

SELECTED AGRICULTURAL COMMODITIES, AUSTRALIA, PRELIMINARY AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) THURS 26 JUL 2007

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INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Nigel Gibson on Hobart (03) 6222 5940.

NOTES

ABOUT THIS PUBLICATION

This publication contains near-final estimates for the main agricultural commodities and livestock numbers collected in the 2005–06 Agricultural Census and final estimates from related collections (i.e. Apples and Pears Collection and Vineyards Collection). The data are based on a response rate of 93% from the 2005–06 Agricultural Census.

Final estimates for the 2005–06 season will be published in November 2007 in *Agricultural Commodities, Australia* (cat. no. 7121.0). Preliminary estimates of agricultural water use will be published in August 2007 in *Water Use on Australian Farms, Preliminary* (cat. no. 4618.0). The ABS also plans to release a range of sub-state geographic level data in early 2008. The sub-state outputs will generally be available as spreadsheets, data suitable for use in Geographic Information Systems, and possibly as maps. Standard outputs will be produced to approximate as closely as possible various regional structures such as river basins and Natural Resource Management regions.

CHANGES IN THIS ISSUE

Move to a new register of agricultural businesses

Until recently, the ABS had maintained its own register of agricultural establishments. However, it had become increasingly difficult to maintain this list, and users were questioning the accuracy of some of the commodity data published. The ABS investigated a number of alternatives for maintaining the register and discussed these with key users of agriculture statistics. It was agreed that the ABS should move to a new frame sourced from the Australian Taxation Office's Australian Business Register (ABR).

The ABR-based frame has been used for the first time to conduct the 2005–06 Agricultural Census. The key implication of this strategy is that census data will not be directly comparable with historical time series. This is because, in addition to the change in frame, there have been changes in methodologies used for determining whether agricultural businesses are 'in-scope' of the collection and in some of the ways the data are compiled. (For more information, please see the technical note on page 21.)

To provide users with a way of comparing the 2005–06 Agricultural Census data with the historical time series, the ABS has prepared two sets of 2005–06 estimates for a limited set of commodities and livestock estimates (see technical note pages 25–26). 'New-basis' estimates were prepared using the new ABR-based register and its associated statistical methodologies. These methodologies were subjected to rigorous analysis and testing, with the resulting 'new basis' estimates representing the start of the new commodity and livestock series. 'Old-basis' estimates were prepared to provide a best judgement approximation to what the various estimates may have been if the ABS had continued to use the previous ABS-maintained list of establishments (with its associated statistical methodologies) to conduct the 2005–06 Agricultural Census. Due to the complexities involved in collecting, processing and estimating 'old basis' data from a 'new-basis' framework, the 'old-basis' 2005–06 estimates and the movements between 2004–05 and 2005–06 should be considered indicative only.

Brian Pink Australian Statistician

SUMMARY OF FINDINGS CROPS

OVERVIEW

For eastern Australian agricultural areas as a whole, the 2005–06 season saw near average rainfall despite 2005 winter and spring months being wet prior to dry conditions becoming established from December 2005 onwards. There were some noticeable regional variations with a particularly wet winter-spring 2005 period in large cropping areas of South Australia and in parts of Tasmania. However, in western Victoria and southern Queensland, early rain was more than offset by the dry rest of the year.

The western Australian agricultural areas also experienced regional variation in climatic conditions in 2005–06. Rainfall varied from above average in the wheatbelt areas to well below average along the coast.

CROPS FOR GRAIN

Barley

The total area sown to barley for grain in 2005–06 was 4.5 million hectares. The three main growing states were Western Australia (1.2 million hectares), South Australia (1.2 million hectares) and New South Wales (1.1 million hectares). Production of barley for grain in 2005–06 was 9.6 million tonnes. Major producing states were South Australia (2.6 million tonnes), Western Australia (2.5 million tonnes) and New South Wales (2.3 million tonnes).

Grain sorghum

The total area sown to sorghum for grain in 2005-06 was 792,000 hectares. In Queensland, the main growing state, the area sown was 462,000 hectares, while in New South Wales it was reported as 326,000 hectares. Grain sorghum production in 2005-06 was 2.0 million tonnes. Production in Queensland was 1.1 million tonnes, while in New South Wales it was reported as 887,000 tonnes.

Oats

The total area sown to oats for grain in 2005–06 was 945,000 hectares. The three main growing states were New South Wales (414,000 hectares), Western Australia (281,000 hectares) and Victoria (154,000 hectares). Production of oats for grain in 2005–06 was 1.7 million tonnes. In New South Wales, production was reported as 630,000 tonnes, in Western Australia it was 619,000 tonnes and in Victoria it was 334.000 tonnes.

Rice

The total area sown to rice for grain in 2005–06 was 100,000 hectares. The main growing state was New South Wales with 98,000 hectares. Production of rice for grain in 2005–06 was 982,000 tonnes. In New South Wales, production was reported as 966,000 tonnes.

Wheat

The total area sown to wheat for grain in 2005–06 was 12.7 million hectares. The three main growing states were Western Australia (5.0 million hectares), New South Wales (3.5 million hectares) and South Australia (2.1 million hectares). Production of wheat for grain in 2005–06 was 25.7 million tonnes. In Western Australia, production was reported as 9.6 million tonnes, in New South Wales it was 7.9 million tonnes and in South Australia it was 3.9 million tonnes.

SUMMARY OF FINDINGS CROPS continued

OTHER CROPS

Canola

The total area sown to canola in 2005–06 was 996,000 hectares. The three main growing states were Western Australia (462,000 hectares), Victoria (193,000 hectares) and New South Wales (187,000 hectares). Production of canola in 2005–06 was 1.5 million tonnes. In Western Australia, production was reported as 652,000 tonnes, in New South Wales it was 305,000 tonnes and in Victoria it was 275,000 tonnes.

Cotton lint

The total area sown to cotton in 2005–06 was 336,000 hectares. The main growing states were New South Wales (200,000 hectares) and Queensland (136,000 hectares). Production of cotton lint in 2005–06 was 570,000 tonnes. In New South Wales, production was reported as 344,000 tonnes, and in Queensland it was 225,000 tonnes.

Sugar cane

The total area of sugar cane cut for crushing in 2005–06 was 406,000 hectares. Queensland was the main growing state (384,000 hectares). The total quantity of sugar cane crushed in 2005–06 was 38.0 million tonnes. In Queensland 35.3 million tonnes were crushed.

SUMMARY OF FINDINGS HORTICULTURE

FRUIT

Apples

The number of apple trees in 2005–06 of bearing age was 8.8 million. The main growing states were Victoria (with 2.9 million bearing trees), New South Wales (with 1.7 million bearing trees) and South Australia (with 1.3 million bearing trees). Production of apples in 2005–06 was 276,000 tonnes. The major producing states were Victoria (104,000 tonnes), New South Wales (52,200 tonnes) and Western Australia (36,200 tonnes).

Bananas

The total area of bearing bananas in 2005–06 was 10,300 hectares. The main growing states were Queensland (8,480 hectares) and New South Wales (1,590 hectares). Production was down by around one third as a result of damage caused by Cyclone Larry in early 2006. Production in Queensland was reported as 155,000 tonnes and in New South Wales it was 16,100 tonnes.

Oranges

The number of orange trees in 2005–06 of bearing age was 6.5 million. The main growing states were New South Wales (with 3.5 million bearing trees), South Australia (with 1.6 million bearing trees) and Victoria (with 1.0 million bearing trees). Production of oranges in 2005–06 was 496,000 tonnes. In New South Wales, production was reported as 232,000 tonnes, in South Australia it was 159,000 tonnes and in Victoria it was 84,600 tonnes.

Pears

The number of pear trees in 2005–06 of bearing age was 1.5 million. The main growing states were Victoria (with 1.2 million bearing trees) and Western Australia (with 141,000 bearing trees). Production of pears in 2005–06 was 139,000 tonnes. In Victoria, production was reported as 123,000 tonnes and in Western Australia it was 8,480 tonnes.

Grapes

Grape production in 2005–06 was just below the previous year's record at 2.0 million tonnes. The total area of vines increased to 169,000 hectares. The bearing area for grapes rose to 158,000 hectares while the area not yet bearing fell to 10,600 hectares.

SUMMARY OF FINDINGS HORTICULTURE continued

VEGETABLES

Carrots

The total area sown to carrots in 2005–06 was 5,840 hectares. The three main growing states were Victoria (1,530 hectares), South Australia (1,160 hectares) and Western Australia (1,100 hectares). Production of carrots in 2005–06 was 272,000 tonnes. The major producing states were Western Australia (67,400 tonnes), South Australia (55,900 tonnes) and Tasmania (55,400 tonnes).

Lettuces

The total area sown to lettuces in 2005-06 was 7,560 hectares. The three main growing states were Victoria (2,980 hectares), Queensland (2,100 hectares) and New South Wales (1,240 hectares). Production of lettuces in 2005-06 was 179,000 tonnes. In Victoria, production was reported as 60,300 tonnes, in Queensland it was 56,400 tonnes and in New South Wales it was 40,900 tonnes.

Onions

The total area sown to onions in 2005–06 was 4,660 hectares. The three main growing states were South Australia (1,670 hectares), Tasmania (1,210 hectares) and Queensland (740 hectares). Production of onions in 2005–06 was 230,000 tonnes. In South Australia, production was reported as 86,400 tonnes, in Tasmania it was 68,300 tonnes and in Queensland it was 28,300 tonnes.

Potatoes

The total area sown to potatoes in 2005–06 was 35,500 hectares. The three main growing states were South Australia (10,800 hectares), Victoria (7,510 hectares) and Tasmania (6,180 hectares). Production of potatoes in 2005–06 was 1.3 million tonnes. In South Australia, production was reported as 386,000 tonnes, in Tasmania it was 282,000 tonnes and in Victoria it was 270,000 tonnes.

Tomatoes

The total area sown to tomatoes in 2005–06 was 7,660 hectares. The three main growing states were Victoria and Queensland (3,000 hectares each) and New South Wales (1,220 hectares). Production of tomatoes in 2005–06 was 449,000 tonnes. In Victoria, production was reported as 242,000 tonnes, in Queensland it was 119,000 tonnes and in New South Wales it was 69,900 tonnes.

SUMMARY OF FINDINGS LIVESTOCK

LIVESTOCK

Milk cattle

Near final estimates indicate the number of milk cattle in Australia was 2.8 million head at 30 June 2006. Victoria continued to dominate the dairy industry with a herd of 1.8 million. Respondents in Victoria indicated that numbers there were affected by a slow recovery from drought combined with low milk prices.

Meat cattle

Near final estimates indicate the number of meat cattle in Australia was 26.1 million head at 30 June 2006. The dominant states in the industry were Queensland with 11.8 million head and New South Wales with 5.8 million head.

Sheep and lambs

Near final estimates indicate the number of sheep and lambs in Australia was 92.7 million head at 30 June 2006. The dominant states in the industry were New South Wales with 31.7 million head, Western Australia with 23.3 million head and Victoria with 18.3 million head. Respondents indicated that there was significant destocking during the year, including on-farm deaths. The number of lambs marked in Australia was reported as 35.7 million in 2005–06.

Pigs

Near final estimates indicate the number of pigs in Australia was 2.8 million head at 30 June 2006. The dominant states in the industry were Queensland with 717,000 head, New South Wales with 666,000 head and Victoria with 633,000 head.

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
• • • • • • • • • • • • • • • • •			• • • • • •	• • • • • •	• • • • •	• • • • •		• • • • •	• • • • •
Cereal for grain Barley									
Production ('000 t) Area ('000 ha)	2 312 1 088	2 017 876	187 143	2 578 1 178	2 517 1 187	28 9	na na	^1 ^1	9 641 4 481
Grain sorghum Production ('000 t) Area ('000 ha)	887 326	^1 ^_	1 105 462	na na	^3 ^2	na na	*1 *1	*1 *—	1 999 792
Maize Production ('000 t) Area ('000 ha)	215 31	20 2	133 36	na na	2 ^1	na na	* *	_	370 69
Oats Production ('000 t) Area ('000 ha)	630 414	334 154	7 16	125 75	619 281	9 4	na na	^_ ^_	1 723 945
Rice Production ('000 t) Area ('000 ha)	966 98	16 2	na na	na na		na na	_	_	982 100
Triticale Production ('000 t) Area ('000 ha)	373 139	267 124	^1 ^1	123 82	63 46	7 2	na na	^_ ^1	836 395
Wheat Production ('000 t) Area ('000 ha)	7 936 3 478	2 972 1 346	1 278 823	3 888 2 053	9 593 4 994	34 8	na na	^2 ^1	25 704 12 703
Legumes Field peas for grain Production ('000 t) Area ('000 ha)	55 37	165 99	^_ ^1	263 146	108 90	2 1	na na	_	594 372
Lupins for grain Production ('000 t) Area ('000 ha)	62 36	36 28	^_ ^_	125 75	1 133 714	^1 ^_	na na		1 357 853
Oilseeds Canola									
Production ('000 t) Area ('000 ha)	305 187	275 193	^1 *1	219 152	652 462	1 1	na na	*	1 454 996
Total oilseeds Production ('000 t) Area ('000 ha)	425 283	279 198	25 18	220 153	652 462	1	*_ *_	*— *—	1 602 1 115
Other crops Cotton lint Production ('000 t)	344	na	225	na	_	na	na	na	570
Area ('000 ha) Peanuts (in shell) Production ('000 t) Area ('000 ha)	200 ^1 ^_	na na	136 22 11	na na	_	na na na	na 	na na na	336 23 12
Sugar cane cut for crushing Production ('000 t)	2 260	na	35 298	na					37 990
Area ('000 ha)	18	na na	35 298 384	na na	431 4	na na	na na	na na	406
Tobacco Production ('000 t) Area ('000 ha)	na na	3 1	*— ^_	na na	na na	na na	na na	na na	3 1

estimate has a relative standard error of 10% to less
 than 25% and should be used with caution
 nil or rounded to zero (including null cells)
 na not available

estimate has a relative standard error of 25% to 50% and should be used with caution



FRUIT AND NUTS, Production(a)—Year ended 30 June 2006

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
• • • • • • • • • • • • • •									
Citrus Lemons and limes									
Production (t) Trees ('000)	6 393 159	7 061 92	^ 13 002 ^ 181	6 737 79	^700 ^14	na na	^ 133 ^ 16	_	34 024 541
Mandarins Production (t)	6 030	6 378	63 606	17 580	2 409	na	*—		96 003
Trees ('000)	159	112	1 064	243	77	na	*_	_	1 655
Oranges Production (t)	231 961	84 591	^ 12 315	159 321	7 677	na	*7	*220	496 092
Trees ('000)	3 511	1 013	^ 157	1 636	212	na	*—	*2	6 532
Pome									
Apples Production (t)	52 181	103 731	25 347	26 185	36 157	32 763	na	62	276 427
Trees ('000)	1 747	2 909	865	1 259	878	1 172	na	2	8 833
Pears (excl. nashi)									
Production (t)	419	123 350	786	5 270	8 478	731	na	2	139 036
Trees ('000)	19	1 192	18	78	141	18	na	_	1 466
Stone									
Apricots	227	11 227	△ 01 E	4 171	250	270		*	16.660
Production (t) Trees ('000)	227 19	11 327 293	^ 215 ^ 18	4 171 175	358 23	372 73	na na	^— *—	16 669 602
Cherries									
Production (t)	4 271	3 521	*20	864	^ 144	1 014	na	_	9 834
Trees ('000)	659	313	*12	238	42	279	na	_	1 542
Nectarines									
Production (t)	7 195	32 852	2 511	2 540	2 970	126	na	_	48 194
Trees ('000)	385	759	195	65	222	13	na	*—	1 639
Peaches	0.500	CO F20	2.077	0.054	0.4.44	100		4	00.407
Production (t) Trees ('000)	9 590 394	68 538 1 307	3 277 ^ 269	2 851 65	2 141 145	100 12	na na	*— *—	86 497 2 192
Plums and prunes									
Production (t)	7 719	9 995	1 843	2 324	4 464	99	_	*1	26 445
Trees ('000)	605	507	^ 115	79	431	^ 12	_	*	1 748
Other orchard fruit Avocados									
Production (t)	6 058	2 063	21 087	^ 2 143	2 926	na	_	*13	34 289
Trees ('000)	153	62	356	^ 86	82	na	_	_	740
Mangoes									
Production (t)	^ 420	na	26 960	na	2 554	na	7 607	*2	37 553
Trees ('000)	41	na	1 050	na	123	na	364	*1	1 583
Nuts Almond (kernel)									
Production (t)	^ 473	^ 4 954	_	6 993	na	na	na	_	12 419
Trees ('000)	^ 57	^ 323	_	778	na	na	na	_	1 158
Macadamia									
Production (t)	20 503	na	12 961	na	na	na	na	_	33 485
Trees ('000)	2 181	na	1 351	na	na	na	na	_	3 545
Berry fruit Blueberries									
Production (t)	1 613	234	*16	*8	*	^ 63	_	_	1 934
Area (ha)	359	84	*6	*5	*2	^ 19	_	_	475
Strawberries	A 272	7 070	40 ===	0.4.770	4.000	222			07.405
Production (t) Area (ha)	^ 273 ^ 51	7 279 345	13 579 647	^ 1 759 ^ 69	4 233 178	366 40	_	_	27 489 1 330
, wow (ma)	31		OT1	00	110	40			1 330

estimate has a relative standard error of 10% to less than 25% na not available and should be used with caution (a) Number of trees refers to trees of bearing age (i.e. for apples it

estimate has a relative standard error of 25% to 50% and should be used with caution

nil or rounded to zero (including null cells)

is trees four years and over, for fruit it is six years and over). Information on the total number of trees is available on request.



FRUIT AND NUTS, Production(a)—Year ended 30 June 2006 continued

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
• • • • • • • • • • • • • • • •	• • • • • • • • •	• • • • •	• • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • •	• • • • • •	• • • • • •	• • • • • • •
Tropical Bananas									
Production (t)	16 094	na	154 824	na	4 284	na	1 458	_	176 660
Area (ha)	1 590	na	8 477	na	174	na	61	_	10 301
Papaws									
Production (t)	^ 19	na	^6 417	na	^ 343	na	^ 103	_	^6 882
Area (ha)	^16	na	328	na	^ 18	na	^ 21	_	382
Pineapples									
Production (t)	_	na	^ 175 070	na	na	na	*71	_	^ 175 141
Area (ha)	*1	na	3 373	na	na	na	*6	_	3 379

estimate has a relative standard error of 10% to less than 25% na not available

should be used with caution

nil or rounded to zero (including null cells)

estimate has a relative standard error of 25% to 50% and is trees four years and over, for fruit it is six years and over). (a) Number of trees refers to trees of bearing age (i.e. for apples it Information on the total number of trees is available on request.





	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
• • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • •			• • • • • • • •	• • • • • • •			• • • • • • •
Asparagus									
Production (t)	^ 149	9 856	^ 105	*6	^ 106	^1	_	_	10 223
Area (ha)	^ 77	1 957	^83	*1	^ 50	*2	_	_	2 170
Beans, french and runner									
Production (t)	1 613	2 954	^ 26 446	^ 39	^ 1 077	11 456	*2	_	43 587
Area (ha)	461	593	^ 5 513	321	^ 251	1 198	*1	_	8 339
Beetroot Production (t)	^3 426	^1 177	^ 33 023	^ 190	*301	*76			^38 193
Area (ha)	134	79	^ 1 258	^8	^ 16	*3	na na	_	^ 1 497
Broccoli				_		_			
Production (t)	3 706	22 537	11 790	^811	5 920	5 661	_	_	50 425
Area (ha)	826	3 189	1 643	^ 108	497	681	_	_	6 945
Cabbages									
Production (t)	18 464	26 019	^ 22 524	6 766	6 208	^ 1 313	*1	_	81 295
Area (ha)	599	722	501	115	118	^ 47	*1	_	2 103
Capsicums and chillies									
Production (t)	937	^ 3 232	60 761	2 228	^3 627	*302	*70	_	71 157
Area (ha)	127	140	2 500	86	169	^2	^8	_	3 032
Carrots									
Production (t)	^ 19 743	49 137	^ 24 687	55 922	67 382	55 417	_	_	272 288
Area (ha)	575	1 532	^674	1 162	1 098	803	_	_	5 844
Cauliflowers	40.000	00.050							== 000
Production (t) Area (ha)	10 906 489	29 252	^ 15 369 ^ 625	^ 8 047 ^ 248	6 032 333	6 377 347	na	_	75 982 3 036
	469	993	625	240	333	341	na	_	3 030
Celery Production (t)	^39	33 697	^6278	*3 640	^8214	580		_	52 447
Area (ha)	^3	691	^ 200	^ 42	^ 184	15		_	1 135
Cucumbers									
Production (t)	4 592	^ 342	^ 11 230	4 465	^ 2 937	^ 66	187	_	23 819
Area (ha)	121	^6	338	97	73	^1	^ 15	_	650
Green peas									
For processing(a)									
Production (t)	*4	*14	*	*1	*3	16 497	_	_	16 518
Area (ha)	*	*12	*1	*	*169	3 577	_	_	3 761
Sold in pod									
Production (t)	^ 188	^ 367 ^ 125	^ 251 ^ 89	^ 11 ^ 10	^17 ^7	*32 ^ 14	_	_	866
Area (ha)	^ 116	^ 125	89	10	1	14	_	_	362
Lettuces Production (t)	40 934	60 333	56 405	^ 7 464	^ 11 645	^ 2 296	*197	_	179 275
Area (ha)	1 235	2 983	2 106	^ 393	^ 562	*263	*17	_	7 558
Melons	1 200	2 000	2 100	000	552	200			. 555
Rock and cantaloupe									
Production (t)	21 471	^6 210	37 383	*311	20 763	_	*1 009	_	87 147
Area (ha)	827	^ 278	^1520	^ 14	620	_	^ 53	_	3 312
Water									
Production (t)	^ 25 704	^ 4 226	85 673	*1 428	^ 17 538	_	^ 8 785	_	143 354
Area (ha)	804	^ 152	3 037	^ 28	^601	_	334	_	4 956
Mushrooms									
Production (t)	14 471	12 968	7 775	3 502	np	^ np	_	150	44 111
Area (ha)	^71	65	^ 25	15	np	^ np	_	_	199
Onions(b)	40.000	40 707	00.07	00.400	A 40 =00	00.0==	050		000 000
Production (t) Area (ha)	19 060 483	10 707 286	28 254 736	86 403 1 667	^ 16 720 ^ 260	68 275 1 214	250 11	_	229 669 4 656
Aica (iia)	403	200	730	± 001	200	1 214	11	_	+ 000

estimate has a relative standard error of 10% to less than 25% and $$\sf na$$ not available should be used with caution

estimate has a relative standard error of 25% to 50% and should be used with caution

nil or rounded to zero (including null cells)

np not available for publication but included in totals where applicable, unless otherwise indicated

⁽a) Shelled weight.

⁽b) Includes brown, red and white onions.



VEGETABLES, Production—Year ended 30 June 2006 continued

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • • •	• • • • • • • •	• • • • • • • •	• • • • • •	• • • • •	• • • • • • • •
Potatoes									
Production (t)	123 528	270 382	96 991	385 551	96 847	282 164	_	_	1 255 464
Area (ha)	4 987	7 511	3 762	10 767	2 278	6 180	_	_	35 485
Pumpkins									
Production (t)	29 461	4 071	49 397	5 249	^ 25 847	1 815	620	_	116 460
Area (ha)	1 880	301	3 595	281	^ 952	^ 108	36	_	7 153
Sweet corn									
Production (t)	23 051	7 046	^ 39 670	^ 586	^ 2 745	96	_	_	73 194
Area (ha)	1 554	542	^ 5 083	^ 58	^ 293	15	_	_	^ 7 545
Tomatoes									
Production (t)	69 874	241 967	118 643	^5 327	12 725	^ 522	*65	*1	449 124
Area (ha)	1 224	2 996	2 993	92	345	^6	*3	*	7 659
Zucchini and button squash									
Production (t)	2 226	^ 2 193	17 534	310	^ 1 017	^ 30	48	_	23 358
Area (ha)	349	^ 245	2 036	^ 88	92	^ 4	8	_	2 822

should be used with caution

used with caution

nil or rounded to zero (including null cells)



GRAPES, Production(a)(b)—Year ended 30 June

	Aust.			2006							
	2004	2005	2006	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT
	Al	REA OF V	INES AT	HARVEST	(ha)	• • • • • •	• • • • • • •		• • • • •	• • • • •	
Bearing area	150 561	153 203	158 167	36 632	36 597	2 449	69 771	11 375	999	237	106
Not yet bearing: planted or grafted prior to collection year Not yet bearing: planted or grafted during	7 800	7 369	6 768	2 235	1 537	147	2 130	531	150	36	2
collection year	5 819	6 093	3 856	1 331	846	17	1 187	370	105	_	_
Total area of vines	164 181	166 665	168 790	40 198	38 980	2 613	73 088	12 276	1 254	273	108
• • • • • • • • • • • • • • • • • • • •	GRAI	PE PROD	UCTION (fresh wei	ght) (t)	• • • • •	• • • • • •	• • • • • •	• • • •	• • • • •	• • • •
Winemaking	1 816 556	1 818 426	1 781 668	473 580	354 796	4 764	881 346	60 840	5 571	30	742
Drying	129 489	135 412	117 819	17 996	96 623		2 847	354	_	_	_
Table and other	68 920	72 662	81 710	18 327	45 755	10 301	1 621	4 163	_	1 544	_
Total production	2 014 965	2 026 500	1 981 198	509 903	497 174	15 064	885 814	65 356	5 571	1 574	742

nil or rounded to zero (including null cells)

⁽a) Varietal information is available in Australian Wine and Grape Industry (cat. no. 1329.0).

⁽b) All grape data are sourced from the annual Vineyards collection and not the Agricultural Census. Therefore, grape data are not subject to the change in frame and are still comparable across time.



LIVESTOCK—Year ended 30 June 2006

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
		CATTL	E						
Milk cattle(a)									
Cows in milk and dry ('000)	219	1 213	135	104	71	138	_	*np	1 881
Other milk cattle ('000)	126	540	71	65	52	59	_	*np	912
Total milk cattle and calves ('000)	346	1 753	206	169	122	197	_	*np	2 793
Meat cattle									
Bulls and bull calves intended for service ('000)	174	74	311	34	60	13	53	_	721
Other calves under one year ('000)	1 384	763	2 210	319	628	140	303	4	5 751
Cows and heifers one year and over ('000)	2 987	1 288	5 995	618	1 237	229	1 092	9	13 456
Other cattle one year and over ('000)	1 301	553	3 248	247	424	123	226	3	6 126
Total meat cattle and calves ('000)	5 846	2 679	11 764	1 219	2 350	505	1 674	17	26 054
Total cattle and calves ('000)	6 192	4 432	11 970	1 388	2 472	702	1 674	17	28 846
	SHE	EP AND	LAMBS						
Sheep ('000)	22 928	13 401	3 754	8 181	16 961	2 241	*	87	67 552
Lambs under one year ('000)	8 737	4 868	1 012	3 525	6 298	713	*1	24	25 176
Total sheep and lambs ('000)	31 665	18 269	4 765	11 706	23 258	2 953	*1	111	92 728
Total sheep and lambs ('000)	31 665	18 269	4 765	11 706	23 258	2 953	*1	111	92 728
Total sheep and lambs ('000)	31 665	18 269 LAMBII	• • • • • •	11 706	23 258	2 953	*1	111	92 728
Total sheep and lambs ('000) Ewes mated to produce lambs ('000)	31 665 14 853		• • • • • •	11 706 5 686	23 258 11 255	2 953 1 309	* 1 ••••••	111 36	92 728 43 455
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	LAMBII	N G	• • • • • •	• • • • • •	• • • • •	• • • • •	• • • • •	• • • • • •
Ewes mated to produce lambs ('000)	14 853	LAMBII 8 435	N G 1 883	5 686	11 255	1 309	*	36	43 455
Ewes mated to produce lambs ('000) Lambs marked ('000)	14 853 11 919	LAMBII 8 435 7 354	NG 1 883 1 252	5 686 4 743	11 255 9 288	1 309 1 089	* <u></u>	36 26	43 455 35 671
Ewes mated to produce lambs ('000) Lambs marked ('000) Proportion of lambs marked to ewes mated (%)	14 853 11 919 80	8 435 7 354 87	1 883 1 252 67	5 686 4 743 83	11 255 9 288 83	1 309 1 089 83	* * 40	36 26 73	43 455 35 671 82
Ewes mated to produce lambs ('000) Lambs marked ('000) Proportion of lambs marked to ewes mated (%)	14 853 11 919 80	8 435 7 354 87	1 883 1 252 67 1 845	5 686 4 743 83	11 255 9 288 83	1 309 1 089 83	* * 40	36 26 73	43 455 35 671 82
Ewes mated to produce lambs ('000) Lambs marked ('000) Proportion of lambs marked to ewes mated (%)	14 853 11 919 80	LAMBII 8 435 7 354 87 8 580	1 883 1 252 67 1 845	5 686 4 743 83	11 255 9 288 83	1 309 1 089 83	* * 40	36 26 73	43 455 35 671 82
Ewes mated to produce lambs ('000) Lambs marked ('000) Proportion of lambs marked to ewes mated (%) Ewes expected to lamb next year ('000)(b)	14 853 11 919 80 15 688	LAMBII 8 435 7 354 87 8 580	1 883 1 252 67 1 845	5 686 4 743 83 5 983	11 255 9 288 83 11 563	1 309 1 089 83	* * 40	36 26 73 44	43 455 35 671 82 45 094
Ewes mated to produce lambs ('000) Lambs marked ('000) Proportion of lambs marked to ewes mated (%) Ewes expected to lamb next year ('000)(b) Boars ('000)	14 853 11 919 80 15 688	LAMBII 8 435 7 354 87 8 580 PIG S	1 883 1 252 67 1 845	5 686 4 743 83 5 983	11 255 9 288 83 11 563	1 309 1 089 83 1 391	* * 40	36 26 73 44	43 455 35 671 82 45 094
Ewes mated to produce lambs ('000) Lambs marked ('000) Proportion of lambs marked to ewes mated (%) Ewes expected to lamb next year ('000)(b) Boars ('000) Breeding sows ('000)	14 853 11 919 80 15 688	LAMBII 8 435 7 354 87 8 580 PIG S 3 72	1 883 1 252 67 1 845	5 686 4 743 83 5 983	11 255 9 288 83 11 563	1 309 1 089 83 1 391	*_ *_ 40 *_	36 26 73 44 na	43 455 35 671 82 45 094 13 306
Ewes mated to produce lambs ('000) Lambs marked ('000) Proportion of lambs marked to ewes mated (%) Ewes expected to lamb next year ('000)(b) Boars ('000) Breeding sows ('000) Gilts intended for breeding ('000)	14 853 11 919 80 15 688	LAMBII 8 435 7 354 87 8 580 PIG S 3 72 11	1 883 1 252 67 1 845	5 686 4 743 83 5 983	11 255 9 288 83 11 563	1 309 1 089 83 1 391	*_ *_ 40 *_ - _	36 26 73 44 na na	43 455 35 671 82 45 094 13 306 50
Ewes mated to produce lambs ('000) Lambs marked ('000) Proportion of lambs marked to ewes mated (%) Ewes expected to lamb next year ('000)(b) Boars ('000) Breeding sows ('000) Gilts intended for breeding ('000) All other pigs ('000)	14 853 11 919 80 15 688 3 74 19 571	LAMBII 8 435 7 354 87 8 580 PIGS 3 72 11 548	1 883 1 252 67 1 845 3 73 10 631	5 686 4 743 83 5 983 2 51 6 356	11 255 9 288 83 11 563 2 34 4 265	1 309 1 089 83 1 391 	*— *— 40 *—	36 26 73 44 na na na	43 455 35 671 82 45 094 13 306 50 2 386
Ewes mated to produce lambs ('000) Lambs marked ('000) Proportion of lambs marked to ewes mated (%) Ewes expected to lamb next year ('000)(b) Boars ('000) Breeding sows ('000) Gilts intended for breeding ('000) All other pigs ('000)	14 853 11 919 80 15 688 3 74 19 571	LAMBII 8 435 7 354 87 8 580 PIGS 3 72 11 548	1 883 1 252 67 1 845 3 73 10 631	5 686 4 743 83 5 983 2 51 6 356	11 255 9 288 83 11 563 2 34 4 265	1 309 1 089 83 1 391 	*— *— 40 *—	36 26 73 44 na na na	43 455 35 671 82 45 094 13 306 50 2 386
Ewes mated to produce lambs ('000) Lambs marked ('000) Proportion of lambs marked to ewes mated (%) Ewes expected to lamb next year ('000)(b) Boars ('000) Breeding sows ('000) Gilts intended for breeding ('000) All other pigs ('000)	14 853 11 919 80 15 688 3 74 19 571	LAMBII 8 435 7 354 87 8 580 PIG S 3 72 11 548 633	1 883 1 252 67 1 845 3 73 10 631	5 686 4 743 83 5 983 2 51 6 356	11 255 9 288 83 11 563 2 34 4 265	1 309 1 089 83 1 391 	*— *— 40 *—	36 26 73 44 na na na	43 455 35 671 82 45 094 13 306 50 2 386

estimate has a relative standard error of 25% to 50% and should be np not available for publication but included in totals where applicable, used with caution

nil or rounded to zero (including null cells)

na not available

unless otherwise indicated

⁽a) Excluding house cows.

⁽b) Forecast made at the beginning of each season.



LAND USE, Area—Year ended 30 June 2006

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha				
• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • •	• • • • • • • •	• • • • • •	• • • • • • •	• • • • •	• • • • • • • •
Area of farms(a)	61 169	13 396	154 127	55 533	99 162	1 764	57 574	81	442 805
Area planted to crops(b)	6 588	3 310	2 040	4 216	8 022	68	8	^ 4	24 255
Area of non-agricultural land(c)	18 895	9 346	18 938	42 815	153 826	5 076	77 339	155	326 397
Total land area (d)(e)	80 064	22 742	173 065	98 348	252 988	6 840	134 913	236	769 202

- ^ estimate has a relative standard error of 10% to less than 25% and should be used with caution
- (a) Total area of establishments with EVAO or a derived BAS turnover size of \$5,000 or more.
- (b) Excludes crops harvested for hay and seed, and pasture and grasses.
- (c) Non-agricultural land is the difference between agricultural land as reported in the Agricultural Census and the total area of the state or territory. It comprises conserved land, forestry, urban and unused land such as vacant Crown land, commercially unused land on Aboriginal and other Crown reserves and waste land and ephemeral lakes and mangrove swamps, as well as agricultural businesses not included in the scope of the Agricultural Census.
- (d) Total area for Australia includes Jervis Bay.
- (e) Source: Geoscience Australia 2002, Geoscience Australia, Canberra, last viewed 24 July 2007, http://www.ga.gov.au.

Note: Agricultural land is generally divided into cropped land, land sown to pasture and grasses and a broad balance comprising grazing land, land lying idle or under fallow, etc.

EXPLANATORY NOTES

INTRODUCTION

- **1** This publication contains near-final estimates for the main commodities collected in the 2005–06 Agricultural Census and final estimates from related collections (i.e. Apples and Pears Collection and Vineyards Collection). Data from the 2005–06 Agricultural Census are based on a response rate of 93%.
- **2** 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.

STATISTICAL UNITS USED

- **3** The ABS uses an economic statistics units model on the ABS Business Register (ABSBR) to describe the characteristics of businesses and the structural relationships between related businesses. The units model is used within large and diverse business groups to define reporting units that can provide data to the ABS at a suitable level.
- **4** The units model allocates businesses to one of two sub-populations:
- a) The majority of businesses are simple in structure and are allocated to the business population that is maintained by the Australian Taxation Office (ATO). These are termed (by the ABS) Australian Business Number (ABN) units.
- b) Businesses with more complex business structures are allocated to the business population maintained by the ABS. For agricultural businesses, these are primarily units which have multiple farm locations.
- **5** Together these two sub-populations comprise the ABSBR population from which respondents to the 2005–06 Agricultural Census were drawn.

SCOPE AND COVERAGE

- **6** The scope of the 2005–06 Agricultural Census was essentially all agricultural businesses above a minimum size cut-off recorded on the Australian Business Register (ABR) maintained by the ATO.
- **7** For the 2005–06 Agricultural Census, the measure of size was the ABS's Estimated Value of Agricultural Operations (EVAO) where available; or where it was not available a Business Activity Statement (BAS) turnover size was derived. A minimum size cut-off of \$5,000, based on either EVAO or BAS Turnover, was used to determine whether a unit was in-scope for the Census.
- **8** While the Agricultural Census frame does not contain all agricultural businesses in Australia, it is expected to provide better coverage than the previous Agricultural Survey frame since most businesses and organisations in Australia need to obtain an Australian Business Number (ABN) from the ATO for their business operations. The Agricultural Census frame is also expected to be more up-to-date as it excludes agricultural businesses with cancelled ABNs and incorporates regularly updated information on agricultural businesses from the ATO.
- **9** Preliminary estimates indicate a total in-scope population of 155,000 agricultural businesses compared to approximately 130,000 establishments on the previous ABS-maintained frame of agricultural establishments.

GEOGRAPHIC OUTPUT

10 As with past Censuses, small area data at Statistical Local Area (SLA) level will be produced from the 2005–06 Agricultural Census.

EXPLANATORY NOTES continued

GEOGRAPHIC OUTPUT continued

- **11** In response to increased interest in other geographic areas, the ABS has asked agricultural businesses in the 2005–06 Agricultural Census to provide location address details for their main agricultural property. This address will be used to code each farm to a 'mesh block' from which a range of small area data can be derived. It is intended that mesh blocks will become the basic building block of all statistical, political and administrative geography in Australia. Further information on mesh blocks can be found in *Information Paper Mesh Blocks, Australia, 2003* (cat. no. 1209.0).
- **12** Release of a range of small area outputs is proposed for early 2008. These outputs will generally be available as spreadsheets, data suitable for use in Geographic Information Systems, and possibly as maps.
- **13** Where figures have been rounded, discrepancies may occur between sums of the component items and totals.
- RELIABILITY OF ESTIMATES (SAMPLE ERROR)

GENERAL

- 14 The estimates in this publication are based on information obtained from respondents to the 2005–06 Agricultural Census. Since not all selected units responded, the estimates may differ from those that would have been produced if all farms had responded. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might vary by chance when not all units have responded, i.e. when a 'sample' of responses only is obtained. There are about two chances in three that a 'sample' estimate will differ by less than one SE from the figure that would have been obtained if all farms had responded, and about nineteen chances in twenty that the difference will be less than two SEs.
- **15** In this publication, 'sampling' variability of the estimates is measured by the relative standard error (RSE) which is obtained by expressing the SE as a percentage of the estimate to which it refers.
- **16** Most published estimates have RSEs less than 5%. For some states with limited production of certain commodities, RSEs are greater than 10%. Estimates that have an estimated RSE between 10% and 25% are annotated with the symbol '^'. These estimates should be used with caution as they are subject to sampling variability too high for some purposes. Estimates with an RSE between 25% and 50% are annotated with the symbol '*', indicating that the estimate should be used with caution as it is subject to sampling error too high for most practical purposes. Estimates with an RSE greater than 50% are annotated with the symbol '**', indicating that the sampling variability causes the estimates to be considered too unreliable for general use. Separate indication of the RSEs of all estimates is available on request.
- **17** A table with RSEs for the principal commodities in this publication follows:

RELIABILITY OF ESTIMATES (SAMPLE ERROR) continued

RELATIVE STANDARD ERRORS OF SELECTED COMMODITIES—At 30 June 2006

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Barley for grain, production	0.8	0.5	2.5	0.5	0.8	3.8	na	17.0	0.3
Canola, production	1.3	0.9	23.8	1.1	1.4	9.0	na	40.3	0.7
Lupins for grain, production	2.5	1.9	19.7	1.4	1.3	16.7	na	_	1.1
Oats for grain, production	0.8	0.8	5.2	1.3	1.3	3.4	na	23.1	0.6
Wheat for grain, production	0.7	0.5	2.3	0.5	0.5	3.0	na	14.5	0.3
Oranges, production	2.2	3.6	14.3	3.3	5.4	_	40.9	49.5	1.7
Carrots, production	11.7	6.2	14.1	9.6	7.9	5.0	_	_	3.5
Potatoes, production	5.3	3.0	7.1	4.0	6.6	1.8	_	_	1.7
Tomatoes, production	8.3	7.3	6.4	11.4	8.3	10.5	32.5	49.5	4.5
Total meat cattle	0.4	0.3	0.8	0.9	1.3	0.8	2.6	3.0	0.4
Total milk cattle	1.1	0.3	1.4	1.8	2.8	1.3	_	49.5	0.3
Total sheep and lambs	0.3	0.3	1.6	0.5	0.5	1.0	34.0	2.0	0.2
Total pigs	1.6	2.3	2.5	2.6	2.6	2.7	0.5	na	1.0

- nil or rounded to zero (including null cells)
- na not available

CROPS, PASTURES AND HORTICULTURE

18 Statistics on area and production of crops relate in the main to crops sown during the year ended 30 June. Statistics of perennial crops relate to the position as at 30 June and the production during the year ended on that date, or of fruit set by that date. Statistics for apples & pears and vineyards are collected by supplementary collection forms and are included in this publication.

DAIRY CATTLE

- **19** Investigations into the 2006 Agricultural Census estimates have revealed that the frame used for the 2005 Agricultural Survey did not accurately reflect the reduction in dairy establishments due to deregulation. Hence, the 2005 figure is considered to be over-estimated, with analysis indicating that the 2005 total milk cattle estimate to be around 2.9 million, not 3.1 million as previously reported.
- ABS DATA AVAILABLE ON REQUEST
- **20** As well as the statistics included in this and related publications, the ABS may have other relevant data available on request. Inquiries should be made to either the National Information and Referral Service on 1300 135 070 or Sean Geltner on (03) 6222 5939.

GENERAL ACKNOWLEDGMENT

21 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated. Without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

RELATED PUBLICATIONS

- **22** A range of publications relevant to the Agriculture sector are produced by the ABS, including:
 - Agricultural Commodities, Australia, cat. no. 7121.0
 - Agricultural Survey, Apples and Pears, Australia, cat. no. 7121.0.55.002
 - Australian Wine and Grape Industry, cat. no. 1329.0
 - Livestock and Meat, Australia, cat. no. 7218.0.55.001
 - Livestock Products, Australia, cat. no. 7215.0
 - Natural Resource Management on Australian Farms, cat. no. 4620.0
 - Value of Selected Agricultural Commodities Produced, Australia, Preliminary, cat. no. 7502.0
 - Value of Agricultural Commodities Produced, Australia, cat. no. 7503.0
 - Vineyards Estimates, Australia, Preliminary, cat. no. 1329.0.55.001
 - Vineyards Estimates, Australia, cat. no. 1329.0.55.002
 - Water Use on Australian Farms, Australia, Preliminary, cat. no. 4618.0

EXPLANATORY NOTES continued

RELATED PUBLICATIONS continued

23 Current publications and other products released by the ABS are listed in the *Catalogue of Publications and Products* (cat. no. 1101.0). The Catalogue is available from any ABS office or the ABS web site http://www.abs.gov.au. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.

ABBREVIATIONS

'000 thousand

ABN Australian Business Number

ABR Australian Business Register

ABS Australian Bureau of Statistics

ACT Australian Capital Territory

Aust. Australia

BAS Business Activity Statement

EVAO Estimated Value of Agricultural Operations

ha hectare

NSW New South Wales

NT Northern Territory

Qld Queensland

RSE relative standard error

SA South Australia

SE standard error

t tonne

Tas. Tasmania

Vic. Victoria

WA Western Australia

TECHNICAL NOTE OLD BASIS ESTIMATES

OLD BASIS ESTIMATES

- **1** Prior to running the 2005–06 Agricultural Census, the ABS had maintained its own register of agricultural establishments. However, it was increasingly difficult to maintain this list, to the point where it was no longer viable, and users were increasingly questioning the accuracy of some commodity data.
- **2** The ABS investigated a number of alternatives for maintaining an agricultural business register and discussed these with key users of agriculture statistics. As a result of this, it was agreed that the ABS should move to a new frame sourced from the Australian Taxation Office's Australian Business Register (ABR) for the 2005–06 Agricultural Census.
- **3** The ABR-based register consists of all businesses contained on the ABR coded to an 'agricultural' industry, as well as businesses which have indicated they undertake agricultural activities. 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 agricultural businesses with a turnover of less than \$50,000 have also chosen to register on the ABR, for example to access subsides that require an ABN.
- **4** Moving to the ABR-based register required making changes to many of the methodologies used for compiling agriculture statistics. These included changes in the methods used for determining whether farms were 'in-scope' of the collection, and to ways the data was compiled (please see paragraphs 6–9 of the Explanatory Notes for more information about the change in scope and coverage).

IMPLICATIONS FOR USERS

- **5** The key implication of the move to the new register is that the 2005–06 Agricultural Census data will not be directly comparable with the historical time series of agriculture data. To provide users with a way of comparing ('bridging') the 2005–06 Agriculture Census data with the historical time series, the ABS has prepared two sets of estimates for selected principal commodities (see paragraph 25).
- **6** 'New-basis' estimates have been prepared for 2005–06 using the new ABR-based register and its associated statistical methodologies. These methodologies have been subjected to rigorous analysis and testing, with the resulting 'new basis' estimates representing the start of the new commodity and livestock series.
- 7 'Old-basis' estimates have also been prepared for a selection of principal 2005–06 agricultural commodities. These estimates are a best judgement approximation to what the 2005–06 estimates may have been if the ABS had continued to use the previous ABS-maintained list of establishments (with its associated statistical methodologies) to conduct the 2005–06 Agricultural Census.

BRIDGING METHODOLOGY

- **8** The need for a bridging strategy for the Agriculture Census was outlined in Information Paper: *Agriculture Census: ABS Views on Content & Procedures, 2005–06* (cat. no. 7103.0) and discussed extensively with key users in March 2006.
- **9** The key objective of bridging is to produce estimates that reflect what would have been obtained if no changes to the frame and statistical methodology had been made. Comparing the 'old basis' estimates with the historical time series allows the user to get an indication of the 'real world' change. Comparing the 'old basis' estimates with the 'new basis' estimates gives an indication of the impact the change to the frame and statistical methodology has had on estimates.
- **10** In order to produce 'old-basis' estimates a sample was selected from the units which could be identified and matched between the old and new frames. These common units formed the basis of the 'old-basis' or bridging estimates. In addition to these common units, all units which were common to both frames and did not require checking to reconcile differences between the way the business is represented on the frame and how it operates in the real-world contributed to the bridging estimates. The diagram below illustrates the contribution to bridging estimates by the two types of common units.

BRIDGING METHODOLOGY continued

Old Basis Estimates New Basis Estimates A: Contribution of units in scope of new frame but not in scope of old frame B1: Contribution of B1:Contribution of units requiring units requiring follow up* follow up* B2: Contribution of B2: Contribution of units not requiring units not requiring follow up* follow up* C: Contribution of units in scope of old frame but not in scope of new frame

METHODOLOGICAL CHANGES

- **11** There are two methodological changes that affect the new-basis estimates: the change in frame, specifically the change in scope, and the units model; and the change in statistical methodology, specifically the change in procedures that reconcile differences between the way the business is represented on the frame and how it operates in the real-world.
- (a) The change in frame
- 12 The change in frame has resulted in the frame size increasing from 150,000 to 190,000 units. Not only were units added to the new frame (that is, became in-scope where they were not in-scope before, see A in Diagram and Table A) but some were removed (became out-of-scope, see C in Diagram and Table A). Changing the size and make-up of the frame will result in change to estimates even if every unit has not changed the data reported the year previously.
- 13 To gauge the impact of the frame change, the estimated 2005–06 values of the units that were newly out-of-scope (i.e. that had been removed from the 'old-basis' frame see C) were compared to those of the newly in-scope units (i.e. that had been added to the frame see A) in the sample.

^{*} Follow up required to reconcile difference between the frame and the real world situation.

- (a) The change in frame continued
- 14 No 2005–06 data was available for sampled units that were newly out-of-scope i.e. row C. Instead, the data these units had reported for the last three years was used to determine the average proportion of 'old-basis' estimates due to these units. Applying this proportion of the 'old basis' estimate from the common units allowed an estimate of the contribution to 'new basis' estimates from the newly out-of-scope units to be produced.
- (b) The change in statistical methodology
- **15** The change in statistical methodology has resulted in a change in the way that some units are treated and how their data contributes to estimates (see B1 in Diagram and Table A). The impact of this change was the most difficult to measure.
- a unit were followed up when they were sold or otherwise disposed of by that unit. This process is undertaken to address known discrepancies between the frame and the real world-situation that exist at the time of sample selection. Under the old methodology, each unit in the survey which had sold or otherwise disposed of land would have been investigated to determine details of the new land-holder. If that land-holder was not already on the frame, a survey form would have been dispatched and data gathered. The new methodology dictate that this will only occur for units with an Estimated Value of Agricultural Operations (EVAO) or equivalent of greater than \$3 million, to ensure coverage of the largest land holdings does not fluctuate due to changes in ABN registration details of the operating businesses.
- 17 No 2005–06 data was gathered for the sampled units under the \$3 million EVAO cut off, so a value was assigned to reflect the data that would have been obtained under the old procedures. A methodology known as imputation was used to assign this value. The aim of imputation is to assign to a unit with missing data, a value as close as possible to the one that would have been obtained had data been collected. Having no data for these units made imputation difficult and it had to be assumed that these units would be similar in characteristics to the units which had not newly acquired their holding.

DECOMPOSITION

- **18** For illustration purposes only, table A provides an indication of what the contribution to 2005–06 'old-basis' and 2005–06 'new-basis' estimates of grain sorghum and oats production from the change in frame and change in statistical methodology may have been if the processes outlined above were used. The decomposition consists of four parts:
 - A the contribution to estimate of units that are in-scope for the new frame but not for the old frame;
 - B1 the contribution to estimate of units that are found on both frames and did
 require treatment to reconcile differences between the way the business is
 represented on the frame, and how it operates in the real world;
 - B2 the contribution to estimate of units that are found on both frames and did not require any treatment to reconcile differences between the way the business is represented on the frame, and how it operates in the real world; and
 - C the contribution to estimate of units that are in-scope for the old frame but not for the new frame.
- **19** Whereas the contribution to 2005–06 'new-basis' estimates could be derived using the above processes, the ABS has quality concerns with the contribution to 2005–06 'old-basis' estimates from continuing units that did require follow up to reconcile frame differences. The contribution from these units has therefore not been included in table A, and consequently the total 2005–06 'old-basis' estimate derived using the processes outlined above are also not included. Readers should note that these totals will differ to those presented in table B as the estimates provided in table B were derived using an alternative strategy as outlined in paragraph 21 below.

TABLE A, Illustrative bridging decomposition data(a)

		• • • • • • • • • •	• • • • • • • • • •	• • • • • • • • • •
<u></u>	LD BASIS	ESTIMATE	NEW BASIS	S ESTIMATE
	2004–05	2005-06	2005–06	% contribution to 2005–06
OATS-PRODUCTION (t)	• • • • • • •	• • • • • • • • • •	• • • • • • • • • •	
A: Units in scope of new frame but not in scope of old frame	na	na	560	32
B1: Continuing units that did require follow up to reconcile frame differences	280	np	408	24
B2: Continuing units that did not require follow up to reconcile frame differences	615	690	755	44
C: Units in scope of old frame but not in scope of new frame	388	512	na	na
Total	1 283	np	1 723	100
GRAIN SORGHUM-PRODUCTION	ON (t)			
A: Units in scope of new frame but not in scope of old frame	na	na	723	36
B1: Continuing units that did require follow up to reconcile frame differences	621	np	501	25
B2: Continuing units that did not require follow up to reconcile frame differences	819	721	775	39
C: Units in scope of old frame but not in scope of new frame	571	534	na	na
Total	2 011	np	1 999	100

na not available

FINAL BRIDGED ESTIMATES

- **20** As a result of these difficulties and resulting quality concerns, the ABS explored an alternate strategy for producing 'old-basis' estimates for 2005–06.
- **21** Key considerations in the alternate strategy have included:
- analysis of the 'old-basis' estimates produced using the strategy outlined above;
- known movements between 2004–05 and 2005–06 for those units common to both the old and new frame;
- analysis of historical trends in the commodity estimates; and
- information sourced from relevant industry bodies.
- **22** 'Old-basis' estimates based upon this strategy are presented in tables B and C at the end of this Technical Note.

INTERPRETING THE BRIDGED DATA

- 23 Users should recognise the preliminary nature of both the 'new-basis' and 'old-basis' 2005–06 estimates. They should also exercise a degree of caution when interpreting the tables as both sets of estimates are subject to variability; the 'old-basis' estimates to both sampling and non-sampling error and the 'new basis' estimates to non-sampling error.
- 24 The non-sampling variability in the 'old-basis' 2005–06 estimates in particular, is expected to be significant due to difficulties experienced in collecting, processing and estimating 'old basis' data from a 'new-basis' framework. For this reason, the 2005–06 'old-basis' estimates should be used with considerable caution and movements between 2004–05 and 2005–06 considered and indicative only.
- **25** The following tables allow users to compare 2005 and 2006 estimates subject to the caveats mentioned.

np not available for publication but included in totals where applicable, unless otherwise indicated

 ⁽a) The estimates in this table were derived using the processes outlined in paragraphs 12-17 of the technical note. The 2005-06 'old-basis' estimates will differ to those provided in table B.

INTERPRETING THE BRIDGED DATA continued

TABLE B, Production and area of principle crops(a)—Year ended 30 June

	AUST. OLD BASIS(b)		2006 NEW BASIS(c)	
	2005	2006(d)	Aust.	
	RLEY FO			
Production ('000 t) Area ('000 ha)	7 740 4 646	9 480 4 408	9 641 4 481	
• • • • • • • • • • • •	CANO		• • • • • • •	
Production ('000 t) Area ('000 ha)	1 542 1 377	1 370 934	1 454 996	
• • • • • • • • • • • •	COTTON		• • • • • • •	
Production ('000 t) Area ('000 ha)	563 304	550 318	570 336	
G	RAIN SOI		• • • • • • •	
Production ('000 t) Area ('000 ha)				
LU		R GRAIN		
Production ('000 t) Area ('000 ha)	937 845	1 290 809	1 357 853	
0.	ATS FOR			
Production ('000 t) Area ('000 ha)	1 283 894	1 700 939	1 723 945	
	ICE FOR			
Production ('000 t) Area ('000 ha)	339 51	960 98	982 100	
SUGAR CA				
Production ('000 t) Area ('000 ha)	37 822 434	37 900 403	37 990 406	
WH	HEAT FOF	RGRAIN		
Production ('000 t) Area ('000 ha)	21 905 13 399	24 950 12 337	25 704 12 703	
	may be subject omparing 200	estimates for 2 et to revision. 0 05 and 2006 e	aution should stimates.	

⁽c) Use the Australian Business Register-based frame (list of Agricultural businesses).

⁽d) Data for 2006 old basis are bridged estimates. Caution should be exercised in comparing 2005 and 2006 estimates.

INTERPRETING THE BRIDGED DATA continued

TABLE C, Livestock numbers(a)—Year ended 30 June

	AUST. OLD	BASIS(b)	2006 NEW BASIS(c)					
	2005	2006(d)	Aust.					
MILK CATTLE(e)								
Cows in milk and dry ('000) Other milk cattle ('000)	2 076 981		1 881 912					
Total milk cattle ('000)	(f) 3 056	2 770	2 793					
MEAT CAT	ILE							
Bulls and bull calves intended for service ('000)		687	721					
Other calves under one year ('000)		5 571	5 751					
Cows and heifers one year and over ('000) Other cattle one year and over ('000)	12 935 5 776	12 899 5 843	13 456 6 126					
other cattle one year and over (000)	3110	3 043	0 120					
Total meat cattle ('000)	24 725		26 054					
SHEEP AND LAMBS								
Sheep ('000)	71 947	66 655	67 552					
Lambs under one year ('000)	29 178	24 845	25 176					
Total sheep and lambs ('000)	101 125	91 500	92 728					
LAMBING								
Ewes mated to produce lambs ('000)	46 147	42 803	43 455					
Lambs marked ('000)	37 223		35 671					
Proportion lambs marked to ewes mated (%)	81	82	82					
Ewes expected to lamb next year ('000)(g)	46 904	47 292	45 094					
PIGS								
Boars ('000)	12	12	13					
Breeding sows ('000)	286	286	306					
Gilts intended for breeding ('000)	43	47	50					
All other pigs ('000)	2 197	2 215	2 386					
Total pigs ('000)	2 538	2 560	2 755					

⁽a) Estimates for 2005 are final; estimates for 2006 are preliminary and may be subject to revision. Caution should be exercised in comparing 2005 and 2006 estimates.

⁽b) Used and ABS-maintained land-based frame (list of 'farms').

⁽c) Used the Australian Business Register-based frame (list of agricultural businesses).

⁽d) Data for 2006 old basis are bridged estimates. Caution should be exercised in comparing 2005 and 2006 estimates.

⁽e) Excluding house cows.

⁽f) See Explanatory notes, paragraph 19.

⁽g) Forecast made at the beginning of each season.

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