

1. HISTORICAL OUTLINE

A census of agriculture (CA) is conducted in the United Kingdom of Great Britain and Northern Ireland (UK) since 1866. The UK has participated in the ten-yearly rounds of the WCA Programme since 1930, with a selected year. A CA is carried out once every ten years, 2010 being the most recent. The metadata review and data presented here refer to the CA 2010, carried out together with the SAPM.

2. LEGAL BASIS AND ORGANIZATION

Legal framework

- In England, the legal basis for the collection of agricultural statistical data is the Agricultural Statistics Act 1979 (as amended by the Agriculture (Amendment) Act 1984);¹
- in Scotland, the Agricultural Act 1947 (“the 1947 Act”) authorizes the Scottish Government to collect statistics on Scottish agriculture from agricultural holdings;²
- in Wales, the legal basis for the collection of agricultural statistics data is the Agricultural Statistics Act 1979, as amended by the Agriculture (Amendment) Act 1984;³
- In Northern Ireland, the Agricultural Statistics Order 2004 authorizes the Department of Agriculture and Rural Development (DARD) to demand response to a specific list of questions that encompasses those asked in the Census;⁴ and
- the related EU legislation for implementing the CA 2010, or FSS.

Institutional framework and international collaboration

In the UK, collection of statistics is a decentralized activity. Each Devolved Administration within the UK (England, Wales, Scotland and Northern Ireland) carries out their own programme of data collection. The Department for Environment, Food and Rural Affairs (DEFRA) in England is responsible for collating data from each of the four countries of the UK (England, Scotland, Wales and Northern Ireland),⁵ and for transmitting the final data sets to Eurostat.⁶ DEFRA is also responsible for the collection of agricultural statistics in England. The equivalent departments in the Devolved Administrations are the Welsh Government, the Scottish Government and the Department for Agriculture, Environment and Rural Affairs in Northern Ireland (DAERA, formerly DARDNI).

DEFRA set up a Steering Group to oversee the progress of the Census 2010 Programme. This included regular Working Group meetings to ensure coordination and consistency across the Devolved Administrations.

Census staff

Teams of permanent staff carry out the CA in each country of the UK. In most cases, additional temporary workers are also brought in to deal with the increased workload involved in running a census. The numbers of census staff involved in the CA 2010 for each country of the UK were:

- England – 16 permanent staff and 24 temporary staff members;
- Scotland – 16 permanent staff and 1 temporary staff members;
- Wales – 10 permanent staff and 4 temporary staff members; and
- Northern Ireland – 11 permanent staff.

3. REFERENCE DATE AND PERIOD

Reference day: 1 June 2010, for land tenure, utilized agricultural area, livestock, etc.

Reference periods:

- the 12 preceding months (from July 2009 to June 2010), for labour, agricultural production methods, etc.; and
- the last three years (2008–2010), for renewable energy, rural development support, etc.

4. ENUMERATION PERIOD

The enumeration period for the CA 2010 was May–December 2010, while for the SAPM, data collection started in March (September, in Wales) and ended by the end of April 2010 (October, in Wales).

¹ This legislation does not need to be updated or amended to allow for new surveys or for additional questions. In principle, it is a statutory requirement for all “occupiers of agricultural land” to complete and return their questionnaires, although in practice only the most important surveys, such as the June Census/Survey, are marked as compulsory.

² The 1947 Act requires “occupiers of agricultural land” or the owners of livestock to provide statistics on agriculture to the Scottish Government at any time or times in any year, in relation to a list of topics such as crops, labour and livestock numbers. The 1947 Act is not specifically tied to any one survey.

³ The powers enshrined in this Act were devolved to the National Assembly for Wales following the Government of Wales Act 2006. There is also a requirement to minimize the burden on respondents wherever possible. All data on cattle were been sourced from the Cattle Tracing System.

⁴ The Order requires “occupiers of agricultural land” or the owners of livestock to provide to DARD, at any time or times in any year, such returns as may be prescribed in relation to a list of topics, such as crop areas and livestock numbers.

⁵ The CA 2010 in Northern Ireland was conducted under the management of a Principal Agricultural Economist with one Deputy Principal Statistician and six administrative staff who organized and carried out all the work, with the exception of printing and posting forms, and data entry for the June questionnaire. The work of the team was monitored by the Farm Census Development Group, which considered and recommended any changes from earlier surveys. This group comprised a number of key users of the data.

⁶ Domestic arrangements in the UK mean that agricultural policy, data collection methods and data availability can vary slightly between the four countries. As the data supplier to the EU, DEFRA tries to harmonize the data collection methodologies where possible but ultimately, as long as the data meet the requirements specified in Regulation (EC) No. 1166/2008, DEFRA has limited powers to influence the individual methodologies chosen.

5. SCOPE OF THE CENSUS AND DEFINITION OF THE STATISTICAL UNIT

The **census scope** covered agricultural activities (crop and livestock production).

The **statistical unit** was the agricultural holding, defined as “a single unit, both technically and economically, which has a single management and which produces agricultural products”.

6. GEOGRAPHIC COVERAGE

The CA 2010 covered the entire country.

7. CUT-OFF THRESHOLD AND OTHER EXCLUSIONS

The initial target population was all holdings live on the register in spring 2010 that exceeded EU thresholds for inclusion. Minimum size limits were applied for the target population, as follows: 5 ha of UAA; 1 ha orchards/permanent crops; 0.5 ha vegetables grown in the open; 0.1 ha glasshouse for flowers, vegetables or fruit; ten head of cattle, 50 pigs or ten breeding sows; 20 sheep; 20 goats; 1 000 head of poultry; mushrooms.⁷

For Northern Ireland, the threshold was applied so that the population surveyed included all active farm businesses having one hectare or more of farmed land, whether owned, leased or taken in conacre,⁸ and those with under 1 ha having any cattle, sheep or pigs or with “significant poultry or horticultural activity”.

8. METHODOLOGY

Methodological modality for conducting the census

The AC 2010 data were collected using the traditional (classical) approach, along with the use of administrative registers as a source of census data. In general terms, organic production data, cattle information, rural development payments and common land data are all collected from administrative systems.

Frame

The frame of the CA 2010 was the population of holdings recorded as “live” on the UK Farm Register in spring 2010, which met the minimum thresholds criteria. Holdings with temporarily reduced levels of activity (such as seasonally let out land, temporarily empty pig or poultry sheds) were also included in the census frame.

Complete and/or sample enumeration methods

The CA was an enumeration of all holdings above predefined thresholds.

Sample design (if sampling was used)

The SAPM was a three-stage stratified random sample of 31 000 holdings with responses received from approximately 18 500 holdings.

Data collection methods

Data collection varied slightly between each of the four countries in accordance with the administrative systems that could be accessed. For all other items on the main CA 2010 and all SAPM items, most data were collected with the self-interviewing (mail-out/mail-back) method.⁹ Any records that were flagged with issues (or were partially complete) were contacted via telephone using CATI, where appropriate.

In England, farmers were offered the option to complete the CA on the Internet (using CAWI). Farmers who did not wish to complete an online return could request a paper form.

Questionnaire(s)

Ten questionnaires were used for the CA 2010 and SAPM in the UK. England had three questionnaires (SAPM 2010 form, Irrigation 2010 form, Census 2010 form). Scotland had three questionnaires (Main Census 2010 form, Special Census 2010 form, SAPM 2010 form). Wales and Northern Ireland had two questionnaires each (Census 2010 form, SAPM 2010 form).

The questionnaires covered all 16 core items recommended in the WCA 2010.

9. USE OF TECHNOLOGY

Extensive use of administrative registers was made throughout the UK (for information on organic characteristics, cattle, rural development payments and common land). CATI was used to check and complete primary census data. In England, farmers were offered the option to complete the CA on the Internet. Census results were disseminated and are accessible online.

⁷ The UK added further criteria to the EU thresholds to ensure better coverage for pigs and poultry. The nature of these holdings means that they have a rapid turnover of animals and if the latest data was captured at a point when their stock levels were unusually low, they risked being wrongly excluded from the target population. The application of thresholds had a minimal impact on the estimates of land and livestock (estimated total contribution of less than 1 percent to the overall agricultural production of the country); however, it considerably reduced the number of holdings subject to the CA.

⁸ *Conacre* is the system of annual lets that involves 30 percent of agricultural land in Northern Ireland.

⁹ The CA 2010 questionnaires were posted in late May 2010, and targeted final reminders in early August 2010, which included a duplicate survey form. Data collection for the census ceased at the end of December 2010, and in early January 2011, the call centre staff stopped data cleaning and respondent follow-ups. The SAPM questionnaires were sent out on 1 March 2010 (September 2010 in Wales). With the exception of Wales, the SAPM data collection ended at the end of April 2010.

10. DATA PROCESSING AND ARCHIVING

Most of the data were collected using printed survey forms. All of the forms were returned to a professional data capture company that either keyed or scanned the questionnaires. Once the data were captured, they were returned to the institutions and a number of validation checks were carried out. Survey support teams worked to correct issues with the data by contacting farmers and/or using additional data about the farm collected from other sources. Despite the efforts made, there was some nonresponse, such that a degree of imputation was required for the core CA 2010 items. Labour and diversification items were mainly imputed using donor imputation, whereas the land and livestock items were imputed using a ratio-raising process.

11. CENSUS DATA QUALITY

Comparisons of the CA 2010 with other data sources for the reference year were not possible. The items collected on the CA 2010 survey forms were not collected elsewhere with sufficient coverage or a sufficiently enough sample to permit comparisons. Generally, however, the data were judged to be comparable with information from earlier years and no significant issues were noted.

12. DATA DISSEMINATION

A number of publications are produced by each of the four UK administrations that relate to the situation in their own country. Provisional results for the UK were issued in September 2010. Final results were released in December 2010 according to the arrangements approved by the UK Statistics Authority. Final census results for UK were published in December 2010. Detailed labour results were published in October 2011.

13. DATA SOURCES

Department for Environment Food and Rural Affairs (DEFRA). 2010a. *Diversification and Renewable Energy production on farms in England in 2010*. (also available at <https://www.gov.uk/government/statistics/diversification-and-renewable-energy-production-on-farms-in-england-in-2010>).

Department for Environment Food and Rural Affairs (DEFRA). 2010b. *Farm practices survey 2010*. England. (also available at http://www.fao.org/fileadmin/templates/ess/ess_test_folder/World_Census_Agriculture/Country_info_2010/Reports/Reports_2/UK_ENG_REPc_2010.pdf)

Department of Agriculture and Rural Development. 2011. *EU Farm Structure Survey 2010*. Northern Ireland. (also available at <https://www.daera-ni.gov.uk/sites/default/files/publications/dard/european-structure-survey-2010.pdf>).

Eurostat. 2019a. Archive: Agricultural census in the United Kingdom. In: *European Commission: Eurostat* [online]. Luxembourg [Cited 23 August 2019]. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Agricultural_census_in_the_United_Kingdom

Eurostat. 2019b. Database, Agriculture, forestry and fisheries. In: *European Commission: Eurostat* [online]. Luxembourg. [Cited 26 August 2019]. <https://ec.europa.eu/eurostat/data/database>

14. CONTACT

Farm Surveys Team, Farming Statistics Unit, Department for Environment, Food and Rural Affairs (DEFRA)

Address: Foss House, Kings Pool, 1-2 Peasholme Green, York, YO1 7PX, England

Telephone: (+44) (0)300 600170

E-mail: farming-statistics@defra.gov.uk

Supplementary contacts within the devolved administrations of Scotland, Wales and Northern Ireland:

- Scottish Government: David.Cruickshank@gov.scot
- Welsh Government: Stuart.neil@gov.wales
- Department for Agriculture, Environment and Rural Affairs (DAERA), Northern Ireland: Des.Muldoon@daera-ni.gov.uk

Websites:

- Statistics: <https://www.gov.uk/government/statistics>
- Department for Environment Food and Rural Affairs, England: www.defra.gov.uk/statistics/foodfarm
- Statistics Scotland: <https://www.gov.scot/>
- Statistics Wales: www.wales.gov.uk/statistics
- Department of Agriculture and Rural Development, Northern Ireland: <https://www.daera-ni.gov.uk/>

UNITED KINGDOM – CENSUS OF AGRICULTURE 2010 – MAIN RESULTS¹

NUMBER OF HOLDINGS AND AREA, BY LEGAL STATUS		
	Holdings	Area (ha)
Total	185 200	18 009 980
Civil persons	177 840	14 716 860
An individual (sole holder holdings) ²	177 840	14 716 860
Juridical persons (legal entities)	7 370	3 293 110

LAND TENURE		
	Holdings	UAA (ha)
Total	185 200	16 881 690
Legal ownership and owner-like possession (owned land)	158 530	10 881 940
Rented from others (land rented)	63 370	4 804 500
Other form of tenure (shared farming or other modes)	110	1 195 250

DISTRIBUTION OF UAA, BY LAND SIZE CLASSES		
	Holdings	UAA (ha)
Total	185 200	16 881 690
Holdings without UAA	2 540	
Holdings with UAA	182 670	16 881 690
Less than 2 ha	4 500	4 630
2–4,99 ha	8 020	27 430
5–9,99 ha	26 850	194 550
10–19,99 ha	28 690	412 790
20–29,99 ha	17 890	439 950
30–49,99 ha	24 490	960 850
50–99,99 ha	32 990	2 360 080
100 ha and over	39 240	12 481 400

LAND USE		
	Holdings	Area (ha)
Total	185 200	18 009 980
UAA	182 670	16 881 690
Arable land	90 980	5 945 510
Land temporarily fallow	20 610	157 310
Permanent meadows and pastures	166 110	10 899 970
Permanent crops	5 880	36 200
Other land	81 750	1 128 290
Woodland	49 910	691 180
Unutilised agricultural land and other areas	64 780	437 110

MANAGERS BY SEX ³		
	Number	UAA operated (ha)
Total	185 200	16 881 690
Male	161 010	15 816 290
Female	24 190	1 065 390

MEMBERS OF HOLDER'S HOUSEHOLD, BY SEX ⁴	
	Number
Total engaged in agricultural activities on the holding	142 310
Male	67 990
Female	74 320

LABOUR FORCE OF THE HOLDING	
	Number
Total	416 660
Male	298 200
Female	118 460
Family labour force	317 390
Male	220 110
Female	97 280
Regular non family labour force	99 270
Male	78 090
Female	21 180

MANAGERS BY SEX AND AGE ³	
	Number
Total	185 200
Male	161 010
Female	24 190
Less than 35 years	7 540
Male	6 670
Female	870
35–44 years	24 780
Male	21 740
Female	3 040
45–54 years	49 130
Male	42 860
Female	6 270
55–64 years	51 190
Male	44 600
Female	6 590
65 years and over	52 560
Male	45 140
Female	7 420

LIVESTOCK		
	Holdings	Head
Holdings with livestock	139 000	
Cattle	85 760	10 063 570
Sheep	70 120	31 027 810
Goats	4 280	89 810
Pigs/swine	9 990	4 443 190
Equines (Equidae)	38 850	294 900
Poultry (1 000 head) ⁵	28 906	162 560
Broilers	1 740	104 180
Layers	24 880	46 950
Other poultry	11 800	11 430
Other animals	2 100	

¹ Data source – Eurostat database, available at: <https://ec.europa.eu/eurostat/web/agriculture/data/database>

² The categories in brackets are presented as indicated in the Eurostat database (if different from the WCA 2010).

³ According to Eurostat, managers include holders that manage the holding themselves, and managers that are not holders, including of legal units

⁴ Data are presented without holders.

⁵ Additional data are provided by the DEFRA.