

1. HISTORICAL OUTLINE

Agricultural commodity data have been collected in Australia since the 1860s. The Agricultural Census (AC) was usually conducted annually at the end of March, until 1996–1997, when the Australian Bureau of Statistics (ABS), to ensure better alignment with other ABS surveys, changed the collection period to 30 June. The current strategy envisages a five-year-interval census with sample surveys in inter-censal years. Subsequent ACs have been conducted on a quinquennial basis since 2000/2001. The metadata review and data presented here refer to the AC 2010/2011.

2. LEGAL BASIS AND ORGANIZATION

Legal framework

The AC 2010/2011 was undertaken under the following:

- Census and Statistics Act 1905, with further amendments (Act No. 10 of 2006);
- Australian Bureau of Statistics Act 1975, with further amendments (Act No. 46 of 2011), setting up the establishment and functions of the Bureau of Statistics, the appointment and attributions of the Australian Statistician and the statistical information to be collected.

Institutional framework and international collaboration

The ABS is the office responsible for the collection, compilation and publication of official statistics, including the organization and implementation of the AC.

The AC is funded predominantly via appropriation (that is, funding from the Australian Government); however, certain content is funded by external users, such as government agencies or industry bodies.

Census staff

The AC 2010/2011 was conducted using either a mail-out/mail-back paper survey form or an online electronic form (e-form); therefore, enumerators and field staff were not required. The ABS distributed statistical production activities across a number of specialist processing and support areas located in a number of Australian state offices of the ABS.

3. REFERENCE DATE AND PERIOD

Reference day: 30 June 2011, for inventory items such as the total area of holdings owned or operated and the number of livestock on the holding.

Reference periods: agricultural year (1 July 2010 to 30 June 2011), for crop production, land management practices and water use, etc.

4. ENUMERATION PERIOD

The field data collection for the AC 2010/2011 was carried out from July to November 2011.

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

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

The **statistical unit**, for the purposes of the AC 2010/2011, was a “business”, identified by its Australian Business Number (ABN); a geographic split was applied for ABNs operating over multiple locations. Units were identified as undertaking agricultural activity if any of the primary or secondary productive activities of those businesses fall within the Agriculture Subdivision (Subdivision 01), as defined by the 2006 edition of the Australian and New Zealand Standard Industrial Classification (ANZSIC).

6. GEOGRAPHIC COVERAGE

The AC 2010/2011 covered the entire territory of Australia.

7. CUT-OFF THRESHOLD AND OTHER EXCLUSIONS

The scope of the AC 2010/2011 included all businesses undertaking agricultural activity recorded on the ABS Business Register above a minimum size cut-off of AUD¹ 5 000. The measure of size was based on the ABS Estimated Value of Agricultural Operations (EVAO). For businesses with no previously reported agricultural activity (that is, new businesses), a derived value of operations is based on the turnover reported in its Businesses Activity Statement, sourced from the Australian Taxation Office.

8. METHODOLOGY

Methodological modality for conducting the census

The classical approach was used in the AC 2010/2011.

Frame

The frame used for the AC 2010/2011 was drawn from the ABS Business Register (ABSBR). The ABSBR has been used for ABS agricultural collections since 2005–2006.²

¹ Australian dollar.

² The ABSBR has a high level of coverage of agricultural businesses in Australia, as most businesses and organizations in the country must obtain an ABN from the Australian Business Register for their business operations, and the ABR is updated regularly to reflect changes in business populations.

Complete and/or sample enumeration methods

The AC 2010/2011 was designed as a complete enumeration (census) of agricultural businesses listed on the ABSBR that met the scope requirements.

Sample design (if sampling was used)

No sampling was used in the AC 2010/2011. The frame (drawn from the ABSBR) used for the census was stratified into businesses by size (EVAO), type of agricultural activity (ANZSIC 2006) and location. The stratification allowed for weighting of strata to compensate for non-response.

Data collection method(s)

Paper survey forms were despatched to all in-scope agricultural businesses. Forms were returned to the ABS using reply-paid (postage-paid) envelopes. Included with the form was a cover letter outlining the AC 2010/2011, as well as details that enabled an alternate mode of response to be provided – specifically, via an electronic form (using Computer-assisted Web Interviewing, or CAWI).³

Questionnaire(s)

One questionnaire type was used for the AC 2010/2011 data collection. Of the 16 core items recommended by FAO to be collected in the 2010 WCA round, 10 were covered by the census questionnaire.⁴

9. USE OF TECHNOLOGY

Optical character recognition (OCR) continued to be the main method for scanning and extracting data from paper questionnaires. The CAWI method was also used for data collection, by approximately 11 percent of respondents. Census results were disseminated and are accessible online.

10. DATA PROCESSING AND ARCHIVING

OCR was used for scanning and extracting data from paper forms. The CAWI e-forms infrastructure was developed by IBM. Manual data entry is restricted to data taken over the phone and when correcting OCR scanning issues (error repair). A range of SAS-based tools (programmes, projects and code) was used to interrogate estimates and identify anomalies, either at the unit (micro) or estimate (macro) level. Editing of unit-level data was undertaken via the Blaise/Editors Tool Kit (ETK). Estimation processes used SAS-based projects (software) with ABS-developed interfaces allowing for setup and operations. Imputation also heavily relies on SAS; however, the ABS has developed an interface to allow for setup (parameters, etc.) in the IBM Lotus Notes environment.

11. CENSUS DATA QUALITY

The overall response rate achieved for the AC 2010/2011 was 88 percent. Intensive follow-up of significant (important) units was undertaken to minimize the impact of non-response bias and to maximise the accuracy of small area estimates. The main measure of accuracy of estimates from the AC 2010/2011 was indicated by calculating relative standard errors, which were assigned to each estimate produced and released.

12. DATA DISSEMINATION

Preliminary census results were available in November 2011 and the final results were released in June 2012. The final AC 2010/2011 results were published on the ABS website in three publications.

13. DATA SOURCES

Australian Bureau of Statistics (ABS). ABS [online]. Canberra. [Cited 19 September 2019]. <http://www.abs.gov.au/>

14. CONTACT

Australian Bureau of Statistics (ABS)
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³ The AC forms were dispatched in late May 2011. Approximately 77 percent of businesses responded via the mail-out/mail-back paper form. Data collection by means of the e-form (CAWI) achieved a take-up rate of 11 percent. For approximately 1 percent of businesses (around 1 500) of non-responding significant businesses, or when requested specifically by businesses, data were collected over the phone (using the PAPI method).

⁴ The items that were not covered by the AC 2010/2011 were: (i) "Sex of agricultural holder"; (ii) "Age of agricultural holder"; (iii) "Household size"; (iv) "Presence of aquaculture on the holding"; (v) "Presence of forests and other woodland on the holding with the exception of forestry for plantation use"; and (vi) "Other economic production activities of the holding's enterprise".

⁵ This workgroup addresses all international data and information requests.

AUSTRALIA – AGRICULTURAL CENSUS 2010/2011 – MAIN RESULTS

NUMBER OF HOLDING AND AREA		
	Holdings	Area (ha) ¹
Total	135 654	409 672 625

LAND TENURE		
	Holdings	Area (ha) ¹
Total	135 654	409 672 625
Land owned	130 409	264 578 978
Crown land, leased	17 077	119 453 204
Other land, leased or rented	24 217	23 033 008
Other	4 149	2 607 435

LAND USE ²		
	Holdings	Area (ha) ²
Total	135 654	409 672 625
Agricultural land	n.a.	n.a.
Cropland	66 043	32 078 329
Land under temporary meadows	103 372	364 042 516
Land mainly for other agricultural purposes	11 416	109 692
Forest and other wooded land	4 612	448 322
Other land	86 745	15 827 769

LIVESTOCK		
	Holdings	Head
Total holdings with livestock	n.a.	
Cattle	79 322	28 506 169
Buffaloes	1 153	4 414
Sheep	43 828	73 098 761
Goats	3 318	546 613
Pigs	2 310	2 285 214
Equines	n.a.	259 467
Stud horses	6 982	89 351
Other horses	27 756	170 116
Poultry (1 000 head)	3 004	98 767
Chickens	706	77 633
Layers	2 092	13 111
Ducks	354	1 000
Turkeys	257	1 203
Other	488	5 820
Other animals	34 147	1 216 727

¹ Total area of holdings as at 30 June 2011.

² The breakdown of "total area of holding" according to main land use type is for the period 1 July 2010 to 30 June 2011.

TEMPORARY CROPS HARVESTED		
	Holdings	Area (ha)
Total	n.a.	n.a.
Cereals	32 589	19 320 645
Wheat	24 732	13 501 780
Oats	10 762	826 031
Barley	16 949	3 680 994
Sorghum	2 489	633 071
Maize	749	62 196
Rice	809	75 783
Triticale	2 115	187 201
Other cereals	1 867	353 590
All other cereals for other purpose	7 701	637 908
Vegetables and melons	5 753	124 615
Tomatoes	888	8 244
Pumpkins	1 058	6 986
Onions	425	6 139
Melons	441	7 609
Lettuce	557	9 071
Cauliflower	372	3 118
Carrots	259	4 636
Capsicum	497	2 372
Broccoli	487	7 090
Mushrooms	99	160
Asparagus	94	2 072
Oilseed crops	n.a.	n.a.
Peanut	137	7 282
Safflower	118	10 404
Sesame	3	402
Soya beans	435	17 361
Sunflower	230	37 177
Root/tuber crops	n.a.	n.a.
Potatoes	1 124	32 153
Leguminous crops	n.a.	n.a.
Beans	405	6 504
Field beans	2 262	261 349
Faba beans	1 556	162 629
Mung beans	603	86 354
Other field beans	147	12 366
Chickpeas	2 105	653 142
Green peas	156	3 332
Lupins	4 089	755 848
Lentils	1 118	218 763
Sugar crops	3 765	308 104
Other temporary crops	n.a.	n.a.
Cotton	1 000	588 294
Other crops	4 158	81 001