



LIVESTOCK PRODUCTS

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) MON 21 FEB 2011

KEY FIGURES

TREND ESTIMATES	Dec Qtr 2009 '000	Sep Qtr 2010 '000	Dec Qtr 2010 '000
Number Slaughtered^(a)			
Cattle (excl. calves)	1 832	1 890	1 888
Calves	235	195	172
Sheep	1 978	1 493	1 496
Lambs	4 868	4 702	4 690
Pigs	1 140	1 163	1 171
Chickens	nya	nya	nya

nya not yet available

(a) A new methodology and revised definitions have been adopted for producing estimates of livestock slaughtering and meat production. For further details refer to the Explanatory Notes.

	Dec Qtr 2009 tonnes	Sep Qtr 2010 tonnes	Dec Qtr 2010 tonnes
Meat produced^(a)			
Beef	504 227	528 010	531 554
Veal	13 483	11 434	10 166
Mutton	43 131	34 191	34 268
Lamb	102 799	101 110	100 797
Pig meat	82 389	85 528	86 109
Chicken meat	nya	nya	nya
Wool Receipts	87 229	87 355	89 963

nya not yet available

(a) A new methodology and revised definitions have been adopted for producing estimates of livestock slaughtering and meat production. For further details refer to the Explanatory Notes.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070.

	Sep Qtr 2009 ML	Jun Qtr 2010 ML	Sep Qtr 2010 ML
Whole milk intake by factories	2 244	2 304	2 326

KEY POINTS

- In the December quarter 2010, calf slaughterings fell 12%.
- Pig meat production increased 1% to 86 thousand tonnes in the December quarter 2010.
- Wool receipts rose 3% in the December 2010 quarter to 90 thousand tonnes.
- The estimate for live sheep exports in the December quarter 2010 rose 2%.

NOTES

FORTHCOMING ISSUES

ISSUE (Quarter)	RELEASE DATE
March 2011	26 May 2011



INTRODUCTION

This publication presents statistics on livestock slaughterings, meat production, whole milk intake by factories, market milk sales by factories, receipts of taxable wool by brokers and dealers, exports of live sheep and cattle and exports of fresh, chilled, frozen and processed meat. It also includes seasonally adjusted and trend estimates of slaughtering, meat production, whole milk intake and wool receipts. More detailed information can be obtained by contacting the Australian Bureau of Statistics or by referring to the monthly publication *Livestock and Meat, Australia* (cat.no. 7218.0.55.001).

CHANGES IN THIS ISSUE

Final estimates of slaughter and production for poultry for the December quarter 2010 are not yet available. These data, including updated seasonally adjusted and trend estimates, for the September and December quarters 2010 will be published in the coming weeks.

A coverage exercise has been undertaken to review the quality of the sampling frame for the Poultry and Game Birds Collection. Although the updated Poultry estimates will be reflective of the improved sampling frame, the frame updates have had a negligible impact on the associated time series.

As a result of a quality review of the Livestock collection, a new methodology and revised definitions have been adopted for producing estimates of livestock slaughtering and meat production. For further details refer to the Explanatory Notes.

CHANGES TO FORTHCOMING ISSUES

Flooding in Queensland began in late December 2010. It is expected that the first significant impact of this and floods in other states will be reflected in the March quarter 2011 issue of this publication.

The Livestock and Meat Survey collections for the December quarter 2010 were not affected by the floods.

Further information, including details of associated impacts on time series, will be provided in the March quarter 2011 issue of *Livestock Products, Australia* (cat. no. 7215.0).



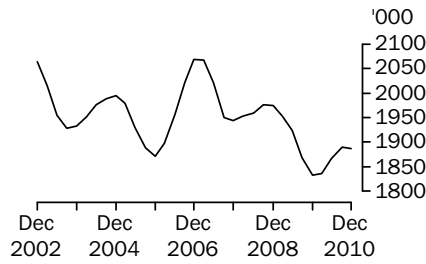
ABBREVIATIONS

'000 thousand
\$'000 thousand dollars
ABS Australian Bureau of Statistics
ML megalitre
t tonne
UHT ultra heat treated

Trevor Sutton
Acting Australian Statistician

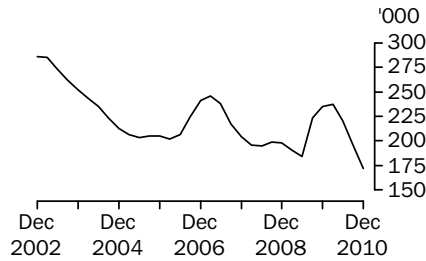
LIVESTOCK SLAUGHTERED TREND

CATTLE (EXCLUDING CALVES)



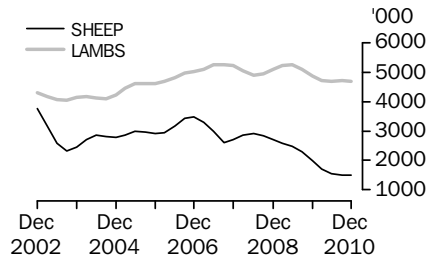
In the December quarter 2010, the number of cattle slaughtered (excluding calves) remained steady at around 1.9 million.

CALVES



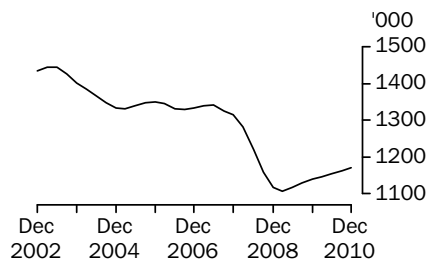
The number of calves slaughtered in the December quarter 2010 fell 12% compared to the previous quarter to 172 thousand.

SHEEP AND LAMBS



The number of sheep and lambs slaughtered in the December quarter 2010 remained steady at 1.5 million and 4.7 million respectively.

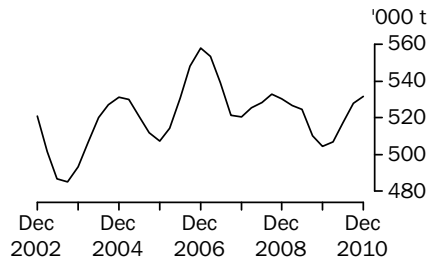
PIGS



Pig slaughterings in the December quarter 2010 remained relatively steady at just below 1.2 million.

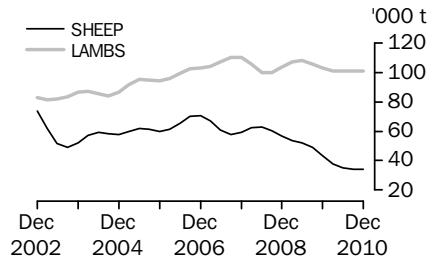
MEAT PRODUCTION TREND

BEEF



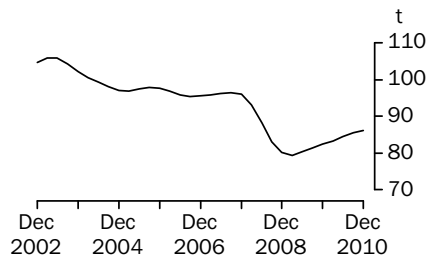
In the December quarter 2010 beef production increased 1% compared to the previous quarter, to 532 thousand tonnes.

MUTTON AND LAMB



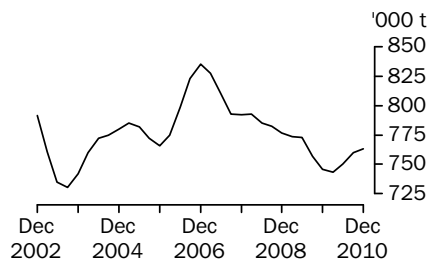
Mutton and lamb production remained steady in the December quarter 2010 at 34 thousand and 101 thousand tonnes respectively.

PIG MEAT



In the December quarter 2010, pig meat production increased 1% compared to the previous quarter, to 86 thousand tonnes.

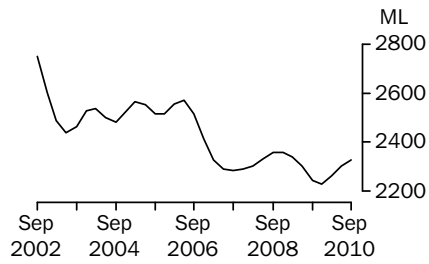
TOTAL RED MEAT



Total red meat production remained steady in the December quarter 2010, at just below 763 thousand tonnes.

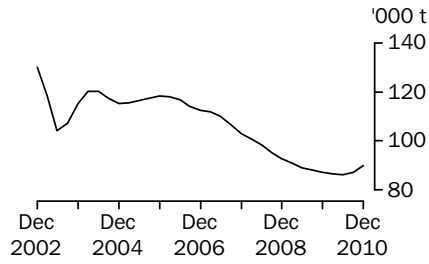
LIVESTOCK PRODUCTS TREND

WHOLE MILK INTAKE BY FACTORIES



Whole milk intake by factories in the September quarter 2010 increased by 1% compared to the June quarter 2010 to 2,326 megalitres.

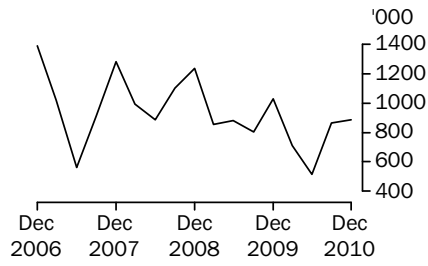
BROKERS AND DEALERS RECEIVALS OF TAXABLE WOOL



In the December quarter 2010, wool receivals by brokers and dealers increased by 3% compared to the September quarter to 90 thousand tonnes.

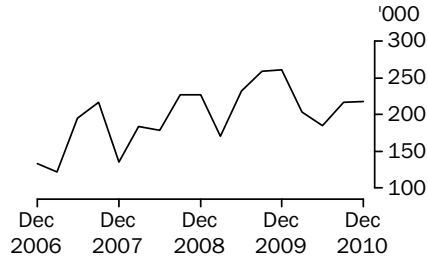
LIVESTOCK EXPORTS ORIGINAL

EXPORTS OF LIVE SHEEP



Live sheep exports in the December quarter 2010 increased 2% compared to the previous quarter to 885 thousand.

EXPORTS OF LIVE CATTLE



Exports of live cattle in the December quarter 2010 increased 1% compared to the previous quarter to 218 thousand.

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LIVESTOCK PRODUCTS

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LIVESTOCK SLAUGHTERED(a)(b)(c), Australia: All series

Quarter	Bulls, bullocks and steers	Cows and heifers	Cattle (excluding calves)	Calves	Sheep	Lambs	Pigs
	'000	'000	'000	'000	'000	'000	'000
ORIGINAL							
2009							
September	1 056.4	911.4	1 967.8	377.0	1 833.2	5 025.0	1 146.2
December	981.1	790.6	1 771.7	159.4	2 382.1	5 193.9	1 151.0
2010							
March	908.1	824.1	1 732.2	139.0	1 895.7	4 525.9	1 090.4
June	977.3	1 011.6	1 988.9	227.8	1 222.0	4 733.2	1 173.4
September	1 025.7	886.4	1 912.1	308.3	1 351.9	4 411.2	1 201.3
December	1 021.9	816.7	1 838.6	126.1	1 688.9	4 938.7	1 151.6
SEASONALLY ADJUSTED							
2009							
September	1 023.0	919.6	1 942.7	216.1	2 234.4	5 278.7	1 132.5
December	954.8	836.5	1 791.3	227.8	2 063.5	4 878.5	1 148.1
2010							
March	945.6	842.6	1 788.2	255.5	1 674.4	4 393.0	1 139.5
June	998.3	934.4	1 932.7	223.7	1 373.1	4 962.3	1 142.7
September	991.6	890.7	1 882.3	177.9	1 638.7	4 629.6	1 183.0
December	996.7	867.6	1 864.3	181.2	1 463.1	4 636.2	1 158.1
TREND							
2009							
September	975.1	894.0	1 869.0	223.5	2 281.0	5 082.1	1 130.3
December	969.0	863.5	1 832.4	234.9	1 977.6	4 867.6	1 139.6
2010							
March	968.5	868.0	1 836.5	237.3	1 694.8	4 711.2	1 145.4
June	977.4	888.9	1 866.3	220.3	1 544.2	4 681.4	1 153.6
September	993.9	896.5	1 890.4	194.9	1 493.2	4 701.9	1 163.0
December	1 001.3	886.3	1 887.6	171.9	1 496.2	4 689.8	1 170.8

- (a) Chicken data are not yet available and will be released in the coming weeks.
- (b) For human consumption. Refer to the Explanatory Notes for further information.
- (c) A new methodology and revised definitions have been adopted for producing estimates of livestock slaughtering and meat production. For further details refer to the Explanatory Notes.

LIVESTOCK PRODUCTS, AUSTRALIA: (a)(b): All Series

	RED MEAT(c)						Whole milk	Brokers and dealers
	Beef	Veal	Mutton	Lamb	Pig meat	Total red meat	intake by factories(d)	receivals of taxable wool(e)
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	ML	tonnes
ORIGINAL								
2009								
September	540 227	16 758	40 076	102 163	83 912	783 136	2 252	86 170
December	489 129	11 044	54 068	107 978	81 294	743 513	2 849	106 033
2010								
March	481 093	11 021	40 703	97 571	78 857	709 243	2 048	89 339
June	546 065	13 439	26 927	104 825	87 198	778 455	1 870	71 195
September	529 817	13 884	31 570	93 724	89 599	758 594	2 252	83 176
December	523 983	9 296	39 904	105 745	83 081	762 009	nya	110 256
SEASONALLY ADJUSTED								
2009								
September	534 750	11 569	48 810	109 506	82 088	786 722	2 261	85 084
December	492 264	13 289	44 558	102 082	82 854	735 047	2 186	92 326
2010								
March	493 524	14 891	37 010	97 189	82 499	725 113	2 222	88 431
June	535 123	13 747	31 659	104 353	83 902	768 784	2 403	85 469
September	523 681	9 608	37 487	100 319	87 468	758 563	2 264	83 551
December	528 432	11 197	33 179	99 940	84 655	757 402	nya	94 622
TREND								
2009								
September	510 177	10 790	48 843	105 535	81 414	756 759	2 244	88 009
December	504 227	13 483	43 131	102 799	82 389	746 030	2 229	87 229
2010								
March	507 056	14 274	37 708	101 056	83 308	743 401	2 263	86 458
June	517 115	12 976	34 961	100 722	84 471	750 245	2 304	86 204
September	528 010	11 434	34 191	101 110	85 528	760 274	2 326	87 355
December	531 554	10 166	34 268	100 797	86 109	762 894	nya	89 963

nya not yet available

- (a) Chicken data are not yet available and will be released in the coming weeks.
- (b) A new methodology and revised definitions have been adopted for producing estimates of livestock slaughtering and meat production. For further details refer to the Explanatory Notes.

- (c) Carcass weight excluding offal. Refer to the Explanatory Notes for further information.
- (d) Original data sourced from Dairy Australia. Includes whole milk equivalent of farm cream intake.
- (e) Taxable receivals only. Refer to the Explanatory Notes for further information.

EXPORTS OF FRESH, CHILLED, FROZEN AND PROCESSED MEAT(a)(b), Australia: **Original**

Period	FRESH, CHILLED OR FROZEN MEAT									PROCESSED MEAT	
	Beef bone-in(c)	Beef bone-out(c)	Veal bone-in	Veal bone-out	Mutton bone-in	Mutton bone-out	Lamb bone-in	Lamb bone-out	Pork	Bacon and ham(d)	Canned meat(e)
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes
2007-08	57 199	917 494	3 704	5 049	119 496	43 827	134 101	32 499	39 138	772	12 493
2008-09	47 925	954 473	4 102	4 594	107 004	44 119	131 144	31 254	32 258	464	12 852
2009-10	r48 698	r882 958	r4 674	r3 549	r85 060	31 503	r125 199	r34 819	r29 961	167	r13 480
2009											
September	11 958	230 695	1 474	1 260	18 708	6 813	30 939	6 813	7 625	58	3 482
December	12 421	226 420	1 226	1 023	27 768	10 416	38 124	9 455	7 222	57	3 722
2010											
March	10 076	177 693	609	582	23 202	7 183	25 392	7 315	7 155	32	2 961
June	r14 244	r248 149	r1 364	r685	r15 383	r7 091	r30 744	r11 236	r7 959	20	r3 315
September	r15 330	r237 657	r2 547	r503	r15 372	r6 406	r29 552	r8 314	r8 880	r27	r3 545
December	17 100	246 711	1 772	610	24 325	8 932	39 574	8 261	7 424	61	3 360

r revised

(a) Compiled from Australian Customs Service data. Refer to the Explanatory Notes for further information.

(b) Export data may be subject to revision.

(c) Includes buffalo meat.

(d) Cured carcass weight, and state net weight of packs of canned bacon and ham. Refer to the Explanatory Notes for further information.

(e) Canned meat excludes bacon and ham. Refer to the Explanatory Notes for further information.

EXPORTS OF LIVE SHEEP AND CATTLE(a), Australia: Original

Period	Number	Gross weight	Gross value	Unit value(b)
	'000	'000 tonnes	\$'000	\$
SHEEP				
2007-08	4 069.0	197.0	286 442	70.40
2008-09	4 063.9	199.0	339 083	83.44
2009-10	r3 055.3	r145.9	r296 735	r97.12
2009				
September	801.8	38.7	76 827	95.82
December	1 030.0	50.1	93 851	91.12
2010				
March	708.3	33.3	68 408	96.59
June	r515.2	23.9	r57 649	r111.89
September	r865.0	r39.0	r104 082	r120.33
December	884.5	41.8	92 031	104.05
CATTLE				
2007-08	713.3	241.2	450 511	631.63
2008-09	856.0	285.0	558 695	652.67
2009-10	r906.7	r310.6	r600 128	r661.89
2009				
September	258.5	86.4	161 035	622.84
December	260.7	90.8	172 174	660.37
2010				
March	203.1	69.5	147 857	727.97
June	r184.3	r64.0	r119 063	r646.02
September	r216.5	r70.3	r142 813	659.64
December	218.1	68.4	172 352	790.30

r revised

(a) Export data may be subject to revision.

(b) Gross value divided by the number of animals exported

WHOLE MILK INTAKE, by Factories(a): All Series

Quarter	New South Wales(b)	Victoria	Queensland	South Australia(c)	Western Australia	Tasmania	Australia
	ML	ML	ML	ML	ML	ML	ML
ORIGINAL							
2009							
June	247	1 083	120	145	77	124	1 797
September	283	1 480	139	147	84	119	2 252
December	294	1 886	142	177	101	249	2 849
2010							
March	253	1 269	128	142	82	174	2 048
June	244	1 150	121	140	83	132	1 870
September	275	1 479	139	140	95	123	2 252
SEASONALLY ADJUSTED							
2009							
June	272	1 488	132	156	83	177	2 308
September	274	1 452	133	154	82	166	2 261
December	262	1 391	131	151	88	163	2 186
2010							
March	270	1 421	133	151	90	158	2 222
June	269	1 565	133	149	91	196	2 403
September	266	1 453	133	147	93	172	2 264
TREND							
2009							
June	271	1 486	132	156	84	174	2 303
September	273	1 435	132	154	84	166	2 244
December	273	1 422	132	152	87	163	2 229
2010							
March	270	1 451	132	150	89	169	2 263
June	268	1 485	133	149	91	177	2 304
September	267	1 505	133	148	93	182	2 326

(a) Includes whole milk equivalent of farm cream intake.
Refer to the Explanatory Notes for further information.

(b) Includes data for the Australian Capital Territory.

(c) Includes data for the Northern Territory.

Source: Original series data from Dairy Australia.

MARKET MILK SALES, by Factories(a): All Series

Quarter	New South Wales(b)	Victoria	Queensland	South Australia(c)	Western Australia	Tasmania	Australia
	ML	ML	ML	ML	ML	ML	ML
ORIGINAL							
2009							
June	176	136	128	53	59	14	567
September	180	141	132	55	62	14	583
December	182	134	125	55	63	14	572
2010							
March	176	133	124	53	61	14	559
June	180	138	123	54	61	14	571
September	181	140	126	55	66	14	583
SEASONALLY ADJUSTED							
2009							
June	175	134	128	53	60	14	564
September	176	138	128	53	61	14	572
December	184	135	126	55	62	14	577
2010							
March	178	135	125	54	62	14	568
June	178	136	124	54	62	14	569
September	178	138	123	54	64	14	571
TREND							
2009							
June	175	134	129	53	60	14	565
September	176	135	128	54	61	14	567
December	177	135	126	54	62	14	569
2010							
March	178	136	125	54	62	14	569
June	178	136	124	54	63	14	569
September	178	137	123	54	63	14	570

(a) Includes white, flavoured, high and low fat milk and UHT milk. Refer to the Explanatory Notes for further information.

(b) Includes data for the Australian Capital Territory.

(c) Includes data for the Northern Territory.

Note: Source: Original series data from Dairy Australia.

BROKERS AND DEALERS RECEIVALS OF TAXABLE WOOL(a): All series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia	% of total received by brokers
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	%
ORIGINAL								
2009								
September	32 534	19 880	3 072	12 344	15 585	2 756	86 170	82.5
December	31 358	29 135	2 190	17 318	23 032	3 000	106 033	79.7
2010								
March	26 688	21 369	1 212	12 572	25 572	1 925	89 339	77.8
June	25 497	19 142	2 343	9 206	12 412	2 594	71 195	78.6
September	28 546	19 860	2 237	12 494	16 993	3 046	83 176	80.8
December	34 488	32 287	2 239	16 319	22 156	2 767	110 256	72.2
SEASONALLY ADJUSTED								
2009								
September	28 854	22 097	2 547	11 818	17 308	2 461	85 084	..
December	29 314	22 734	2 408	15 148	20 128	2 594	92 326	..
2010								
March	29 055	21 985	1 809	12 634	20 335	2 612	88 431	..
June	28 795	22 508	1 909	11 512	18 126	2 619	85 469	..
September	25 567	22 323	1 923	12 067	18 994	2 676	83 551	..
December	31 690	25 088	2 360	13 755	19 304	2 427	94 622	..
TREND								
2009								
September	28 875	22 424	2 585	12 058	19 564	2 503	88 009	..
December	29 201	22 274	2 271	11 648	19 269	2 567	87 229	..
2010								
March	28 727	22 183	1 976	11 583	19 366	2 623	86 458	..
June	28 102	22 399	1 899	11 983	19 188	2 633	86 204	..
September	28 293	23 121	2 012	12 484	18 857	2 588	87 355	..
December	29 215	24 102	2 203	12 972	18 942	2 530	89 963	..

.. not applicable

(a) Taxable receivals only. Refer to the Explanatory Notes for further information.

EXPLANATORY NOTES

INTRODUCTION

1 This publication presents statistics on livestock slaughterings, meat production, whole milk intake by factories, market milk sales by factories, receipts of taxable wool by brokers and dealers, exports of live sheep and cattle and exports of fresh, chilled, frozen and processed meat.

2 At the time of publication, final estimates of slaughter and production for poultry for the December quarter 2010 were not yet available. The September 2010 and December 2010 data, including updated seasonally adjusted and trend estimates, will be published in the coming weeks.

3 Data in this publication have been revised where necessary and as a consequence may not agree with similar data shown in previous publications.

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

5 Unless otherwise indicated, Australian totals include data for all states/territories.

LIVESTOCK SLAUGHTERINGS AND MEAT PRODUCTION

6 The statistics on slaughterings for red meat production are based on a monthly collection from abattoirs and other major slaughtering establishments and include estimates of animals slaughtered on farms, by country butchers and other small slaughtering establishments.

7 Livestock slaughter and meat production estimates published in previous editions of this publication (excluding chickens) included a small, stable component to represent the on-farm slaughter of livestock. Following a quality review of the Livestock Slaughtered collection and consultation with key users of these data, on-farm slaughter has now been removed. Historical data back to July 2007 have been revised for all series.

8 The quality review has also aligned the Livestock Slaughtered collection's calf and pig definitions to current industry standards.

9 The farm-kill and definitional changes, above, impact on livestock slaughtering and meat production estimates (excluding chickens) published in this and future editions of Livestock Products, Australia. Related estimates published in *Livestock and Meat, Australia* (cat. no. 7218.0.55.001) are also affected.

10 As a result of these changes, the livestock slaughter and meat production estimates included in this release cannot be directly compared to those published in previous editions. To assist users in accounting for the associated breaks in time series, historical estimates to June 2007 (excluding farm-kill) and to June 2009 (revised calf definitions) have been re-based. Additional time series data are available via the Downloads tab of this publication on the ABS website <<http://www.abs.gov.au>>.

11 Further information on the new methodology and revised definitions may be obtained by contacting The Environment and Agriculture Business Statistics Centre, Australian Bureau of Statistics, GPO Box 66, Hobart TAS 7001. Alternatively, email <agriculture.statistics@abs.gov.au> or phone (03) 6222 5940.

12 Red meat is shown in carcass weight and excludes offal.

13 Care should be taken when using this information as the data only relate to slaughterings for human consumption and do not include animals condemned, slaughtered for pet food or those killed for boiling down.

14 Statistics for poultry slaughterings and chicken meat produced have been compiled from quarterly returns supplied by commercial poultry slaughtering establishments and comprise boilers, fryers and roasters. Many small producers are excluded from the collection; however, the statistics represent a high level of coverage.

15 Chicken meat is shown in dressed weight of whole birds, pieces and giblets.

EXPLANATORY NOTES *continued*

LIVESTOCK SLAUGHTERINGS AND MEAT PRODUCTION *continued*

16 Details about unpublished slaughterings and meat production statistics can be found in the *Livestock Slaughtering Collection* brief on the Australian Bureau of Statistics (ABS) website and also are available on request. Inquiries should be made to the *National Information and Referral Service* on 1300 135 070.

EXPORTS OF FRESH, CHILLED, FROZEN AND PROCESSED MEAT

17 International trade statistics are compiled by the ABS from information submitted to the Australian Customs Service by exporters and importers or their agents. Factors are applied to beef, veal, mutton and lamb bone-out figures to calculate a derived bone-in carcass weight. The derived bone-in carcass weights are then added to bone-in figures to calculate total exports in carcass weight. The factor for beef and veal is 1.5 and for mutton and lamb, 2.0. This information is sourced from the Australian Department of Agriculture, Fisheries and Forestry.

18 Beef also includes buffalo meat.

19 Bacon and ham shown is the cured carcass weight of smoked or cooked bacon and ham. It also includes the stated net weight of packs of canned bacon and ham.

20 Canned meat is shown as the canned weight and excludes canned bacon and ham.

LIVE SHEEP AND CATTLE EXPORTS

21 Sheep and cattle exported for breeding are excluded.

22 The unit value is obtained by dividing the gross value by the number of animals exported.

23 The graphs of livestock exports present quarterly original estimates for at least the last five years for the major commodities. These graphs highlight the major movements in the estimates over that period.

MILK

24 Milk data collected by Dairy Australia. Data for the latest quarter are not yet available.

25 Whole milk intake by factories includes the whole milk equivalent of farm cream intake.

26 Market sales includes white, flavoured, high and low fat milk and ultra heat treatment (UHT) milk. Interstate transfers of UHT milk have been included in their state of destination. UHT milk is milk that is heated to high temperatures to produce a milk which does not require refrigeration for a sustained period of time when unopened.

WOOL RECEIVALS

27 Wool receivals refers to the amount of taxable wool received by brokers and purchased by dealers from wool producers. It excludes wool received by brokers on which tax has already been paid by other dealers (private buyers) or brokers.

28 From the September quarter 2010, inclusive, an updated sampling frame was introduced in respect of the Wool Receivals, Purchases and Sales collection. The impact of this change on associated time series is negligible.

29 Data are based on the state in which wool has been received, and do not necessarily reflect the production of wool in that state.

SEASONAL ADJUSTMENT

30 Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences can be more clearly recognised.

31 In the seasonal adjustment of the livestock estimates, account has been taken of both normal seasonal factors and 'trading day' effects, where significant. Seasonal adjustment does not remove from the series the effect of irregular influences (e.g. abnormal weather, industrial disputes).

32 The state component series has been seasonally adjusted independently. Therefore, the adjusted components may not add to the Australian group totals.

EXPLANATORY NOTES *continued*

SEASONAL ADJUSTMENT

continued

33 In this publication, the seasonally adjusted estimates are produced by the concurrent seasonal adjustment method which takes account of the latest available original estimates. This method improves the estimation of seasonal factors and, therefore, the seasonally adjusted and trend estimates for the current and previous months. As a result of this improvement, revisions to the seasonally adjusted and trend estimates will be observed for recent periods. A more detailed review is conducted annually prior to the September release, using data up to and including the August release.

34 For further information, see *Time Series Analysis Frequently Asked Questions, 2003* (cat.no. 1346.0.55.002).

35 From September 2007, improved methods of producing seasonally adjusted estimates, focused on the application of Autoregressive Integrated Moving Average (ARIMA) modelling techniques, were implemented. The ARIMA modelling technique can be used to extend original estimates beyond the end of a time series.

36 For further information on ARIMA modelling, see the feature article 'Use of ARIMA modelling to reduce revisions' in *Australian Economic Indicators, Oct 2004* (cat. no 1350.0).

TREND ESTIMATES

37 The graphs of livestock slaughtered, meat production and livestock products present quarterly trend estimates for at least the last five years for the major commodities. These graphs highlight the major movements in the estimates over that period.

38 A trend estimate is obtained by reducing the irregular component in the seasonally adjusted series. For quarterly data, trend estimates are derived by applying a 7-term Henderson moving average to the seasonally adjusted series. Revisions of trend estimates will also occur with revisions to the original data and re-estimation of seasonal factors.

39 The state component series has been adjusted independently. Therefore, the adjusted components may not add to the Australian group totals.

40 For further information, see *Information Paper: A Guide to Interpreting Time Series - Monitoring Trends, 2003* (cat. no. 1349.0).

RELATED PUBLICATIONS

41 Other ABS publications containing livestock data include:

- *Agricultural Commodities, Australia* (cat. no. 7121.0).
- *Agricultural Commodities: Small Area Data, Australia* (cat. no 7125.0).
- *Livestock and Meat, Australia* (cat. no. 7218.0.55.001).
- *Value of Agricultural Commodities Produced, Australia* (cat. no. 7503.0).

42 Current publications and other products released by the ABS are listed under the Statistics and Topics @ a Glance pages on the ABS website <<http://www.abs.gov.au>>. The ABS also issues a daily Release Advice on the website which details products to be released in the week ahead.

GENERAL ACKNOWLEDGMENT

43 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*.

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PHONE 1300 135 070

EMAIL client.services@abs.gov.au

FAX 1300 135 211

POST Client Services, ABS, GPO Box 796, Sydney NSW 2001

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