

USE OF INFORMATION TECHNOLOGY ON FARMS

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) THURS 11 MAR 2004

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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 Michael Robertson on Canberra 02 6252 5189.

NOTES

ABOUT THIS PUBLICATION

This publication presents statistics on the use of Information Technology (IT) by farms in Australia. The data were obtained from questions included in the 2001–02 Agricultural Survey conducted by the Australian Bureau of Statistics (ABS). Information obtained was in respect of the year ended 30 June 2002. Some comparisons with data collected in the 1997–98, 1998–99 (both year ending 31 March) and 1999–2000 Agricultural Commodity Surveys have been included. No data was collected for the period 2000–01 as the Agriculture Census was conducted for this period and information technology data was not collected in the Agricultural Census.

ABOUT THE SURVEY

The statistics in this publication relate to farms in scope of the 2001–02 Agricultural Survey, that is, farms with an estimated value of agricultural operations (EVAO) of \$5,000 or more. The 2001–02 survey consisted of a sample of approximately 35,000 farms (26% of all farms) operating in Australia at the end of June 2002. The information technology questions included in the 2001–02 Agricultural Survey covered access to, and the use of, a computer and the Internet.

OTHER ABS INFORMATION TECHNOLOGY STATISTICS

Details of other ABS activities in the field of information technology statistics are available from the Information Technology Statistics theme page on the ABS web site http://www.abs.gov.au. To access the theme page, select *Themes* from the menu on the home page. Details of other ABS publications relating to the production and use of information technologies in Australia can be found in paragraph 13 of the Explanatory Notes.

COMMENTS ON THIS PUBLICATION

The ABS welcomes comments and suggestions on data items for inclusion in future surveys. Please contact Michael Robertson, Assistant Director, Innovation and Technology National Statistics Centre, Australian Bureau of Statistics, PO Box 10, Belconnen ACT 2616, or phone Canberra (02) 6252 5189.

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MAIN FINDINGS

AUSTRALIA

At June 2002, 62% (or 83,360) of the 135,377 Australian farms with an estimated value of agricultural operations (EVAO) of \$5,000 or more had access to a computer, an increase of 4 percentage points since June 2000, when the survey was last conducted. At the same time, an estimated 48% (or 65,582) of farms in Australia had access to the Internet, a 14 percentage point increase over the 24 months to June 2002.

During the year to 30 June 2002, 53% (or 71,461 farms) used a computer and 43% (or 58,595 farms) used the Internet as part of their business operations.

REGIONAL DATA

Western Australia reported the highest proportion of farms using a computer for business operations (63%) and the highest proportion using the Internet for business operations (54%). Victoria reported both the lowest proportion of farms using a computer (49%) and the lowest proportion of farms using the Internet (39%).

Across non-capital city Statistical Divisions throughout Australia the proportion of farms using a computer ranged from 38% to 74%. The proportions of farms using the Internet ranged from 28% to 63%.

FARM INDUSTRY

The Other Crop Growing industry reported the highest proportion of farms using a computer (60%) and the Grain, Sheep and Beef Cattle Farming industry the lowest proportion (51%). The highest proportion of Internet use was reported in the Poultry Farming industry (50%), with the lowest in the Grain, Sheep and Beef Cattle Farming and Dairy Cattle Farming industries (both 41%).

FARM SIZE

There was a strong relationship between farm size, as measured by the estimated value of agricultural operations (EVAO), and the use of a computer and the Internet. As farm size increased so did the proportion of farms using a computer and the Internet.

COMPUTER AND INTERNET ACCESS

ACCESS TO COMPUTERS

Since June 2000, when this data was last collected, there has been a 4 percentage point increase in the proportion of Australian farms with access to a computer. At June 2002, an estimated 62% (or 83,360) of the 135,377 farms in Australia had access to a computer.

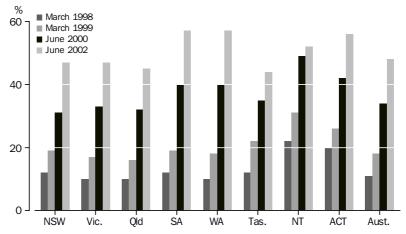
At June 2002, farms in Western Australia (70%), and South Australia (69%), had the highest proportion of access to a computer across all states and territories. Tasmania, at 57%, recorded the lowest proportion of farms with access to computers. New South Wales showed the largest growth in the 24 months to June 2002, with computer access increasing from 53% at June 2000 to 59% at June 2002. Unlike the states, the Northern Territory and the Australian Capital Territory both showed decreases in the proportion of farms with computer access in the 24 months to June 2002, dropping from 71% to 62% and 70% to 65%, respectively.

ACCESS TO THE INTERNET

During the 24 months to June 2002, there was a 14 percentage point increase in the proportion of Australian farms with access to the Internet. This compared with a 16% increase between March 1999 and June 2000. At the end of June 2002, an estimated 48% (or 65,582) of the 135,377 farms in Australia had access to the Internet. Of those farms with access to a computer, more than three in four also had access to the Internet.

At June 2002, South Australia and Western Australia reported the highest proportions of access to the Internet, both with 57%. Tasmania, in line with reporting the lowest proportion of farms with access to a computer, reported the lowest proportion of farms with access to the Internet (44%). Western Australia and South Australia, showed the most significant growth of farms with Internet access in the period June 2000 to June 2002, both increasing 17 percentage points, from 40% to 57%.

FARMS WITH INTERNET ACCESS



COMPARISON WITH PREVIOUS YEARS

It should be noted that in previous editions of this publication computer access and Internet access were used as proxies for computer and Internet use by farms.



FARMS WITH ACCESS TO A COMPUTER(a), by state/territory

	March 19	March 1998		99	June 200	0	June 2002	
	no.	no. %		%	no.	%	no.	%
• • • • • • • • • • • • • •	• • • • • • •	• • • • •	• • • • • • •	• • • •	• • • • • • • •	• • • • •		• • •
New South Wales	16 934	40	21 545	49	23 028	53	24 690	59
Victoria	13 538	37	18 075	49	21 549	58	20 297	60
Queensland	11 311	37	13 870	45	17 841	58	16 664	59
South Australia	6 795	43	8 361	53	10 180	64	10 228	69
Western Australia	6 850	49	8 270	59	9 466	68	8 853	70
Tasmania	1 608	36	2 186	49	2 507	57	2 315	57
Northern Territory	196	52	241	65	260	71	251	62
Australian Capital								
Territory	•		66	64	67	70	62	65
Australia	Australia 57 290 40		72 615	49	84 898	58	83 360	62

⁽a) Percentages are of all farms.



FARMS WITH ACCESS TO THE INTERNET(a), by state/territory

	March 19	98	March 19	99	June 200	0	June 2002		
	no.	%	no.	%	no.	%	no.	%	
• • • • • • • • • • • • • •	• • • • • • •	• • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • •	
New South Wales	5 006	12	8 231	19	13 596	31	19 520	47	
Victoria	3 621	10	6 174	17	12 270	33	15 635	47	
Queensland	3 075	10	4 830	16	9 811	32	12 709	45	
South Australia	1 896	12	3 030	19	6 442	40	8 415	57	
Western Australia	1 428	10	2 548	18	5 621	40	7 262	57	
Tasmania	552	12	973	22	1 539	35	1 778	44	
Northern Territory	81	22	114	31	180	49	209	52	
Australian Capital									
Territory	21	20	27	26	40	42	54	56	
Australia	15 680 11		25 927	18	49 499	34	65 582	48	

⁽a) Percentages are of all farms.

COMPUTER AND INTERNET USE

USE OF COMPUTERS AND THE INTERNET

During the year to 30 June 2002, 53% of farms used a computer and 43% used the Internet as part of their business operations. Western Australia reported the highest proportion of farms using computers (63%) and the Internet (54%) while Victoria reported the lowest proportion of farms using computers (49%) and the Internet (39%).

Of farms with access to a computer, more than four in five use a computer as part of their business operations. For the Internet, 9 in 10 farms with access also used the Internet as part of their business operations. The difference in the proportion of farms with access to computers or the Internet and their use of computers or the Internet may be due to these information technologies being available through the farm household, but the farm business not making use of them as part of their business operations.

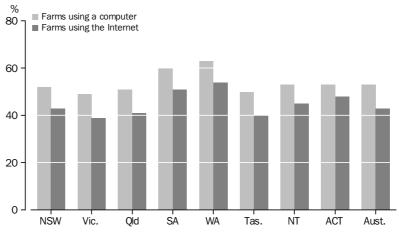
Of those farms that used computers as part of their business operations, more than four in five also used the Internet.

This is the first time farm use of computers and the Internet has been collected. Previously, access to computers and the Internet has been used as a proxy for the use of computers and the Internet on Australian farms.

COMPUTER AND INTERNET ACTIVITIES UNDERTAKEN AS PART OF BUSINESS OPERATIONS Email was the most common Internet activity undertaken by farms, (37% of all farms), with obtaining weather information the next most common Internet activity (31%). It is estimated that 10% of Australian farms purchased or ordered goods or services via the Internet.

Managing farm finances was reported by 40% of farms and 9% reported 'other computer or Internet activities'.

FARM COMPUTER AND INTERNET USAGE



FARMS WITH COMPUTER AND INTERNET ACCESS AND USAGE(a), by

state/territory									
	Computer		Computer		Internet	Internet			
	access		usage(b)	usage(b)		access			
	no.	%	no.	%	no.	%	no.	%	
• • • • • • • • • • • • •	• • • • • • • •	• • • • •	• • • • • • •	• • • • •	• • • • • • •	• • • •	• • • • • • • •	• • •	
New South Wales	24 690	59	21 452	52	19 520	47	17 800	43	
Victoria	20 297	60	16 471	49	15 635	47	12 977	39	
Queensland	16 664	59	14 332	51	12 709	45	11 589	41	
South Australia	10 228	69	8 870	60	8 415	57	7 525	51	
Western Australia	8 853	70	8 048	63	7 262	57	6 883	54	
Tasmania	2 315	57	2 023	50	1 778	44	1 592	40	
Northern Territory	251	62	215	53	209	52	183	45	
Australian Capital									
Territory	62	65	51	53	54	56	46	48	
Australia	83 360	62	71 461	53	65 582	48	58 595	43	

⁽a) Percentages are of all farms.

INTERNET AND COMPUTER ACTIVITIES AS PART OF BUSINESS OPERATIONS(a), by state/territory

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	%	%	%	%	%	%	%	%	%
	• • • • •	• • • • •	• • • • •	• • • • •	• • • • •	• • • • •		• • • • •	• • • •
Internet only									
Obtain weather information	30	25	28	37	45	23	29	25	31
Obtain market information	24	16	22	28	34	18	23	24	23
Availability or cost of goods or									
services	26	21	24	29	30	22	24	22	25
Purchase or ordered goods or									
services	10	8	9	11	12	10	15	15	10
Accessed government websites	20	17	21	22	24	20	20	28	20
Paid bills via the Internet	18	17	17	21	26	16	20	27	19
Email	37	33	35	43	48	34	42	43	37
Computer only									
Manage farm finances	39	38	39	43	49	36	33	42	40
Other computer or Internet activities									
Other	8	9	10	8	9	8	15	6	9

⁽a) Percentages are of all farms.

⁽b) Computer and Internet usage are derived items. See paragraphs 5 and 6 of Explanatory Notes for derivation methodology.

REGIONAL USE OF INFORMATION TECHNOLOGY

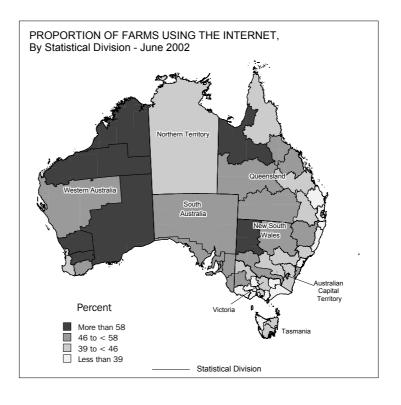
USE OF COMPUTERS

At the Statistical Division level (other than capital city Statistical Divisions), the proportion of farms using a computer during the financial year ended 30 June 2002 varied from 38% (Richmond-Tweed in NSW) to 74% (South Eastern in Western Australia).

USE OF THE INTERNET

As for computer use, the proportion of farms using the Internet at the Statistical Division level varied from 28% (Richmond-Tweed in NSW) to 63% (South Eastern) in Western Australia. Within each state, the proportions ranged from:

- Far West (58%) to Richmond-Tweed (28%) in New South Wales
- Wimmera (49%) to Gippsland (30%) in Victoria
- North West (61%) to Moreton (33%) in Queensland
- Yorke and Lower North (59%) to Outer Adelaide and Murray Lands (both 48%) in South Australia
- South Eastern (63%) to South West (43%) in Western Australia
- Southern and Northern (both 41%), to Mersey-Lyall (38%) in Tasmania.



REFERENCE MAP

For identification of individual Statistical Divisions, please see the Reference Map on page 23 of this publication.



FARMS USING A COMPUTER AND THE INTERNET, by Statistical Division

		Farms wit	:h	Farms with	1	Farms usin	g a	Farms usir	_
	All	access to		access to		for busines	s	for busines	SS
	farms	a comput		the Interne	o†	operations		operations	(a)
	no.	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • •	• • • • •	• • • • • • • •		• • • • • • • •	• • • • • •	• • • • • • • •	• • • •
New South Wales									
Sydney	1 794	997	56	797	44	843	47	651	36
Hunter	2 963	1 656	56	1 270	43	1 435	48	1 183	40
Illawarra	994	686	69	^ 549	^ 55	^ 538	^ 54	^ 452	^ 46
Richmond-Tweed	3 037	1 347	44	1 072	35	1 163	38	859	28
Mid-North Coast	3 118	1 423	46	^ 1 121	^ 36	1 210	39	^ 1 028	^ 33
Northern	6 301	4 084	65	3 219	51	3 739	59	3 077	49
North Western	4 347	2 737	63	2 178	50	2 409	55	2 021	47
Central West	5 603	3 343	60	2 682	48	2 916	52	2 511	45
South Eastern	4 374	2 688	62	1 978	45	2 287	52	1 767	40
Murrumbidgee	4 835	2 873	59	2 324	48	2 457	51	2 138	44
Murray	3 992	2 665	67	2 155	54	2 276	57	1 945	49
Far West	292	^ 191	^ 65	^ 178	^61	^ 179	^ 61	^ 169	^ 58
Total	41 651	24 690	59	19 520	47	21 452	52	17 800	43
Victoria									
Melbourne	2.647	1 500	E0	1 221	E0	1 22/	EΟ	1 189	45
	2 647	1 523	58 62	1 331 ^ 699	50	1 334	50	^ 562	45 ^ 31
Barwon	1 833	1 137			38	899	49		
Western District	4 447	2 795	63	2 001	45	2 320	52	1 620	36
Central Highlands	1 862	1 074	58	842	45	809	44	631	34
Wimmera	2 859	1 851	65	1 530	54	1 690	59	1 389	49
Mallee	4 335	2 605	60	2 176	50	2 106	49	1 869	43
Loddon	2 109	1 159	55	912	43	967	46	806	38
Goulburn	5 569	3 548	64	2 850	51	2 905	52	2 327	42
Ovens-Murray	2 204	1 283	58	847	38	980	45	^ 754	^ 34
East Gippsland	2 298	1 438	63	1 125	49	1 053	46	813	35
Gippsland	3 419	1 884	55	^ 1 323	^ 39	^ 1 407	^ 41	^ 1 017	^ 30
Total	33 581	20 297	60	15 635	47	16 471	49	12 977	39
Queensland									
Brisbane	957	603	63	466	49	483	51	394	41
Moreton	3 735	2 052	55	1 491	40	1 605	43	1 224	33
Wide Bay-Burnett	5 091	2 764	54	1 933	38	2 377	47	1 855	37
Darling Downs	6 108	3 455	57	2 448	40	3 006	49	2 378	39
South West	1 620	1 071	66	861	53	933	58	808	50
Fitzroy	2 743	1 693	62	1 370	50	1 478	54	^ 1 209	^ 44
Central West	631	450	71	^ 377	^ 60	^ 398	63	^ 359	^ 57
Mackay	2 095	1 325	63	1 101	53	1 235	59	1 002	48
Northern	1 762	1 173	67	917	52	1 085	62	853	48
Far North	2 903	1 733	60	1 420	49	1 446	50	1 224	42
North West	461	^ 345	75	^ 325	71	^ 286	^ 62	^ 282	^61
Total	28 104	16 664	59	12 709	45	14 332	51	11 589	41
South Australia									
	1 000	646	G1	FOO	E2	FOF	E0	434	42
Adelaide	1 008	616	61	532	53	505	50 57	431	43
Outer Adelaide Yorke and Lower	2 885	1 916	66	1 612	56	1 653	57	1 396	48
North	2 121	1 606	76	1 355	64	1 501	71	1 257	59
Murray Lands	3 501	2 319	66	1 920	55	1 977	56	1 674	48
South East	2 555	1 777	70	1 428	56	1 529	60	1 341	52
Eyre	1 508	1 134	75	888	59	978	65	801	53
Northern	1 245	860	69	681	55	727	58	626	50
Total	14 824	10 228	69	8 415	57	8 870	60	7 525	51
i Viui	1,027	10 220		0 710	0.	3310		, 525	<u> </u>

[^] estimate has a relative standard error of 10% to less than 25% and should be used with caution

⁽a) Computer and Internet usage are derived items. See paragraphs 5 and 6 of Explanatory Notes for derivation methodology.



FARMS USING A COMPUTER AND THE INTERNET, by Statistical Division continued .

						Farms using	g a	Farms usin	g
		Farms wit	:h	Farms wit	:h	computer		the Interne	t
	AII	access to		access to		for busines	s	for busines	ss
	farms	a comput	er	the Intern	et	operations((a)	operations(a)	
	no.	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • • • • • •	• • • • • • • • •	• • • • • • •	• • • • •	• • • • • • • •		• • • • • • • •	• • • • • •		• • • •
Western Australia									
Perth	1 151	733	64	647	56	607	53	523	45
South West	2 645	1 624	61	1 235	47	1 429	54	1 140	43
Lower Great									
Southern	2 141	1 502	70	1 227	57	1 366	64	1 155	54
Upper Great									
Southern	1 681	1 259	75	1 024	61	1 165	69	1 000	60
Midlands	2 956	2 196	74	1 860	63	2 045	69	1 803	61
South Eastern	664	512	77	413	62	493	74	421	63
Central	1 231	884	72	728	59	806	66	706	57
Pilbara	55	^ 35	^64	^31	^ 56	^ 32	^ 58	^ 32	^ 58
Kimberley	164	^ 107	^ 65	^ 97	^ 59	^ 106	65	^ 102	62
Total	12 688	8 853	70	7 262	57	8 048	63	6 883	54
Tasmania									
Greater Hobart	258	^ 143	55	^ 121	47	^ 109	42	^ 94	36
Southern	802	485	60	353	44	404	50	325	41
Northern	1 471	844	57	667	45	783	53	601	41
Mersey-Lyell	1 496	844	57	637	43	728	49	572	38
Total	4 027	2 315	57	1 778	44	2 023	50	1 592	40
Northern Territory									
Total	406	251	62	209	51	215	53	183	45
Australian Capital									
Territory Total	96	62	65	54	56	51	53	46	48
. 0	23			31		31		.0	
Australia	135 377	83 360	62	65 582	48	71 461	53	58 595	43

 $[\]hat{\ }$ estimate has a relative standard error of 10% to less than 25% and should be used with caution

⁽a) Computer and Internet usage are derived items. See paragraphs 5 and 6 of Explanatory Notes for derivation methodology.

INFORMATION TECHNOLOGY USE BY INDUSTRY ...

COMPUTER USE

For the financial year ending 30 June 2002, the Other Crop Growing industry reported the highest proportion of farms using a computer (60%), and the Grain, Sheep and Beef Cattle Farming industry reported the lowest proportion of farms using a computer (51%). At a finer industry level, Cotton Growing had the highest use of computers (90%) and Beef Cattle Farming the lowest (38%).

Within broad industry groups, the greatest variation in the proportions of farms using a computer across the states was in Other Livestock Farming, with a difference of 24% between Western Australia (73%) and Tasmania (49)%. The other broad industry groups had ranges of about 20%, except Horticulture and Fruit Growing (10%) and Other Crop Growing, where the difference was 6%, between New South Wales (63%) and South Australia and Tasmania (both 57%).

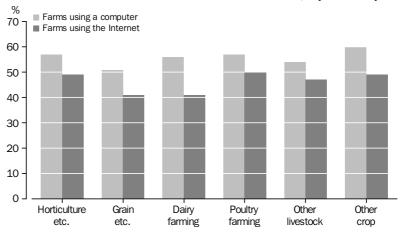
INTERNET USE

Use of the Internet for the year to 30 June 2002 was highest in the Poultry Farming industry (50%) and lowest in the Grain, Sheep and Beef Cattle Farming and Dairy Cattle Farming industries (both 41%). As with computer use, at a finer industry level Cotton Growing had the highest use of the Internet (87%) and Beef Cattle Farming the lowest (30%).

As for computer use, within broad industry groups, the greatest variation in the proportions of farms using the Internet across states was in Other Livestock Farming, with a difference of 32% between Western Australia (68%) and Tasmania (36%). The range for all other broad industry groups was between 14% and 24%, except Horticulture and Fruit Growing, for which the range was 8%.

The Northern Territory and the Australian Capital Territory were excluded from the above comparisons due to the small number of farms in these territories in some of the broad industry groups.

FARMS USING A COMPUTER OR THE INTERNET, by industry





5.1 FARMS USING A COMPUTER AND THE INTERNET, by industry

					Farms usin	ga	Farms using		
		Farms with		Farms with	h	computer		the Internet	
	AII	access to		access to		for busines	S	for business	
	farms		a computer		et	operations		operations	
		·····							
	no.	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • •				• • • • • • • • •	• • • • • •	• • • • • • • • •	
Horticulture and fruit									
growing									
Plant nurseries	2 220	1 652	74	1 457	66	1 528	69	1 345	61
Cut flower and flower									
seed growing	945	677	72	590	62	608	64	531	56
Vegetable growing	4 805	2 912	61	2 199	46	2 348	49	1 836	38
Grape growing	6 833	4 712	69	4 167	61	4 054	59	3 687	54
Apple and pear growing	919	^ 570	62	^ 454	50	^ 524	57	^ 458	50
Stone fruit growing	1 258	711	57	584	46	591	47	516	41
Kiwi fruit growing	^ 34	^ 31	92	^ 25	^ 73	^ 25	^ 73	^ 25	^ 73
Fruit growing n.e.c.	5 446	3 599	66	2 888	53	3 022	56	2 588	48
Total	22 461	14 865	66	12 364	55	12 700	57	10 985	49
Grain, sheep and beef									
cattle farming	45.044	44.040	70	0.700	0.4	40.005	07	0.070	50
Grain growing	15 911	11 642	73	9 768	61	10 625	67	9 270	58
Grain-sheep and									
grain-beef cattle	45.040	40.000	00	0.400	- 4	0.504	0.4	7.004	-4
farming	15 610	10 802	69	8 420	54	9 534	61	7 881	51
Sheep-beef battle farming	8 424	5 129	61	3 679	44	4 396	52	3 377	40
Sheep farming	13 911	8 074	58	6 106	44	7 013	50	5 584	40
Beef cattle farming	34 110	16 015	47	12 026	35	12 950	38	10 133	30
Total	87 965	51 661	59	40 000	45	44 518	51	36 244	41
Dairy cattle farming									
Total	11 135	7 694	69	5 648	51	6 239	56	4 619	41
Poultry farming									
Poultry farming (meat)	790	581	74	461	58	501	63	436	55
Poultry farming (eggs)	^ 481	^310	^ 65	^ 265	^ 55	223	46	193	40
Total	1 272	891	70	726	57	723	57	630	50
Other livestock farming									
Pig farming	1 159	773	67	659	57	697	60	590	51
Horse farming	1 777	1 067	60	900	51	890	50	770	43
Deer farming	^ 125	^ 101	^81	*69	^ 56	*75	^ 60	*53	*42
Livestock farming n.e.c.	^ 725	^ 490	68	^ 463	64	^ 396	55	^ 373	52
Total	3 786	2 431	64	2 091	55	2 058	54	1 787	47
Other crop growing									
Sugar cane growing	4 748	3 033	64	2 348	50	2 681	57	2 117	45
Cotton growing	697	635	91	608	87	626	90	603	87
Crop and plant growing		555		555		020		555	٥.
n.e.c.	1 806	1 136	63	950	53	1 006	56	861	48
Total	7 250	4 804	66	3 906	54	4 313	60	3 581	49
Other									
Total	1 509	1 014	67	848	56	910	60	749	50
1000	_ 000	_ 017	٥.	0.0		010	50	, ,,	50
Total	135 377	83 360	62	65 582	48	71 461	53	58 595	43

estimate has a relative standard error of 10% to less than 25% and should be used with caution
 estimate has a relative standard error of 25% to 50% and should be used with caution

⁽a) Computer and Internet usage are derived items. See paragraphs 5 and 6 of Explanatory Notes for derivation methodology.

FARMS USING A COMPUTER AND THE INTERNET, by broad industry and state/territory

					Farms usin	ga	Farms usin	Farms using		
		Farms wi	th	Farms wit	:h	computer	_	the Interne	the Internet	
	All	access to)	access to		for busines	S	for busines	SS	
	farms	a comput	ter	the Interr	net	operations	(a)	operations(a)		
	•••••	••••••••••	•••••	••••••	•••••		···········		·······	
	no.	no.	%	no.	%	no.	%	no.	%	
• • • • • • • • • • • • • • • •	• • • • • • • • • •	• • • • • • •	• • • • • •	• • • • • • • •	• • • • •	• • • • • • • • •	• • • • •	• • • • • • • •	• • • •	
Horticulture and fruit										
growing										
New South Wales	5 686	3 405	60	2 895	51	2 912	51	2 607	46	
Victoria	4 933	3 290	67	2 704	55	2 725	55	2 353	48	
Queensland	4 528	3 157	70	2 483	55	2 682	59	2 223	49	
South Australia	4 041	2 795	69	2 423	60	2 473	61	2 162	54	
Western Australia	2 129	1 431	67	1 236	58	1 226	58	1 049	49	
Tasmania	974	683	70	538	55	592	61	515	53	
Northern Territory	159	96	60	78	49	81	51	66	42	
Australian Capital										
Territory	11	8	73	8	73	10	91	10	91	
Total	22 461	14 865	66	12 364	55	12 700	57	10 985	49	
Grain, sheep and beef										
cattle farming										
New South Wales	30 898	17 868	58	13 873	45	15 558	50	12 729	41	
Victoria	20 025	10 933	55	8 376	42	8 986	45	7 060	35	
Queensland	15 601	8 425	54	6 174	40	7 175	46	5 701	37	
South Australia	9 579	6 641	69	5 311	55	5 702	60	4 795	50	
Western Australia	9 493	6 605	70	5 352	56	6 066	64	5 177	55	
Tasmania	2 081	1 009	49	761	37	881	42	651	31	
Northern Territory	213	132	62	113	53	115	54	103	48	
Australian Capital										
Territory	76	47	62	39	51	35	46	30	40	
Total	87 965	51 661	59	40 000	45	44 518	51	36 244	41	
Dairy cattle farming										
New South Wales	1 615	1 185	73	876	54	1 016	63	770	48	
Victoria	6 696	4 775	71	3 417	51	3 704	55	2 637	39	
Queensland	1 292	689	53	^ 532	41	598	46	^ 487	38	
South Australia	590	378	64	^ 314	53	328	56	^ 262	^ 44	
Western Australia	358	266	74	^ 210	59	241	67	^ 192	54	
Tasmania	580	399	69	296	51	349	60	271	47	
Northern Territory	np	np	np	np	np	np	np	np	np	
Australian Capital										
Territory	np	np	np	np	np	np	np	np	np	
Total	11 135	7 694	69	5 648	51	6 239	56	4 619	41	
Poultry farming										
New South Wales	469	278	59	214	46	247	53	209	45	
Victoria	^ 338	^ 268	^ 79	*230	^ 68	^ 176	52	^ 168	50	
Queensland	210	149	71	111	53	127	60	104	50	
South Australia	97	78	81	69	71	65	67	54	56	
Western Australia	119	92	78	76	64	85	72	74	62	
Tasmania	^32	^ 21	64	^21	64	^ 19	^ 59	^ 19	^ 59	
Northern Territory	np	np	np	np	np	np	np	np	np	
Australian Capital										
Territory	np	np	np	np	np	np	np	np	np	
Total	1 272	891	70	726	57	723	57	630	50	

 $[\]hat{\ }$ estimate has a relative standard error of 10% to less than 25% and should be used with caution

 $^{^{\}star}$ $\,\,$ estimate has a relative standard error of 25% to 50% and should be used with caution

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

⁽a) Computer and Internet usage are derived items. See paragraphs 5 and 6 of Explanatory Notes for derivation methodology.



FARMS USING A COMPUTER AND THE INTERNET, by broad industry and state/territory continued 5.2 Farms using

						Farms usin	ng a	Farms usir	ng
		Farms w	ith	Farms w	ith	computer		the Interne	et
	All	access t	0	access t	0	for busines	SS	for busines	SS
	farms	a compu		the Inter		operations(a)		operations(a)	
	•••••	•••••••	•••••	•••••	•••••		•••••	•••••	
	no.	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • •	• • • • • • •	• • • • •	• • • • • • • •	• • • • •	• • • • • • • • •		• • • • • • • •	• • • •
Other livestock farming									
New South Wales	1 369	849	62	^ 729	53	691	51	^ 608	44
Victoria	752	514	68	454	60	416	55	^ 375	50
Queensland	^1060	^ 618	58	^ 519	49	547	52	^ 444	^ 42
South Australia	216	148	69	140	65	145	67	128	59
Western Australia	287	^ 243	85	^ 205	71	^ 210	73	^ 195	68
Tasmania	^ 97	^ 56	57	^ 41	42	^ 48	49	^ 35	36
Northern Territory	np	np	np	np	np	np	np	np	np
Australian Capital									
Territory	np	np	np	np	np	np	np	np	np
Total	3 786	2 431	64	2 091	55	2 058	54	1 787	47
Other crop growing									
New South Wales	1 057	729	69	606	57	670	63	576	55
Victoria	^ 538	^ 334	^62	^ 297	^ 55	^ 318	^ 59	^ 281	^ 52
Queensland	5 210	3 454	66	2 763	53	3 067	59	2 518	48
South Australia	^ 130	^ 90	^ 69	^ 75	^ 58	^ 75	^ 57	^ 58	45
Western Australia	^ 113	*73	^ 65	*67	*59	*70	^ 62	*64	*57
Tasmania	^ 190	^ 120	63	96	50	^ 109	57	81	43
Northern Territory	np	np	np	np	np	np	np	np	np
Australian Capital									
Territory	np	np	np	np	np	np	np	np	np
Total	7 250	4 805	66	3 906	54	4 313	59	3 581	49

[^] estimate has a relative standard error of 10% to less than 25% and should be used with caution

 $^{^{\}star}$ $\,\,$ estimate has a relative standard error of 25% to 50% and should be used with caution

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

⁽a) Computer and Internet usage are derived items. See paragraphs 5 and 6 of Explanatory Notes for derivation methodology.

FARM SIZE AND INFORMATION TECHNOLOGY USE

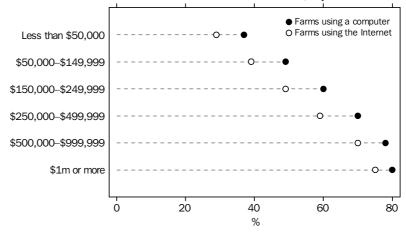
FARM SIZE AND USE OF INFORMATION TECHNOLOGY

For the year ended 30 June 2002, there was a strong relationship between the proportion of farms using computers and the Internet and the estimated value of agricultural operations (EVAO). As the graph below shows, the proportion of farms using computers and the Internet increased with farm size.

Within broad industries a similar size pattern was revealed, however the increase across farm sizes differed for each industry. For example, across farm sizes Internet use ranged from 42% to 70% in the Other Livestock Farming industry compared with a range of 21% to 74% in Dairy Cattle Farming.

For all broad industries a 50% Internet usage rate was not achieved until the EVAO range of \$150,000–\$249,999, except for Dairy Cattle Farming, where an EVAO range of \$500,000–\$999,999 was required to achieve this usage rate.

FARMS USING A COMPUTER OR THE INTERNET, by EVAO





6.1 FARMS USING THE COMPUTER AND THE INTERNET, by broad industry and EVAO .

		Farms with		Farms with		Farms using a computer		Farms using the Internet	
	All	access to		access to		for busines	38	for busines	
	farms	a compute	r	the Interne	^	operations		operations	
		a compute			••••••		·····	······································	·····
	no.	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • • •				• • • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • • •
Horticulture and fruit growing									
Less than \$50,000	6 708	3 947	59	3 192	48	3 188	48	2 688	40
\$50,000-\$149,999	7 246	4 615	64	3 792	52	3 838	53	3 343	46
\$150,000-\$249,999	2 881	2 029	70	1 655	57	1 760	61	1 507	52
\$250,000-\$499,999	2 825	2 087	74	1 744	62	1 882	67	1 613	57
\$500,000-\$999,000	1 655	1 268	77	1 135	69	1 133	69	1 017	61
\$1m or more	1 146	918	80	847	74	899	78	818	71
Total	22 461	14 865	66	12 364	55	12 700	57	10 985	49
Grain, sheep and beef cattle farming									
Less than \$50,000	35 011	14 899	43	10 400	30	11 888	34	8 851	25
\$50,000-\$149,999	22 247	12 931	58	9 422	42	10 801	49	8 230	37
\$150,000-\$149,999	11 248	7 822	70	6 093	54	6 807	61	5 657	50
\$250,000-\$499,999	11 390	9 167	81	7 865	69	8 493	75	7 447	65
\$500,000-\$999,000	6 034	5 152	85	4 659	77	4 919	82	4 508	75
\$1m or more	2 036	1 691	83	1 562	77	1 610	79	1 551	76
Total	87 965	51 661	59	40 000	45	44 518	51	36 244	41
Dairy cattle farming									
Less than \$50,000	^ 474	*192	*40	*150	*32	*149	*32	**np	*21
\$50,000-\$149,999	2 168	^ 980	^ 45	^ 723	^ 33	^ 735	^ 34	^516	^ 24
\$150,000-\$249,999	2 984	2 097	70	^ 1 450	49	^ 1 685	57	^ 1 293	43
\$250,000-\$499,999	3 999	3 111	78	2 232	56	2 449	61	1 737	43
\$500,000-\$999,000	1 258	^ 1 087	86	^ 903	72	^1004	80	^ 787	63
\$1m or more	^ 252	^ 227	90	^ 190	^ 75	^ 217	86	^ 187	^ 74
Total	11 135	7 694	69	5 648	51	6 239	56	4 619	42
Poultry farming									
Less than \$50,000	*178	*126	*71	**np	*63	*58	*33	*58	*33
\$50,000-\$149,999	^ 125	^ 80	64	^ 48	^ 38	^ 63	^ 50	^ 52	^ 42
\$150,000-\$249,999	^ 127	^ 80	63	^ 65	^51	^ 72	^ 57	^ 65	^51
\$250,000-\$499,999	285	^ 185	65	^ 158	55	^ 144	51	^ 124	^ 44
\$500,000-\$999,000	352	260	74	216	61	236	67	194	55
\$1m or more	206	161	78	128	62	151	73	137	66
Total	1 272	891	70	726	57	723	57	630	50
Other livestock farming									
Less than \$50,000	2 178	1 308	60	1 100	51	^ 1 027	47	^ 908	42
\$50,000-\$149,999	^ 695	^ 423	61	^ 374	54	^ 367	53	^ 307	44
\$150,000-\$249,999	^ 220	^ 130	^ 59	^ 108	^ 49	^ 121	^ 55	^ 107	^ 49
\$250,000-\$499,999	^ 291	^ 246	85	^ 235	81	^ 235	81	^ 203	70
\$500,000-\$999,000	^ 213	^ 177	83	^ 146	69	^ 158	74	^ 139	65
\$1m or more	189	148	78	129	68	150	79	123	65
Total	3 786	2 431	64	2 091	55	2 058	54	1 787	47

 $[\]hat{\ }$ estimate has a relative standard error of 10% to less than 25% and should be used with caution

 $^{^{\}star}$ $\,\,$ estimate has a relative standard error of 25% to 50% and should be used with caution

 $^{^{\}star\star}$ $\,\,$ estimate has a relative standard error greater than 50% and is considered too unreliable for general use

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

⁽a) Computer and Internet usage are derived items. See paragraphs 5 and 6 of Explanatory Notes for derivation methodology.

FARMS USING THE COMPUTER AND THE INTERNET, by broad industry and EVAO

continued

	All farms	Farms with access to a computer		Farms with access to the Internet		Farms using a computer for business operations(a)		Farms using the Internet for business operations(a)	
	no.	no.	%	no.	%	no.	%	no.	%
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • • • •	• • • • • • • •		• • • • • • • •	
Other crop growing									
Less than \$50,000	1 108	^ 658	59	^ 487	^ 44	^ 550	^ 50	^ 434	^ 39
\$50,000-\$149,999	2 560	1 445	57	^ 1 123	44	1 273	50	^ 957	^37
\$150,000-\$249,999	1 390	942	68	^ 732	53	^841	61	^ 693	50
\$250,000-\$499,999	1 116	852	76	705	63	756	68	648	58
\$500,000-\$999,000	^ 579	463	80	428	74	443	77	412	71
\$1m or more	497	444	89	431	87	451	91	438	88
Total	7 250	4 804	66	3 906	54	4 313	60	3 581	49
Total Industry(b)									
Less than \$50,000	46 411	21 579	47	15 790	34	17 227	37	13 320	29
\$50,000-\$149,999	35 439	20 750	59	15 737	44	17 353	49	13 644	39
\$150,000-\$249,999	19 005	13 220	70	10 195	54	11 394	60	9 406	50
\$250,000-\$499,999	20 037	15 765	79	13 044	65	14 068	70	11 871	59
\$500,000-\$999,000	10 134	8 437	83	7 511	74	7 922	78	7 080	70
\$1m or more	4 351	3 609	83	3 305	76	3 498	80	3 273	75
Total	135 377	83 360	62	65 582	48	71 461	53	58 595	43

 $[\]hat{\ }$ estimate has a relative standard error of 10% to less than 25% and should be used with caution

⁽a) Computer and Internet usage are derived items. See paragraphs 5 and 6 of Explanatory Notes for derivation methodology.

⁽b) Other industries is included in Total Industry, but excluded from the table.



6.2 FARMS USING THE COMPUTER AND THE INTERNET, by state/territory and EVAO ...

						Farms using	Farms using a		Farms using	
		Farms with		Farms with		computer		the Internet		
	AII	access to		access to		for business	6	for business	;	
	farms	a computer		the Intern	the Internet		a)	operations(a)		
	**********					operations(a)		-1		
	no.	no.	%	no.	%	no.	%	no.	%	
• • • • • • • • • • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • • • •	• • • • • • • • •	• • • • • •	• • • • • • • • •	• • • •	
New South Wales										
Less than \$50,000	16 537	7 518	46	5 734	35	6 375	39	5 028	30	
\$50,000-\$149,999	11 404	6 901	61	5 233	46	5 823	51	4 670	41	
\$150,000-\$249,999	5 448	3 678	68	2 839	52	3 143	58	2 658	49	
\$250,000-\$499,999	5 084	4 067	80	3 418	67	3 690	73	3 220	63	
\$500,000-\$999,000	2 220	1 732	78	1 559	70	1 643	74	1 483	67	
\$1m or more	959	795	83	738	77	778	81	741	77	
Total	41 651	24 690	59	19 520	47	21 452	52	17 800	43	
Victoria										
Less than \$50,000	10 887	4 949	46	3 675	34	3 738	34	2 868	26	
\$50,000-\$149,999	9 178	4 911	54	3 702	40	3 897	43	2 934	32	
\$150,000-\$249,999	5 103	3 703	73	2 749	54	3 029	59	2 445	48	
\$250,000-\$499,999	5 522	4 261	77	3 367	61	3 542	64	2 787	51	
\$500,000-\$999,000	2 103	1 809	86	1 551	74	1 636	78	1 370	65	
\$1m or more	789	664	84	592	75	629	80	573	73	
Total	33 581	20 297	60	15 635	47	16 471	49	12 977	39	
Queensland										
Less than \$50,000	10 486	4 772	46	3 202	31	3 640	35	2 757	26	
\$50,000-\$149,999	7 454	4 349	58	3 235	43	3 767	51	2 892	39	
\$150,000-\$249,999	3 901	2 666	68	2 062	53	2 409	62	1 981	51	
\$250,000-\$499,999	3 479	2 673	77	2 260	65	2 446	70	2 091	60	
\$500,000-\$999,000	1 716	1 376	80	1 208	70	1 273	74	1 131	66	
\$1m or more	1 069	828	78	742	69	797	75	737	69	
Total	28 104	16 664	59	12 709	45	14 332	51	11 589	41	
South Australia										
Less than \$50,000	3 377	1 794	53	1 273	38	1 357	40	1 051	31	
\$50,000-\$149,999	3 941	2 459	62	2 000	51	2 015	51	1 710	43	
\$150,000-\$249,999	2 491	1 755	71	1 420	57	1 543	62	1 259	51	
\$250,000-\$499,999	2 910	2 359	81	2 052	71	2 181	75	1 916	66	
\$500,000-\$999,000	1 605	1 415	88	1 254	78	1 353	84	1 195	75	
\$1m or more	501	445	89	417	83	422	84	394	79	
Total	14 824	10 228	69	8 415	57	8 870	60	7 525	51	
Western Australia										
Less than \$50,000	3 266	1 692	52	1 285	39	1 389	43	1 078	33	
\$50,000-\$149,999	2 443	1 565	64	1 161	48	1 373	56	1 087	45	
\$150,000-\$249,999	1 480	1 018	69	809	55	929	63	784	53	
\$250,000-\$499,999	2 451	1 955	80	1 569	64	1 812	74	1 514	62	
\$500,000-\$999,000	2 179	1 864	86	1 730	79	1 788	82	1 695	78	
\$1m or more	868	759	87	707	82	758	87	726	84	
Total	12 688	8 853	70	7 262	57	8 048	63	6 883	54	

⁽a) Computer and Internet usage are derived items. See paragraphs 5 and 6 of Explanatory Notes for derivation methodology.

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FARMS USING THE COMPUTER AND THE INTERNET, by state/territory and EVAO

						Farms using	Farms using a		Farms using	
		Farms with	n	Farms with	h	computer		the Internet		
	All	access to		access to	access to		for business		for business	
	farms	a computer		the Internet		operations(a)		operations(a)		
	no.	no.	%	no.	%	no.	%	no.	%	
• • • • • • • • • • • • • • • • •	• • • • • • • • •	• • • • • • • •	• • • • •	• • • • • • • •	• • • • •	• • • • • • • • •	• • • • •	• • • • • • • • •	• • • •	
Tasmania										
Less than \$50,000	1 716	767	45	550	32	663	39	478	28	
\$50,000-\$149,999	903	505	56	360	40	429	48	314	35	
\$150,000-\$249,999	539	374	69	295	55	317	59	262	49	
\$250,000-\$499,999	522	400	77	333	64	352	67	301	58	
\$500,000-\$999,000	253	199	78	172	68	192	76	173	68	
\$1m or more	95	71	75	69	72	71	75	^ 64	68	
Total	4 027	2 315	58	1 778	44	2 023	50	1 592	40	
Northern Territory										
Less than \$50,000	86	51	59	40	47	38	44	33	38	
\$50,000-\$149,999	91	45	50	34	37	36	40	27	30	
\$150,000-\$249,999	np	np	np	np	np	np	np	np	np	
\$250,000-\$499,999	np	np	np	np	np	np	np	np	np	
\$500,000-\$999,000	np	np	np	np	np	np	np	np	np	
\$1m or more	np	np	np	np	np	np	np	np	np	
Total	406	251	62	209	51	215	53	183	45	
Australian Capital Territory										
Less than \$50,000	58	37	64	31	54	28	48	26	45	
\$50,000-\$149,999	26	15	58	13	50	13	50	11	42	
\$150,000-\$249,999	np	np	np	np	np	np	np	np	np	
\$250,000-\$499,999	np	np	np	np	np	np	np	np	np	
\$500,000-\$999,000	np	np	np	np	np	np	np	np	np	
\$1m or more	np	np	np	np	np	np	np	np	np	
Total	96	62	65	54	56	51	53	46	48	
Australia										
Less than \$50,000	46 411	21 579	47	15 790	34	17 227	37	13 320	29	
\$50,000-\$149,999	35 439	20 750	59	15 737	44	17 353	49	13 644	39	
\$150,000-\$249,999	19 005	13 220	70	10 195	54	11 394	60	9 406	50	
\$250,000-\$499,999	20 037	15 765	79	13 044	65	14 068	70	11 871	59	
\$500,000-\$999,000	10 134	8 437	83	7 511	74	7 922	78	7 080	70	
\$1m or more	4 351	3 609	83	3 305	76	3 498	80	3 273	75	
Total	135 377	83 360	62	65 582	48	71 461	53	58 595	43	

 $[\]hat{\ }$ estimate has a relative standard error of 10% to less than 25% and should be used with caution

 $^{{\}sf np-not\ available\ for\ publication\ but\ included\ in\ totals\ where\ applicable,\ unless\ otherwise\ indicated}$

⁽a) Computer and Internet usage are derived items. See paragraphs 5 and 6 of Explanatory Notes for derivation methodology.

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains final estimates for the computer and Internet access, and use indicators collected in the 2001–02 Agricultural Survey. Some comparable data from the 1997–98, 1998–99 and 1999–2000 Agricultural Commodity Surveys have also been included.

SCOPE AND COVERAGE

- **2** The estimates are based on information obtained from the Agricultural Survey conducted at 30 June 2002. Prior to 2000 information was obtained for the period ending 31 March. The ABS has changed the collection period to 30 June to better align the Agricultural Survey with other ABS surveys. A study of respondent data indicated that there should be no significant difference in the estimates for these different reference periods.
- **3** The scope of the 2001–02 Agricultural Survey was farms with an estimated value of agricultural operations (EVAO) of \$5,000 or more. The 2001–02 Agricultural Survey had a total sample of approximately 35,000 farms.

GEOGRAPHICAL, INDUSTRY AND SIZE CLASSIFICATIONS

- **4** The data contained in tables in this publication have, where appropriate, been classified on a geographical, industry and farm size basis by classifying farms:
 - to Statistical Divisions (SD) within States and Territories, as set out in the *Australian Standard Geographical Classification (ASGC)* (cat. no. 1216.0)
 - to industry according to the methodology described in Australia and New Zealand Standard Industrial Classification (ANZSIC) (cat. no. 1292.0)
 - to EVAO ranges according to the estimated value of agricultural operations (or activity) undertaken by a farm.

DERIVATION OF COMPUTER AND INTERNET USE

- **5** The 2001–02 Agricultural Survey collected information on whether the farm used either a computer or the Internet as part of its business operations during the year ended 30 June 2002, that is, computer and Internet use were not separately collected. A split between computer use and Internet use was derived by considering the computer and Internet activities undertaken as part of the farm's business operations.
- All computer or Internet activities were considered to involve the use of a computer. A farm was considered to have used the Internet if they undertook any of the following computer or Internet activities: obtained weather information; obtained market information; searched for the availability or cost of goods or services; purchased or ordered goods or services; accessed government web sites; paid bills via the Internet; or used e-mail. A farm was not considered to have used the Internet if the only activities recorded were managed farm finances or 'other computer or Internet activities'. Managing farm finances was considered to be overwhelmingly a computer only activity. While it was not possible to split the 'other computer and Internet activities' category, it is highly unlikely that a farm recording other Internet activity under this category would not have also recorded another Internet-related activity. Therefore, very little undercounting of Internet use will have occurred by excluding this category.

SAMPLE ERROR

7 The estimates in this publication are based on information obtained from a sample drawn from the total farm population in scope of the collection, and are subject to sampling variability; that is, they may differ from the figures that would have been produced if all farms had been included in the Agricultural Survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which

SAMPLE ERROR continued

an estimate might have varied by chance because only a sample was taken. 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.

- **8** 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.
- **9** Most published estimates have RSEs less than 5%. Estimates that have an estimated relative standard error 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 variability 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 estimate to be considered too unreliable for general use and are not published.

RELATIVE STANDARD ERRORS FOR SELECTED INDICATORS

	Farms accessing a computer	Farms accessing the Internet	Farms using a computer	Farms using the Internet
a	%	%	%	%
State	_	_	_	_
New South Wales	2	2	2	2
Victoria	2	3	2	3
Queensland	2	3	2	3
South Australia	2	2	2	2
Western Australia	2	2	2	2
Tasmania	3	3	3	3
Northern Territory	_	_	_	_
Australian Capital Territory	_	_	_	_
Australia	1	1	1	1
Industry				
Horticulture and fruit				
growing	2	2	2	2
Grain, sheep and beef				
cattle farming	1	1	1	2
Dairy cattle farming	4	5	4	5
Poultry farming	8	9	4	5
Other livestock farming	5	6	6	6
Other crop growing	4	4	4	4
Farm size				
		0		
Less than \$50,000	3	3	3	4
\$50,000-\$149,999	2	3	3	3
\$150,000-\$249,999	3	3	3	3
\$250,000-\$499,999	2	2	2	2
\$500,000–\$999,000	2	2	2	2
\$1m or more	2	2	2	2

nil or rounded to zero (including null cells)

10 Note that in tables with cross classifications, (e.g. State by Industry), the resultant RSEs may be considerably greater than the RSEs shown in this table.

PROPORTIONS AND PERCENTAGES

11 Proportions and participation rates formed from the ratio of two estimates are also subject to sampling error. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y.

$$RSE(\frac{x}{y}) = \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

ACKNOWLEDGMENT

12 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

13 The most recent issue of other ABS publications on the use and production of information technology and telecommunication goods and services in Australia are listed below:

Business Use of Information Technology, Australia, 2001–02 (cat. no. 8129.0)
Government Use of Information Technology, 1999–2000 (cat. no. 8119.0)
Household Use of Information Technology, Australia, 20001–02 (cat. no. 8146.0)
Information Technology, Australia, 2000–01 (cat. no. 8126.0)
Internet Activity, Australia, September 2003 (cat. no. 8153.0)
Use of Information Technology on Farms, June 2000 (cat. no. 8150.0)

ABS DATA AVAILABLE ON REQUEST

14 As well as statistics included in this and related publications, the ABS may have other relevant data available on request. Inquiries should be made to Michael Robertson, Canberra, (02) 6252 5189 or the National Information Referral Service on 1300 135 070.

ABBREVIATIONS AND SYMBOLS

15 The following abbreviations and symbols have been used in this publication:

ABS Australian Bureau of Statistics

ANZSIC Australian and New Zealand Standard Industrial Classification

EVAO estimated value of agricultural operations

np not available for publication but included in totals where applicable

RSE relative standard error

SE standard error

16 Where figures have been rounded, discrepancies may occur between sums of the component items and totals.



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