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Farm Countryside Maintenance and Management in England: Results from the Farm Business Survey, 2010/11

The latest statistics produced by Defra on Countryside Maintenance and Management Activities (CMMA) were released on 28 June 2012 according to the arrangements approved by the UK Statistics Authority. This release shows final estimates for countryside maintenance and management activities on farms in England. These are sourced from the 2010/11 Farm Business Survey (FBS) which covers the 2010 harvest.

The key results are given below:

- Over 53,000 farms (almost 93% of the overall population covered by the field of survey) undertook some countryside maintenance and management activities. This included almost all LFA grazing livestock (99%) and cereal farms (98%). Three farm types had much lower participation rates (Pigs; 58%, Poultry; 60% and Horticulture; 66%). (Table 3)
- Rates of participation in CMMA are similar for small (95%) and medium sized (94%) farms, and are lowest for large farms (88%). (Table 4)
- The average cost of CMMA in 2010/11 for participating farms was £1,675 per farm. (Figure 1)
- Costs (for farms with CMMA) were highest for General Cropping farms (£2,327) and lowest for Pig farms (£392). (Figure 1)
- The average cost per hectare (total area of farm) of CMMA in 2010/11 for participating farms was £11.75. (Figure 3)
- In context of total farm costs, CMMA make up a much greater proportion of total costs for both Lowland and LFA grazing livestock farms (2.2% and 2.0% respectively). For every other farm type, the average contribution from CMMA to total costs is 1.0% or less. (Figure 7)
- Overall, Boundary features (such as hedge and wall maintenance) are the most common CMM activity, with 82% of all farms undertaking these measures, including 96% of LFA grazing livestock farms. (Table 5)

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Background to the Survey

Countryside and agri-environment practices have become increasingly important in English agriculture. Whilst many farmers have always been aware of the habitats on and around their farms, the reforms in government payments to farmers have ensured that nearly all farmers now need to consider these issues. In particular, the concept of 'cross-compliance' introduced in 2005 alongside the Single Payment Scheme means that most farmers have to follow basic environmental standards.

There are a number of potential sources of data on the management practices adopted by farmers to protect and enhance the environment. Questions on these issues were included in the Farm Business Survey (FBS) for the first time in the 2005/06 survey. The FBS is an interview survey specifically aimed at collecting accounting information, and allows the inclusion of more complex questions. By using the FBS, relationships between countryside maintenance and management activities and farm type, size, profitability and location can be explored. The countryside maintenance and management module was repeated in 2006/07 and in 2008/09 was expanded to give a more detailed picture of activities being carried out. For the 2010/11 survey the module was further expanded to include questions on the Campaign for the Farmed Environment (CFE), results from which were published on 16th February 2012 here:

<http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/publications/envcountryman/>

Information on countryside maintenance and management activities is important in helping to understand what farmers are doing to protect and enhance the environment and their reasons for doing so; which in turn can help shape policy decisions. It is important, for example, in the context of structural change and CAP reform, including issues surrounding the balance between Pillar 1 and Pillar 2 payments. The results from this module will also inform the planning of the next Rural Development Programme, in particular the agri-environment measures. The information will also feed into wider research examining competitiveness of the farming industry, e.g. any links between agricultural performance and countryside maintenance and management activities.

Survey Methodology

The results provided in this release are from the questions relating to Countryside Maintenance and Management Activities (CMMA) which were included in the 2010/11 FBS campaign. The questions were asked during the period January to September 2011.

The FBS is an annual survey providing information on the financial position and physical and economic performance of farm businesses in England. The sample of around 1,900 farm businesses covers all regions of England and all types of farming with the data being collected by face to face interview with the farmer. Results are weighted to represent the whole population of farm businesses that have at least 25,000 Euros of standard output¹ as recorded in the annual June Survey of Agriculture and Horticulture. In 2010 there were just over 56,000 farm businesses meeting this criteria².

For the 2010/11 FBS, an additional countryside maintenance and management 'module' was included to collect areas of land under various environmental activities and the associated costs of managing this land. Only those farms in the FBS which were managing the land in a positive manner were eligible

¹ For a definition of standard output please see the UK classification document here <http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/aboutfbs/datacollection/>

² Prior to the 2010/11 campaign, the coverage of the FBS was restricted to those farms of size ½ Standard Labour Requirement (SLR) or more. For a definition of SLR please see the UK classification document here: <http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/aboutfbs/datacollection/>

to complete the module (henceforth referred to as **eligible farms**). Positive management was defined as any land management measures or activities that deliver a positive environmental outcome. Details of the questions asked can be found here:

<http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/aboutfbs/datacollection/forms/>

Table 1: Response rate to countryside maintenance and management section of the FBS, England 2010/11

	Number of farms in sample	% of eligible farms	Number of farms represented by sample	% of eligible farms represented by sample
All FBS respondents	1,916	-	56,294	-
Eligible for Section O	1,721	100%	52,877*	100%
Responded to Section O	1,332	77%	42,776	81%

Table 1 above shows the number and proportion of farm businesses responding to the CMMA section of the FBS. It shows that 77% of those FBS respondents judged to be eligible for the countryside and management section responded in 2010/11. These represent 81% of the farms in the population.

For further information about the Farm Business Survey please see:

<http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/>

Data analysis

As stated above, 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. These weights are then adjusted (calibration weighting³) so that they can produce unbiased estimators of a number of different target variables. As detailed in the Survey Methodology section above, the countryside maintenance and management module was a voluntary addition to the main FBS commitment and achieved a response rate of 77% for eligible farms. 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 type⁴, farm size⁵ groups and agri-environment scheme membership. The results have been further restricted to relate only to the population of eligible farms i.e. those managing some of their land in a positive manner.

³ Further information on calibration weighting can be found in the 'Statistical Issues' document here <http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/aboutfbs/datacollection/>

⁴ and ⁵ to see how farm type and farm size groups are derived please see the UK classification document here: <http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/aboutfbs/datacollection/>

Comparisons between 2008/09 and 2010/11

Results from the 2008/09 and 2010/11 countryside maintenance and management modules are not directly comparable due to changes in the coverage of the survey and changes in the classification of farms for the 2010/11 campaign. 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. The classification of farms into farm types was also revised for the 2010/11 Farm Business Survey, to bring the classification in line with European guidelines. Equivalent results from 2008/09 have been presented alongside 2010/11 results in many of the charts and tables; however comparisons should be treated with extreme caution due to the reasons given above.

To enable more robust comparisons between the 2008/09 and 2010/11 countryside maintenance and management modules to be reported, we have examined the subset of farms that participated and have some form of activity in both years (approximately 900 farms). For all analyses we have used the farm type, farm size and tenure groups as defined on the 2010/11 dataset. For this subset of farms we have carried out significance testing using the Wilcoxon signed rank test to determine whether the differences observed between the two time periods are statistically significant. 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 2008/09 data displayed.

Accuracy and reliability of the results

Where possible, we have shown 95% confidence intervals against the figures. 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 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. The confidence limits shown are appropriate for comparing groups within the same year; they should not be used for comparing 2010/11 results with those from 2008/09 since they do not allow for the fact that many of the same farms contributed to both surveys.

We have also shown error bars on the figures in this notice. These error bars represent the 95% confidence intervals for the figures. In extreme cases, these have been limited to zero where the confidence interval was negative.

Estimates based on less than 5 observations have been suppressed to prevent disclosure of the identity of the contributing farms. Estimates based on less than 15 observations have been highlighted in italics in the tables and should be treated with caution as they are likely to be less precise.

Availability of results

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

Other publications

Results from the 2010/11 FBS:

<http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/publications/farmaccounts/>

Provisional estimates of farm business income for 2011/12:

<http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/publications/fbsincomes/>

Campaign for the Farmed Environment, Results from the Farm Business Survey 2010/11:

<http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/publications/envcountryman/>

Definitions

Countryside maintenance and management activities

The countryside maintenance and management section of the FBS recorded a variety of data for 28 specific activities. For Tables 6 and 7 and Figures 10 and 11 these activities were grouped according to their equivalent agri-environment scheme options from the Entry Level Stewardship (ELS) and Organic Entry Level Stewardship. Details of the schemes can be found in Section 3 of the Entry Level Stewardship Environmental Stewardship Handbook, available for download at:

<http://publications.naturalengland.org.uk/publication/30034?category=45001>

Table 2 below details how particular activities on the questionnaire have been matched with the ELS options.

Cost of Countryside maintenance and management activities

The costs charged against CMMA for the purpose of this analysis are the total of nine individual costs recorded against each managed feature. These are:

- Variable costs
- Paid labour costs
- Unpaid labour costs
- Machinery costs
- Contracting costs
- Farmer & spouse labour
- Capital costs
- Capital grants
- Property repairs, maintenance & upkeep

Size of farm businesses

Farm business size in the United Kingdom is measured in Standard Labour Requirements (SLR) expressed in terms of full-time equivalents (FTE). Five size groups are defined for this report:

- Spare-time (less than or equal to 0.5 FTE)
- Part-time (greater than 0.5 FTE and less than 1.0)
- Small (greater than or equal to 1 FTE and less than 2)
- Medium (greater than or equal to 2 FTE and less than 3)
- Large (greater than or equal to 3 FTE and less than 5)
- Very large (greater than or equal to 5 FTE)

Table 2: Countryside maintenance and management activities from FBS questionnaire grouped by ELS scheme option groups

Code	ELS scheme option group	Activity on FBS questionnaire	Contributes to Campaign for the Farmed Environment target
B	Boundary Features	Hedges: maintenance	No
		Hedges: establishment	No
		Hedge Laying	No
		Ditches: maintenance, restoration	No
		Stone walls: protection and maintenance	No
		Stone walls: major restoration/rebuilding	No
C	Trees and woodland	Protection of infield trees	No
		Broadleaved/Mixed Woodland	No
		Old orchards	No
D	Historic and landscape features	Archaeological features: (land taken out of production to protect archaeological features)	No
		Traditional farm buildings: maintenance and restoration	No
E	Buffer strips	Buffer strips (2m, 4m, 6m or 12m and above)	Some
F	Arable land	Field corner management	Yes
		Overwintered stubble (winter 2009/10)	Yes
		Uncropped land (excluding buffers and cross compliance buffers)	Yes
		Beetle banks	Yes
		Skylark plots	Yes
		Wild bird seed mixture or pollen and nectar flower mixture	Yes
		Conservation headlands in cereal fields	Yes
		Reverted arable area*	Yes
G	Range of crop types	Undersown spring cereals (harvested in 2010)	No
J	Soil and water protection	Rush pastures / wetlands	No
		Ponds	No
K/L	Grassland (lowland and LFA farms)	Pasture with low/very low inputs	No
		Enclosed rough grazing	No
		Moorland and rough grazing	No
		Restoration of moorland	No
n/a	Other (activities not included in ELS)	Any other maintenance or management activity	Unknown

Note: (1) * Higher Level Stewardship (HLS) option rather than Entry Level Stewardship (ELS) option.

Detailed Results

Tables containing all of the results presented in this notice and additional results can be found in the annex of tables, available to download from the Countryside Maintenance and Management webpage (<http://www.defra.gov.uk/statistics/foodfarm/farmmanage/fbs/publications/envcountryman/>).

Farms undertaking countryside maintenance and management activities

CMMA can be carried out as part of an agri-environment scheme (AES) or on a voluntary basis e.g. CFE. The results in this notice capture both those CMMA activities carried out as part of an AES and on a voluntary basis. Table 3 shows the number and proportion of farm businesses in the FBS population undertaking CMMA in 2010/11, by farm type. Over 52,000 farms (93% of the overall population) undertook some sort of CMMA. Participation rates are extremely high in several farm types, in particular LFA Grazing Livestock farms (99%) and Cereals farms (98%). For the three farm types with much lower participation rates (Pigs; 58%, Poultry; 60% and Horticulture; 66%) CMMA are still found on over half of farms.

Table 3: Number and proportion of farms undertaking countryside maintenance and management activities by farm type, 2010/11

Farm type	Number of farms		Proportion of farms
	FBS Population	With CMMA	
Dairy	7,555	7,073	94%
LFA Grazing Livestock	6,179	6,135	99%
Lowland Grazing Livestock	12,261	11,705	95%
Cereals	13,237	12,968	98%
General cropping	5,455	5,181	95%
Pigs	1,221	707	58%
Poultry	1,363	822	60%
Mixed	5,780	5,459	94%
Horticulture	3,243	2,142	66%
All farm types	56,294	52,193	93%

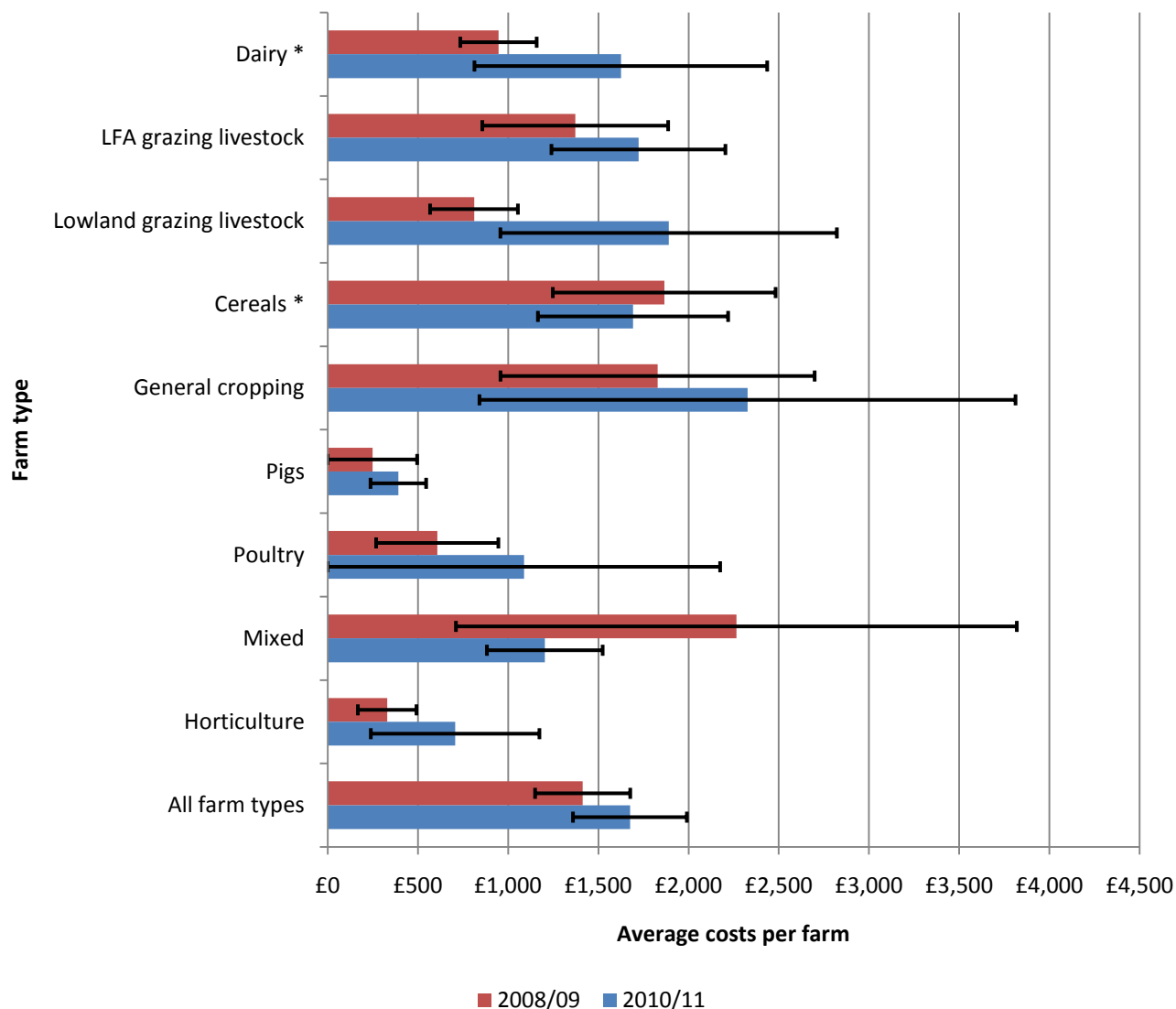
Table 4 shows the number and proportion of farms in the FBS population undertaking countryside maintenance and management activities, by economic farm size. Participation rates are similar for small (95%) and medium sized (94%) farms but are lowest for large farms (88%). Large farms include a higher proportion of Pigs, Poultry and Horticulture farms which have a lower uptake of CMMA (4%, 5% and 9% of large farms respectively compared to 1%, 1% and 4% of smaller farms).

Table 4: Number and proportion of farms undertaking countryside maintenance and management activities by economic farm size, 2010/11

Farm size	Number of farms		Proportion of farms
	FBS Population	With CMMA	
Small	30,151	28,644	95%
Medium	8,436	7,937	94%
Large	17,707	15,612	88%
All farm sizes	56,294	52,193	93%

Average cost per farm of countryside maintenance and management activities

Figure 1: Average costs per farm for countryside maintenance and management activities by farm type, farms with activity only, 2008/09 and 2010/11



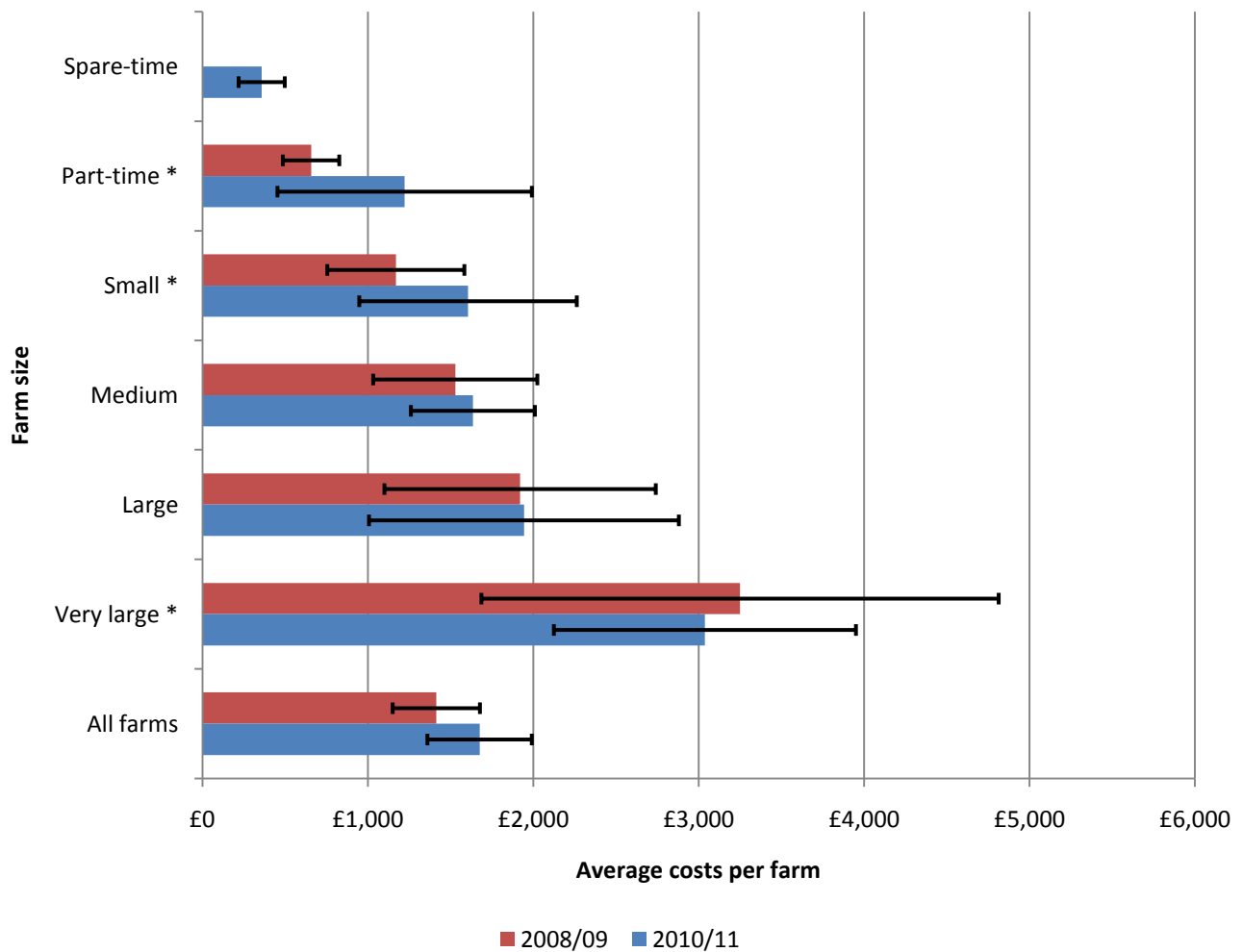
Note: (1) * Signifies statistically significant difference when costs were compared between farms present in both 2008/09 and 2010/11 using 2010/11 farm types.
 (2) Care must be taken when comparing and interpreting differences between 2008/09 and 2010/11. Please ensure you have read the guidance on page 4.

Figure 1 show average costs per farm of CMMA, by farm type. Note that this analysis was restricted to those farms where some CMMA was being carried out. In 2010/11, costs were highest for General Cropping farms (£2,327) and lowest for Pig farms (£392). The difference in costs recorded for the different farm types could be due to the types of CMMA being carried out on these farm types. From Table 5 it can be seen that a lower percentage of Pig farms carry out boundary and arable land activities compared to General Cropping farms. The cost of boundary features (Table 6) is relatively high so this combined with the different uptake of activities is likely to explain the difference in the

average costs per farm. The majority of farm types had an average cost of around £2,000 for 2010/11. Many of these estimates are subject to high levels of uncertainty (as illustrated by the long error bars).

From figure 1, it appears that there has been a large increase in costs on Dairy, Lowland Grazing Livestock and Poultry farms and a large decrease in costs on Mixed farms from 2008/09 to 2010/11. To determine whether these increases are significant or are just caused by the changes in the sample composition and/or changes to farm classification methodology, we have examined the subset of farms that responded to both the 2008/09 and 2010/11 modules. From this we have determined that for those farms classified as Cereal and Dairy farms in 2010/11 the difference in the average costs per farm are statistically significant whilst for the other farm types the differences were not found to be statistically significant.

Figure 2: Average costs per farm for countryside maintenance and management activities by farm size, farms with activity only, 2008/09 and 2010/11



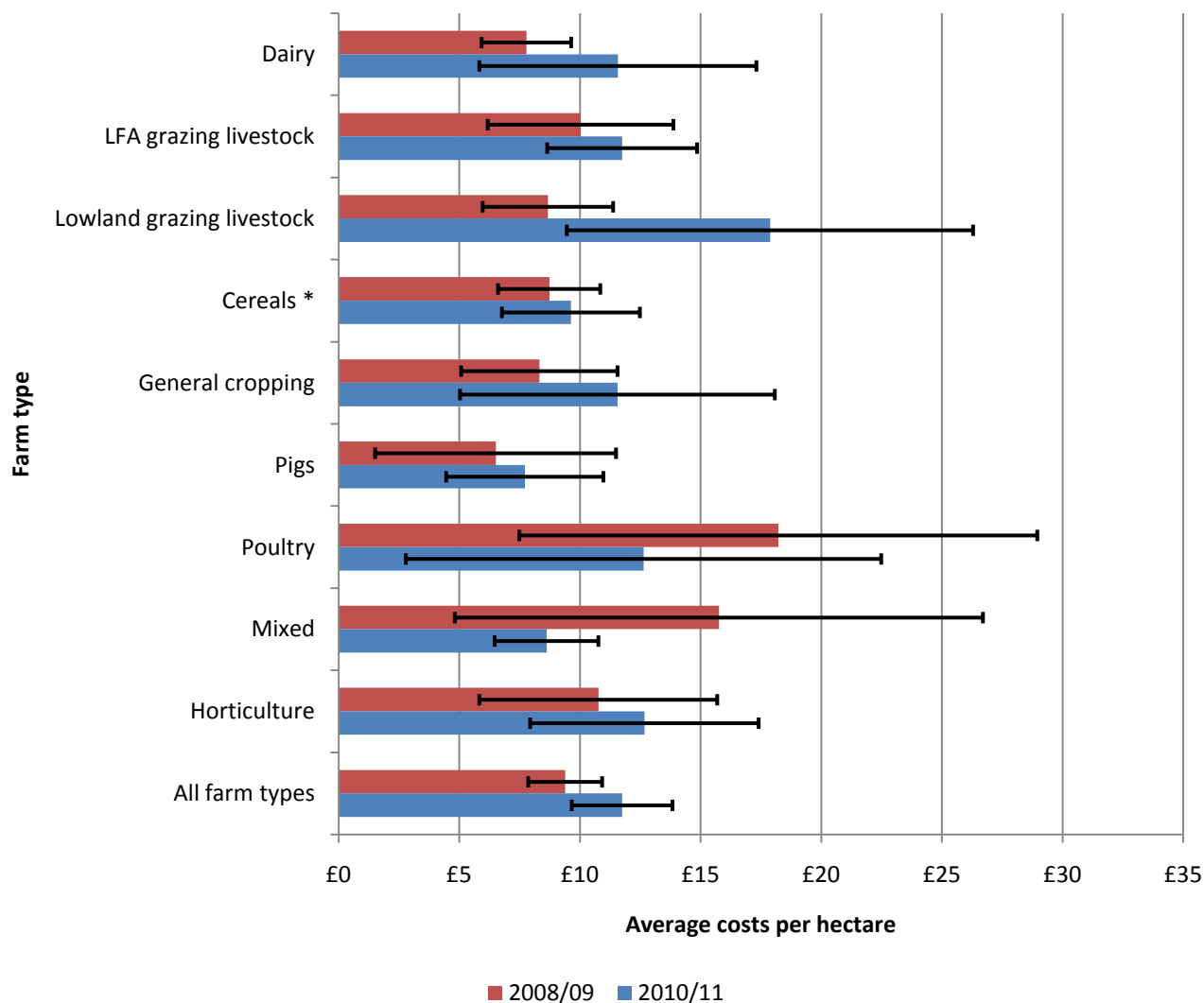
Note: (1) Data for Spare-time farms was not collected in 2008/09 due to these farms falling below the threshold for the survey.
 (2)* Signifies statistically significant difference when costs were compared between farms present in both 2008/09 and 2010/11 using 2010/11 farm size.
 (3) Care must be taken when comparing and interpreting differences between 2008/09 and 2010/11. Please ensure you have read the guidance on page 4.

Figure 2 shows average costs per farm of countryside maintenance and management activities, split by farm size. As farm size increases, the costs of these activities tend to increase. Average costs per farm in 2010/11 range from £358 for Spare-time farms to £3,037 for very large farms.

The differences observed in the average costs per farm for Part time, Small and Very large farms between 2008/09 and 2010/11 have been found to be significant, when examining the subset of farms participating in both time periods.

Average cost per hectare of countryside maintenance and management activities

Figure 3: Average costs per hectare for countryside maintenance and management activities by farm type, farms with activity only, 2008/09 2010/11

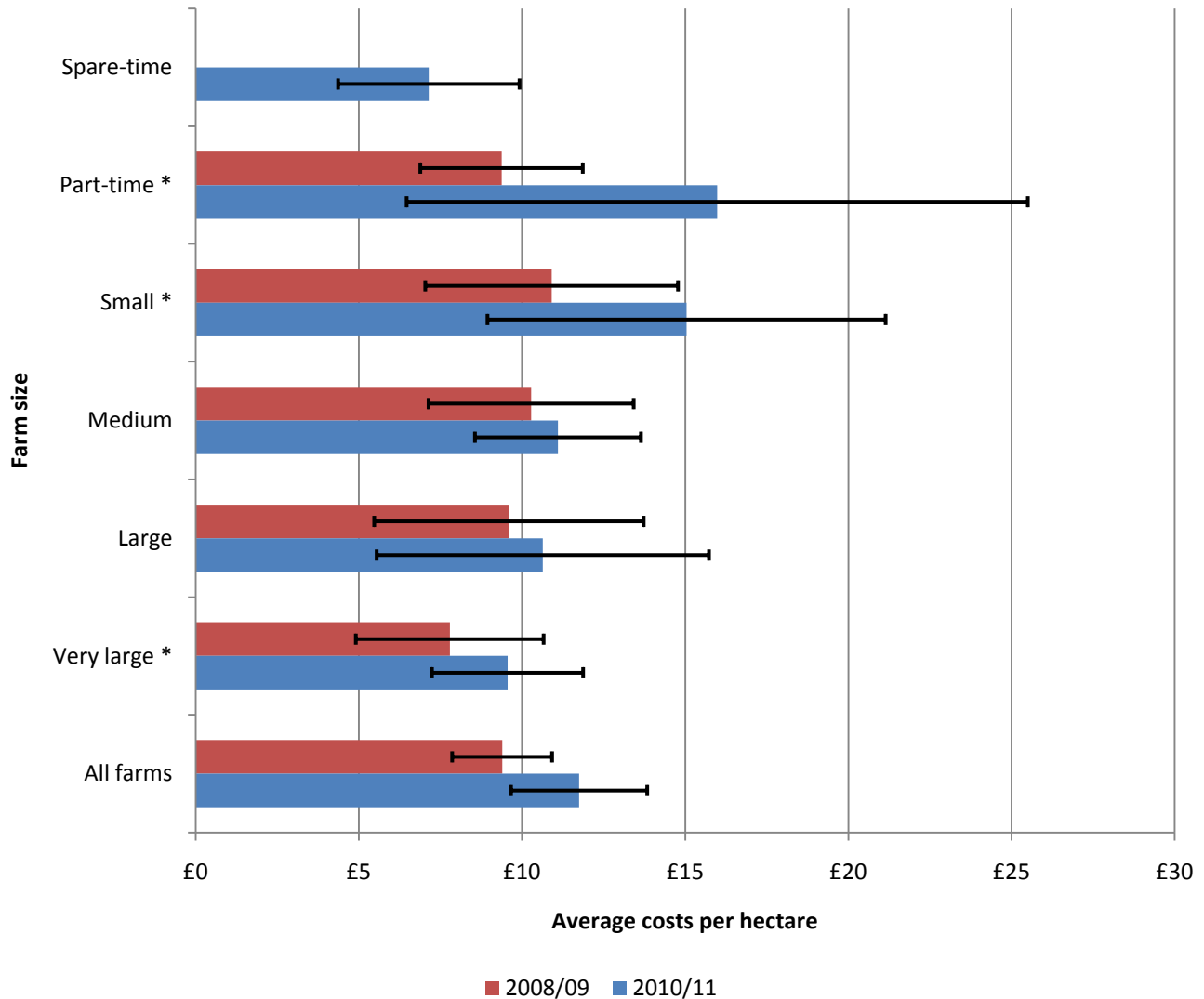


Note: (1) Calculated as total costs across all farms divided by total area across all farms.
 (2)* Signifies statistically significant difference when costs were compared between farms present in both 2008/09 and 2010/11 using 2010/11 farm types.
 (3) Care must be taken when comparing and interpreting differences between 2008/09 and 2010/11. Please ensure you have read the guidance on page 4.

Figure 3 shows average costs per hectare (total area of farm) of countryside maintenance and management activities, split by farm type. Costs on this basis are similar across all farm types at approximately £10.00 per hectare in 2010/11, with the average across all farm types being £11.75 per hectare. Lowland grazing livestock farms have the highest cost per hectare (£17.88), although the large error bar shows a low level of reliability in this estimate. The lowest costs per hectare are on Pig farms (£7.72) and Mixed farms (£8.62).

Analysis of the subset of farms in both years shows that only the difference in costs per hectare for Cereal farms is statistically significant.

Figure 4: Average costs per hectare for countryside maintenance and management activities by farm size, farms with activity only, 2008/09 and 2010/11

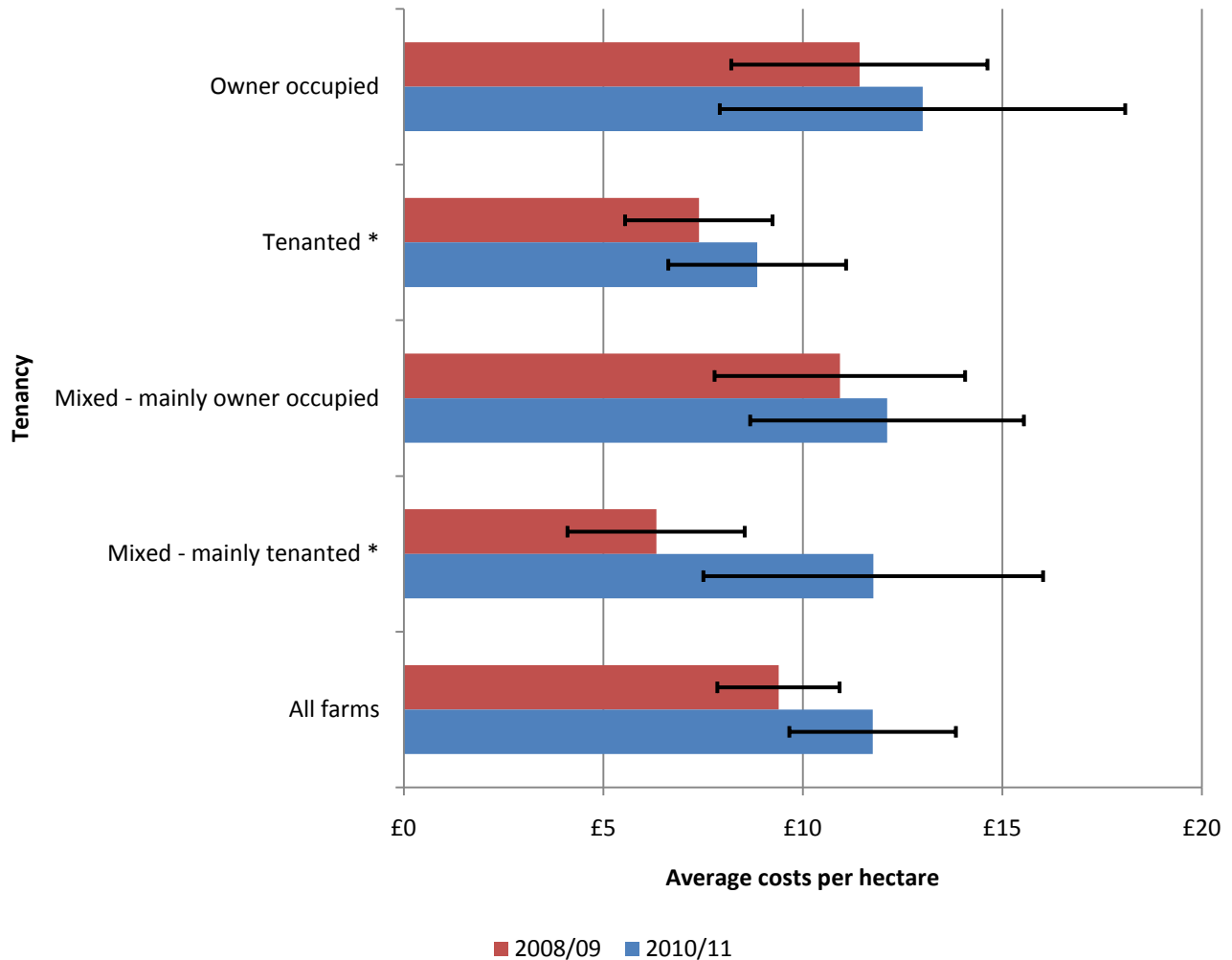


Note: (1) Calculated as total costs across all farms divided by total area across all farms
 (2) Data for Spare-time farms was not collected in 2008/09 due to these farms falling below the threshold for the survey.
 (3)* Signifies statistically significant difference when costs were compared between farms present in both 2008/09 and 2010/11 using 2010/11 farm size
 (4) Care must be taken when comparing and interpreting differences between 2008/09 and 2010/11. Please ensure you have read the guidance on page 4.

Figure 4 shows the average costs per hectare (total area of farm) of countryside maintenance and management activities, split by farm size. Costs per hectare tend to decline as farm size increases, from £15.98 per/ha on Part-time farms to £9.60 per/ha on Very large farms. The exception to the pattern are Spare-time farms which have the lowest cost per hectare at £7.15 per/ha; this could be due to the fact that they are less likely to take on CMMA that involve large costs.

From examining the subset of farms which participated in 2008/09 and 2010/11 we have determined that the differences observed in the average costs per hectare for Part time, Small and Very large farms are statistically significant.

Figure 5: Average costs per hectare for countryside maintenance and management activities by farm tenancy, farms with activity only, 2008/09 and 2010/11



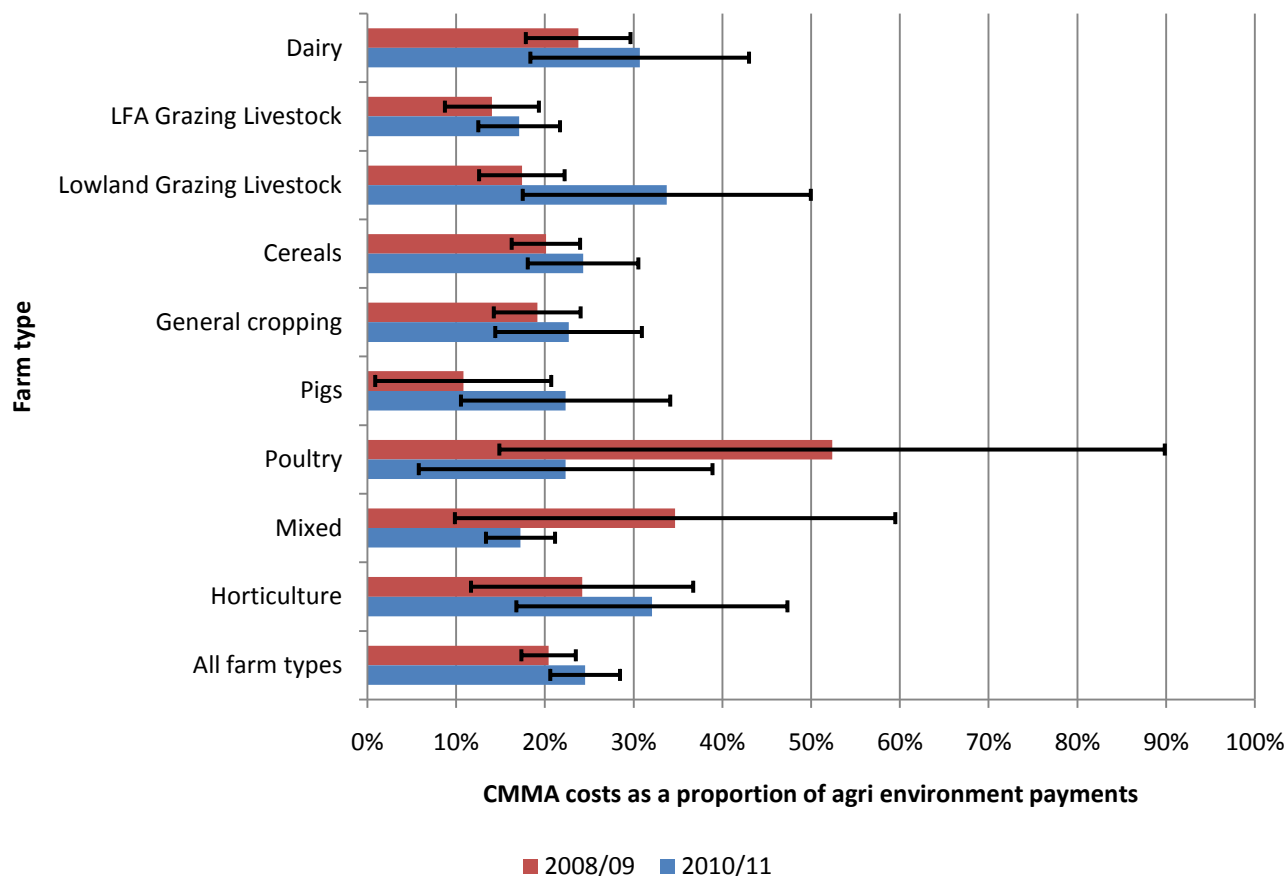
Note: (1) Calculated as total costs across all farms divided by total area across all farms.
 (2) * Signifies statistically significant difference when costs were compared between farms present in both 2008/09 and 2010/11 using 2010/11 farm tenure classification.
 (3) Care must be taken when comparing and interpreting differences between 2008/09 and 2010/11. Please ensure you have read the guidance on page 4.

Figure 5 shows that costs per hectare do not vary greatly between tenancy types. However most notable is that cost per hectare is lowest for Tenanted farms at £8.90 per hectare compared to around £12.00 per hectare for other tenancy types. This could be explained by owner occupiers taking a longer term approach than tenants, investing more in their surroundings and being able to adopt AES options which require a longer term commitment. This could also be due to the different types of CMMA being undertaken by the farms.

The difference in the costs per hectare observed between 2008/09 and 2010/11 is only statistically significant for Tenanted and Mixed - mainly tenanted farms.

Countryside Maintenance and Management Activity costs relative to agri environment scheme payments

Figure 6: Total costs for countryside maintenance and management activities as a proportion of total agri environment payments, by farm type, 2008/09 and 2010/11. Only farms with CMMA activity



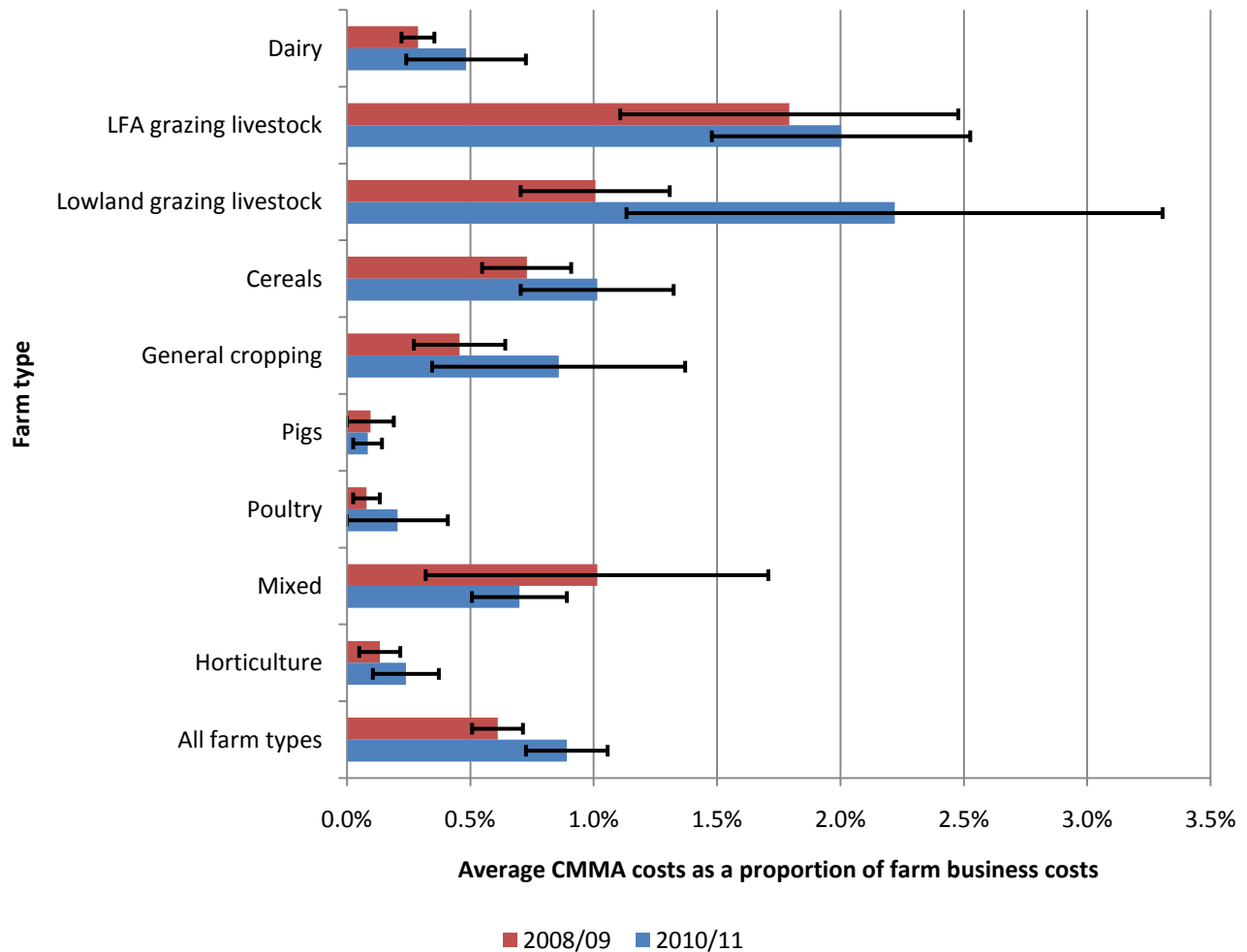
Note: (1) Includes farms with zero CMMA costs.
 (2) Calculated as total CMMA costs for each farm type divided by total AES payments for each farm type.
 (3) Care must be taken when comparing and interpreting differences between 2008/09 and 2010/11. Please ensure you have read the guidance on page 4.

Figure 6 shows costs of CMMA as a proportion of agri-environment payments received by farms. Not all CMMA are carried out as part of an agri-environment scheme (AES), so the costs of CMMA here include the costs of all activities regardless of whether they are carried out as part of an AES. This figure shows direct costs of implementing agri-environment activities represent approximately 25% of AES payments on almost all farm types. Horticulture, Lowland Grazing Livestock and Dairy farms appear to have higher costs relative to payments received; however the long error bar shows a very high level of uncertainty in this estimate. AES payments compensate for both the direct cost of carrying out the measures and also the income foregone for taking the land out of production. Therefore the cost of implementing AES features would not be expected to match the payments received.

When comparing 2008/09 with 2010/11 only the difference observed for cereal farms was found to be statistically significant. The difference for LFA grazing livestock farms was found to be borderline statistically significant.

Countryside Maintenance and Management Activity costs relative to farm business costs.

Figure 7: Average costs for countryside maintenance and management activities as a proportion of farm business costs, by farm type, 2008/09 and 2010/11. Farms with CMMA activity only



Note: (1) Includes farms with zero CMMA costs.
 (2) Calculated as total CMMA costs for each farm type divided by total farm business costs for each farm type.
 (3) Care must be taken when comparing and interpreting differences between 2008/09 and 2010/11. Please ensure you have read the guidance on page 4.

Figure 7 shows the costs of CMMA as a proportion of total farm business costs is on average less than 1%. CMMA make up a far greater (although still small) proportion of overall costs for both Lowland and LFA grazing livestock farms in 2010/11 (2.2% and 2% respectively). For every other farm type, the average contribution to total costs of CMMA is 1.0% or less. It should be noted that there is a high level of uncertainty surrounding the Lowland grazing livestock estimate, represented by the long error bar.

For cereal, general cropping, dairy, LFA grazing livestock and lowland grazing livestock farms the differences observed in the proportion of CMMA costs to total farm business costs between 2008/09 and 2010/11 were found to be statistically significant.

Participation in Different Types of Countryside Maintenance and Management Activity.

Table 5: Proportion of farms with CMMA in ELS scheme groups (includes farms reporting zero costs), split by farm type 2010/11

Farm type	Boundary Features	Trees and Woodland	Historic & landscape features	Buffer Strips	Arable land	Range of crop types	Soil and water protection	Grassland	Other	Any CMMA
Dairy	86%	39%	54%	23%	35%	2%	27%	65%	6%	94%
LFA Grazing Livestock	96%	44%	64%	7%	7%	*	18%	85%	4%	99%
Lowland Grazing Livestock	82%	40%	42%	19%	29%	3%	32%	75%	3%	95%
Cereals	88%	34%	47%	65%	77%	*	21%	51%	3%	98%
General cropping	81%	20%	36%	45%	72%	*	16%	40%	*	95%
Pigs	51%	13%	13%	17%	23%	*	13%	18%	*	58%
Poultry	45%	20%	16%	14%	20%	*	13%	36%	*	60%
Mixed	83%	48%	40%	49%	64%	3%	24%	56%	8%	94%
Horticulture	47%	19%	17%	12%	31%	*	15%	24%	*	66%
All farm types	82%	35%	44%	34%	46%	1%	23%	58%	4%	93%

Note: (1) * Low number of observations. Data has been suppressed to prevent disclosure.
 (2) Figures in italics are based on fewer than 15 observations and should therefore be treated with caution.
 (3) Range of Crop Types contains only the activity 'undersown spring cereals'.

Table 5 above shows how participation in different types of agri-environment activity varies between farm types. These figures include farms that reported zero costs against an activity and activities which are not being performed as part of an agri-environment scheme. Details of the groupings can be found in Table 2. Overall, Boundary features (such as hedge and wall maintenance) are the most common activity, with 82% of all farms undertaking these measures, including 96% of LFA grazing livestock farms. Boundary feature activities were only reported on around half of Pigs, Poultry and Horticulture farms, a result of the predominance of non-field based systems for these sectors. The group with the second highest overall participation is in Grassland management activities, undertaken by 58% of farms. The highest participation in Grassland CMMA are those most likely to be reliant on pasture; LFA Grazing Livestock (85%), Lowland Grazing Livestock (75%) and Dairy (65%). 'Soil and water protection' options were only implemented by 23% of farms.

Table 6: Summary of participation and costs for countryside maintenance and management activities, split by ELS Scheme Option Groups, 2010/11

ELS Scheme Option Group	Number of farms with specific activity	Number of farms incurring a cost to activity	Of farms with specific activity, % incurring a cost	Total industry costs (£m)	Confidence interval +/- (£m)	Average cost per farm: all farms with specific activity (£)	Average cost per farm: only farms incurring costs to specific activity in 2010/11
Boundary Features	46,207	36,090	78%	£50.2	£5.8	£1,086	£1,391
Trees and Woodland	19,920	3,543	18%	£5.6	£8.1	£283	£1,591
Historic & landscape features	24,556	5,581	23%	£18.8	£11.4	£766	£3,371
Buffer Strips	19,165	8,953	47%	£2.2	£0.7	£117	£251
Arable land	26,026	10,801	42%	£4.9	£1.3	£188	£453
Range of crop types	757	-	0%	£-	n/a	£-	£-
Soil and water protection	12,849	2,286	18%	£1.3	£1.1	£100	£562
Grassland	32,911	5,349	16%	£3.4	£1.5	£102	£627
Other	2,073	739	36%	£1.0	£0.9	£495	£1,388
All activities	52,193	41,039	79%	£87.4	£16.4	£1,675	£2,131

Table 6 above shows participation and costs recorded for activities within ELS Scheme Option Groups and shows that only 79% of farms with some sort of CMMA record a cost against any of the activities that they participate in. This is highest for activities in the Boundary Features group, where 78% of participating farms record a cost. At the other end of the scale, less than one in five participating farms recorded costs against activities within the Trees and Woodland, Soil and water protection and Grassland groups. Many features such as buffer strips are put in place but after the initial work require little or no annual maintenance. Most farms with boundary features incurred costs in 2010/11, but this probably reflects maintenance to a section of hedge/wall/ditch rather than their entirety.

The total recorded cost to the industry of all activities in 2010/11 was £87.4m, with £50.2m of this being spent on Boundary Features. This is a combination of boundary features (hedges, ditches and walls) being the most common activity and also having a high average cost at £1,391 for each farm recording a cost. Where costs were incurred, they were highest for Historic & landscape features (£3,371) and Trees and Woodland (£1,591). When the costs are spread across all farms undertaking each activity (including those recording zero costs for 2010/11) the cost is highest for boundary features (£1,086) and lowest for soil and water protection (£100) and grassland (£102).

Figure 10: Average cost per farm of countryside maintenance and management activities, split by ELS Scheme Option Groups, 2010/11

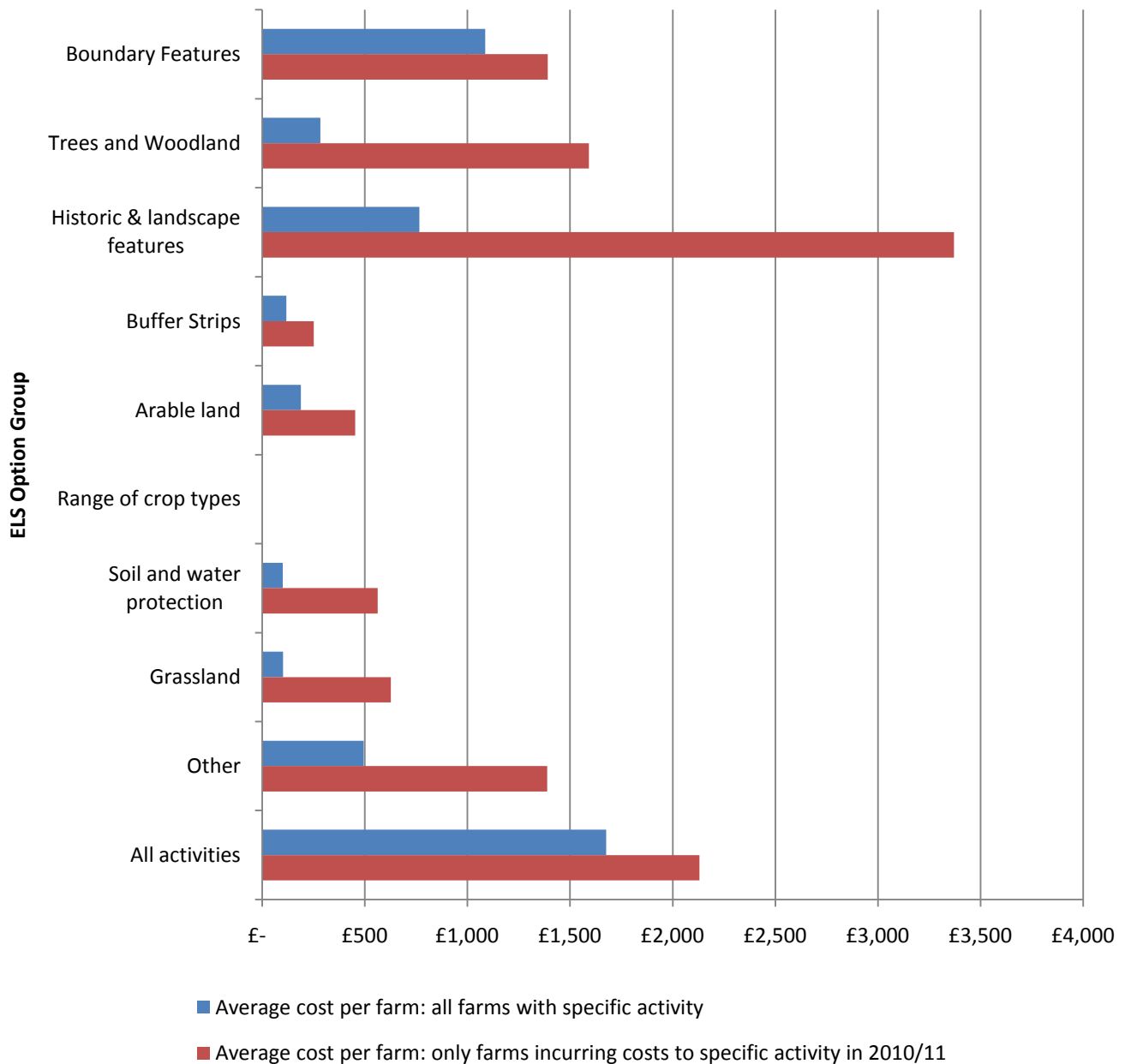
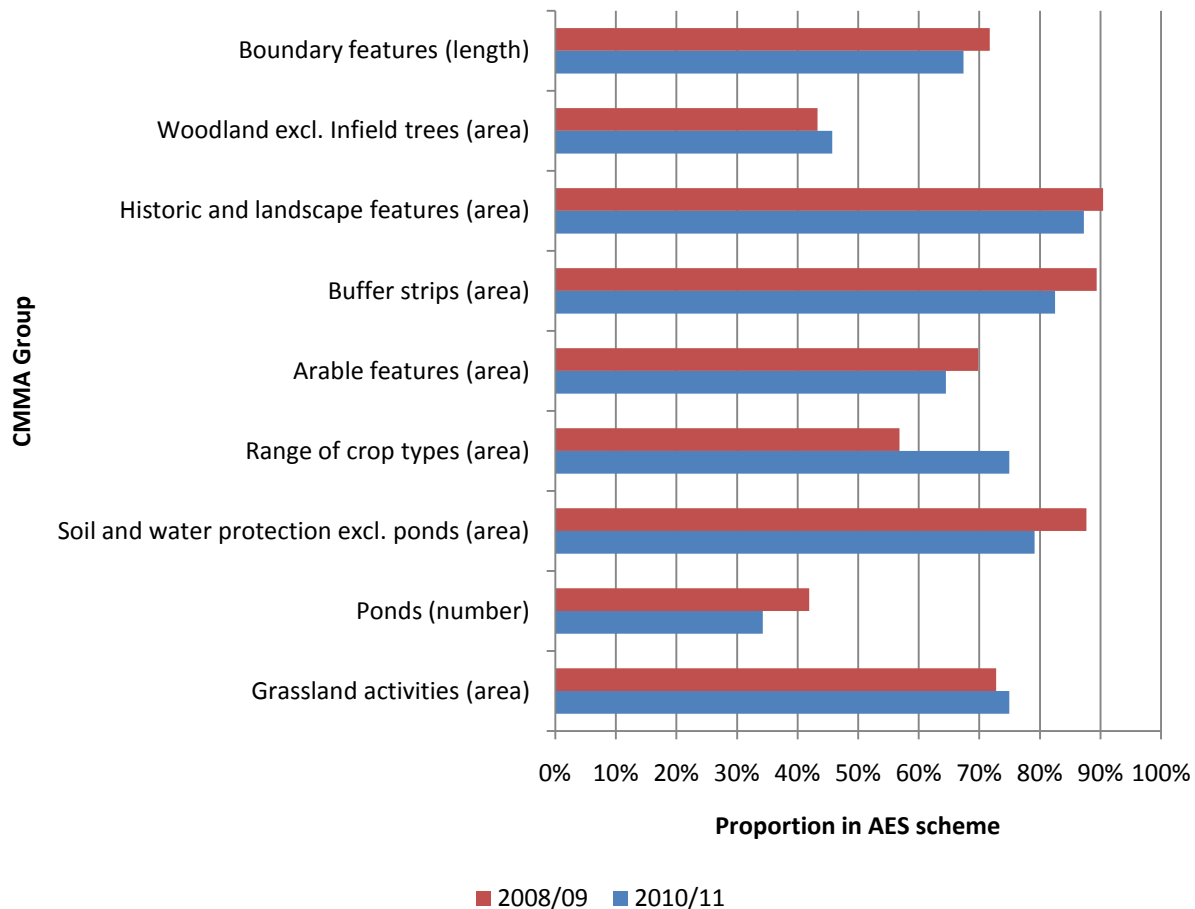


Figure 10 shows average costs per farm split by feature groups, for all farms with the features and only those incurring a cost in 2010/11. Where costs were incurred in 2010/11, activities in the Historic & landscape features group were the most expensive at £3,371. The average spent by farms incurring a cost in 2010/11 was £2,131. Range of crop types was not an activity group considered to incur any costs to farms. The least expensive features in terms of farms incurring costs were Buffer strips and Arable land options. Large differences between the pairs of bars indicate costs only being incurred by a small proportion of participating farms.

Figure 11: Proportion of agri-environment features in AES schemes, 2008/09 and 2010/11



Note: (1) Infield trees are not shown as their number was not collected for 2008/09.
 (2) Care must be taken when comparing and interpreting differences between 2008/09 and 2010/11. Please ensure you have read the guidance on page 4.

Figure 11 shows the proportion of area/length/number of each agri-environment feature group recorded as being part of an AES. The three feature groups with the highest proportion in AES schemes are Historic and landscape features, Buffer strips and Soil and water protection excluding ponds, which were approximately 80-90% in both 2010/11 and 2008/09. The two feature groups with the lowest proportion in AES schemes are Woodland excluding Infield trees and Ponds, which were approximately 40% in both 2010/11 and 2008/09. A comparison between the two years suggests there has been little change in the proportion of features in AES schemes between 2008/09 and 2010/11.

Table 7: Areas/lengths/numbers of managed features in total and not in AES schemes, split by ELS option group, 2008/09 and 2010/11

ELS option group	Total area/length/number of feature under management (000s)		Change 2010/11 on 2008/09	Area/length/number of feature not in AES scheme (000s)		Change 2010/11 on 2008/09
	2008/09	2010/11		2008/09	2010/11	
Boundary features (km)	447	497	11%*	126	162	28%
Woodland excl. Infield trees (ha)	77	84	9%*	44	45	5%
Infield trees (number)	152	154	1%*	n/a	48	n/a
Historic and landscape features (ha)	58	53	-8%	6	7	23%
Buffer strips (ha)	59	69	16%*	6	12	91%
Arable features (ha) **	234	277	18%*	71	98	39%
Soil and water protection excl. ponds (ha)	72	58	-20%*	9	12	36%
Ponds (number)	25	26	1%*	15	17	14%
Grassland activities (ha)	1,362	1,358	0%*	371	340	-8%

Note: (1) * Statistical significant difference identified between 2008/09 and 2010/11 in additional analysis (only total features tested)

(2) ** Excludes beetle banks

(3) Care must be taken when comparing and interpreting differences between 2008/09 and 2010/11. Please ensure you have read the guidance on page 4.

Table 7 above shows the areas/lengths/numbers of managed features in total and *not* in AES schemes (and therefore managed voluntarily). Some features cannot be easily compared across ELS group due to different units. The changes from 2008/09 to 2010/11 suggest increases of 39% for Arable features and 28% for the length of Boundary features managed voluntarily. Most other types of feature show an increase, however there was an 8% decrease in the area of grassland features managed voluntarily. The Campaign for the Farmed Environment was introduced in 2009 and encourages farmers to undertake voluntary environmental management of arable land which might explain the increase seen here. Most of the 2008/09-2010/11 differences were found to be statistically significant for the total areas/lengths/numbers of managed features.