

**AGRICULTURAL CENSUS: ABS VIEWS
ON CONTENT AND PROCEDURES**

EMBARGO: 11.30AM (CANBERRA TIME) MON 24 JAN 2005

C O N T E N T S

	<i>page</i>
Notes	2
 CHAPTERS	
1 Introduction	3
2 Census procedures and output	5
3 Topics proposed to be included in 2005-06 Agricultural Census	10
 APPENDIX	
1 Essential core data items proposed for the 2005-06 Agricultural Census	16
2 Desirable data items proposed for the 2005-06 Agricultural Census	26
3 List of commodity items no longer separately identified in the Agriculture Census/Survey	28

I N Q U I R I E S

- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Jim Williamson on Canberra (02) 6252 5830.

NOTES

PREFACE

The purpose of this information paper is to initiate public consultation regarding the nature and content of the 2005-06 Agricultural Census.

The Agricultural Census is one of the largest statistical collections undertaken by the ABS. The main objective of the Agricultural Census is to provide benchmark information on the agriculture sector for small geographic areas. The collection has five main roles:

- to provide core production data to derive gross operating surplus and gross income for the farm sector
- to support the determination and monitoring of agriculture policy
- to support the determination and monitoring of natural resource and water policy as it relates to agriculture
- to support decision makers involved in producing, supplying, marketing and trading agricultural commodities, and
- to support the monitoring of economic and social issues affecting rural communities.

This information paper describes the proposed content and collection procedures for the 2005-06 Agricultural Census. Users of the data and others are invited to comment on any aspect of the collection by Friday 25 February 2005. In particular, users should notify the ABS of any topics they would like to see included in the collection.



ABBREVIATIONS

ABN	Australian Business Number
ABR	Australian Business Register
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
ATO	Australian Taxation Office
BAS	Business Activity Statement
CD	Collection District
CURF	Confidentialised Unit Record File
DAFF	Australian Government Department of Agriculture, Fisheries and Forestry
EVAO	Estimated Value of Agricultural Operations
G-NAF	Geocoded National Address File
ha	hectare
kg	kilogram
no.	number
R&D	research and development
SLA	statistical local area
t	tonne
VACP	Value of Agricultural Commodities Produced

Dennis Trewin
Australian Statistician

CHAPTER 1

INTRODUCTION

PURPOSE

The purpose of this information paper is to outline current ABS thinking on the scope and content of the 2005-06 Agricultural Census, as well as a number of other issues associated with this important collection.

WHY CONDUCT AN AGRICULTURAL CENSUS?

The main objective of the Agricultural Census is to provide benchmark information on the agriculture sector for small geographic areas. The collection has five main roles:

- to provide core production data to derive gross operating surplus and gross income for the farm sector
- to support the determination and monitoring of agriculture policy
- to support the determination and monitoring of natural resource and water policy as it relates to agriculture
- to support decision makers involved in producing, supplying, marketing and trading agricultural commodities, and
- to support the monitoring of economic and social issues affecting rural communities.

The ABS conducts an agricultural census every five years, with large sample surveys in intervening years. The main difference between a census and a sample, from a statistical users viewpoint, is the ability of a census to provide data for small geographic areas. This paper focuses on data needs that are best addressed by a census rather than a sample.

KEY GOALS

In addition to fulfilling the above roles, the ABS has the following specific goals for the 2005-06 Agricultural Census:

- to improve the coverage of agricultural businesses in the collection by adopting the Australian Business Register (ABR) as the population frame
- to improve on the levels of data quality compared to the 2000-01 Agricultural Census, and
- to conduct the collection within the budget available to the ABS (i.e. both ABS funds and possible user funding).

CENSUS CONTENT

The content of the 2005-06 Agricultural Census is constrained by the size of the form and the complexity of the topics, with only the highest priority topics being included on the form. Provider load is a key consideration in limiting the size of the form. Core production data (the minimum required to derive estimates of gross operating surplus and gross income) take priority over all other content. In the 2005-06 Agricultural Census, the proposed quantity of core data to be collected has been reduced to make room for priority data items arising from discussion of issues raised in this paper.

The proposed content of the 2005-06 Agricultural Census is discussed in detail in Chapter 3.

CONSULTATION AND
ASSESSMENT

Following the release of this information paper, the ABS intends to hold discussions with users early in 2005. The views of users obtained in response to this information paper will be open for discussion at the Agriculture Statistics Workshop to be held at the ABS in Canberra on Thursday 31 March 2005.

Content for the Agricultural Census will need to be agreed upon and finalized within a few months following the workshop.

HOW TO COMMENT ON
ABS VIEWS

Anyone wishing to make a submission regarding new topics they would like to see included, or provide other feedback to this paper, should email details to <allan.nicholls@abs.gov.au>.

People wishing to provide their comments on hardcopy should forward them to Allan Nicholls, Director, Goods and Services NSC, Australian Bureau of Statistics, Locked Bag 10, Belconnen ACT 2616.

CLOSING DATE FOR
SUBMISSIONS

Closing date for submissions is Friday 25 February 2005.

PROCEDURES

Population frame

For many years the ABS has maintained its own list of farm businesses and used this to define the farm population. However, in recent years this has proved increasingly difficult to maintain, to the point where it is no longer viable.

The creation of the Australian Business Register (ABR) as part of the new tax arrangements introduced in July 2000 presents an opportunity to move to a new frame source. Use of the ABR will enable more sustainable frame updating procedures in the long term and also provide better coverage of farms than previously available from the ABS maintained list.

All businesses with a turnover of \$50,000 or more are required to register on the ABR, and are provided with an Australian Business Number (ABN). Many businesses with a turnover of less than \$50,000 also choose to register on the ABR.

An ABR-based agriculture frame will consist of all businesses contained on the ABR coded to an 'agricultural' industry, as well as all businesses self-identified as having any agricultural activity. There are estimated to be about 190,000 such farm businesses currently operating in Australia - this compares with about 150,000 farm businesses currently on the old ABS maintained frame.

The 2005-06 Agricultural Census will use this new ABR-based frame for the first time.

Reference period

The 2005-06 Agricultural Census will collect data relating to the period 1 July 2005 to 30 June 2006. Any agricultural commodities produced during that period are in scope of the collection. Other activities undertaken during that period, which are relevant to the collection, such as the numbers of trees planted or the land management practices undertaken during the period, are also covered. Numbers of livestock and other stock figures will be recorded as at 30 June 2006, along with the area of land operated.

The 2005-06 Agricultural Census will be dispatched just prior to the end of June 2006, with instructions to return the form within 14 days of receipt.

Scope

The scope of the Agricultural Census is all farm businesses recorded on the ABR above a minimum size cutoff. In previous censuses and surveys conducted over the last decade, the minimum size cut-off was based on the Estimated Value of Agricultural Operations (EVAO) for each farm and was set at \$5,000 or more. This in-scope population, based on the current ABS list frame, is estimated to comprise 130,000 farms and account for just over 90% of total commodity production.

For the 2005-06 Agricultural Census, EVAO is not available for all units on the ABR based frame. It is therefore proposed instead to use a combination of available ABS or ATO based size measures (e.g. EVAO, Primary Production Income, BAS turnover), to exclude farms of a similar size to those excluded in previous censuses and surveys. It is estimated

Scope continued

that this will result in about 98% of total commodity production being covered and a final in-scope population of around 160,000 farms (the increase in coverage over previous collections being the result of additional farms identified on the ABR).

Sector awareness and assistance

Cooperation and acceptance of the census by the agriculture sector is essential for the success of the collection. For this reason, an awareness campaign targeting the farming and horticulture communities will be conducted prior to the census, commencing with a launch in June 2006. The aim of the campaign will be to maintain high response rates to the census by informing farmers of the importance and usefulness of the information provided. The campaign will involve press releases, radio interviews and advertisements emphasizing the need to complete the form promptly.

The ABS will be relying on the support of grower organizations and State Departments of Agriculture to encourage farm businesses to provide accurate information for the census.

An information brochure will also be included with the form mailed to farmers at the end of June 2006.

In addition, the availability of assistance via a 1800 telephone number will also be made known.

Estimating for non-response

Despite our best efforts to obtain cooperation and maximize response to the Census, a degree of non-response remains. There are two broad approaches to adjusting for non-response. For the larger and more important units, imputation is based on historical information whenever it is available. When no historical information exists for a unit, near neighbour imputation is used (i.e. selecting a closely located unit with similar characteristics to the non-responding unit). For the smaller units in the Census, imputation is generally done by substituting the average of the responding units from the stratum or grouping from which the non-responding unit was drawn.

In addition to imputation for non-response, the ABS undertakes an intensive investigation into a sub-sample of non-responding units to accurately measure the proportion of these units that are no longer operating or are out of scope of the collection. This information is used to adjust estimates at the aggregate level.

OUTPUTS

Timeliness

Target release dates for the data collected in the 2005-06 Agricultural Census are late 2006 for preliminary data and the third quarter of 2007 for final data. However, with the increased population size and new procedures resulting from the move to the ABR frame, it is difficult to confidently predict release dates.

Assuring data quality

Data collected in the Agricultural Census is subject to extensive editing based on logical edits (e.g. if livestock are reported then grazing land should be reported), range edits (e.g. limits are imposed on derived yields to identify potential misreporting of tonnes as kilograms or hectares as acres) and historical edits based on previous data reported for that farm. Editing is also carried out on aggregated data at the national, state and regional level, investigating any unusual values.

*Assuring data quality
continued*

In addition to the editing process, estimates produced from the Agricultural Census are evaluated by a variety of methods. Data confrontation is one method whereby data reported from the census is compared with data from alternative sources, with allowances made for differences in scope and procedures. Other methods include the use of questions that assist with data evaluation (such as livestock births and deaths to enable the derivation of expected change in numbers of livestock from year to year).

*Confidentialised unit
record file*

The ABS is investigating the potential release of a Confidentialised Unit Record File (CURF) from the 2005-06 Agricultural Census, probably through the ABS Remote Access Facility.

This investigation is still in the early stages, however it is already apparent that there will need to be trade-offs between the level of detail of commodity information and the geographic level recorded for each farm.

Consultation with users will be required to determine if, considering the level of detail at which the data can be released, and the consequent usefulness of the data, there is sufficient demand to warrant producing the CURF.

*Other output
developments*

The ABS is also investigating ways of increasing the range of dissemination methods using Internet applications. One potential method is the use of software that enables users to choose regions on a map, and then select those data items of interest for the region selected. It is expected that this software will be available for output from the 2005-06 Agricultural Census.

Geographic level of output

Data from the Agricultural Census will be available at the statistical local area (SLA) level, consistent with previous census output.

Over the last few years the ABS has been investigating methods that would enable Agricultural Census data to be published at small, user defined, geographic areas.

The most encouraging of these investigations involve the coding of farms in the Agricultural Census to areas known as meshblocks (small geographic areas comprising around 20 households, the boundaries of which also take into account significant natural features such as rivers, mountain ranges, and administrative information such as roads and local government area boundaries). This approach would allow data to be released from the census for small, user defined geographic areas based on aggregations of meshblocks, subject to confidentiality constraints.

Coding of farms to meshblocks for the 2005-06 Agricultural Census will only proceed if funding can be obtained from potential users of the data or some other external source. The cost of this project will be around \$1.9 million for Australia, though it could be undertaken for selected areas only.

OTHER ISSUES

*Enhancing the Agricultural
Census*

The Agricultural Census is one of many data collections conducted by the ABS.

In order to improve the usability of data from the Agricultural Census, the ABS is investigating the public acceptance and viability of enhancing this collection by linking with data from the Census of Population and Housing. The purpose of this linking is to provide a data source containing many more data items for analysis at minimum extra

Enhancing the Agricultural Census continued

cost. The combined dataset would allow the exploration of the connections between farm production, or other farm related activities, and social and economic factors.

Users of statistics interested in rural issues, in particular the social and economic welfare of farm families, are particularly keen to see this project succeed.

This project will only proceed if it is considered that there will be no adverse public reaction that would impair the quality of the Population Census and funding can be obtained from potential users of the data or some other external source. The cost of this project will be around \$1 million.

The costs of this project and the geocoding project would be somewhat less if both these projects were to proceed. This is because much of the work involved in each project is related, and would not need to be repeated for each project if both were to proceed.

Bridging to previous estimates

The 2005-06 Agricultural Census will use the ABR as the population frame for the first time. A coverage survey undertaken by the ABS in 2001-02 confirmed that the ABR contains more farms than the ABS list of farms as used for previous agricultural censuses/surveys. However, most of these additional farms are very small and it is estimated that they account for around 1% to 5% of major broadacre crops, 4% of sheep, 5% of pigs and around 10% of meat cattle.

The ABS will be providing dual sets of estimates for major commodities at the state level (one set of estimates based on the ABR based population frame, and one set of estimates which would have been produced had the previous frame and procedures been used). This will allow users of the data to bridge the ABR based estimates to previous estimates for these major commodities at the state level.

Size of the questionnaire

To keep the response rates high and the Agricultural Census to budget, it is planned to restrict the size of the questionnaire for the 2005-06 Agricultural Census to 20 pages. In order to achieve this target, data items have been categorized as either 'essential' or 'desirable'.

Essential items will be included on the form with certainty, unless a strong case can be made to the contrary. Desirable items may be dropped to allow room for other topics that users may prefer to be included on the form. The availability of user funding will be a factor in deciding which topics are included.

Chapter 3 outlines the proposed core data items to be collected, as well as the desirable data items.

Appendix 1 contains the concise list of essential core data items intended to be collected in the census. Appendix 2 contains the list of desirable data items proposed to be collected.

Data on minor commodities (such as tea, cabbages, ginger etc.) are no longer collected in agricultural collections due to the cost of collecting these rare commodities compared to their contribution to the Value of Agricultural Commodities Produced (VACP) and the limited space available on the form through the expansion of other high priority topics.

*Size of the questionnaire
continued*

Appendix 3 contains a list of commodities no longer separately identified in the agricultural surveys.

Accompanying collections

As part of the Agricultural Census, the ABS conducts supplementary collections of farms involved in grape growing and apple and pear growing. These collections are funded by industry and collect more detailed varietal information on these commodities.

CHAPTER **3**

TOPICS PROPOSED TO BE INCLUDED IN 2005-06 AGRICULTURAL CENSUS

INTRODUCTION

This chapter contains assessments of the topics that the ABS considers should be included in the 2005-06 Agricultural Census. Topics are included on the basis of being either a core requirement for the production of the National Accounts, or strong demand for small geographic area data with a significant public good element at the national or state level. Only the highest priority topics are included on the questionnaire.

The essential data items outlined below will be included on the form with certainty, unless a strong case can be made to the contrary. The desirable items outlined later in this chapter will be prioritized against potential new items and included if space allows. The availability of user funding will be a factor in deciding which questions are included on the form.

The Agricultural Census only collects those commodities that are significant in terms of contribution to VACP, and then only in those states in which they are significant. The ABS relies on industry associations and other industry organizations to inform the ABS of any emerging commodities that have increased their output to the extent that they may be significant contributors to VACP.

Refer to Appendix 1 for details of essential core data items to be collected in the 2005-06 Agricultural Census.

ESSENTIAL CORE TOPICS

Area of holding

This topic collects information on the area of holding at 30 June 2006 categorized by whether it is owned or leased.

JUSTIFICATION

This information is essential for monitoring growth or contraction in agricultural land use at the regional and national level. It is a useful classificatory data item for undertaking analysis of industry structure and farm production.

It is also used by the ABS as an indicator of farm size when undertaking various editing processes and for monitoring changes in land purchases and sales.

Pastures and crops cut for hay

This topic includes information on the total area and production of pasture and crops cut for hay and the production of silage during the 2005-06 financial year period. Information on the quantity of hay sold is also collected.

Pastures and crops cut for hay continued

JUSTIFICATION

Core data required for calculating VACP, which is used for deriving gross income and gross operating surplus for the farm sector. The data is also used for monitoring trends in production of various commodities at the regional and national level, and examining relationships between agricultural production, water quality and economic/environmental sustainability.

Cereal crops, cotton and other crops

This topic includes information on the area and production of cereal crops, cotton and other major crops harvested during the 2005-06 financial year period.

JUSTIFICATION

Core data required for calculating VACP, which is used for deriving gross income and gross operating surplus for the farm sector. The data is also used for monitoring trends in and forecasting production of various commodities at the regional and national level, by both public sector and private sector organizations. Examining relationships between agricultural production, water quality and economic/environmental sustainability, and regional infrastructure planning are also important uses of this data. The data is also used for determining the maximum level of government contribution to R&D expenditure for agricultural industries.

Grain stocks

This topic includes information on the stocks of cereal and other grains held on farm by farmers at the end of June 2006.

JUSTIFICATION

This topic is used by industry organizations for estimating the previous use and future availability of grain. It is used in conjunction with data on off-farm stocks of grain to obtain a total picture of grain stocks at a point in time. The information is also used for estimating the market distribution (and different values) of grain when calculating VACP.

Nurseries, cut flowers and turf

This topic collects information on the area of nurseries, cut flowers and cultivated turf.

JUSTIFICATION

Core data required for calculating VACP, which is used for deriving gross income and gross operating surplus for the farm sector. The data is also used for determining the maximum level of government contribution to R&D expenditure for agricultural industries.

Vegetables

This topic collects information on the area and production of vegetables produced during the financial year period 2005-06.

JUSTIFICATION

Core data required for calculating VACP, which is used for deriving gross income and gross operating surplus for the farm sector. The data is also used for determining the maximum level of government contribution to R&D expenditure for agricultural industries.

Vegetables continued

JUSTIFICATION continued

The ABS has reduced the level of data collected on the variety of vegetables in recent years, (refer to Appendix 3 for details) largely as a result of the high cost of continuing to collect data relating to rare commodities (which cannot be electronically captured and require clerical intervention to be captured from the form). While this has not significantly affected VACP estimates (accounting for around 2% of VACP), their absence means ABS agricultural data cannot be used for monitoring emerging horticultural industries or commodities.

Fruit and nuts

This topic collects information on the number of trees (under 6 years and 6 years and over) standing, and production of fruit and nuts during the financial year period 2005-06. Some area data is also collected. The ABS is interested in consulting with users regarding whether the 'under 6 years' and '6 years and over' classification currently used should be replaced with a 'bearing' and 'non-bearing' classification.

JUSTIFICATION

Core data required for calculating VACP, which is used for deriving gross income and gross operating surplus for the farm sector. In addition the horticultural industry pay for supplementary collections relating to the apple and pear industry and the viticulture industry that collects varietal data. The data is also used for determining the maximum level of government contribution to R&D expenditure for agricultural industries.

Livestock

This topic includes information on the number of livestock held at the end of June 2006, plus details of numbers of livestock sold during the 12-month period to end June 2006. Livestock covered include sheep (by lambs, ewes and other), dairy cattle (by cows and other), meat cattle (by bulls, calves, cows and other), pigs, horses, deer and goats.

Information on the number of deaths and births is also collected for sheep, cattle and pigs to enable a comparison of reported stock numbers at the national level with derived numbers using the previous years estimates plus births less deaths and slaughterings.

JUSTIFICATION

Core data required for estimating regional VACP. (VACP for the livestock industries is derived from slaughterings data.) In addition livestock industry associations use the data to predict the availability of future livestock products when negotiating trade contracts with international traders. The data is also used for determining the maximum level of government contribution to R&D expenditure for agricultural industries.

Poultry and eggs

This topic includes information on the number of poultry on the holding at the end of June 2006, the number of birds disposed of and the production of eggs during the 12 month period to end of June 2006.

JUSTIFICATION

Core data required for calculating VACP, which is used for deriving gross income and gross operating surplus for the farm sector. The data is also used for determining the maximum level of government contribution to R&D expenditure for agricultural industries.

<i>Watering Activity</i>	<p>This topic collects information on source of water, area irrigated and volume of water used.</p> <p>JUSTIFICATION</p> <p>This topic is used for identifying the volume and efficiency of water used in agriculture in Australia. This is a critical issue for the Australian farm sector.</p>
<i>ABN</i>	<p>Collects the Australian Business Number associated with the farm business.</p> <p>JUSTIFICATION</p> <p>The reporting businesses's ABN is requested to enable an efficient population frame to be maintained and to check that the reporting unit is the unit which has been selected in the collection.</p>
<i>Business structure</i>	<p>Includes information on the number of farms operated by the business's ABN and whether there is more than one ABN associated with the farm.</p> <p>JUSTIFICATION</p> <p>This information is used to update the population frame for future Agricultural Census and Surveys.</p>
<i>Business name and mailing address</i>	<p>Includes legal name, property name, trading name and mailing address.</p> <p>JUSTIFICATION</p> <p>The business name and mailing address is required to ensure that the information on the population frame is correct and to confirm that the unit reporting is the unit selected in the collection.</p> <p>Property name is also used to assist with coding of farms to geographic areas, which enables the release of aggregated data at small geographic levels.</p>
<i>Farm location address</i>	<p>Includes Property name, Road/Street number, Road/Street name, Suburb/rural locality or town, Shire, State and Postcode.</p> <p>JUSTIFICATION</p> <p>Farm location address is required to facilitate coding of farms to SLA to enable the release of aggregated data at small geographic levels. This information would also be used for coding of farms to meshblocks, should this proceed. Meshblock coding would be achieved by matching the address to an address on the Geocoded National Address File (G-NAF) to identify the meshblock in which the farm is located.</p>

<p>DESIRABLE TOPICS</p> <p><i>Land use</i></p>	<p>The total area of holding categorized into a number of land use categories.</p> <p>JUSTIFICATION</p> <p>Used to monitor changes in land use over time.</p>
<p><i>Pastures for seed</i></p>	<p>Includes the area and production of pasture seed.</p> <p>JUSTIFICATION</p> <p>Used for calculating VACP, which is used for deriving gross income and gross operating surplus for the farm sector.</p>
<p><i>Additional hay details</i></p>	<p>Additional information on the type of hay produced, and details on hay and silage held on the holding.</p> <p>JUSTIFICATION</p> <p>Used for improving the accuracy of VACP, which is used for deriving gross income and gross operating surplus for the farm sector.</p>
<p><i>Irrigated and non-irrigated cotton</i></p>	<p>Details of the area and production of cotton, by irrigated and non-irrigated farming method.</p> <p>JUSTIFICATION</p> <p>Used for improving the accuracy of VACP, which is used for deriving gross income and gross operating surplus for the farm sector.</p>
<p><i>Total area of orchards</i></p>	<p>Details of the total area under orchard crops.</p> <p>JUSTIFICATION</p> <p>Used by industry to monitor the total area of orchards over time.</p>
<p><i>Additional sheep details</i></p>	<p>Details of sheep numbers by type of sheep (meat and wool) and future lambing intentions by type of sire.</p> <p>JUSTIFICATION</p> <p>Used by industry to monitor changes in the structure of the sheep flock.</p>
<p><i>Additional poultry details</i></p>	<p>Numbers of ducks and turkeys. Additional details of chickens including numbers of breeding chickens, replacement chickens and day old chickens.</p> <p>JUSTIFICATION</p> <p>Used by the industry to monitor changes in the poultry flock.</p>
<p><i>Residential address</i></p>	<p>Includes Property/building name, Unit/flat number, Road/street number, Road/street name, Suburb, rural locality or town, State, and Postcode.</p>

*Residential address
continued*

JUSTIFICATION

This information is required to assist with the linking of data included in the Agricultural Census with data in the Census of Population and Housing. This will only proceed if external funding is available.

Land vacations

Includes details of land sold, leased or otherwise vacated since 30 June 2005.

JUSTIFICATION

This information is used to assist with maintenance of the population frame where large changes in land ownership have recently occurred.

**OTHER USER FUNDED
QUESTIONS**

The essential topics, together with instructions, take up a total of approximately 15.75 pages. This leaves approximately 4.25 pages available for *a mixture of* the desirable data items listed above (and in more detail in Appendix 2), *and* other high priority questions to be identified and funded by users. The topics and content of these questions will be decided in consultation with key users of agriculture statistics.

Users can either fund questions from their own resources or form a consortium of interested users to fund a particular topic. It is the users' responsibility to organize any consortiums relating to funding of questions. The ABS requires written commitment of payment for such questions prior to them being included on the questionnaire.

New questions would require extensive testing prior to being included on the questionnaire, which would also need to be funded by users..

APPENDIX 1

**ESSENTIAL CORE DATA ITEMS PROPOSED FOR
THE 2005-06 AGRICULTURAL CENSUS**

NB. not all commodities appear in all states

AREA OF HOLDING

Total area of holding (ha)

Area of holding - land owned and operated (ha)

Area of holding - crown land leased (ha)

Area of holding - other land leased or rented (ha)

Area of holding - other (please specify) (ha)

PASTURES AND CROPS

*Pastures and crops cut for
hay*

Pastures and crops cut for hay - area (ha)

Pastures and crops cut for hay - production (t)

Hay sold during year (t)

Silage made during year (t)

Cereal crops

Wheat for grain - area (ha)

Wheat for grain - production (t)

Oats for grain - area (ha)

Oats for grain - production (t)

Barley for grain - area (ha)

Barley for grain - production (t)

Sorghum for grain - area (ha)

Sorghum for grain - production (t)

Maize for grain - area (ha)

Maize for grain - production (t)

Millet for grain (incl. panicum and canary seed) - area (ha)

Millet for grain (incl. panicum and canary seed) - production (t)

Rice for grain - area (ha)

Rice for grain - production (t)

Triticale for grain - area (ha)

Triticale for grain - production (t)

All other cereals for grain or seed - area (ha)

All cereals for all other purposes (e.g. silage or fed off) - area (ha)

Cotton

Cotton - total area (ha)

Cotton - total seed cotton production (kg)

Cotton - total cotton lint production (kg)

Other crops

All other crops (excluding vegetables fruit and grapevines) - area (ha)

Canola - area (ha)

Canola - production (t)

Other crops continued

Chickpeas - area (ha)
 Chickpeas - production (t)
 Coriander - area (ha)
 Coriander - production (kg)
 Faba beans (incl. tick horse and broad) - area (ha)
 Faba beans (incl. tick horse and broad) - production (t)
 Field peas for grain - area (ha)
 Field peas for grain - production (t)
 Fennel (bitter) - (Foeniculum Vulgae) - area (ha)
 Fennel (bitter) - (Foeniculum Vulgae) - production (kg)
 Hops - area harvested (ha)
 Hops - production (dry weight) (kg)
 Lavender - area (ha)
 Lavender - production (kg)
 Legumes for grain - total area (ha)
 Legumes for grain - total production (t)
 Lentils - area (ha)
 Lentils - production (t)
 Lupins for grain - area (ha)
 Lupins for grain - production (t)
 Mung beans - area (ha)
 Mung beans - production (t)
 Oil poppies - area (ha)
 Oil poppies - production (t)
 Peanuts - area (ha)
 Peanuts - production (in shell) (kg)
 Peppermint - area (ha)
 Peppermint - production (kg)
 Popcorn for grain - area (ha)
 Popcorn for grain - production (t)
 Pyrethrum - area (ha)
 Pyrethrum - production (kg)
 Other crops (incl. lab lab purpureus) cut for hay - area (ha)
 Other crops (incl. lab lab purpureus) cut for hay - production (t)
 Other field beans - area (ha)
 Other field beans - production (t)
 Safflower - area (ha)
 Safflower - production (t)
 Sesame - area (ha)
 Sesame - production (clean seed) (t)

<i>Other crops continued</i>	<p>Soybeans - area (ha)</p> <p>Soybeans - production (t)</p> <p>Sugar cane - cut for crushing during 2005 season - area (ha)</p> <p>Sugar cane - cut for crushing during 2005 season - production (t)</p> <p>Sugar cane - cut for plants during 2005 season - area (ha)</p> <p>Sugar cane - cut for plants during 2005 season - production (t)</p> <p>Sugar cane - standover from 2005 season - area (ha)</p> <p>Sugar cane - newly planted in 2005 for harvest in a following season - area (ha)</p> <p>Sunflower - area (ha)</p> <p>Sunflower - production (t)</p> <p>Tobacco - area (ha)</p> <p>Tobacco - production (kg)</p> <p>Vetches for seed - area (ha)</p> <p>Vetches for seed - production (kg)</p>
<i>Grain stocks</i>	<p>Grain stocks - wheat held on holding</p> <p>Grain stocks - oats held on holding</p> <p>Grain stocks - barley held on holding</p> <p>Grain stocks - other grains held on holding (please specify)</p>
NURSERIES, CUT FLOWERS AND CULTIVATED TURF	<p>Nurseries (outdoor) - area (ha)</p> <p>Cut flowers (outdoor) - area (ha)</p> <p>Nurseries (under cover) - area (ha)</p> <p>Cut flowers (under cover) - area (ha)</p> <p>Cultivated turf - area (ha)</p>
VEGETABLES, FRUIT AND NUTS <i>Vegetables</i>	<p>All other vegetables for seed - area (ha)</p> <p>All other vegetables for seed - production (kg)</p> <p>Asparagus - total area (ha)</p> <p>Asparagus - production (t)</p> <p>Broccoli - area (ha)</p> <p>Broccoli - production (kg)</p> <p>Capsicum chillies and peppers - area (ha)</p> <p>Capsicum chillies and peppers - production (kg)</p> <p>Carrots - area (ha)</p> <p>Carrots - production (t)</p> <p>Cauliflower - area (ha)</p> <p>Cauliflower - production (t)</p> <p>French and runner beans (processing) - area (ha)</p> <p>French and runner beans (processing) - production (kg)</p> <p>French and runner beans (fresh market) - area (ha)</p> <p>French and runner beans (fresh market) - production (kg)</p> <p>Herbs - lemon grass etc. - area (ha)</p>

Vegetables continued

Herbs - lemon grass etc. - production (kg)
 Lettuce - area (ha)
 Lettuce - production (t)
 Melons - rock and cantaloupe - area (ha)
 Melons - rock and cantaloupe - production (t)
 Melons - watermelons - area (ha)
 Melons - watermelons - production (t)
 Melons - other - area (ha)
 Melons - other - production (t)
 Melons - bitter (gourd) - area (ha)
 Melons - bitter (gourd) - production (kg)
 Mushrooms - production (kg)
 Mushrooms - area (square metres)
 Onions - white or brown - area (ha)
 Onions - white or brown - production (t)
 Peas - green (for processing) - area (ha)
 Peas - green (for processing) - production - (shelled weight) (kg)
 Peas - green (for fresh market) - area (ha)
 Peas - green (for fresh market) - production (pod weight) (kg)
 Potatoes (early crop) - area (ha)
 Potatoes (early crop) - production (t)
 Potatoes (main crop) - area (ha)
 Potatoes (main crop) - production (t)
 Potatoes for seed - area (ha)
 Potatoes for seed - production (t)
 Pumpkins triambles & trombones - area (ha)
 Pumpkins triambles & trombones - production (t)
 Tomatoes (processing) - area (ha)
 Tomatoes (processing) - production (t)
 Tomatoes (fresh market) - area (ha)
 Tomatoes (fresh market) - production (t)
 All other vegetables for human consumption - area (ha)

Citrus

All other citrus - trees under 6 years - number (n)
 All other citrus - trees 6 years and over - number (n)
 Oranges - navel - trees under 6 years - number (n)
 Oranges - navel - trees 6 years and over - number (n)
 Oranges - navel - production (kg)
 Oranges - valencia - trees under 6 years - number (n)
 Oranges - valencia - trees 6 years and over - number (n)
 Oranges - valencia - production (kg)

Citrus continued

- Oranges - other (nec) - trees under 6 years - number (n)
- Oranges - other (nec) - trees 6 years and over - number (n)
- Oranges - other (nec) - production (kg)
- Grapefruit - trees under 6 years - number (n)
- Grapefruit - trees 6 years and over - number (n)
- Grapefruit - production (kg)
- Lemons and limes - trees under 6 years - number (n)
- Lemons and limes - trees 6 years and over - number (n)
- Lemons and limes - production (kg)
- Mandarins - trees under 6 years - number (n)
- Mandarins - trees 6 years and over - number (n)
- Mandarins - production (kg)

Pome fruit

- All other pome fruit - trees under 6 years - number (n)
- All other pome fruit - trees 6 years and over - number (n)
- All other pome fruit - total trees - number (n)
- Apples - trees under 6 years - number (n)
- Apples - trees 6 years and over - number (n)
- Apples - production (kg)
- Pears (excl. Nashi) - trees under 6 years - number (n)
- Pears (excl. Nashi) - trees 6 years and over - number (n)
- Pears (excl. Nashi) - production (kg)
- Nashi - trees under 6 years - number (n)
- Nashi - trees 6 years and over - number (n)
- Nashi - production (kg)

Stone fruit

- All other stone fruit - trees under 6 years - number (n)
- All other stone fruit - trees 6 years and over - number (n)
- Apricots - trees under 6 years - number (n)
- Apricots - trees 6 years and over - number (n)
- Apricots - production (kg)
- Cherries - trees under 6 years - number (n)
- Cherries - trees 6 years and over - number (n)
- Cherries - production (kg)
- Nectarines - trees under 6 years - number (n)
- Nectarines - trees 6 years and over - number (n)
- Nectarines - production (kg)
- Olives - trees under 6 years - number (n)
- Olives - trees 6 years and over - number (n)
- Olives - production (kg)
- Peaches (processing) - trees under 6 years - number (n)
- Peaches (processing) - trees 6 years and over - number (n)

Stone fruit continued

Peaches (processing) - production (kg)
 Peaches (fresh market) - trees under 6 years - number (n)
 Peaches (fresh market) - trees 6 years and over - number (n)
 Peaches (fresh market) - production (kg)
 Plums - trees under 6 years - number (n)
 Plums - trees 6 years and over - number (n)
 Plums - production (kg)
 Prunes - trees under 6 years - number (n)
 Prunes - trees 6 years and over - number (n)
 Prunes - production (kg)

Other fruit

All fruit (excluding grapes) - total area (ha)
 All other fruit - area not yet bearing (ha)
 All other fruit - area bearing (ha)
 All other fruit - total area (ha)
 Avocados - trees under 6 years - number (n)
 Avocados - trees 6 years and over - number (n)
 Avocados - production (kg)
 Bananas - area not yet bearing (ha)
 Bananas - area bearing (ha)
 Bananas - production (t)
 Black currants - area not yet bearing (ha)
 Black currants - area bearing (ha)
 Black currants - production (kg)
 Blueberries - area not yet bearing (ha)
 Blueberries - area bearing (ha)
 Blueberries - production (kg)
 Orchard fruit - other - trees under 6 years - number (n)
 Orchard fruit - other - trees 6 years and over - number (n)
 Carambola - trees under 6 years - number (n)
 Carambola - trees 6 years and over - number (n)
 Carambola - production (kg)
 Custard apples - trees under 6 years - number (n)
 Custard apples - trees 6 years and over - number (n)
 Custard apples - production (kg)
 Dates - trees under 6 years - number (n)
 Dates - trees 6 years and over - number (n)
 Dates - production (kg)
 Guava - trees under 6 years - number (n)
 Guava - trees 6 years and over - number (n)
 Guava - production (kg)

Other fruit continued

Grapes - area not yet bearing (ha)
 Grapes - area bearing (ha)
 Jackfruit - trees under 6 years - number (n)
 Jackfruit - trees 6 years and over - number (n)
 Jackfruit - production (kg)
 Kiwi fruit - area not yet bearing (ha)
 Kiwi fruit - area bearing (ha)
 Kiwi fruit - production (kg)
 Mangoes - trees under 6 years - number (n)
 Mangoes - trees 6 years and over - number (n)
 Mangoes - production (kg)
 Other fruit for sale - total area not yet bearing (ha)
 Other fruit for sale - total area bearing (ha)
 Other fruit for sale - total area (ha)
 Papaws / Papaya - area not yet bearing (ha)
 Papaws / Papaya - area bearing (ha)
 Papaws / Papaya - production (kg)
 Pineapples - area not yet bearing (ha)
 Pineapples - area bearing (ha)
 Pineapples - production (t)
 Rambutan - trees under 6 years - number (n)
 Rambutan - trees 6 years and over - number (n)
 Rambutan - production (kg)
 Raspberries - area not yet bearing (ha)
 Raspberries - area bearing (ha)
 Raspberries - production (kg)
 Strawberries - area not yet bearing (ha)
 Strawberries - area bearing (ha)
 Strawberries - production (kg)

Nuts

All other nuts - trees under 6 years - number (n)
 All other nuts - trees 6 years and over - number (n)
 Almonds - trees under 6 years - number (n)
 Almonds - trees 6 years and over - number (n)
 Almonds - production (kernel weight) (kg)
 Cashews - trees under 6 years - number (n)
 Cashews - trees 6 years and over - number (n)
 Cashews - production (kg)
 Macadamia - trees under 6 years - number (n)
 Macadamia - trees 6 years and over - number (n)
 Macadamia - production (kg)

<i>Nuts continued</i>	
	Nuts - total trees under 6 years - number (n)
	Nuts - total trees 6 years and over - number (n)
	Pecans - trees under 6 years - number (n)
	Pecans - trees 6 years and over - number (n)
	Pecans - production (kg)
	Walnuts - trees under 6 years - number (n)
	Walnuts - trees 6 years and over - number (n)
	Walnuts - production (kg)
LIVESTOCK	All other sheep (incl. rams wethers hoggets and non breeding ewes) - total number (n)
<i>Sheep</i>	Breeding ewes - 1 year and over - number (n)
	Lambs under one year - number (n)
	Deaths and/or losses - lambs under one year - number (n)
	Deaths and/or losses - other sheep - number (n)
	Sales of lambs under one year - number (n)
	Sales of other sheep (excl lambs) - number (n)
<i>Cattle</i>	Beef calves born - number (n)
	Dairy calves born - number (n)
	Deaths and/or losses - dairy cattle and calves - number (n)
	Deaths and/or losses - meat cattle and calves - number (n)
	Meat cattle - beef breed bulls & bull calves used/intended for service - number (n)
	Meat cattle - cows and heifers - 1 year and over - total number (n)
	Meat cattle - calves - under 1 year (excl. bull calves for service) - number (n)
	Meat cattle - other cattle - (steers bullocks spayed cows etc.) 1 year and over - number (n)
	Milk cattle - cows in milk and dry - number (n)
	Milk cattle - other (bulls heifers and calves) - number (n)
	Sales of dairy cattle - bulls - 1 year and over - for breeding - number (n)
	Sales of dairy cattle - all other dairy cattle and calves - number (n)
	Sales of beef bulls - 1 year and over - for breeding - number (n)
	Sales of meat cattle - all other meat cattle and calves
<i>Pigs</i>	All other pigs (incl. suckers weaners growers etc.) - number (n)
	Boars - number (n)
	Breeding sows (from 1st mating) (n)
	Deaths and/or losses - pigs and piglets - number (n)
	Gilts intended for breeding (n)
	Piglets born - number (n)
	Sales of pigs - number (n)
<i>Poultry</i>	All other poultry - total number (n)
	All other poultry - live birds disposed of during year - total number (n)
	Eggs produced for human consumption - number (Doz.)

<i>Poultry continued</i>	Layers for egg production - stock on holding - number (n)
	Layers for egg production - live birds disposed of during year - number (n)
	Meat chickens - grown on contract - number (n)
	Meat chickens - grown on contract - live birds disposed of during year - number (n)
	Meat chickens - grown on own account - number (n)
	Meat chickens - grown on own account - live birds disposed of during year - number (n)
	Processed poultry sold - reared on holding - number (n)
	Processed poultry sold - other (not reared on holding) - number (n)
<i>Other Livestock</i>	Horses - stud - total number (n)
	Horses - other - total number (n)
	Deer - total number (n)
	Goats - (excluding unmanaged feral goats) - total number (n)
	All other livestock - total number (n)
	Sales of horses - total number (n)
	Sales of deer - total number (n)
	Sales of goats - domesticated - total number (n)
	Sales of goats - unmanaged feral total number (n)
	Sales of all other livestock - total number (n)
WATERING ACTIVITY	
<i>Sources of water</i>	Surface water (metered) - volume (megalitres)
	Groundwater (metered) - volume (megalitres)
	Reticulated mains supply (metered) - volume (megalitres)
	Recycled/re-used (metered) - volume (megalitres)
	Other (metered) - volume (megalitres)
	Surface water (unmetered) - volume (megalitres)
	Groundwater (unmetered) - volume (megalitres)
	Reticulated mains supply(unmetered) - volume (megalitres)
	Recycled/re-used (unmetered) - volume (megalitres)
	Other (unmetered) - volume (megalitres)
<i>Area irrigated</i>	Pasture for grazing - area (ha)
	Pasture harvested for seed - area (ha)
	Pasture cut for hay and silage - area (ha)
	Cereal crops cut for hay - area (ha)
	Cereal crops cut for grain or seed - area (ha)
	Cereal crops not for grain or seed - area (ha)
	Rice - area (ha)
	Sugar cane - area (ha)
	Cotton - area (ha)
	Other broadacre crops - area (ha)
	Fruit trees, nut trees, plantation or berry fruits - area (ha)
	Vegetables for human consumption - area (ha)

Area irrigated continued

- Vegetables for seed - area (ha)
- Nurseries, cut flowers or cultivated turf - area (ha)
- Grapevines - area (ha)
- Other - area (ha)

Volume water applied

- Pasture for grazing - volume (megalitres)
- Pasture harvested for seed - volume (megalitres)
- Pasture cut for hay and silage - volume (megalitres)
- Cereal crops cut for hay - volume (megalitres)
- Cereal crops cut for grain or seed - volume (megalitres)
- Cereal crops not for grain or seed - volume (megalitres)
- Rice - volume (megalitres)
- Sugar cane - volume (megalitres)
- Cotton - volume (megalitres)
- Other broadacre crops - volume (megalitres)
- Fruit trees, nut trees, plantation or berry fruits - volume (megalitres)
- Vegetables for human consumption - volume (megalitres)
- Vegetables for seed - volume (megalitres)
- Nurseries, cut flowers or cultivated turf - volume (megalitres)
- Grapevines - volume (megalitres)
- Other - volume (megalitres)

OTHER ESSENTIAL ITEMS

- ABS standard front page
- Instructions on how to complete the form
- Structural questions for ABN relationships
- Location address details
- Mailing address
- Details of time taken, request for comments etc.

APPENDIX 2

**DESIRABLE DATA ITEMS PROPOSED FOR THE
2005-06 AGRICULTURAL CENSUS**

LAND USE

Land use - land under crop (incl. vegetables, fruit and nuts, broadacre crops) - area (ha)
 Land use - land under fallow - area (ha)
 Land use - grazing land (incl pastures and rangelands) - area (ha)
 Land use - remnant vegetation and woodland not suitable for grazing - area (ha)
 Land use - land under commercial forestry plantations - area (ha)
 Land use - wetlands or swamps not suitable for grazing - area (ha)
 Land use - environmentally sensitive areas fenced out of production - area (ha)
 Land use - houses sheds and other agriculturally unproductive land - area (ha)
 Land use - other land use (please specify) - area (ha)
 Land use - total area (ha)

CROPS AND PASTURES

Pastures for seed

Pasture seed - area (ha)
 Pasture seed - production (kg)

*Pastures and crops cut for
hay by type*

Pure lucerne cut for hay - area (ha)
 Pure lucerne cut for hay - production (t)
 Other pastures cut for hay (sown or native) - area (ha)
 Other pastures cut for hay (sown or native) - production (t)
 Other crops cut for hay - total area (ha)
 Other crops cut for hay - total production (t)
 Cereals (incl. Wheat, oats and forage sorghum) cut for hay - area (ha)
 Cereals (incl. Wheat, oats and forage sorghum) cut for hay - production (t)

*Cotton by irrigated and
non-irrigated*

Cotton - irrigated - area (ha)
 Cotton - irrigated - seed cotton production (total module weight) (kg)
 Cotton - irrigated - cotton lint production (kg)
 Cotton - non irrigated - area (ha)
 Cotton - non irrigated - seed cotton production (total module weight) (kg)
 Cotton - non irrigated - cotton lint production (kg)

Hay stocks

Hay held on holding (t)
 Silage held on holding (t)

FRUIT AND NUTS

Total area of orchard trees (including nuts) - area (ha)

LIVESTOCK

Sheep

All other wool sheep (incl. rams wethers hoggets and non breeding ewes) - total number (n)
 All other meat sheep (incl. rams wethers hoggets and non breeding ewes) - total number (n)

Sheep continued

- Breeding ewes (wool) - 1 year and - number (n)
- Breeding ewes (meat) - 1 year and over - number (n)
- Ewes mated (to produce current lambing) - number (n)
- Ewes (to be) mated to Merino rams to lamb in the next season - (n)
- Ewes (to be) mated to short wool / meat breed rams in the next season - (n)
- Ewes (to be) mated to other rams in the next season - number (n)
- Lambs marked - number (n)
- Lambs (wool) under one year - number (n)
- Lambs (meat) under one year - number (n)
- Sales of lambs - for wool production - number (n)
- Sales of lambs - for meat production - number (n)

Poultry

- Ducks - number (n)
- Ducks - live birds disposed of during year - number (n)
- Layers - replacement - stock on holding - number (n)
- Layers - replacement - live birds disposed of during year - number (n)
- Layers - day old chicks - live birds disposed of during year - number (n)
- Layers - breeding stock - on holding - number (n)
- Layers - breeding stock - live birds disposed of during year - number (n)
- Meat chickens - day old chickens - live birds disposed of during year - number (n)
- Meat chickens - breeding stock - on holding - number (n)
- Meat chickens - breeding stock - live birds disposed of during year - number (n)
- Turkeys - number (n)
- Turkeys - live birds disposed of during year - number (n)

OTHER DESIRABLE ITEMS

- Residential address (subject to external funding)
- Land vacations details

APPENDIX 3

COMMODITY ITEMS NO LONGER SEPARATELY IDENTIFIED

LIST OF COMMODITY ITEMS
NO LONGER SEPARATELY
IDENTIFIED IN THE
AGRICULTURE
CENSUS/SURVEY

- Aloe Vera
- Artichokes
- Babacos
- Beans (broad)
- Beans seed
- Beetroot
- Broom Millet
- Brussels sprouts
- Buckwheat grain
- Cabbages
- Cabbage chinese
- Carrot seed
- Cauliflower seed
- Celery
- Chestnuts
- Chinese cabbage seed
- Chokos
- Coffee
- Cucumbers
- Egg Plant
- Fennel
- Figs
- Filberts and Hazelnuts
- Garlic
- Gherkins
- Ginger
- Gooseberries (English)
- Horseradish
- Lab Lab hay
- Lab Lab seed
- Leeks
- Linseed
- Loganberries
- Logans
- Loquats
- Lychees
- Marrows squashes
- Mustard seed
- Oaten hay
- Okra
- Spring onion
- Onion seed
- Parsley
- Parsnips
- Passionfruit

LIST OF COMMODITY ITEMS
NO LONGER SEPARATELY
IDENTIFIED IN THE
AGRICULTURE
CENSUS/SURVEY *continued*

Peacharines
Peas seed
Pepinos
Persimmons
Pigeon peas
Pistachio
Pumpkin seed
Quinces
Radish
Radish seed

FOR MORE INFORMATION . . .

- INTERNET* **www.abs.gov.au** the ABS web site is the best place to start for access to summary data from our latest publications, information about the ABS, advice about upcoming releases, our catalogue, and Australia Now—a statistical profile.
- LIBRARY* A range of ABS publications is available from public and tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.
- CPI INFOLINE* For current and historical Consumer Price Index data, call 1902 981 074 (call cost 77c per minute).
- DIAL-A-STATISTIC* This service now provides only current Consumer Price Index statistics call 1900 986 400 (call cost 77c per minute).

INFORMATION SERVICE

Data already published that can be provided within five minutes will be free of charge. Our information consultants can also help you to access the full range of ABS information—ABS user pays services can be tailored to your needs, time frame and budget. Publications may be purchased. Specialists are on hand to help you with analytical or methodological advice.

- PHONE* 1300 135 070
- EMAIL* client.services@abs.gov.au
- FAX* 1300 135 211
- POST* Client Services, ABS, GPO Box 796, Sydney NSW 2001

WHY NOT SUBSCRIBE?

ABS subscription services provide regular, convenient and prompt deliveries of selected ABS publications and products as they are released. Email delivery of monthly and quarterly publications is available.

- PHONE* 1300 366 323
- EMAIL* subscriptions@abs.gov.au
- FAX* (03) 9615 7848
- POST* Subscription Services, ABS, GPO Box 2796Y, Melbourne Vic 3001



2710300007057

RRP \$10.00