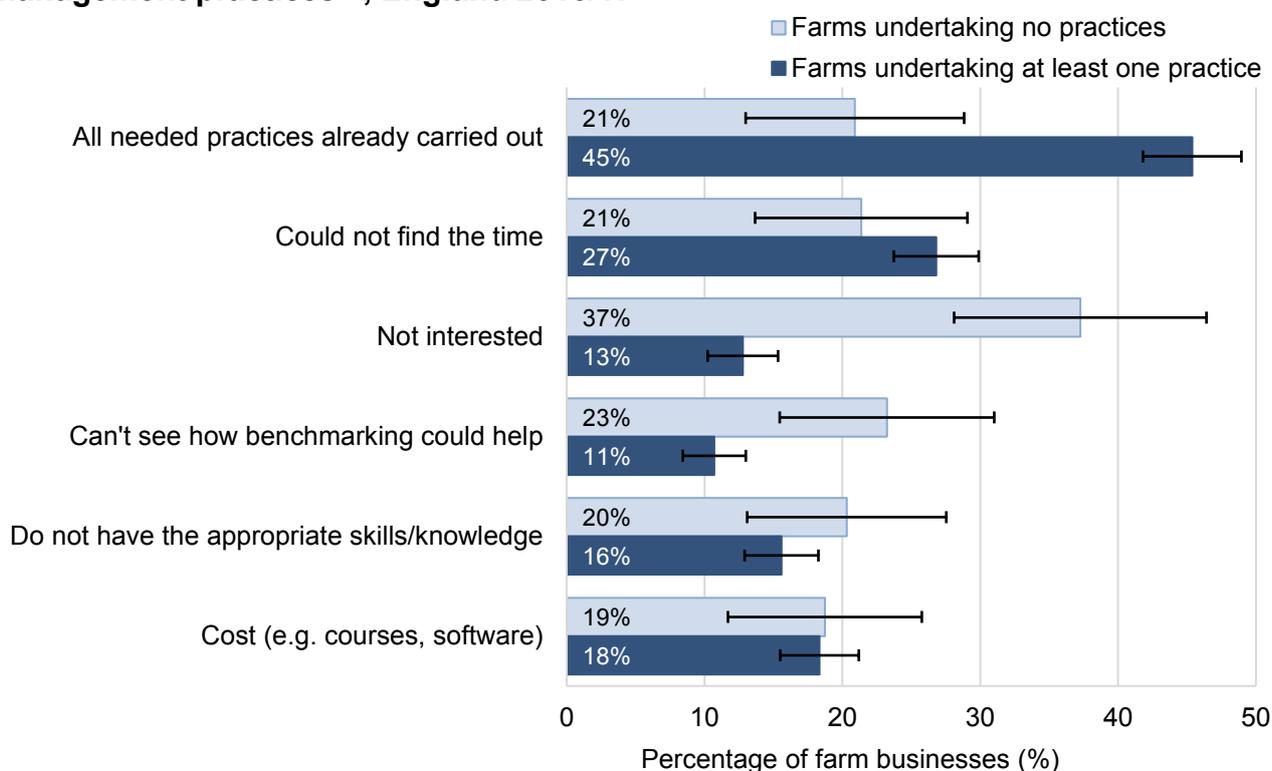
likely (Figure 2). Business level benchmarking was also significantly related to LFA status and farm economic performance. Low performing farms were less likely to carry out business level benchmarking, and farms outside the LFA were more likely to benchmark than those within the LFA after allowing for the effects of other factors.

Whilst the results suggest that a smaller proportion of farms in the East of England undertook benchmarking, the difference between regions should be treated with caution. Anecdotal evidence from the data collectors suggests that farms in the north of England were more likely to use their FBS feedback to compare themselves against their neighbours than farms in other regions. Unfortunately, it is not possible to exclude the use of FBS feedback from the results.

1.2 Reasons given for not carrying out any or more practices

Farmers were asked why they did not undertake any or additional business management practices (Figure 3)¹¹. The most common response for those farms not undertaking any of the listed practices was lack of interest (37%), while this response was less common for those already undertaking practices (13%). One in five of those farms not undertaking any of the listed practices considered that they already undertook the practices required. For those farms undertaking at least one practice, the most common response was that they were already doing all that was required. However, around a quarter (27%) cited time as a barrier.

Figure 3: Reasons why farm business are not undertaking [more] business management practices^(a), England 2016/17



Source: Farm Business Survey, 2016/17.

Based on responses from 1105 businesses undertaking practices and 164 farm businesses not undertaking any of the listed business management practices in 2016/17.

(a) Respondents could select more than one option.

¹¹ In 2011/12, a similar question was asked, but only to those farms not carrying out practices. We therefore have not carried out comparisons between the years.

2 Risk management

Key findings for 2016/17:

- Three quarters of farm businesses undertook one or more risk management practices. These farms were more likely to be dairy or cereal than other farm types, to be larger rather than smaller farms and to be in the East of England rather than other regions.
- The most common practices undertaken were the selling of commodities or buying of inputs on a contract basis, with 38% and 35% of farm businesses undertaking these practices respectively.
- For farms not carrying out any of the listed risk management practices, the most common reason cited was that the benefits of doing so were unclear (36%). For those farms carrying out some risk management, the most common reason was that all of those practices needed were already carried out (43%).

Farmers were asked about the measures they were using to minimise risk for their business. For example, measures adopted to mitigate the impact of disease outbreaks or falls in market price. They were also asked about barriers to uptake.

2.1 Risk management practices

In 2016/17, 75% of farm businesses undertook at least one of the risk management practices considered (Table 1). Whilst this is 4% lower than in 2011/12¹², the reduction is not statistically significant¹³. Undertaking risk management was significantly¹⁴ related to farm type, farm size, and region. Those farms undertaking practices were more likely to be in the East of England than other regions, to be dairy or general cropping farms than other farm types, and to be larger rather than smaller farms. Those not undertaking practices were more likely to be in the South East, to be horticulture or grazing livestock farms than other farm types, and to be smaller rather than larger farms.

The most common risk management practice was **selling commodities on a contract basis** with an agreed price, undertaken by 38% of farm businesses in 2016/17 (Table 1). This is a 2% increase from 2011/12, when this was also the most commonly undertaken practice; this difference was not statistically significant¹³ when we consider those farms responding in both years. The second most common practice in 2016/17 was **purchasing inputs on a contract basis**, which was undertaken by 35% of farms.

¹² An identical question was asked about risk management practices undertaken in 2011/12.

¹³ Significance tests conducted using McNemar's test on farms present in both 2011/12 and 2016/17 with a 5% significant level. In this case, the difference is significant at the 10% level, with $p=0.08$.

¹⁴ A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level.

Table 1: Percentage of farm businesses undertaking various risk management practices^{(a)(b)}, England

	Percentage of farm businesses (%)			95% Confidence Interval (%)		
	2007/08	2011/12	2016/17	2007/08	2011/12	2016/17
None of the practices listed	30	20	25	±2	±3	±3
Sell some commodities on contract basis	25	36	38	±2	±3	±3
Use selling groups and pools	21	25	26	±2	±3	±3
Purchase inputs on contract basis	29	36	35	±2	±3	±3
Make use of 'options' ^(c)	6	5	5	±1	±1	±1
Animal health insurance	13	16	15	±2	±2	±2
Crop damage insurance	11	11	10	±2	±2	±2
Using bio-security measures*	-	30	34	-	±3	±3
Lock into a fixed exchange rate	-	4	3	-	±1	±1

Source: Farm Business Survey, England 2007/2008, 2011/12, and 2016/17.

Based on responses from 1453 farm businesses in 2007/08, 1357 farm businesses in 2011/12, and 1269 businesses in 2016/17.

(a) Comparisons between years should be treated with caution. For more information please see the [comparisons](#) section.

*Signifies statistically significant difference when comparisons made between farms present in both 2011/12 and 2016/17.

(b) Respondents could select more than one option.

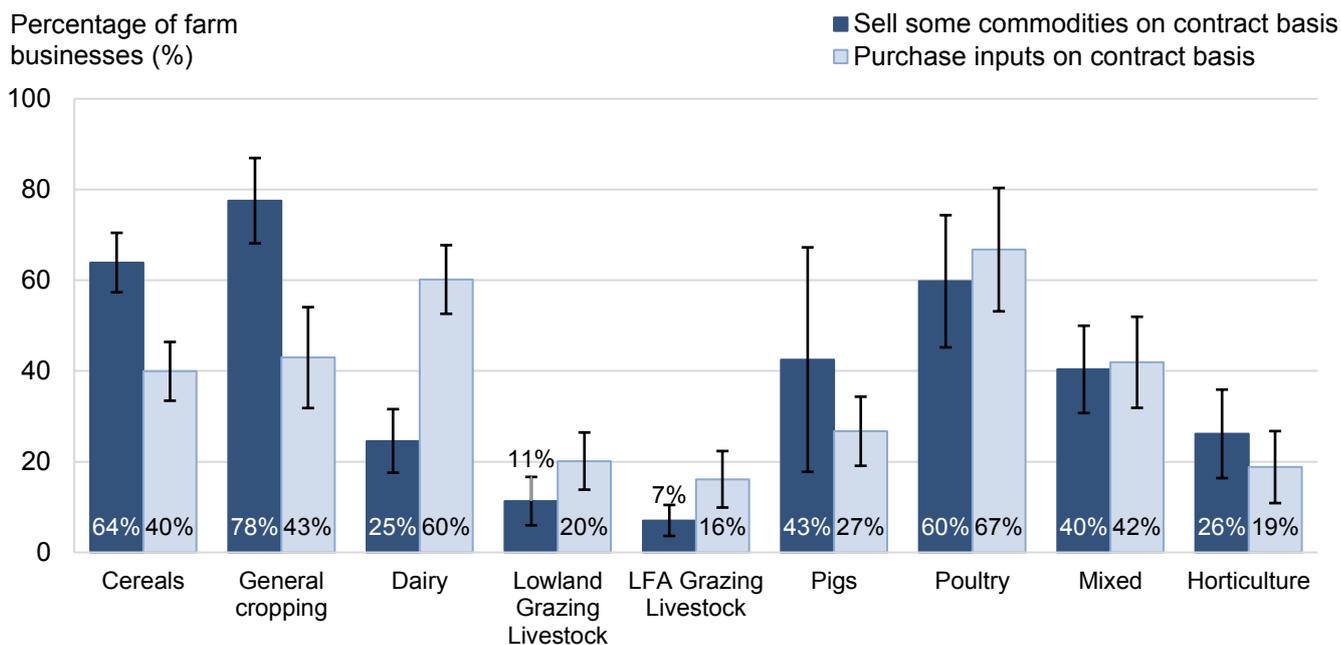
(c) For a definition of making use of options, please see the [definitions](#) section.

Both selling and purchasing on a contract-basis were significantly¹⁵ related to farm type, farm size, and region. Grazing livestock farms were less likely to undertake either practice than other farm types (Figure 4). Cereal and general cropping farms were more likely to sell commodities on a contract basis (64% and 78%, respectively) than other farm types. Dairy farms were least likely to sell commodities (25%), yet were most likely to purchase inputs on a contract basis (60%) together with poultry farms (67%). Note that for milk sales, only fixed price contracts were defined as selling commodities on a contract basis. Aligned milk price contracts, where the milk price is linked to the cost of production, were excluded.

Farms in the East of England were more likely to buy or sell on a contract basis (61% selling commodities, 43% purchasing inputs). Large and very large farms were more likely to undertake either type of contract-based risk management. Purchasing inputs on a contract basis was also related to farm economic performance, with low performing farms being less likely to use this form of risk management (16%).

¹⁵ A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level.

Figure 4: Selling commodities and purchasing inputs on a contract basis by farm type, England 2016/17



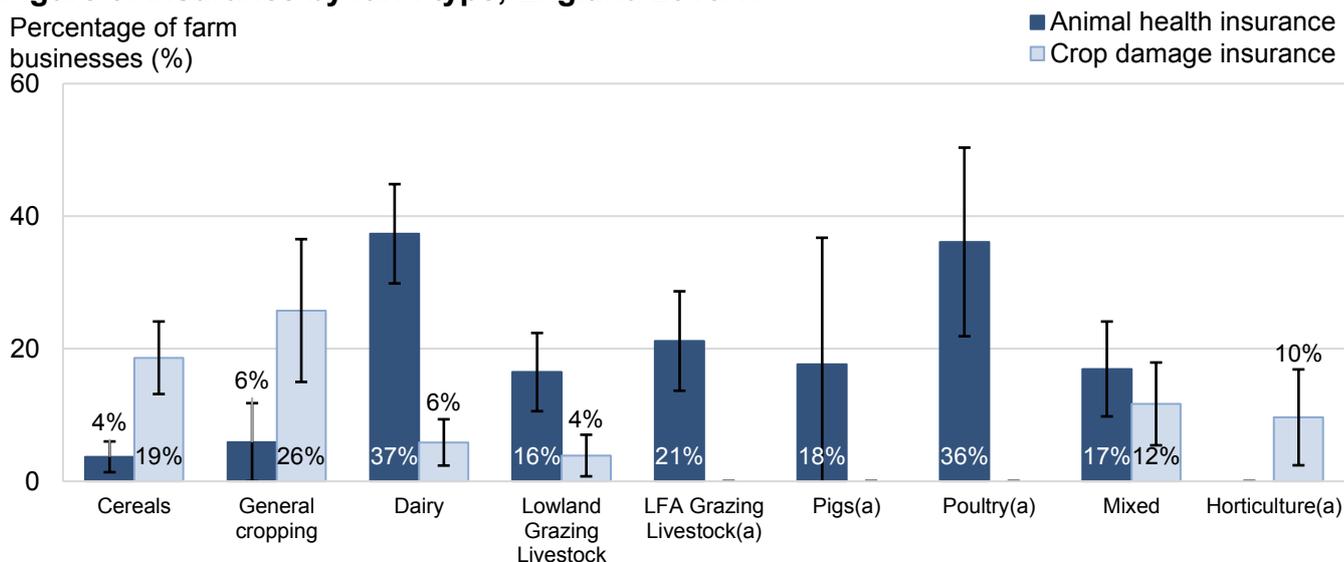
Source: Farm Business Survey, England 2016/17.

Animal health and crop damage insurance were among the less common risk management practices adopted (Figure 5); 15% and 10% of all farm businesses respectively undertook these practices. Both practices were significantly¹⁶ related to LFA status and farm type.

Focussing only on those farms with livestock, 19% had animal health insurance, these farms were more likely to be dairy (37%) or poultry (36%) farms than other farm types. For LFA status the picture is more complex. Dairy and grazing livestock farms in the LFA were no more likely to have animal health insurance than their counterparts outside the LFA. However, low uptake for mixed farms and other farm types appears to be pulling down the overall average for farms outside the LFA. Farms that were mainly located in the LFA were less likely to take out crop damage insurance.

¹⁶ A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level.

Figure 5: Insurance by farm type, England 2016/17



Source: Farm Business Survey, England 2016/17.

(a) Results for either crop damage or animal health insurance not shown due to insufficient observations.

2.2 Reasons given for not carrying out any or more practices

Farmers were asked why they did not undertake any or more risk management practices (Table 2)¹⁷. The most common response for those farms not undertaking any of the listed practices was that the benefits were unclear (36%); this response was slightly less common for those undertaking at least one practice (31%). For those farms already undertaking practices, the most common response was that they were already doing all that was required (43%). A third of farms not carrying out any of the listed risk management practices also gave this response (32%). Around a fifth of businesses in both groups cited cost as a barrier, with slightly fewer citing time as a constraint.

Table 2: Differences in reasons given for not undertaking [more] risk management practices by carrying/not carrying out practices^(a), England 2016/17

	Percentage of farm businesses (%)		95% Confidence interval	
	Farms carrying out practices	Farms not carrying out practices	Farms carrying out practices	Farms not carrying out practices
All needed practices already carried out	43	32	±4	±7
Benefits unclear*	31	36	±4	±7
No time	16	19	±3	±5
Too costly	18	21	±3	±6
No information	8	8	±2	±4
Interested but taking longer to adopt	8	6	±2	±3
Other	5	10	±2	±4

Source: Farm Business Survey, 2016/17.

Based on responses from 995 businesses undertaking practices and 274 farm businesses not undertaking any business management practices in 2016/17.

(a) Respondents could select more than one option.

¹⁷ In 2011/12, a similar question was asked, but only to those farms not carrying out practices. We therefore have not carried out comparisons between the years.

3 Accessing advice

Key findings for 2016/17:

- Business management advice and technical advice were undertaken by the vast majority of farm businesses, 91% and 99% respectively. In both cases, the farming media and free or subsidised advice were the most common sources.

Farmers were asked questions on how they access business management and technical advice. Business management advice is information upon which they base their business management decisions. Technical advice is information upon which they base decisions concerning the technical management of the business, e.g. which crops/animals to grow/keep.

3.1 Business management advice

Farmers were asked where and how they sourced the information upon which they base their business management decisions. This question did not cover decisions over which crops/animals to grow/keep, which feed/fertilisers/pesticides to use, or agronomic advice and planning.

In 2016/17, 91% of farmers reported accessing business management advice through one of the listed sources, a 3% decrease since 2011/12 (Figure 6). Whilst this decrease was statistically significant¹⁸ for farms responding in both 2011/12 and 2016/17, it should be noted that there was a change to the listed options in 2016/17; accessing advice through Rural Development Programme (RDP) schemes was replaced by use of Growth Hubs¹⁹. Accessing advice was significantly²⁰ related to farm type, farm size, and region. The larger the farm, the more likely it was to access advice. Horticulture farms and farms in the South East of England were less likely to access advice (33% and 26% respectively) than other farm types and regions.

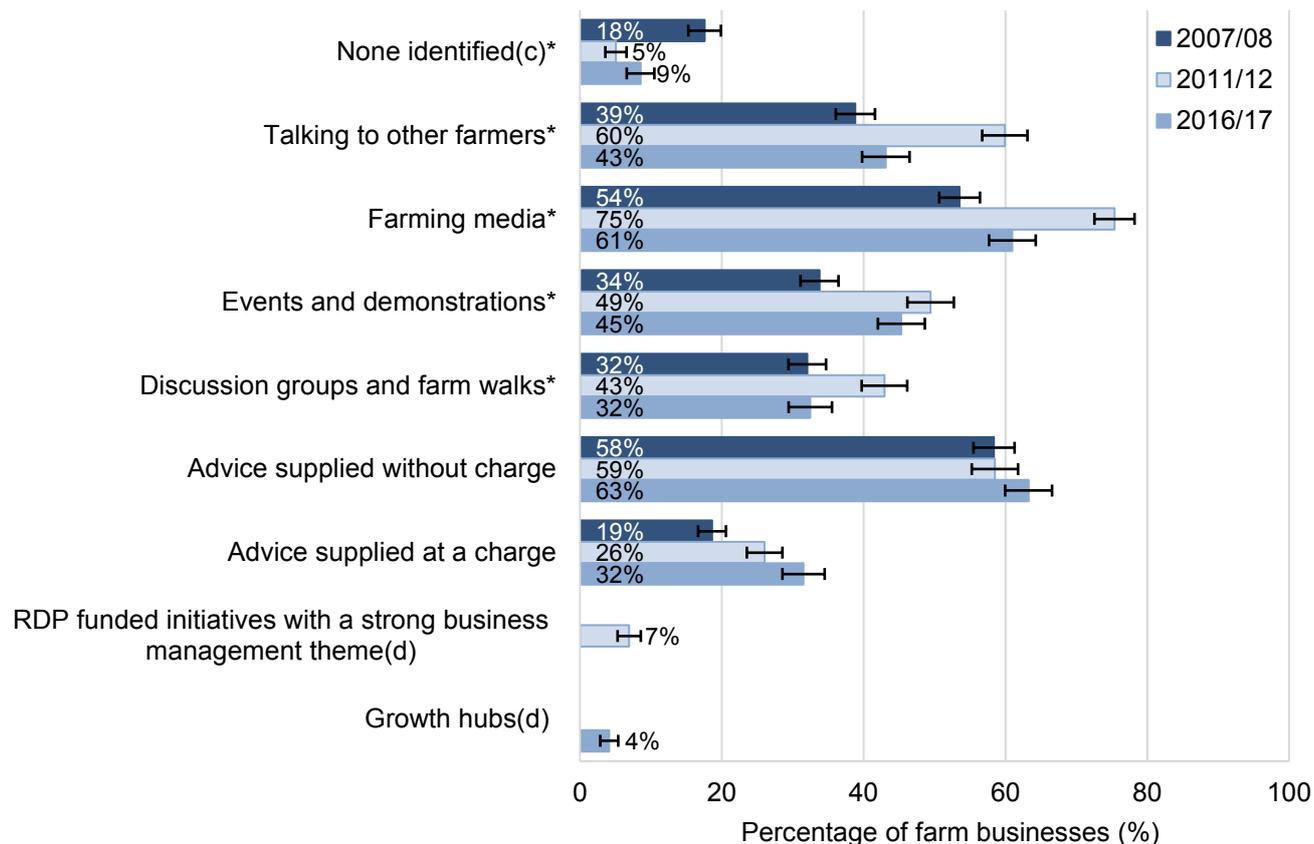
The most popular source of advice in 2016/17 was **advice supplied with no direct charge** (63%), such as through casual discussion with an accountant or bank manager, or advice that was subsidised, such as through the Farm Advisory Service (Figure 6). Accessing subsidised or free advice was significantly²⁰ related to farm type, farm size, and region. The larger the farm, the more likely it was to access free advice. Horticulture farms and farms in the South of England were less likely to access free advice through this source than other farm types and regions.

¹⁸ Significance tests conducted using McNemar's test on farms present in both 2011/12 and 2016/17 with a 5% significant level.

¹⁹ Growth hubs are local public/private sector partnerships led by the Local Enterprise Partnerships (LEPs). They join up national and local business support so it is easy for businesses to find the help they need. There is a network of 38 hubs.

²⁰ A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level.

Figure 6: Percentage of farms accessing business management advice through various sources^{(a)(b)}



Source: Farm Business Survey, England 2007/08, 2011/12, and 2016/17.

(a) Comparisons between years should be treated with caution. For more information please see the [comparisons](#) section.

*Signifies statistically significant difference when comparisons made between farms responding in both 2011/12 and 2016/17.

(b) Respondents could select more than one option.

(c) 'None identified' means none of the practices specified in the question were selected.

(d) Information about RDP funded initiatives was only collected in 2011/12 and information about growth hubs was only collected in 2016/17.

The **farming media** was used as a source of business management advice by 61% of farm businesses, a 14% decrease from 2011/12. This decrease was statistically significant²¹ for farms responding in both 2011/12 and 2016/17. Accessing advice through the farming media was significantly²² related to farm type, farm economic performance, and region. Lower performing farms were less likely to use this as a source of advice than other farms. Horticulture farms and farms in the South East of England were less likely to use this source (38% and 25% respectively) than other farm types and regions.

Around a third of farm businesses (32%) accessed advice through **discussion groups**, this response was significantly²² related to farm type and farm size. The larger the farm, the more likely it was to access advice through this source. Horticulture and pig farms were less likely to use discussion groups to obtain business management advice (19%) than other farm types.

²¹ Significance tests conducted using McNemar's test on farms present in both 2011/12 and 2016/17 with a 5% significant level.

²² A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level.

3.2 Technical advice

Farmers were asked where and how they sourced the information upon which they subsequently base their technical management of the business. Technical management includes decisions about which crops/animals to grow/keep, which feed/fertilisers/pesticides to use and agronomic advice and planning. In 2016/17, almost all (99%) of farmers reported accessing technical management advice²³, which was unchanged compared to 2011/12 (Table 3)²⁴.

The most popular source of technical advice was the **farming media**, which 81% of farm businesses reported using in 2016/17. This was a 5% decrease since 2011/12, a statistically significant²⁵ change for farms responding in both years. Accessing technical advice through the farming media was significantly²⁶ related to farmer age, with farmers aged 65 and over being less likely to use it (74%) than other age groups.

Table 3: Percentage of farms accessing technical management advice through various sources^{(a)(b)}

	Percentage of farm businesses (%) ^(b)			95% Confidence Interval (%)		
	2007/08	2011/12	2016/17	2007/08	2011/12	2016/17
None identified ^(c)	3	1	1	±1	±1	±1
Talking to other farmers	62	71	74	±3	±3	±3
Farming media*	77	85	81	±2	±2	±3
Events and demonstrations	59	58	62	±3	±3	±3
Discussion groups*	47	51	43	±3	±3	±3
Advice supplied without charge*	68	73	67	±3	±3	±3
Advice supplied at a charge	28	33	33	±2	±3	±3
RDP funded initiatives with animal health theme ^(d)	-	11	-	-	±2	-
RDP funded initiatives with technical theme ^(d)	-	9	-	-	±2	-
Performance indicators ^(d)	-	-	40	-	-	±3

Source: Farm Business Survey, England 2007/08, 2011/12, and 2016/17.

Based on responses from 1453 farm businesses in 2007/08, 1357 farm businesses in 2011/12, and 1269 businesses in 2016/17.

(a) Comparisons between years should be treated with caution. For more information please see the [comparisons](#) section.

*Signifies statistically significant difference when comparisons made between farms present in both 2011/12 and 2016/17.

(b) Respondents could select more than one option.

(c) 'None identified' means none of the practices specified in the question were selected.

(d) Information about RDP funded initiatives was only collected in 2011/12 and information about performance indicators was only collected in 2016/17.

²³ It was not possible to carry out modelling as too few farms reported not accessing technical advice.

²⁴ A similar question was asked in 2007/08 and 2011/12, although the response categories varied between years. Therefore the meaning of 'none identified' changes between years.

²⁵ Significance tests conducted using McNemar's test on farms present in both 2011/12 and 2016/17 with a 5% significant level.

²⁶ A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level.

Almost three quarters (74%) of farms reported obtaining technical advice by **talking to other farmers**. Using this source was significantly²⁷ related to farm type and farm size. Horticulture farms were less likely to use this source of technical advice (54%) than other farm types. Although there was a significant relationship with farm size, there was no obvious pattern in the results; use was greatest on small (81%) farms and least on very small (70%) and large farms (68%).

Discussion groups were used to access technical advice by 43% of farmers in 2016/17, an 8% decrease since 2011/12; this decrease was statistically²⁸ significant for those farms responding in both years. Use of discussion groups was significantly²⁷ related to farm size and farm tenure. The larger the farm, the more likely it was to obtain advice through discussion groups. Owner-occupied farms were less likely to use this source of advice (32%) than farms of other tenure types.

Advice supplied without a direct charge, such as that obtained from an input supplier, was the source of technical advice for 67% of farmers. This was a 5% decrease since 2011/12, and the change was significant²⁸ for farms responding in both years. Using this source was significantly²⁷ related to region, farmer age, farm economic performance, and farm tenure. The younger the farmer, the more likely they were to obtain advice with no direct charge. Farms in the South East of England were less likely to access advice in this way (52%) than farms in other regions. Farms with low performance were less likely to use this source of advice (58%) than higher performance groups. Wholly tenanted and owner-occupied farms were more likely to obtain advice in this manner (71% for both tenure types), than mixed-tenure farms.

²⁷ A generalised linear regression model was fitted to examine which factors (farm type, farm size, region, farm tenure, LFA status, farm economic performance, and farmer age) were significant at the 5% level.

²⁸ Significance tests conducted using McNemar's test on farms present in both 2011/12 and 2016/17 with a 5% significant level.

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 1,750 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 output²⁹ as recorded in the annual June Survey of Agriculture and Horticulture. In 2016, this accounted for approximately 56,700 farm businesses³⁰.

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>

Within the 2016/17 Farm Business Survey (FBS), additional questions were included to collect information on business management practices adopted by farmers from a sub-sample of farm businesses. Interviewers collected responses between January and September 2017 for practices relating to the 2016/17 accounting year (generally ending around February 2017). The information collected covered:

- i) business management practices such as benchmarking and management accounting,
- ii) risk management,
- iii) accessing advice

Completion of the business management practices questions was voluntary with data being collected from a sample of 1269 farms in 2016/17. 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. There was a greater proportion of farms in East England that responded to the business management practices questions compared to farms in the main FBS. There was a smaller proportion of farms in the South East and also very large farms that responded to these questions than in the main FBS. Full details of the characteristic of responding farms can be found at Annex A.

Comparisons to results from the previous business management practices module conducted in 2011/12 have where possible been included in this publication.

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 weighting³¹) so that they can produce unbiased estimators of a number of different target variables.

²⁹ For a definition of standard output please see the UK classification document here:

<https://www.gov.uk/farm-business-survey-technical-notes-and-guidance>

³⁰ Prior to the 2010/11 campaign, the coverage of the FBS was restricted to those farms of size $\frac{1}{2}$ 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>

³¹ Further information on calibration weighting can be found here: <https://www.gov.uk/farm-business-survey-technical-notes-and-guidance>

Completion of the business management practices questions was voluntary and a sample of 1269 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 size³² 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).

Comparisons between 2011/12 and 2016/17

Equivalent results from 2007/08 and 2011/12 have been presented alongside 2016/17 results in many of the charts and tables. However, comparisons with the results for these earlier years should be treated with caution due to changes in the coverage of the survey and changes in the classification of farms. In 2010/11 the survey was restricted to include farms which have at least 25,000 Euros of standard output; prior to this the survey was restricted to farms with ½ Standard Labour Requirement or more. From 2012/13, the classification of farms uses 2010 standard output (SO) coefficients; for 2009/10 to 2011/12, 2007 SO coefficients are used in line with EU typology.

To enable more robust comparisons between the 2011/12 and 2016/17 results, we have examined the subset of farms that participated in both years (approximately 770 farms). For this subset of farms we have carried out significance testing using McNemar's test to determine whether the differences observed between the two time periods are statistically significant. The McNemar's test is applied to 2x2 contingency tables, with matched pairs of subjects, to determine whether the row and column totals are equal. Where a statistically significant difference has been observed this has been indicated on the tables and charts for the full module results with a *. Commentary alongside the charts and tables will refer to this analysis rather than make comparisons with the 2011/12 data displayed.

Regression Modelling

Generalised linear models were fitted to examine which of the six predictive variables (farm type, farm size, farm tenure, region, farmer age, farm economic performance and LFA Status) were related to each of the response variables of interest.

As all the response variables were binomial, a binomial based generalised linear model was fitted using a binomial error distribution and a logit link.

In all instances a model simplification procedure was used; firstly all parameters were fitted and then a backwards stepwise approach was used to drop the non-significant terms. Where a parameter was of borderline significance the predictions have been examined to see if there is logical pattern and then judgment used to determine whether to retain or drop the parameter from the model.

³² 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>

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).

Availability of results

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

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.

Data Uses

Data from the Farm Business Survey (FBS) are provided to the EU as part of the Farm Accountancy Data Network (FADN). The data have been used to help inform policy decisions (e.g. Reform of Pillar 1 and Pillar 2 of Common Agricultural Policy) and to help monitor and evaluate current policies relating to agriculture in England (and the EU). It is also widely used by the industry for benchmarking and informs wider research into the economic performance of the agricultural industry.

User engagement

As part of our ongoing commitment to compliance with the Code of Practice for Official Statistics <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>, we wish to strengthen our engagement with users of these statistics and better understand the use made of them and the types of decisions that they inform. Consequently, we invite users to make themselves known, to advise us of the use they do, or might, make of these statistics, and what their wishes are in terms of engagement. Feedback on this notice and enquiries about these statistics are also welcome.

Question changes between years

Business management practices

In 2016/17 farmers were asked about the business planning, benchmarking and management accounting practices that were undertaken for their business either by themselves or by a third party. In 2011/12 the question did not specifically ask about third parties.

Active use of FBS feedback at both business and enterprise level was included as benchmarking in 2016/17, while in 2011/12 this active use of survey feedback was not included.

In 2016/17 farmers were asked why they did not undertake any or additional business management practices. In 2011/12 a similar question was also asked but only to those farms not carrying out practices.

Risk management practices

Farmers were asked about the measures they were using to minimise risk for their business. The question asked was identical in 2011/12 and 2016/17. The same question was also asked in 2007/08 but the list of options was different; use of bio security measures and locking into a fixed exchange rate were not included.

In 2016/17 farmers were asked why they did not undertake any or additional risk management practices. In 2011/12 a similar question was also asked but only to those farms not carrying out practices.

Accessing advice

Farmers were asked questions about how they access business management and technical advice in 2011/12 and 2016/17. For both business management and technical advice there was a change in the listed options in 2016/17. Accessing business management advice through Rural Development Programme (RDP) schemes was replaced by use of Growth Hubs. Accessing technical advice through RDP schemes was replaced by use of performance indicators. The same questions were also asked in 2007/08 but the list of options excluded RDP schemes, growth hubs and performance indicators.

Definitions

Farm Type

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

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
Spare & Part time	Less than 1 SLR
Small	1 to less than 2 SLR
Medium	2 to less than 3 SLR
Large	3 to less than 5 SLR
Very Large	5 or more SLR

Farm Economic performance

Economic performance for each farm is measured as the ratio between economic output (mainly sales revenue) and inputs (costs). The inputs for this calculation include an adjustment for unpaid manual labour. The higher the ratio, the higher the economic efficiency and performance. The farms are then ranked and allocated to performance bands based on economic performance percentiles:

- **Low performance band** - farms who responded to the business management practices questions and were in the bottom 25% of economic performers
- **Medium performance band** - farms who responded to the business management practices questions and were in the middle 50% of performers
- **High performance band** - farms who responded to the business management practices questions and were in the top 25% of performers.

Severely Disadvantaged Areas and Less Favoured Areas

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 established³³ in 1975 as a means to provide support to mountainous and hill farming areas.

³³ Council Directive 75/268/EEC.

Business Management Practices

“Make use of ‘options’” means that the farm makes use of ‘options’ for selling grain. These can be regarded as a kind of insurance product that enable growers to effectively obtain a guaranteed floor to the price but also enable them not to ‘lose out’ if the price rises above the floor.

“Using bio-security measures” means that the farm is using bio-security measures such as provision of disinfectant/washing facilities as a disease risk management initiative. Welly dipping is excluded, however.

“Growth hubs” means that the farm is accessing advice through growth hubs, which are public/private partnership projects in Local Enterprise Partnership areas that join up national and local business support to make it easier for businesses to find the help they need.

“Performance indicators” means that the farm is accessing advice through indicators such as Estimated Breeding Values, Profitable Lifetime Indices, National Institute of Agricultural Botany lists, or AHDB recommended lists for cereals and oilseeds. Estimated Breeding Values estimate the genetic worth of animals using desirable traits such as meat production. A Profitable Lifetime Index is a scoring system to identify cattle with the best ‘genetic merit’ used when choosing bulls to breed with dairy cattle. The index uses a combination of attributes including life expectancy, health, fertility and milk production.

Annex A: Characteristics of responders to the FBS and the business management practices questions

Farm Type	Full FBS sample	Business management practices subset
Dairy	14%	14%
LFA Grazing Livestock	11%	12%
Lowland Grazing Livestock	14%	17%
Cereals	19%	20%
General cropping	9%	8%
Pigs	3%	4%
Poultry	7%	5%
Mixed	10%	9%
Horticulture	12%	10%
All farms	100%	100%

Region	Full FBS sample	Business management practices subset
North East, Yorkshire & Humber	17%	12%
North West	12%	14%
East Midlands	12%	12%
West Midlands	10%	16%
East of England	19%	8%
South East	9%	18%
South West	21%	20%
All farms	100%	100%

Farm Size	Full FBS sample	Business management practices subset
Spare- and Part-time	15%	10%
Small	23%	18%
Medium	19%	18%
Large	20%	20%
Very large	23%	35%
All farms	100%	100%

Source: Farm Business Survey, England 2016/17.

Based on responses from 1269 farm businesses in 2016/17.