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FARM PRACTICES SURVEY 2012 – ENGLAND GREENHOUSE GAS MITIGATION PRACTICES

The latest National Statistics from the Defra Farm Practices Survey (FPS) were released on 31 May 2012 according to the arrangements approved by the UK Statistics Authority. The FPS is usually run annually to assess how farming practices are affected by current agricultural and environmental issues. However, in 2012, the FPS will run twice to meet the requirements of our data users. This release contains the results from the first survey run in January 2012. This survey focused on practices relating to greenhouse gas mitigation and was similar to the FPS 2011. The second FPS of 2012 will run in the autumn and will collect data covering other topics.

The key results are given below.

Nutrient management ([section 1](#))

Nutrient Management Plans helps farmers and growers to plan the use of fertilisers and manure, meet regulatory demands and protect the environment. The proportion of holdings with a nutrient management plan has increased steadily from 46% in 2006 to 68% in 2012. In 2012, half of these plans were created by the farmer with professional advice and 76% of plans are updated annually. Throughout the year, 30% of those with a nutrient management plan refer to it at least 5 times. Of those without a plan, 20% would not be motivated to create one.

Anaerobic digestion ([section 2](#))

Anaerobic digestion is a treatment that composts waste in the absence of oxygen, producing a biogas that can be used to generate electricity and heat. Less than 1% of holdings currently process slurries, crops or other feedstocks by anaerobic digestion either on their farm or elsewhere. For those not using anaerobic digestion the most common reason stated was a lack of need or demand, with 51% of farmers selecting this option in 2012.

Under-drainage ([section 3](#))

Under-drainage is a system of drains such as mole drains or pipe drains underneath the surface of the soil to help limit problems associated with excess water build up. Approximately 37% of managed arable land and grassland has some form of artificial under-drainage. Of the total area of under-drained land, 30% has been mole-drained at some point. Mole draining is repeated by almost half of farmers every one to five years.

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Fertiliser spreaders ([section 4](#))

Approximately 91% of farmers spreading nitrogen based fertilisers on their grassland or crops own at least one fertiliser spreader. Of those farmers who owned a spreader, spinning disc spreaders were by far the most popular, owned by 81% of farmers.

Note: The results in the following five sections relate only to holdings with livestock.

Manure and slurry storage ([section 5](#))

In 2012 just over half of holdings with livestock have storage facilities for solid manure on a solid base, while almost two thirds have the opportunity to store it in temporary heaps in fields. These figures are almost unchanged from 2011. The proportion of holdings with the facilities to store slurry in a tank or a lagoon is very similar at 19% and 18% respectively. The majority of manure and slurry stores are uncovered.

Farm health planning and biosecurity ([section 6](#))

The number of livestock holdings with a farm health plan increased from 71% in 2011 to 77% in 2012. Of those holdings with a plan in 2012, 65% completed their plan with the assistance of a vet or adviser and 44% use their plan routinely throughout the year to inform decisions on disease management. Approximately 64% of livestock farmers always follow biosecurity measures that are in place on their farm.

Grassland ([section 7](#))

In 2012, 79% of livestock holdings have sown some or all of their temporary grassland with a clover mix and 62% have sown their temporary grassland with high sugar grasses. These proportions are virtually unchanged on 2011. The most popular frequency for reseeding both clover and high sugar grasses is every three to five years. In some situations sowing grassland with a clover mix or high sugar grasses can be a cost-effective method of increasing production and improving environmental protection.

Cattle and sheep feeding regimes and breeding practices ([section 8](#))

In 2012, 44% of livestock farmers indicated they always or mostly use a ration formulation programme or expert nutritional advice when planning the feeding regime of their livestock. This is a small increase compared to 2011.

Estimated Breeding Values (EBV) estimate the genetic worth of animals using desirable traits such as meat production. The proportion of holdings using bulls or rams with a high EBV when breeding beef cattle or lambs in 2012 remained almost unchanged from 2011 at 64%.

Outwintering ([section 9](#))

Outwintering is the practice of keeping cattle and sheep outdoors in fields over the winter months. Sheep and lambs spend on average 48 weeks a year outside. Beef cows, dairy heifers and all other beef cattle spend an average of 31 to 32 weeks each year outdoors.

Survey details

Survey content

The Farm Practices Survey is usually run annually and collects information on a diverse range of topics used to monitor the impact of farming practices on the environment. Each year, stakeholders are invited to request new questions to help inform policy decisions and provide evidence on progress towards agricultural and environmental sustainability. However, in 2012 two surveys will run to meet our data users' requirements.

Results in this release are from the first FPS in 2012, which was a bespoke survey run in January and was similar to that of the FPS 2011. The survey largely focused on practices relating to greenhouse gas mitigation. Topics covered include nutrient and manure management plans, uptake of anaerobic digestion, manure and slurry storage, fertiliser spreaders, farm health plans and cattle and sheep breeding and feeding practices. Where comparisons with earlier years are possible, the results are displayed alongside those from previous years.

Survey methodology

The results provided in this release are based on the questions sent to approximately 2,500 holdings in England. These holdings are targeted by farm type and size to ensure a representative sample. The survey is voluntary and the response rate was 47%. 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 only the 61 thousand holdings that exceed these thresholds out of the total English population of 105 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	14 628	768	52
Other crops	6 453	292	52
Pigs & poultry	3 292	197	30
Dairy	7 527	528	41
Grazing livestock (less favoured areas)	8 081	246	44
Grazing livestock (lowland)	14 570	319	46
Mixed	6 077	208	51
All farms	60 628	2 558	47

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 is weighted according to the inverse sampling fraction. 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.

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 the true value lies within this range either side of the estimate. They are based on the standard errors 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

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	<2 SLR
Medium	>=2 and <3 SLR
Large	>= 3 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 on 7 June 2012 at:

<http://www.defra.gov.uk/statistics/foodfarm/enviro/farmpractice/>.

Other Defra statistical notices can be viewed on the Defra website at <http://www.defra.gov.uk/statistics/>. This site also shows details of future publications, with pre-announced dates.

Results

1 Nutrient management

Here we consider how farmers manage the application of fertilisers to crops and grassland. Effective fertiliser management provides sufficient nutrients to crops and grassland whilst managing environmental impacts. This section looks at the use of nutrient management plans, how nutrient requirements are calculated and whether farmers have seen any financial or environmental benefits.

Key findings

- Around 68% of holdings have a nutrient management plan, an increase from 62% in 2011.
- In 2012, 19% of nutrient management plans were created by the farmer without professional advice, 50% were created by the farmer with the help of a professional while the remaining 31% were created by an adviser or contractor. This is little changed from 2011.
- About 45% of farms with nutrient management plans report a financial benefit, while 30% report an environmental benefit. These findings are similar to 2011.
- Three quarters of holdings have a manure management plan for their farm, an increase from 67% in 2011.
- In 2012, 57% of farmers assess or calculate the nutrient content of manure, whilst 23% test the nutrient content by taking samples. These proportions are similar to those in 2009 and 2011.

Figure 1.1: Proportion of holdings with a nutrient management plan: 2006 to 2012

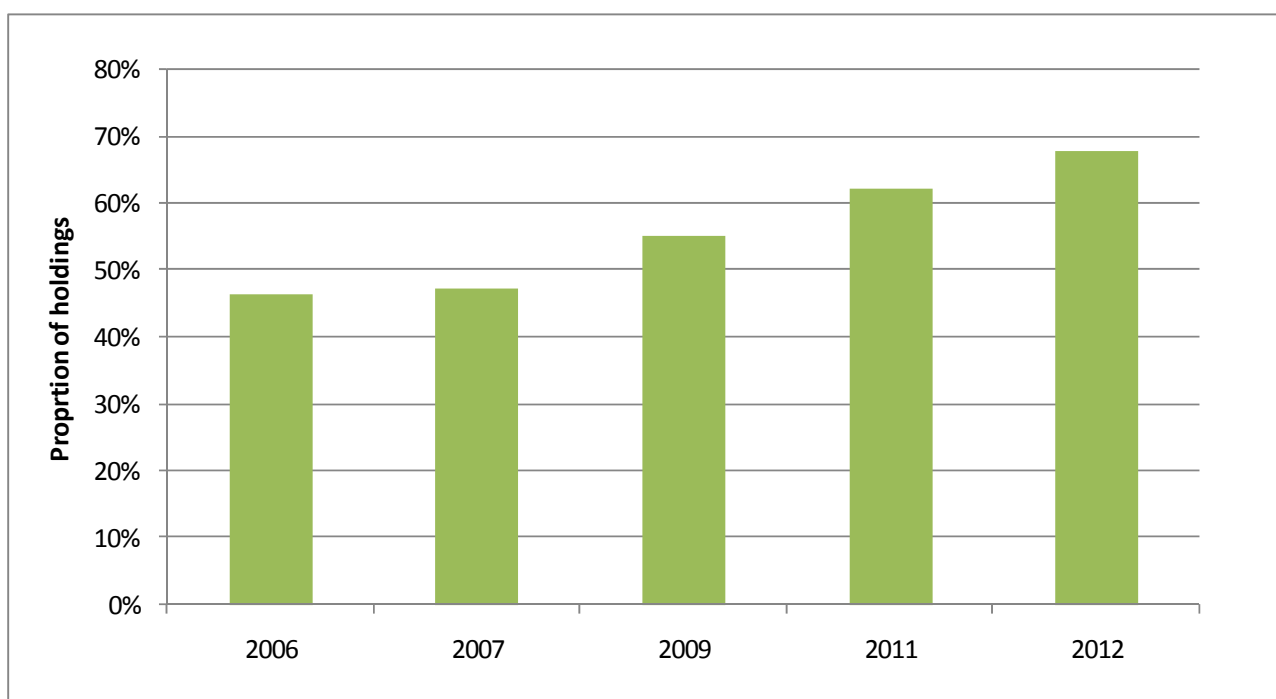


Figure 1.1 shows that the proportion of farms with a nutrient management plan has gradually increased from 46% in 2006 to 68% in 2012. This could be due to a mixture of increasing awareness of the environment and an increasing number of regulations.

Figure 1.2: Proportion of farmers with a nutrient management plan created by themselves or an adviser: 2012

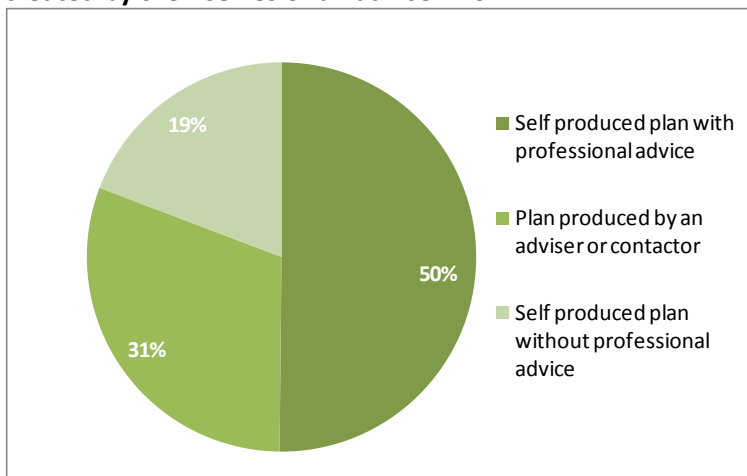
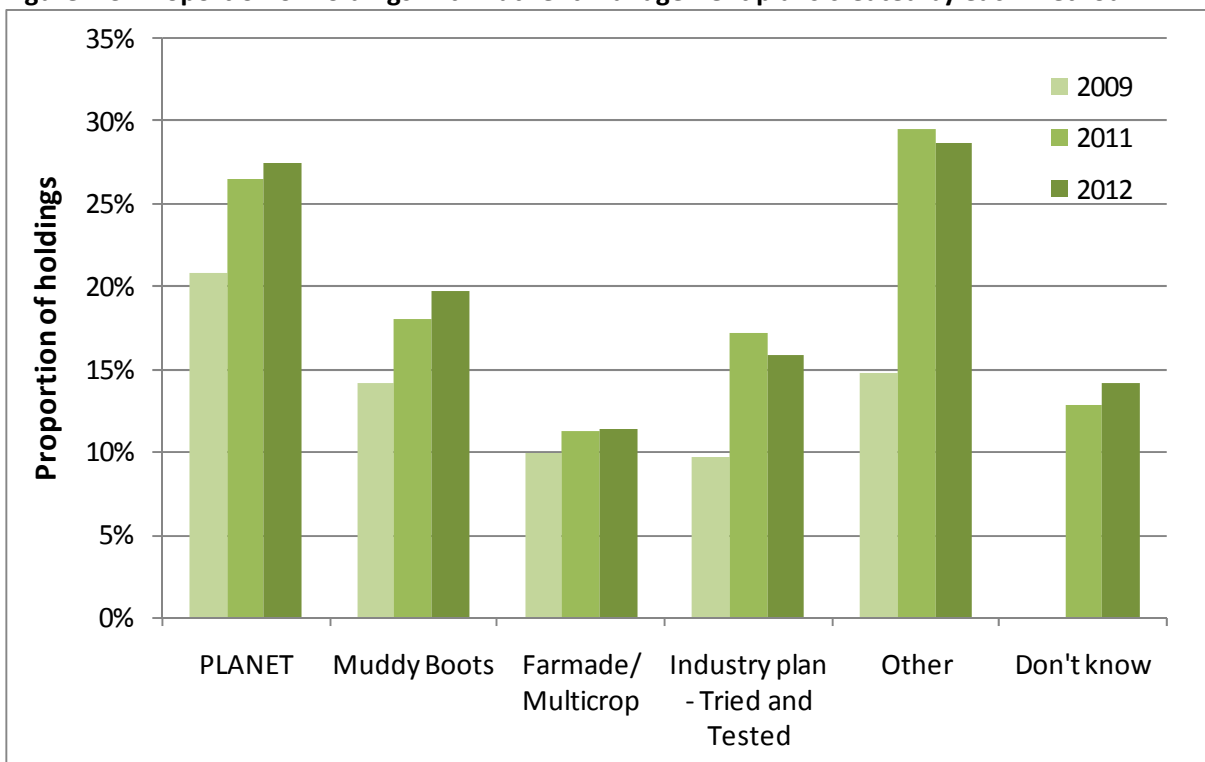


Figure 1.2 shows that half of farmers with a nutrient management plan created the plan themselves with the help of an adviser. Roughly a fifth completed the plan on their own without advice, whilst the remainder used a contractor or adviser. Over 80% of farmers that sought advice to complete their plans did so from fertiliser advisers or agronomists (table 1.3). The majority of holdings who have a nutrient management plan update it every year and most refer to it at least once in a year (tables 1.4 and 1.5).

Figure 1.3: Proportion of holdings with nutrient management plans created by each method ^(a)



(a) "Don't know" was not included as an answer option on the 2009 form.

PLANET, Muddy Boots, Farmade/Multicrop and Tried & Tested are methods for creating nutrient management plans. PLANET has been the most popular of the four methods in each year (figure 1.3). However, 29% of farmers used other methods that were not listed in the survey form to create their plans (table 1.6). Defra recommendations (RB209) was the most commonly reported source of nutrient recommendations for plans (table 1.7).

Figure 1.4: Proportion of holdings reporting benefits from having a nutrient management plan: 2009 – 2012

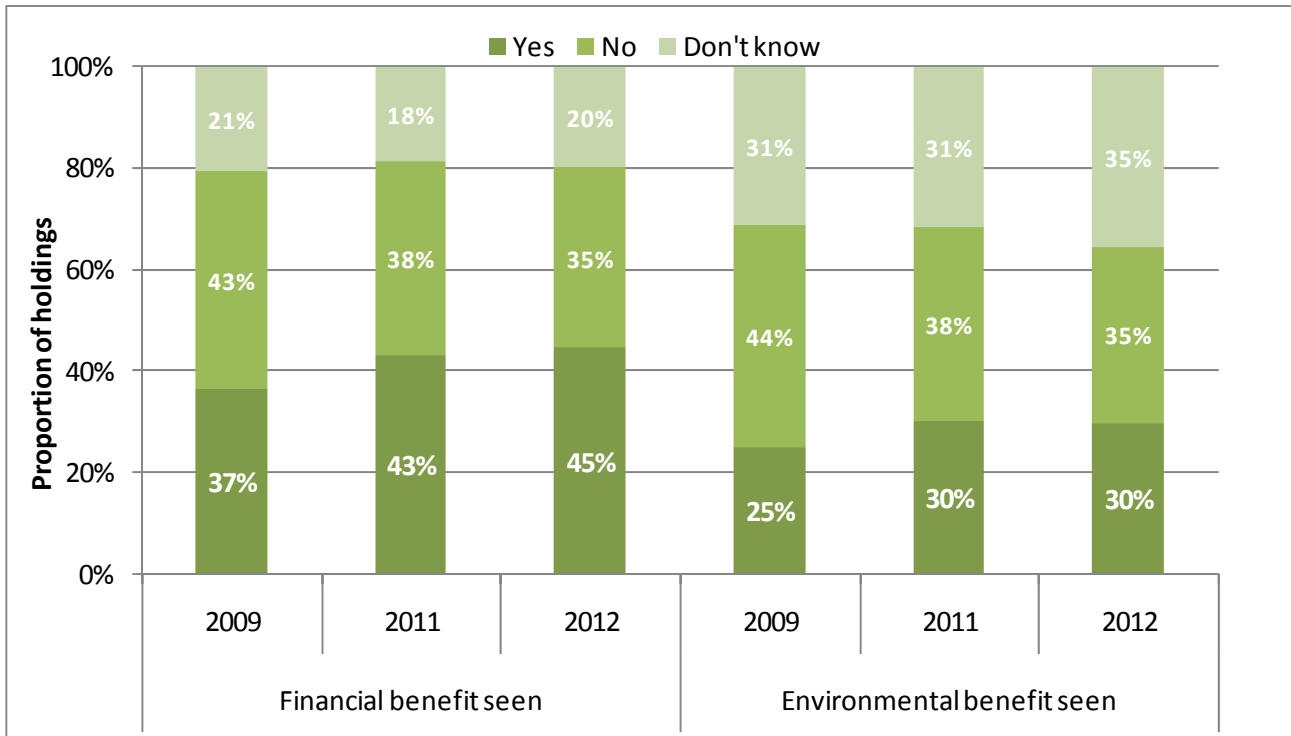
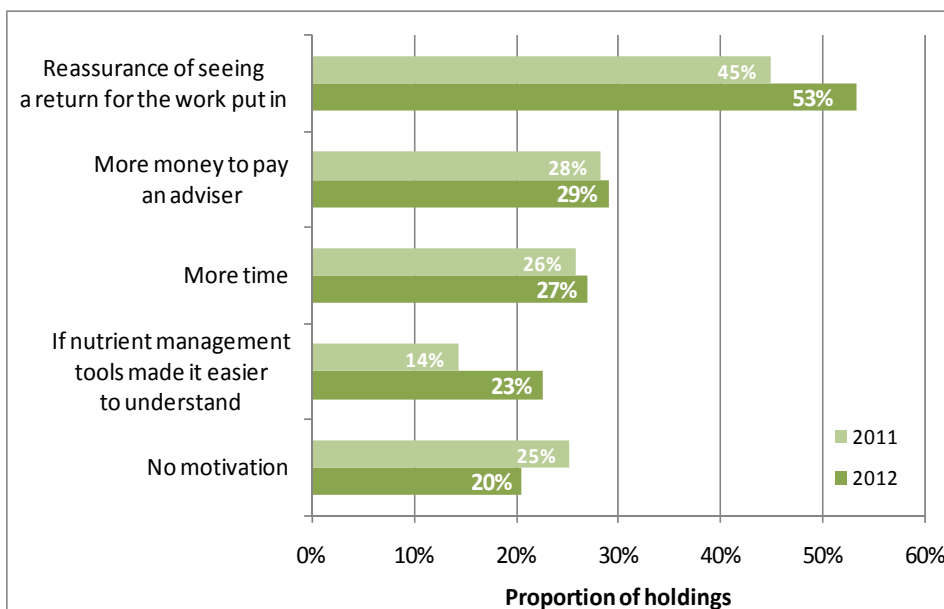


Figure 1.4 shows that for all three years, a higher proportion of farmers have seen a financial benefit of having a nutrient management plan than an environmental benefit. Although there appears to have been an increase in the proportion of farmers seeing financial and environmental benefits between 2009 and 2012, the change is not significant statistically (table 1.8).

Figure 1.5: Reasons that would motivate farmers to create a nutrient management plan: 2011 – 2012 ^(a)



For most farmers without a nutrient management plan, the most common motivator in both 2011 and 2012 would be to see a return for the work they'd put in. Having more money to pay an adviser and more time were also common motivators in 2012, however about a fifth of farmers without a nutrient management plan would not be motivated to create one (figure 1.5).

(a) For holdings who do not currently have a nutrient management plan

The percentages of farmers who undertake some form of nutrient testing on soil or manure have remained similar between 2009 and 2012. The largest change was an increase in holdings regularly testing the pH of their soil, which rose from 75% in 2011 to 81% in 2012 (table 1.10). Over three quarters of farms have a manure management plan, an increase from 67% in 2011. The majority of farmers (90%) use nutrient recommendations for manure management plans from Defra recommendations (RB209, CoGAP).

Table 1.1: Proportion of holdings with a nutrient management plan: 2006 – 2012

	2006	2007	2009	2011	2012
% of holdings	46	47	55	62	68
95% CI	±3	±2	±3	±2	±3
Number of responses	1 339	2 569	1 401	3 140	1 071

Table 1.2: Proportion of farmers with a nutrient management plan created by themselves or an adviser: 2011 – 2012

	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Self produced plan without professional advice	23	±2	19	±3
Self produced plan with professional advice	49	±2	50	±4
Plan produced by an adviser or contractor	27	±2	31	±4

Based on 2 096 responses in 2011 and 792 in 2012 from holdings with a nutrient management plan

Table 1.3: Advisers and contractors used for completion of the nutrient management plan: 2012

Type of adviser	Those who sought an adviser's help to create the plan themselves ^(a)		Those whose plan was created by an adviser or contractor ^(b)	
	% of holdings	95% CI	% of holdings	95% CI
Fertiliser adviser / agronomist	82	±4	78	±6
Animal nutritionist	7	±3	2	±2
FWAG	4	±2	3	±2
Other	13	±4	20	±6

(a) Based on 394 responses from holdings who created the nutrient management plan themselves with advice

(b) Based on 246 responses from holdings whose nutrient management plan was created by an adviser or contractor

Table 1.4: Frequency with which the nutrient management plan is updated: 2009 – 2012

Frequency of update	2009		2011		2012	
	% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
Every year	65	±4	77	±2	76	±3
Every 2 years	19	±3	11	±1	11	±2
Every 3 years or longer	17	±3	12	±1	13	±3

Based on 875 responses in 2009, 2 094 in 2011 and 792 in 2012 from holdings who have a nutrient management plan

Table 1.5: Frequency with which the nutrient management plan is referred to in a year: 2011 – 2012

Frequency of use	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
More than 10 times	9	±1	9	±2
5 to 10 times	34	±2	21	±3
Less than 5 times	51	±2	64	±4
Never	5	±1	5	±2

Based on 2 096 responses in 2011 and 792 in 2012 from holdings who have a nutrient management plan

Table 1.6: Proportion of holdings with nutrient management plans created by each method: 2009 – 2012

Method	2009		2011		2012	
	% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
PLANET	21	±3	26	±2	28	±3
Muddy Boots	14	±3	18	±2	20	±3
Farmade / Multicrop	10	±2	11	±1	11	±2
Industry plan – ‘Tried and Tested’	10	±2	17	±2	16	±3
Created own plan	47	±4	:	-	:	-
Other ^(a)	15	±3	30	±2	29	±3
Don’t know	:	-	13	±1	14	±3

Based on 884 responses in 2009, 2 096 in 2011 and 791 in 2012 from holdings who have a nutrient management plan : data not collected

(a) The 2011 and 2012 results for ‘Other’ are not comparable with 2009 as the 2009 survey included a category for ‘Created own plan’ but the 2011 and 2012 surveys did not.

Table 1.7: Sources of nutrient recommendations for nutrient management plans: 2011 – 2012

Source	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Defra recommendations / manual (RB209)	65	±2	68	±4
An adviser’s or industry note	39	±2	39	±4
Personal experience	42	±2	41	±4
Other	5	±1	4	±2
Don’t know	4	±1	4	±2

Based on 2 096 responses in 2011 and 792 in 2012 from holdings who have a nutrient management plan

Table 1.8: Proportion of holdings that have seen financial and/or environmental benefits in having a nutrient management plan: 2009 – 2012

Benefit		2009		2011		2012	
		% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
Holdings seeing a financial benefit	Yes	37	±4	43	±2	45	±4
	No	43	±4	38	±2	35	±4
	Don't know	21	±3	18	±2	20	±3
Holdings seeing an environmental benefit	Yes	25	±3	30	±2	30	±4
	No	44	±4	38	±2	35	±4
	Don't know	31	±4	31	±2	35	±4

Based on 885 responses in 2009 , 2 096 in 2011 and 790 in 2012 from holdings who have a nutrient management plan

Table 1.9: Proportion of holdings without a nutrient management plan who would be motivated to create one for the following reasons: 2011 – 2012

Motivation	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
More time	26	±3	27	±6
More money to pay an adviser	28	±3	29	±6
If nutrient management tools made it easier to understand	14	±2	23	±5
Reassurance of seeing a return for the work put in	45	±3	53	±6
No motivation	25	±3	20	±5

Based on 1 044 responses in 2011 and 277 in 2012 from holdings who don't have a nutrient management plan

Table 1.10: Nutrient testing of soil and manure: 2009 – 2012

	2009		2011		2012	
	% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
Holdings who regularly test (at least every 5 years) the nutrient content (indices) of the soil	72	±3	70	±1	74	±3
Holdings who regularly test (at least every 5 years) the pH of the soil	:	-	75	±1	81	±3
Holdings who test (by taking samples) the nutrient content of manure	23	±3	22	±1	23	±3
Holdings who assess/calculate the nutrient content of manure	54	±4	53	±2	57	±3

Based on all responses for whom the questions were applicable. Minimum numbers of responses used: 999 in 2009, 2 545 in 2011 and 859 in 2012.

: data not collected

Table 1.11: Proportion of holdings with a manure management plan: 2009 – 2012

	2009		2011		2012	
	% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
Holdings with a manure management plan	70	±3	67	±2	76	±3

Based on 1 033 responses in 2009, 2 566 in 2011 and 847 in 2012 from holdings for whom the question was applicable

Table 1.12: Source of nutrient recommendations for manure management plans: 2009 – 2012

	2009		2011		2012	
	% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
Defra recommendations / manual (RB209), CoGAP	92	±3	87	±2	90	±3
Other	12	±3	15	±2	13	±3

Based on 778 responses in 2009, 1 742 in 2011 and 660 in 2012 from holdings who have a manure management plan

2 Anaerobic digestion

Anaerobic digestion is a treatment that composts waste in the absence of oxygen, producing a biogas that can be used to generate electricity and heat. Anaerobic digestion can be used to treat slurries and other biodegradable waste. This section looks at the proportion of farmers who are currently processing, or intending to process, any waste in this way. For those who are not, we look at the reasons preventing them from doing so.

Key findings

- Less than 1% of farmers are already processing waste by anaerobic digestion, which shows little change between 2008 and 2012.
- In 2012 the most common reason preventing farmers from using anaerobic digestion was a lack of need or demand.

The majority of farms do not currently process slurries, crops or feedstocks by anaerobic digestion with less than 1% of holdings doing so in 2012. A further 2% of holdings are planning to process slurries, crops or feedstocks from the holding by anaerobic digestion in the future. More detailed figures for 2012 can be found in table 2.1 along with results from 2008 and 2011. The most common reason preventing farmers from processing slurries, crops and feedstocks by anaerobic digestion in 2012 was a lack of need or demand.

Table 2.1: Proportion of holdings processing waste by anaerobic digestion: 2008 – 2012

Waste type		% of holdings			2012
		2008	2011	2012	95% CI
Slurries	Already processing	1.1	0.6	0.4	± 0.4
	Plan to process in future	4.1	3.1	1.9	± 0.9
Crops	Already processing	:	:	0.4	± 0.4
	Plan to process in future	:	:	2.1	± 0.9
Other feedstocks from the holding	Already processing	0.5	0.8	0.5	± 0.4
	Plan to process in future	4.1	3.1	1.6	± 0.8
Other feedstocks from outside the holding	Already processing	0.3	0.3	0.6	± 0.5
	Plan to process in future	3.0	2.2	1.1	± 0.7

Based on no fewer than 885 responses in 2008, 2 547 in 2011 and 1 114 in 2012 from holdings who have heard of anaerobic digestion

: data not collected

Table 2.2: Reasons preventing the uptake of anaerobic digestion as a method of processing slurries, crops and feedstocks in 2012

Reasons	% of holdings	95% CI
Not needed / no demand	51	±3
Too expensive	41	±3
Not suitable / no space	35	±3
Lack of expertise / information	30	±3
Too many regulations	28	±3
Difficult to get credit	16	±2
Not profitable	14	±2
Other	15	±2

Based on 1 114 responses from holdings who do not already process waste by anaerobic digestion

3 Under-drainage

This section looks at the artificial under-draining of managed land to help limit problems associated with excess water build up. It also looks at the proportion of under-drained land affected by issues such as drain failure and water-logging, and the amount of under-drained land that has been mole drained. Mole drains are a particular type of under-drainage that involves ploughing unlined channels into the subsoil. Managed land refers to land under arable crops, permanent pastures and meadows or temporary grassland sown in the last 5 years. The total managed land area used in this section is taken from the June Survey of Agriculture & Horticulture and only represents the 61 thousand holdings in the Farm Practices Survey population. More details on the survey population can be found in the methodology section on page 3.

Key findings

- Almost 2.5 million hectares of managed land has artificial under-drainage, which amounts to 37% of the total managed land area.
- A very small proportion of this under-drained land is affected by issues such as drain failure (2%), yield reduction (3%) and risk of soil damage due to water-logging (4%).
- About 30% of under-drained land has been mole drained.

Table 3.1: Area of managed land that has artificial under-drainage in 2012

	Thousand hectares	
	Area	95% CI
Managed land with under-drainage	2 467	±216
Total managed land	6 648	±316

Based on 1 089 responses from holdings whose area of under-drained land did not exceed the total area of managed land reported in the June 2011 Survey of Agriculture.

Table 3.2: Area of under-drained land affected by various issues in the last three years

	Thousand hectares		
Issue	Area affected	95% CI	% of under-drained land
Drain failure causing an artificial spring or blow out	44	±22	2
Yield reduction due to sustained water-logging	77	±25	3
Risk of soil damage due to seasonal water-logging	92	±29	4

Based on 691 responses from holdings with artificial under-drainage and whose area of under-drained land did not exceed the total area of managed land reported in the June 2011 Survey of Agriculture.

Table 3.3: Area of under-drained land that has ever been mole drained

	Thousand hectares		
	Area	95% CI	% of under-drained land
Under-drained land that has been mole drained	738	± 143	30

Based on 691 responses from holdings with artificial under-drainage and whose area of under-drained land did not exceed the total area of managed land reported in the June 2011 Survey of Agriculture.

Table 3.4: Frequency with which mole draining is repeated

Frequency	% of holdings	95% CI
Never	17	± 5
1 to 5 years	46	± 6
6 to 10 years	31	± 6
11 years or more	6	± 3

Based on 292 responses from holdings whose under-drained land has ever been mole drained.

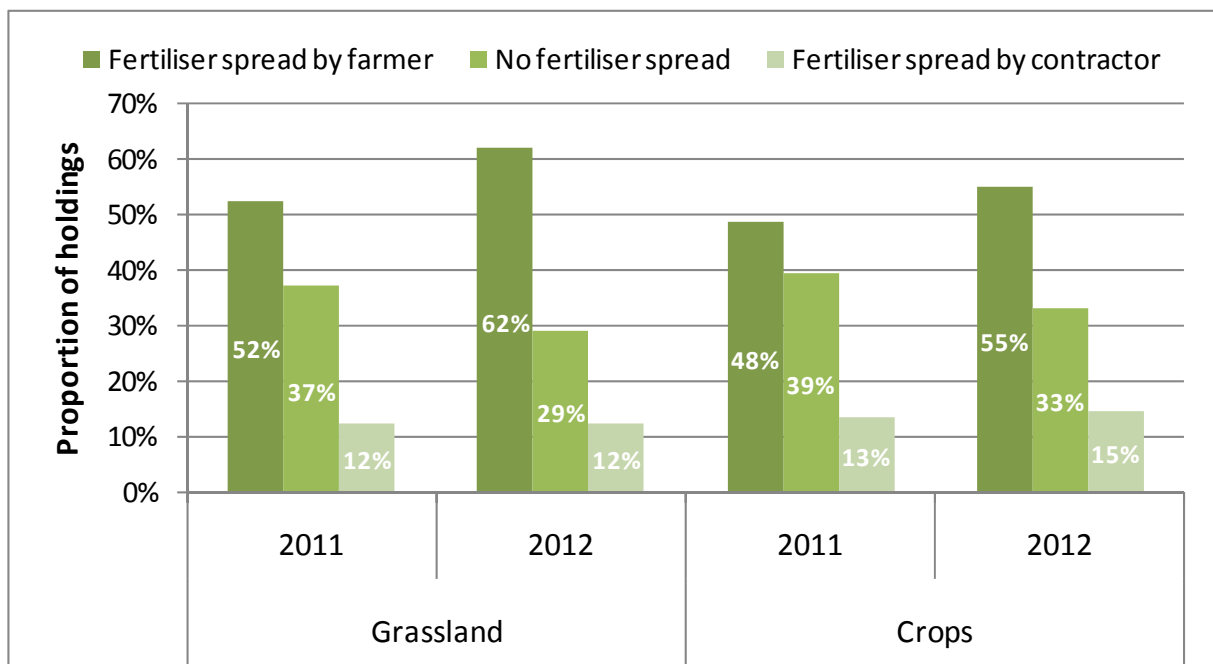
4 Fertiliser spreaders

This section focuses specifically on farmers who spread manufactured nitrogen based fertilisers. Inputs of nitrogen fertilisers are critical to maintain yields of food and fodder crops, but the yield benefits of application can come at the expense of polluting losses to water and air, including nitrous oxide (a greenhouse gas). Using best practice management techniques can help farmers to minimise these losses. Knowing the types of fertiliser spreaders and how they are maintained helps inform understanding in this area. More details on nitrogen fertiliser spreading practices are available in the British Survey of Fertiliser Practice at <http://www.defra.gov.uk/statistics/foodfarm/enviro/fertiliserpractice/>.

Key findings

- Approximately 91% of holdings spreading nitrogen based fertilisers on their grassland or crops own at least one fertiliser spreader.
- In 2012, 92% of farmers gave their spreader(s) a general check at least once a year.
- In 2012, 23% of farmers check and calibrate the spread pattern of their spreader(s) more than once a year and 55% check and correct the rate for fertiliser type more than once a year.

Figure 4.1: Proportion of holdings spreading nitrogen based fertiliser on crops or grassland: 2011 - 2012



There has been a rise in the proportion of farmers spreading nitrogen based fertiliser on both crops and grassland, with the increases largely being seen in the category “spread by farmer” (figure 4.1). Of those holdings spreading fertiliser on crops or grassland, 91% of them owned at least one fertiliser spreader. The most common type of fertiliser spreader owned was the spinning disc spreader with 81% of farms owning one or more spreader of this type.

Table 4.1: Spreading of manufactured nitrogen based fertiliser on grassland: 2011 - 2012

	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Fertiliser spread by farmer	52	±2	62	±3
Fertiliser spread by contractor	12	±1	12	±2
None spread	37	±2	29	±3

Based on 3 435 respondents in 2011 and 1 018 in 2012 who answered the question

Table 4.2: Spreading of manufactured nitrogen based fertiliser on crops: 2011 - 2012

	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Fertiliser spread by farmer	48	±1	55	±3
Fertiliser spread by contractor	13	±1	15	±2
None spread	39	±1	33	±3

Based on 3 435 respondents in 2011 and 1 018 in 2012 who answered the question

Table 4.3: Proportion of holdings owning a fertiliser spreader: 2011 - 2012

Number of spreaders	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
None	17	±1	9	±2
One	76	±2	73	±3
Two or more	7	±1	18	±2

Based on 2 868 responses in 2011 and 913 in 2012 from holdings spreading manufactured nitrogen based fertiliser on grassland or crops

Table 4.4: Proportion of holdings owning each type of fertiliser spreader in 2012

Type of spreader	2012	
	% of holdings	95% CI
Spinning disc	81	±3
Oscillating spout	20	±3
Liquid fertiliser spreader	10	±2
Combination (with seed drill)	3	±1
Pneumatic	2	±1
Other	1	±1

Based on 928 responses from holdings who have at least one fertiliser spreader

Table 4.5: Proportion of holdings giving their fertiliser spreader(s) a general check: 2011 - 2012

Frequency of check	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
More than once a year	50	±2	48	±3
Once a year	42	±2	44	±4
Once every two years	3	±1	2	±1
Less than every two years	6	±1	6	±2

Based on 2 489 responses in 2011 and 858 in 2012 from holdings who have at least one fertiliser spreader

Table 4.6: Proportion of holdings checking and calibrating the spread pattern of their fertiliser spreader(s): 2011 - 2012

Frequency of check	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
More than once a year	27	±2	23	±3
Once a year	48	±2	50	±4
Once every two years	8	±1	8	±2
Less than every two years	16	±2	18	±3

Based on 2 486 responses in 2011 and 822 in 2012 from holdings who have at least one fertiliser spreader

Table 4.7: Proportion of holdings checking their fertiliser spreader(s) and correcting the rate for type of fertiliser: 2011 - 2012

Frequency of check	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
More than once a year	56	±2	55	±4
Once a year	31	±2	34	±4
Once every two years	4	±1	3	±1
Less than every two years	8	±1	8	±2

Based on 2 486 responses in 2011 and 835 in 2012 from holdings who have at least one fertiliser spreader

Table 4.8: Proportion of holdings that have computer controlled fertiliser spreaders with variable rate application: 2011 - 2012

	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
All of the spreaders owned	14	±1	14	±2
Some of the spreaders owned	2	±1	5	±1
None of the spreaders owned	84	±1	81	±2

Based on 2 489 responses in 2011 and 861 in 2012 from holdings who have at least one fertiliser spreader

Note: The results in the following five sections relate only to holdings with livestock.

5 Manure and slurry storage

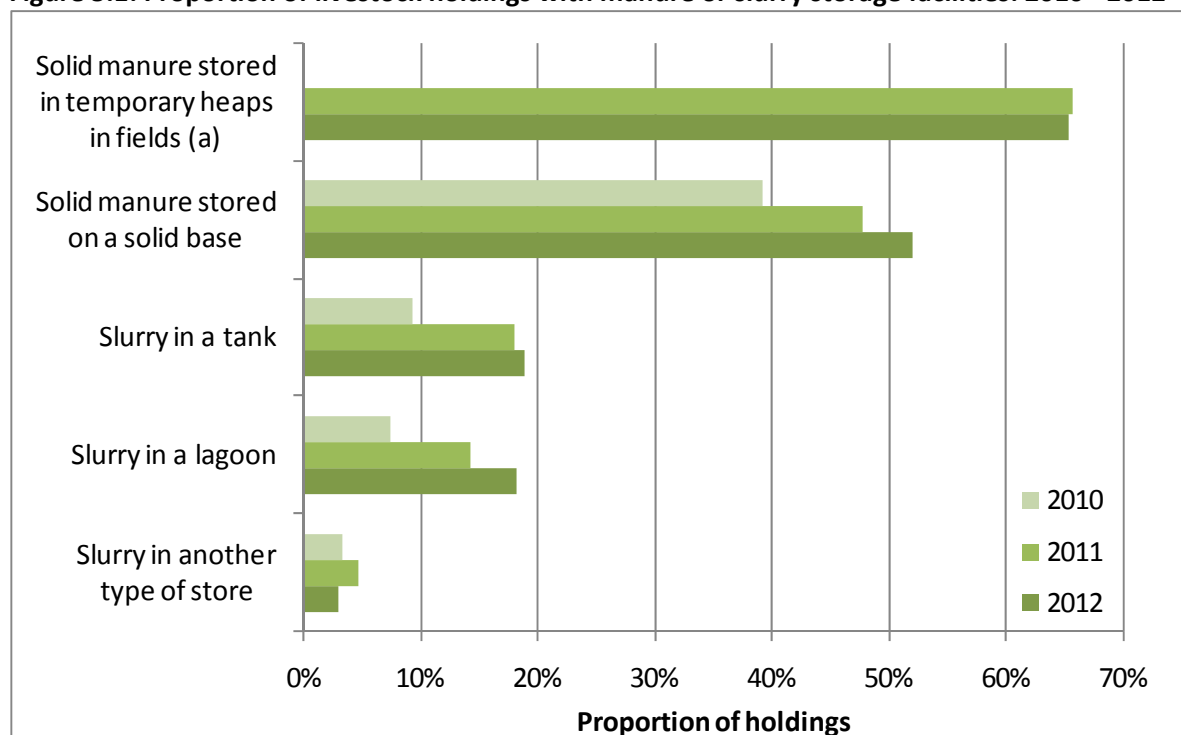
The system of manure and slurry management is relevant to the control of environmental risks to water and air including greenhouse gases and ammonia. This section looks at the types of stores that livestock farmers have, whether or not they are covered and whether the farmer has any plans to upgrade their current facilities. It also looks at whether the farmer has a slurry separator. Separating slurry greatly reduces the storage space needed and spreading liquid slurry can require a lot less energy, time and cost.

Key findings

- Almost two thirds of livestock farmers can store solid manure in temporary heaps in fields, while just over half have storage facilities for solid manure on a solid base.
- The most popular storage facilities for slurry are tanks and lagoons, with 19% and 18% of holdings having these stores respectively.
- The median age of slurry tanks is 20 years old. Within the responses the lower quartile was 14 years whilst the upper quartile was 25 years old. ⁽¹⁾
- Approximately 13% of farmers plan to enlarge, upgrade or reconstruct their storage facilities and of these just over half plan to make these changes within 1 to 3 years.
- In 2012, just 4% of farmers have a slurry separator, almost unchanged from 2011.

(1) When all the ages of slurry stores are arranged in ascending order, the lower quartile is the age in the middle of the lower half of ages, while the upper quartile is the age in the middle of the upper half.

Figure 5.1: Proportion of livestock holdings with manure or slurry storage facilities: 2010 - 2012



(a) Data not collected in 2010

Figure 5.1 shows the largest proportion of holdings (65%) in 2012 were able to store manure in temporary heaps in fields, which remained almost unchanged on 2011. The most common facilities for slurry are tanks closely followed by lagoons, with 19% and 18% of holdings having these storage facilities respectively. Very few stores are covered (table 5.2).

Figure 5.2: Median age (in years) of slurry storage facilities: 2012

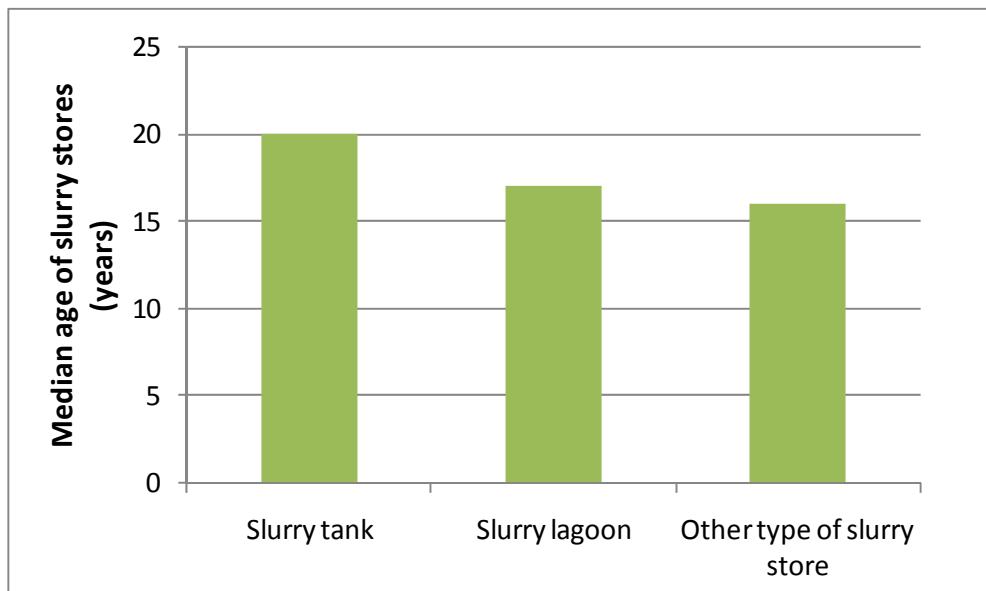
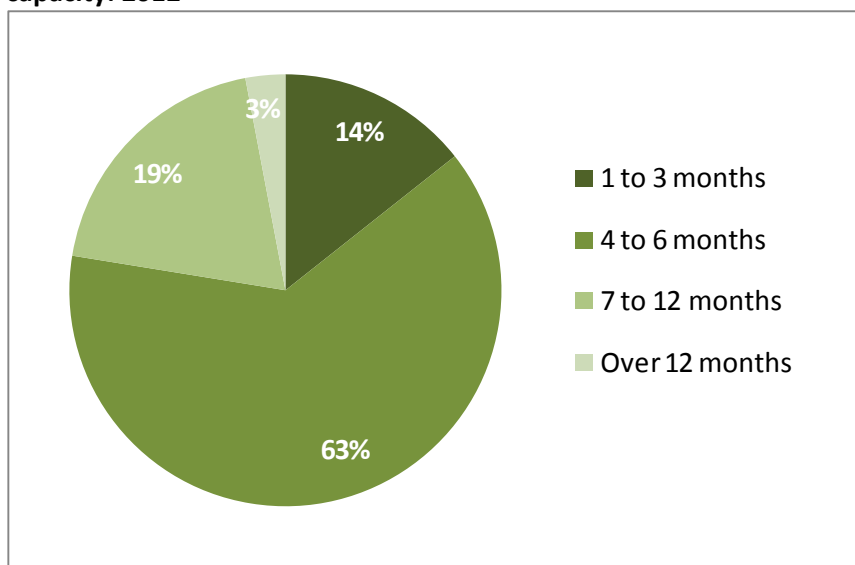


Figure 5.2 shows the median age of slurry storage facilities. Slurry tanks had the highest median age of 20 years, followed by slurry lagoons at 17 years old. Around 13% of livestock farmers are planning to make changes to their manure or slurry storage facilities and of these, almost 80% plan to make the changes within the next three years (table 5.3).

Figure 5.3: Proportion of holdings with storage facilities for slurry by number of months of storage capacity: 2012



Just under two thirds of farmers have between 4 and 6 months storage capacity of slurry (figure 5.3). Only 4% of holdings have a slurry separator in 2012 and of those who don't have one, 3% plan to get one in the future. These figures are almost unchanged from 2011 (table 5.5). About 13% of farmers export manure or slurry off their farm and of these, the majority export it to a neighbouring farm (tables 5.6 and 5.7).

Table 5.1: Proportion of holdings who have storage facilities for manure and/or slurry: 2010 - 2012

Storage facility	2010		2011		2012	
	% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
Solid manure stored in heaps on a solid base	39	± 1	48	± 2	52	± 4
Solid manure stored in temporary heaps in fields	:	-	66	± 2	65	± 4
Slurry in a tank	9	± 1	18	± 1	19	± 3
Slurry in a lagoon	7	± 0	14	± 1	18	± 3
Slurry in another type of store	3	± 0	5	± 1	3	± 1

Based on 8 325 responses in 2010, 2 592 in 2011 and 789 in 2012 from holdings who have livestock

: data not collected

Table 5.2: Proportion of holdings having storage facilities for manure and/or slurry where the store is covered: 2010 - 2012

Storage facility	2010		2011		2012	
	% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
Solid manure stored in heaps on a solid base	7	± 1	6	± 1	7	± 3
Solid manure stored in temporary heaps in fields	:	-	1	± 0	0	± 0
Slurry in a tank	19	± 3	15	± 3	12	± 6
Slurry in a lagoon	2	± 1	1	± 1	0	± 0
Slurry in another type of store	14	± 3	12	± 6	19	± 20

Based on holdings with livestock who have the storage facilities in question (minimum 430 in 2010, 137 in 2011 and 24 in 2012).

: data not collected

Table 5.3: Proportion of holdings planning to enlarge, upgrade or reconstruct their manure and slurry storage facilities: 2011 - 2012

	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Holdings planning to make changes to their current facilities ^(a)	14	±1	13	±3
<i>Of those planning to make changes, the changes will be made: ^(b)</i>				
In 0 to 6 months	20	±4	15	±7
In 7 to 11 months	22	±4	12	±7
In 1 to less than 3 years	42	±5	52	±11
In 3 to less than 5 years	10	±3	13	±7
In 5 years or more	6	±2	9	±7

(a) Based on 2 347 responses in 2011 and 718 in 2012 from holdings with livestock who have manure or slurry storage facilities

(b) Based on 373 responses in 2011 and 98 in 2012 from holdings with livestock who are planning to make changes

Table 5.4: Proportion of holdings with manure or slurry stores by storage capacity: 2011 - 2012

Storage capacity	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
1 to 3 months	26	±3	14	±4
4 to 6 months	55	±3	63	±6
7 to 12 months	17	±3	19	±5
Over 12 months	1	±1	3	±2

Based on 894 responses in 2011 and 279 in 2012 from holdings with livestock who have slurry storage facilities

Table 5.5: Proportion of holdings that have a slurry separator or plan to get one in the future: 2011 - 2012

	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Holdings who have a slurry separator ^(a)	3	±1	4	±2
Holdings who do not have a slurry separator but plan to get one in the future ^(b)	2	±1	3	±2

(a) Based on 2 152 responses in 2011 and 631 in 2012 from holdings who have livestock

(b) Based on 1 913 responses in 2011 and 563 in 2012 from holdings who have livestock who do not have a slurry separator

Table 5.6: Proportion of holdings exporting manure or slurry off the farm: 2010 - 2012

	2010 ^(a)		2011		2012	
	% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
Holdings exporting manure or slurry	11	±1	14	±1	13	±2

Based on 8 329 responses in 2010, 2 518 in 2011 and 767 in 2012 from holdings who have livestock

(a) In 2010 the survey asked whether the respondent had exported manure off their farm in the past 12 months. Results are broadly comparable as very little slurry is exported.

Table 5.7: Proportion of holdings exporting manure or slurry to each destination: 2011 - 2012

Destination	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Manure to neighbouring farm	89	±3	83	±8
Slurry to neighbouring farm	16	±3	22	±8
Direct sale to public (manure only)	7	±3	8	±6
Composting facility (manure only)	1	±1	2	±3
Manure to an anaerobic digestion plant	0	±0	4	±5
Slurry to an anaerobic digestion plant	0	±0	2	±3
Other commercial outlet	4	±2	3	±4
Other non-commercial outlet	1	±1	1	±1

Based on 387 responses in 2011 and 101 in 2012 with livestock who export manure or slurry off their farm

6 Farm health planning and biosecurity

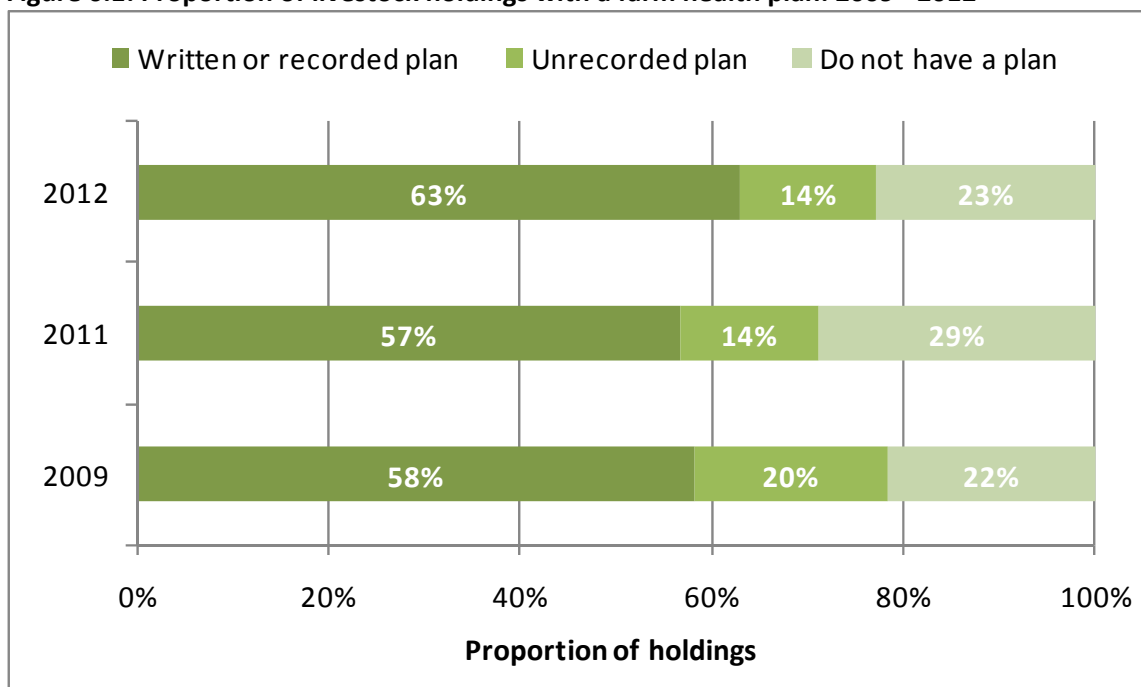
Farm health planning is a Defra initiative which benefits farmers by helping to prevent disease and improve the performance of their livestock. It is about farmers working closely with their vets or other advisers to set targets for their animals' health and welfare and take steps to measure, manage and monitor productivity.

Key findings

- In 2012, 77% of livestock farmers had a farm health plan (FHP) compared to 71% in 2011 and 78% in 2009.
- Around 65% of FHPs in 2012 were completed with the help of a vet or adviser. This remains unchanged from 2011.
- Of those who have a FHP in 2012, 44% use it on a routine basis to inform disease management decisions and a further 36% use the plan when possible.

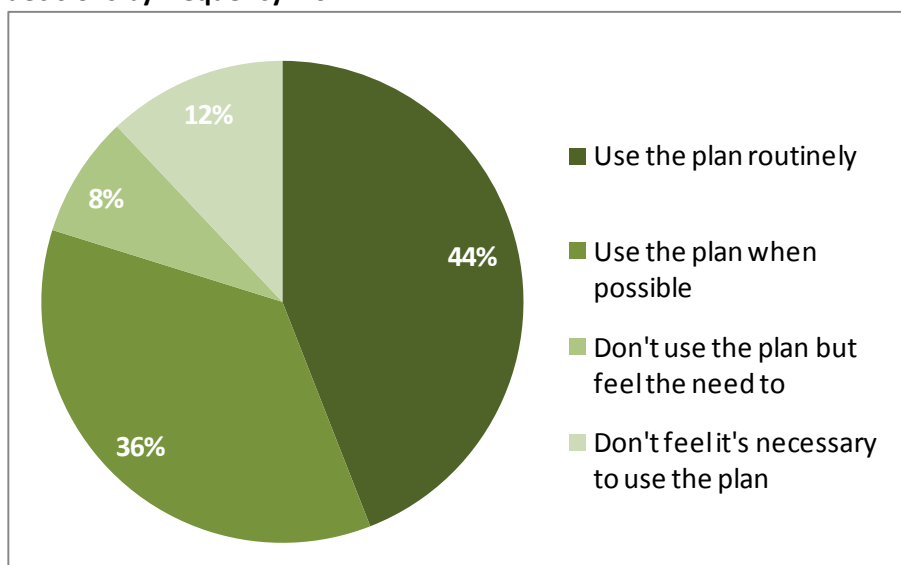
The total proportion of livestock farms with any form of Farm Health Plan in 2012 (77%) is almost unchanged from 2009 (78%). Figure 6.1 shows that, in 2012, the majority of livestock farmers have a written or recorded plan (63%) and 14% had a plan that was not recorded. Of those holdings with a FHP in 2012, 65% of them created the plan with assistance from a vet or advisor. Of those without a FHP, 14% plan to complete one in the next 12 months with some assistance (table 6.4).

Figure 6.1: Proportion of livestock holdings with a farm health plan: 2009 - 2012



Of those holdings with a FHP, 80% were using and updating that plan and a further 8% felt that they should be doing so (figure 6.2).

Figure 6.2: Proportion of livestock holdings using their farm health plan to inform disease management decisions by frequency: 2012



Around 64% of holdings with livestock always seek and follow advice on disease management control, always isolate incoming livestock and always source livestock where the health status is known (table 6.5 – 6.7). Just over half of livestock farmers undertake training for animal health and welfare and disease management (table 6.8).

Table 6.1: Proportion of livestock holdings with a farm health plan: 2009 - 2012

	2009		2011		2012	
	% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
Written or recorded plan	58	±3	57	±2	63	±3
Unrecorded plan	20	±3	14	±1	14	±3
No plan	22	±3	29	±2	23	±3

Based on 1 032 responses in 2009, 2 607 in 2011 and 812 in 2012 from holdings with livestock

Table 6.2: Proportion of holdings who completed their farm health plan with the assistance of a vet or adviser: 2009 - 2012

	2009		2011		2012	
	% of holdings	95% CI	% of holdings	95% CI	% of holdings	95% CI
Assistance from vet / adviser	60	±4	65	±2	65	±4

Based on 813 responses in 2009, 1 948 in 2011 and 634 in 2012 from holdings with livestock

Table 6.3: Proportion of holdings using their farm health plan to inform disease management decisions by frequency of use: 2011 - 2012

Frequency of use	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Use plan routinely	41	±2	44	±4
Use plan when possible	36	±2	36	±4
Don't use plan but feel the need to	8	±1	8	±2
Don't feel it's necessary to use plan	15	±2	12	±3

Based on 1 948 responses in 2011 and 634 in 2012 from holdings with a farm health plan

Table 6.4: Proportion of livestock holdings who intend to complete a FHP with assistance within the next 12 months: 2011 - 2012

	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Holdings who currently have a FHP	44	±2	62	±4
Holdings who do not currently have a FHP	14	±3	14	±6
All holdings regardless of whether they have a farm health plan	36	±2	51	±4

Based on no fewer than 658 responses in 2011 and 176 in 2012 from holdings who answered the question

Table 6.5: Proportion of holdings who seek out and follow advice on disease control by frequency: 2011 – 2012

Frequency	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Always	62	±2	64	±4
Sometimes	35	±2	35	±4
Never	3	±1	1	±1

Based on 2 414 responses in 2011 and 755 in 2012 from holdings with livestock

Table 6.6: Proportion of holdings who isolate incoming livestock by frequency: 2011 – 2012

Frequency	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Always	62	±2	64	±4
Sometimes	31	±2	31	±4
Never	7	±1	5	±2

Based on 2 119 responses in 2011 and 651 in 2012 from holdings with livestock

Table 6.7: Proportion of holdings who source livestock where the health status is known by frequency: 2011 – 2012

Frequency	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Always	63	±2	64	±4
Sometimes	32	±2	34	±4
Never	5	±1	2	±1

Based on 2 146 responses in 2011 and 658 in 2012 from holdings with livestock

Table 6.8: Proportion of holdings undertaking animal health and welfare and disease management training by frequency of training: 2011 and 2012

Frequency of training	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Undertake training routinely	16	±1	17	±3
Undertake training when possible	34	±2	36	±4
Don't undertake training but feel the need to	14	±1	14	±3
Don't feel training is necessary	36	±2	33	±3

Based on 2 607 responses in 2011 and 810 in 2012 from holdings with livestock

7 Grassland

In some situations sowing grassland with a clover mix or high sugar grasses can be a cost-effective method of increasing production and improving environmental protection.

Key findings

- In 2012, 79% of livestock holdings indicated that a proportion of their temporary grassland had been sown with a clover mix. This compares to 76% in 2011. In 2012, 33% had sown all of their temporary grassland with a clover mix.
- High sugar grasses were sown on 62% of livestock holdings with temporary grassland, little change from 2011.
- The most common frequency for reseeding clover or high sugar grass swards was 3 to 5 years.

Table 7.1: Proportion of livestock holdings that have sown their temporary grassland with a clover mix by proportion of grassland: 2011 - 2012

Proportion of temporary grassland (%)	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
100	33	±3	33	±5
81-99	6	±1	7	±3
61-80	8	±2	8	±3
41-60	9	±2	9	±3
21-40	8	±2	8	±3
1-20	12	±2	14	±4
0	24	±3	21	±4

Based on 1 149 responses in 2011 and 407 in 2012 from holdings with livestock and temporary grassland

Table 7.2: Proportion of livestock holdings that have sown their temporary grassland with high sugar grasses by proportion of grassland: 2011 - 2012

Proportion of temporary grassland (%)	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
100	18	±2	20	±4
81-99	7	±1	7	±3
61-80	9	±2	7	±3
41-60	11	±2	10	±3
21-40	6	±1	8	±3
1-20	9	±2	9	±3
0	40	±3	38	±5

Based on 1 149 responses in 2011 and 407 in 2012 from holdings with livestock and temporary grassland

Table 7.3: Proportion of holdings by the frequency with which holders reseed their clover sward: 2011 - 2012

Frequency of reseeded	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
1 to 12 months	3	±1	1	±1
1 to 2 years	5	±2	4	±3
2 to 3 years	9	±2	6	±3
3 to 5 years	42	±3	47	±6
5 to 10 years	35	±3	32	±6
10 to 20 years	3	±1	2	±2
Never	4	±1	7	±3

Based on 862 responses in 2011 and 315 in 2012 from holdings with clover

Table 7.4: Proportion of holdings by the frequency with which holders reseed their high sugar grass sward: 2011 - 2012

Frequency of reseeded	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
1 to 12 months	3	±1	1	±1
1 to 2 years	7	±2	7	±4
2 to 3 years	16	±3	16	±5
3 to 5 years	40	±4	42	±7
5 to 10 years	30	±3	29	±6
10 to 20 years	2	±1	1	±1
Never	2	±1	4	±3

Based on 709 responses in 2011 and 254 in 2012 from holdings with high sugar grasses

8 Cattle and sheep feeding regimes and breeding practices

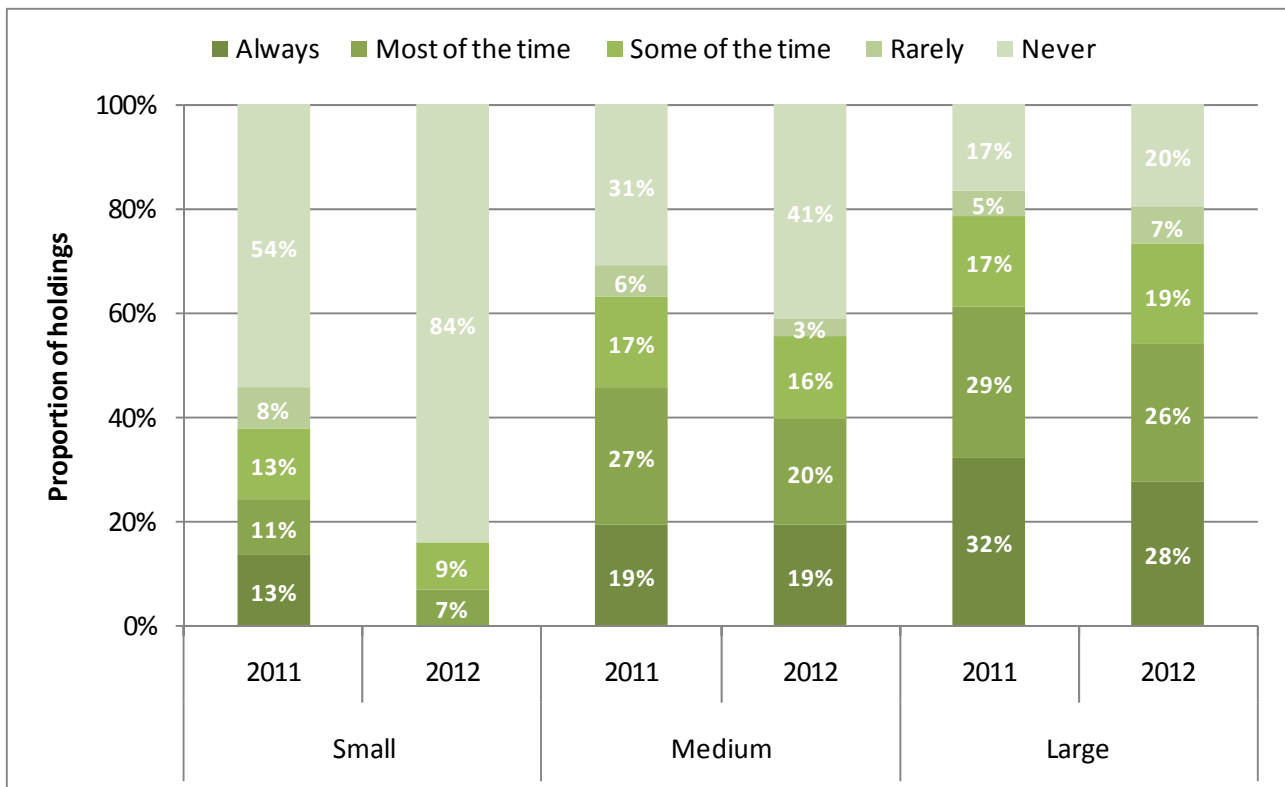
Key findings

- When planning the feeding regime of their livestock, 75% of holdings used a ration formulation programme or nutritional advice in 2012.
- In 2012, 24% of holdings breeding dairy cows always used bulls with a high Profitable Lifetime Index (PLI).
- Bulls and rams with high Estimated Breeding Values (EBV) were always used by 22% of holdings breeding beef cattle and 16% of those breeding lambs in 2012.

A Profitable Lifetime Index (PLI) is a scoring system to identify cattle with the best 'genetic merit' used when choosing bulls to breed with dairy cattle. The PLI uses a combination of attributes including life expectancy, health, fertility and milk production. Figures showing the proportion of farmers using bulls with a high PLI in 2011 and 2012 can be found in table 8.2.

Figure 8.1 shows how frequency of use differs by farm size. Larger farms are far more likely to use bulls with a high PLI with 54% either always or mostly doing so in 2012 compared to 7% of smaller farms. The proportion of large sized farms using bulls with high PLIs has remained largely consistent between 2011 and 2012. However the proportion of medium and small farms using high PLI bulls both saw decreases between 2011 and 2012 and now stand at 59% and 16% respectively.

Figure 8.1: Proportion of holdings using bulls with a high PLI when breeding dairy cows by frequency of use and farm size: 2011 - 2012 ^(a)

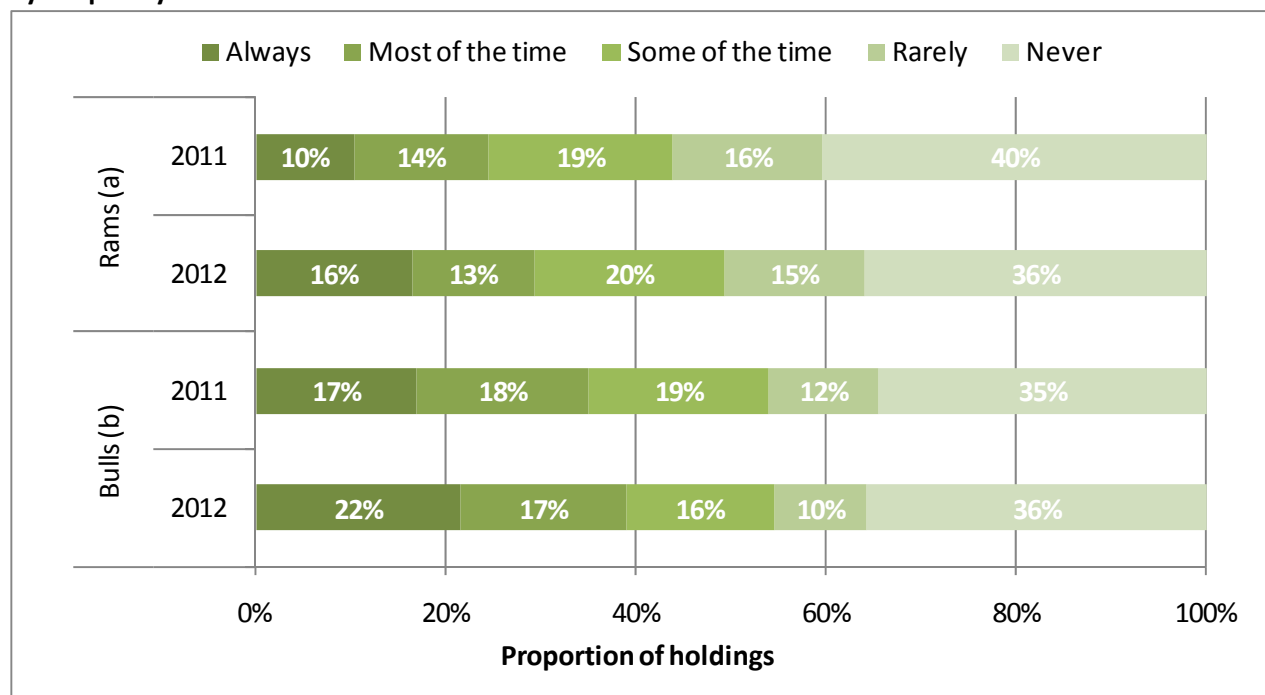


(a) For holdings who have dairy cattle

Estimated Breeding Values (EBV) estimate the genetic worth of animals using desirable traits such as meat production. Tables 8.3-8.4 and figure 8.2 show the proportion of holdings using bulls or rams with high EBVs when breeding beef cattle or lambs and the frequency with which these are used.

Figure 8.2 shows that the proportion of holdings using bulls with a high EBV either always or most of the time increased from 35% in 2011 to 39% in 2012. The proportion of holdings always or mostly using rams with a high EBV also increased between 2011 and 2012, rising to 29%.

Figure 8.2: Proportion of holdings using bulls or rams with high EBVs when breeding beef cattle or lambs by frequency of use: 2011 - 2012



(a) For holdings with lambs

(b) For holdings with beef cattle

Table 8.1: Proportion of holdings using a ration formulation programme when planning livestock feeding regimes by frequency of use: 2011 - 2012

Frequency of use	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Always	24	±2	26	±3
Most of the time	15	±2	18	±3
Some of the time	19	±2	19	±3
Rarely	16	±2	13	±3
Never	25	±2	25	±3

Based on 2 164 responses in 2011 and 704 in 2012 from holdings with cattle or sheep

Table 8.2: Proportion of holdings using bulls with a high Profitable Lifetime Index (PLI) when breeding dairy cows by frequency of use: 2011 - 2012

Frequency of use	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Always	23	±3	24	±5
Most of the time	22	±3	24	±5
Some of the time	16	±2	18	±5
Rarely	6	±2	6	±3
Never	32	±3	28	±6

Based on 809 responses in 2011 and 263 in 2012 from holdings with dairy cattle

Table 8.3: Proportion of holdings using bulls with a high Estimated Breeding Value (EBV) when breeding beef cattle by frequency of use: 2011 - 2012

Frequency of use	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Always	17	±2	22	±4
Most of the time	18	±2	17	±4
Some of the time	19	±2	16	±4
Rarely	12	±2	10	±3
Never	35	±3	36	±5

Based on 1 332 responses in 2011 and 416 in 2012 from holdings with beef cattle

Table 8.4: Proportion of holdings using rams with a high Estimated Breeding Value (EBV) when breeding lambs by frequency of use: 2011 - 2012

Frequency of use	2011		2012	
	% of holdings	95% CI	% of holdings	95% CI
Always	10	±2	16	±4
Most of the time	14	±2	13	±4
Some of the time	19	±2	20	±5
Rarely	16	±2	15	±4
Never	40	±3	36	±6

Based on 954 responses in 2011 and 313 in 2012 from holdings with lambs

9 Outwintering

Outwintering is the practice of leaving livestock outdoors during the winter months. This can achieve savings in cost of feed, labour and time however has implications regarding emissions. This section of the survey form asked farmers how many weeks on average their cattle and sheep spend outdoors during the year.

Key findings

- Dairy heifers, beef cows and all other beef cattle spend a similar amount of time outdoors in a year (31 to 32 weeks in a year on average).
- Calves and dairy cows spend slightly less time outdoors with an average of 27 and 28 weeks per year respectively.
- Sheep and lambs spend 92% of the year outdoors (48 weeks on average).

Figure 9.1: Average number of weeks in a year that cattle and sheep spend outdoors

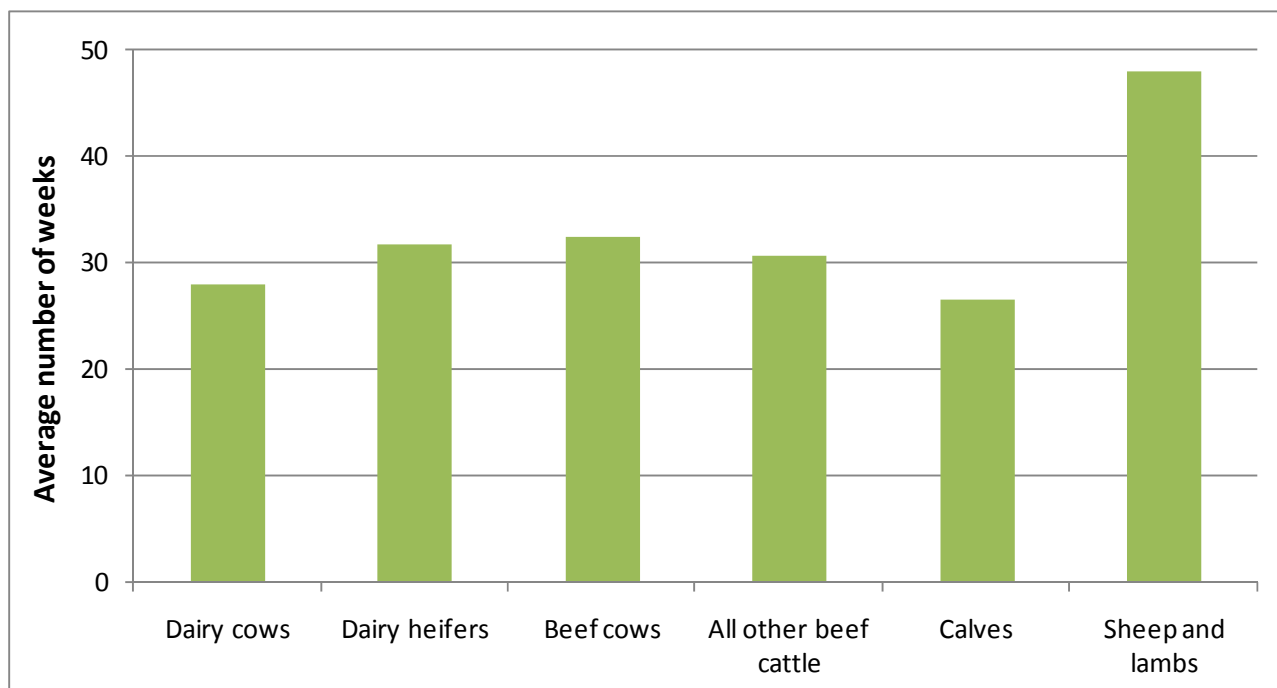


Table 9.1: Average number of weeks in a year that cattle and sheep spend outdoors: 2012

Livestock type	Average number of weeks	95% CI
Dairy cows	28	±1
Dairy heifers	32	±1
Beef cows	32	±1
All other beef cattle	31	±1
Calves	27	±1
Sheep and lambs	48	±1

Based on a minimum of 221 responses from holdings whose cattle or sheep spend at least 1 week of the year outdoors.

Closing points and additional information

- If you would like more detailed breakdowns of the results shown in this release, please see the accompanying dataset at: <http://www.defra.gov.uk/statistics/foodfarm/enviro/farmpractice/> which will be available from 7 June 2012. This includes all results broken down by farm type, farm size and region.
- 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.gsi.gov.uk quoting 'Farm Practices Survey 2012' in the subject line of your email.


defra

 Department for Environment
 Food and Rural Affairs

If there are any amendments or corrections to details opposite, please write them in this box

Name:

Address:

Postcode:

Tel. no. (incl.

Nat. dialling code)

Farm Practices Survey - January 2012

Dear Sir/Madam

You are invited to participate in the January 2012 Farm Practices Survey. This survey aims to assess how farming practices are affected by current agricultural and environmental issues. We have tried to make the form as straightforward as possible and most of the questions can be answered using tick boxes.

Please note that this is a voluntary survey. Any information you supply on this form will not be used to assess cross-compliance on your holding, and will not affect your Single Payment Scheme payment. The aim of these questions is to ensure that those making decisions affecting farmers know what really happens on farms.

The results from the survey are important and will be used widely within Defra, its agencies and other external bodies. We can use some information from the June Survey of Agriculture and Horticulture or from other national surveys, but there are important gaps which this survey will help to fill. Results from this survey will be available from the end of June 2012 on the following website:

<http://www.defra.gov.uk/statistics/foodfarm/enviro/farmpractice/>

I would be very grateful if you would take the time to complete this form and return it in the enclosed pre-paid envelope. If you could complete and return it within 2 weeks of receipt, this will avoid the need for reminder letters. This survey form has been sent to a randomly selected sample of 3,000 holdings and a good response will improve the reliability of the results. For guidance in completing the form, please telephone or email using the details below.

Data Protection

Any information you provide to us is treated in confidence. Defra is the Data Controller in respect of the Data Protection Act 1998. The purposes for which it is used are set out in full in a data protection statement which can be found at <http://www.defra.gov.uk/evidence/statistics/natstats/confidentiality.htm>.

Alternatively we can send you a copy if you call 01904 455284 or email surveys@defra.gsi.gov.uk

We greatly appreciate the time and effort you spend completing our survey forms. Thank you for your assistance.

Jennie Blackburn
 Farming Statistics Team

Official Use Only

Name/Address	
Comments in box	
Comments elsewhere	

CSS954 (Rev 12/11)

**If you require a large
 print form please
 contact us on
 01904 455284**

For help with completion of the form contact us at:

Department for Environment, Food and Rural Affairs
 Economics and Statistics Programme,
 Room 311, Foss House, Kings Pool,
 1-2 Peasholme Green, York YO1 7PX
Helpline: 01904 455284 Mon-Fri 8.30am to 4.30pm
Email: surveys@defra.gsi.gov.uk
 Web: www.defra.gov.uk

(i) Nutrient management plans

1. Have you completed a nutrient management plan for your farm?

Yes 1 No 2 Not applicable 3 C68

If No, please go to Question 8.
If Not applicable, please go to Question 9

2. If yes, did you create the plan yourself or was it created by an adviser or contractor?

I created the plan myself without professional advice C4 → If ticked, please go to Question 3

I created the plan myself with professional advice from:

	Fertiliser Adviser/ Agronomist	Animal Nutritionist	FWAG	Other	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C125
	1	2	3	4	

OR

The plan was created by the following type of adviser or contractor:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C6
1	2	3	4	

3. How often do you update your nutrient management plan? Please tick **one** box

Every year 1 Every 2 years 2 Every 3 years or more 3 C82

4. How often do you refer to your nutrient management plan in a year? Please tick **one** box

More than 10 times 1 5 to 10 times 2 1 to 5 times 3 Never 4 C7

5. How did you or your adviser/contractor create the nutrient management plan?

Tick **all** that apply

PLANET	<input type="checkbox"/>	C69
Muddy Boots	<input type="checkbox"/>	C70
Farmade/Multicrop	<input type="checkbox"/>	C71
Industry plan - Tried and Tested	<input type="checkbox"/>	C72
Other	<input type="checkbox"/>	C74
I don't know	<input type="checkbox"/>	C8

6. Are the nutrient recommendations for your nutrient management plan based on:

Tick **all** that apply

Defra Recommendations/Manual (RB209)	<input type="checkbox"/>	C75
An adviser's or industry note	<input type="checkbox"/>	C9
Personal experience	<input type="checkbox"/>	C10
Other	<input type="checkbox"/>	C76
I don't know	<input type="checkbox"/>	C86

7. With regard to having a nutrient management plan:

Tick **one** box in each row

Have you seen any financial benefit?	Yes <input type="checkbox"/> 1	No <input type="checkbox"/> 2	Don't know <input type="checkbox"/> 3	C83
Have you seen any environmental benefit?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	C84

8. If you do not have a nutrient management plan, what would motivate you to create one?

Tick **all** that apply

- If I had more time C87
- If I had more money to pay an adviser C88
- If Nutrient Management tools made it easier to understand C89
- If I knew I would see a return for the work I'd put in C90
- Nothing C91

(ii) Nutrient testing

Tick **one** box in each row

9. Do you regularly test (at least every 5 years) the nutrient content (indices) of your soil?

- Yes 1 No 2 Not applicable 3 C63

10. Do you regularly test (at least every 5 years) the pH of your soil?

- 1 2 3 C92

11. Do you test (by taking samples) the nutrient content of manure?

- 1 2 3 C64 **If Not applicable, please go to Section 2**

12. Do you assess/calculate the nutrient content of manure?

- 1 2 3 C85

(iii) Manure management plans

13. Have you completed a manure management plan for your farm?

- Yes 1 No 2 Not applicable 3 C65 **If No or Not applicable, please go to Section 2**

14. If yes, are the nutrient recommendations for this plan based on:

Defra Recommendations/Manual (RB209), CoGAP C66

Other (please specify) C67

2. Under drainage

15. How many hectares of your managed land (arable crops and grassland) have artificial under-drainage?

ha I201

If none, please go to Section 3

16. Please state the area of your under-drained land that has been affected by the following issues in the last three years: (please only state the area of land that has been affected and not the whole field area)

Drain failure causing an artificial spring or blow out ha I202

Yield reduction due to sustained water-logging ha I203

Risk of soil damage (e.g. rutting or poaching) due to seasonal water-logging ha I204

17. How much of your under-drained land has ever been mole drained?

ha I205

If none, please go to Section 3

18. How often do you aim to repeat mole draining (in years)?

I206

3. Attitudes to farming

19. In this section, please indicate to what extent you agree or disagree with the following statements. Please tick only **one** option in each row.

	Strongly agree	Agree	Disagree	Strongly disagree	
Farming gives self-respect for doing a worthwhile job	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	M50
Paying attention to details is crucial in making a success of running a farm	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	M51
Farmers should provide congenial working conditions, hours, security and surroundings for themselves and their staff	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	M52
Local authorities do not understand farmers and their needs	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	M53
I want to pass on a viable business to the next generation	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	M54
Accessing information on-line is too complicated	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	M55
The internet saves time and effort	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	M56

4. Anaerobic Digestion

20. Do you already process, or intend to process in the next 2 years, any of the following by anaerobic digestion either on your farm or elsewhere?

Tick **one** box in each row

	Already process	Plan for the future	No	
Slurries	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	A19
Crops	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	A52
Other feedstocks from your farm	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	A20
Other feedstocks from outside your farm	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	A21

21. If you do not use anaerobic digestion to process slurries, crops and other feedstocks, either on your farm or elsewhere what are the reasons which prevent you from doing so?

Tick **all** that apply

Not suitable / no space	<input type="checkbox"/> A31
Not needed / no demand	<input type="checkbox"/> A35
Too expensive	<input type="checkbox"/> A53
Difficult to access credit to cover the cost	<input type="checkbox"/> A54
Not profitable	<input type="checkbox"/> A55
Lack of expertise / information	<input type="checkbox"/> A43
Too many regulations	<input type="checkbox"/> A56
Other	<input type="checkbox"/> A47

5. Fertiliser spreaders

7

22. How many fertiliser spreaders of each type do you own? If you do not own any spreaders please go to Question 26

	Number of spreaders	
Spinning disc	<input type="text"/>	C126
Oscillating spout	<input type="text"/>	C127
Pneumatic	<input type="text"/>	C128
Combination (with a seed drill)	<input type="text"/>	C129
Liquid fertiliser spreader	<input type="text"/>	C130
Other	<input type="text"/>	C131

23. Do you/contractors spread manufactured nitrogen based fertiliser on your grassland or crops?

	Yes, I spread it myself	Yes, a contractor spreads it	No	
Grassland	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	C93
Crops	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	C94

If No to both, please go to Question 26

24. On average how often does your spreader(s) get checked or calibrated? Please tick **one** box in each row

	More than once a year	Once a year	Once every two years	Less than every two years	
General check	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	C101
Check and calibrate the spread pattern	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	C102
Check and correct the rate for fertiliser type	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	C103

25. Are any of your spreaders computer controlled with variable rate application?

Yes, all of them 1 Yes, some of them 2 No, none of them 3 C104

Note

26. The following sections relate to holdings with livestock. If you do not have livestock, please tick this box and proceed to section 11 at the end of the form

T94

6. Outwintering

27. How many weeks a year (on average) do your cattle and sheep spend outdoors?

Dairy cows (over 2 years old which have had offspring)	<input type="text"/>	weeks	W201
Dairy heifers (before first calf)	<input type="text"/>	weeks	W202
Beef cows (over 2 years old which have had offspring)	<input type="text"/>	weeks	W203
All other beef cattle (including all males over 1 year old)	<input type="text"/>	weeks	W204
Calves (male and female less than 1 year old)	<input type="text"/>	weeks	W205
Sheep and lambs	<input type="text"/>	weeks	W206

J

7. Manure and slurry storage

7

28. Do you have any storage facilities for:

	Yes	No	Please tick below if the store is covered	
Solid manure stored in heaps on a solid base	<input type="checkbox"/> 1	<input type="checkbox"/> 2	P50	<input type="checkbox"/> P54
Solid manure stored in temporary heaps in fields	<input type="checkbox"/> 1	<input type="checkbox"/> 2	P60	<input type="checkbox"/> P61
Slurry in a tank	<input type="checkbox"/> 1	<input type="checkbox"/> 2	P51	<input type="checkbox"/> P55
Slurry in a lagoon	<input type="checkbox"/> 1	<input type="checkbox"/> 2	P52	<input type="checkbox"/> P56
Slurry in another type of store <input type="text" value="Please specify"/> P106	<input type="checkbox"/> 1	<input type="checkbox"/> 2	P53	<input type="checkbox"/> P57

29. How old are your current slurry storage facilities to the nearest year? If you have more than one of any type of store please give the average age.

Slurry in a tank	<input type="text"/> years	P103	Slurry in a lagoon	<input type="text"/> years	P104	Slurry in another type of store	<input type="text"/> years	P105
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30. Are you planning to enlarge, upgrade or reconstruct any of your manure or slurry storage facilities?

Yes	<input type="checkbox"/> 1	No	<input type="checkbox"/> 2	P67	If No, please go to Question 32
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31. If yes, when are you planning to make these changes?

	In 0 to 6 months	In 7 to 11 months	In 1 to less than 3 years	In 3 to less than 5 years	In 5 to less than 10 years	In more than 10 years	
Changes planned:	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	P68

32. How many months storage capacity do you have for slurry?

 months P69

33. Do you have a slurry separator?

Yes	<input type="checkbox"/> 1	No	<input type="checkbox"/> 2	P70	If Yes, please go to Question 35
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34. If you do not have a slurry separator, do you plan to get one in the future?

Yes	<input type="checkbox"/> 1	No	<input type="checkbox"/> 2	P71
-----	----------------------------	----	----------------------------	-----

35. Do you export manure or slurry off your farm?

Yes	<input type="checkbox"/> 1	No	<input type="checkbox"/> 2	P72	If No, please go to Question 37
-----	----------------------------	----	----------------------------	-----	---------------------------------

36. If yes, where do you export it to?

	Tick all that apply	
	Manure	Slurry
Composting facility	<input type="checkbox"/> P73	
Direct sale to public	<input type="checkbox"/> P74	
Neighbouring farm	<input type="checkbox"/> P75	<input type="checkbox"/> P79
Anaerobic digestion plant	<input type="checkbox"/> P76	<input type="checkbox"/> P80
Other commercial outlet	<input type="checkbox"/> P77	<input type="checkbox"/> P81
Other non-commercial outlet	<input type="checkbox"/> P78	<input type="checkbox"/> P82

J

8. Farm Health Planning and Biosecurity

7

37. Do you have a Farm Health Plan (FHP)?

Tick **one** box only

- No T90 → If No, please go to Question 40
- Yes, but not written/recorded T91
- Yes, and written/recorded T92

38. If yes, did you complete the FHP with the assistance of a vet or other adviser? ₁ Yes ₂ No T93

39. Do you review and use your FHP to inform disease management decisions?

- | | | | | |
|----------------------------|----------------------------|----------------------------|------------------------------|------|
| Yes,
routinely | Yes,
when I can | No, but I
feel I should | No, I don't
feel the need | |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | T130 |

40. Do you intend to complete or update a Farm Health Plan, with the assistance of a vet or other adviser, within the next 12 months? ₁ Yes ₂ No T131

41. Do you have any of the following biosecurity measures in place on your farm?

Please tick **one** box in each row

- | | | | | | |
|---|----------------------------|----------------------------|----------------------------|----------------------------|------|
| | Always | Sometimes | Never | Not applicable | |
| I seek out and follow advice on disease control | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | T132 |
| I isolate incoming livestock | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | T133 |
| I source livestock where the health status is known | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | T134 |

42. Do you or your staff undertake training on animal health & welfare and disease management?

Please tick **one** box

- | | | | | | |
|---|----------------------------|------------------------------|----------------------------|------------------------------|------|
| | Yes,
routinely | Yes, when I/
my staff can | No, but feel
I should | No, I don't
feel the need | |
| I/my staff undertake training on animal health & welfare and disease management | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | T135 |

9. Grassland

43. This section relates to temporary grassland. If you do not have any temporary grassland, please tick this box and go to section 10 over the page K95

44. What percentage of your temporary grassland has been sown with a clover mix or high sugar grasses?

- | | | | | | | | | |
|--------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----|
| | 100% | 81-99% | 61-80% | 41-60% | 21-40% | 1-20% | 0% | |
| Clover | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 | K96 |
| High sugar grasses | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 | K97 |

45. Please state the frequency (in months) with which you reseed your sward.

Clover months K98 High sugar grasses months K99

7

10. Ruminant livestock

46. How often do you or your adviser use a ration formulation programme or nutritional advice from an expert when planning the feeding regime for your livestock?

Tick **one** box only

- Always C105
 Most of the time C106
 Some of the time C107
 Rarely C108
 Never C109

47. How often do you or your adviser use bulls with a high Profitable Lifetime Index (PLI) when breeding dairy cows?

Tick **one** box only

- Always C110
 Most of the time C111
 Some of the time C112
 Rarely C113
 Never C114

48. How often do you or your adviser use bulls or rams with a high Estimated Breeding Value (EBV) when breeding beef cattle or lambs? Tick **one** box in each column, if relevant.

- | | Bulls | | Rams | |
|------------------|--------------------------|------|--------------------------|------|
| Always | <input type="checkbox"/> | C115 | <input type="checkbox"/> | C120 |
| Most of the time | <input type="checkbox"/> | C116 | <input type="checkbox"/> | C121 |
| Some of the time | <input type="checkbox"/> | C117 | <input type="checkbox"/> | C122 |
| Rarely | <input type="checkbox"/> | C118 | <input type="checkbox"/> | C123 |
| Never | <input type="checkbox"/> | C119 | <input type="checkbox"/> | C124 |

11. Please sign

Signature	<input type="text"/>	V3	Date	<input type="text"/>
Name (please print)	<input type="text"/>		Telephone number	<input type="text"/>
Time taken to complete this form	<input type="text"/>	minutes		V1
E-mail Address	<input type="text"/>			V5
We would like to share your e-mail address with other members of the Defra family (including the RPA) to update our customer registers. Please tick the box if you do not want us to do this.				<input type="checkbox"/> V6
Please enter any comments you may have on the figures provided. This may remove the need for us to contact you.				

Thank you for taking the time to complete the form.

Please now return this form in the pre-paid envelope to ONS, Government Buildings, Cardiff Road, Newport, NP10 8XG.