

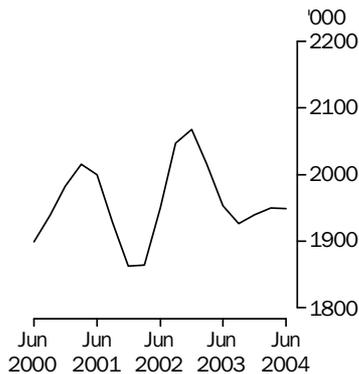
LIVESTOCK PRODUCTS

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) THURS 12 AUG 2004

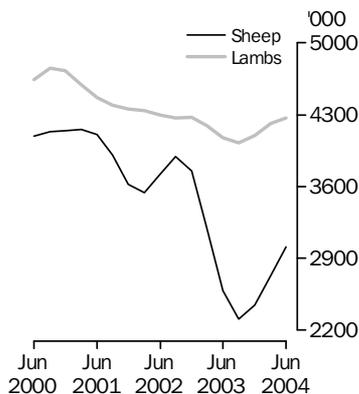
Cattle slaughterings

Excluding calves
Trend



Sheep and lamb slaughterings

Trend



KEY FIGURES

TREND ESTIMATES	Jun Qtr 2003	Mar Qtr 2004	Jun Qtr 2004
	'000	'000	'000
Number slaughtered			
Cattle	1 953.3	1 950.1	1 949.2
Calves	288.5	265.0	250.1
Sheep	2 585.6	2 733.9	3 010.1
Lambs	4 075.3	4 215.1	4 266.7
Pigs	1 443.3	1 385.2	1 372.4
Chickens	104 362.6	104 388.3	102 775.8

	Jun Qtr 2003	Mar Qtr 2004	Jun Qtr 2004
	tonnes	tonnes	tonnes
Meat produced			
Beef	486 676	506 293	514 173
Veal	9 573	9 034	8 536
Mutton	51 465	58 048	63 451
Lamb	80 851	87 170	88 464
Pig meat	105 949	100 219	99 386
Chicken meat	169 485	170 696	169 298
Wool receivals	104 717	122 517	127 846

	Mar Qtr 2003	Dec Qtr 2003	Mar Qtr 2004
	ML	ML	ML
Whole milk intake by factories	2 496	2 508	2 529

KEY POINTS

TREND ESTIMATES

- The trend estimate for the number of cattle slaughtered in June quarter 2004 remained steady at 1.95 million.
- The trend estimate for the number of sheep slaughtered in June quarter 2004 increased by 10% to 3.0 million, the third consecutive quarterly increase.
- In June quarter 2004, the trend estimate for the number of pigs slaughtered fell slightly to 1.4 million. This was the fifth consecutive quarterly decrease and the lowest quarterly trend estimate since March quarter 2002.
- The trend estimate for chicken meat production for June quarter 2004 fell slightly to 169,000 tonnes, the lowest quarterly trend estimate since December quarter 2001.

INQUIRIES

- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Frank Costin on Hobart (03) 6222 5838.

NOTES

FORTHCOMING ISSUES

ISSUE (Quarter)

RELEASE DATE

September 2004

11 November 2004

December 2004

14 February 2005

.....

CHANGES IN THIS ISSUE

A feature article on seasonal and trend influences in lamb slaughterings data has been included in this issue.

FORTHCOMING CHANGES

There are no forthcoming changes.

.....

ABBREVIATIONS

ML megalitre

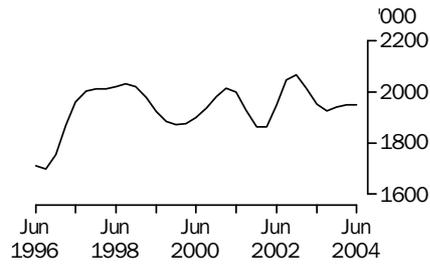
t tonne

Dennis Trewin

Australian Statistician

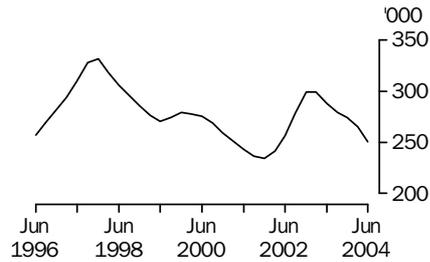
LIVESTOCK SLAUGHTERED TREND

CATTLE (EXCLUDING CALVES)



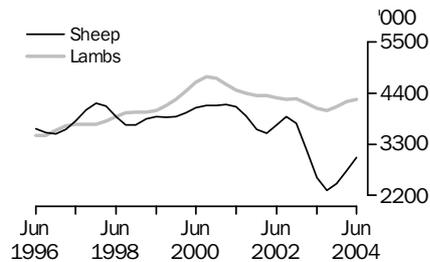
The trend estimate for the number of cattle slaughtered in June quarter 2004 remained steady at 1.9 million. The proportion of female cattle slaughtered has fallen below 50% for the third consecutive quarter as some producers begin rebuilding their herds.

CALVES



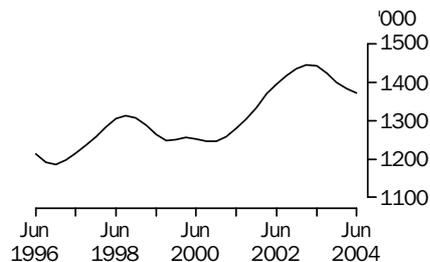
The trend estimate for the number of calves slaughtered in June quarter 2004 fell by 6% to 250,000.

SHEEP AND LAMBS



The trend estimate for the number of sheep slaughtered in June quarter 2004 increased by 10% to 3.0 million and the number of lambs slaughtered increased marginally to 4.3 million. Lack of widespread autumn rains critical for pasture growth saw many regions slip back into drought conditions.

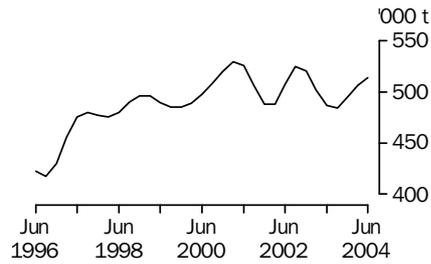
PIGS



The trend estimate for the number of pigs slaughtered fell marginally to 1.4 million in June quarter 2004. Falling domestic consumption and cheaper imports continue to impact on the industry.

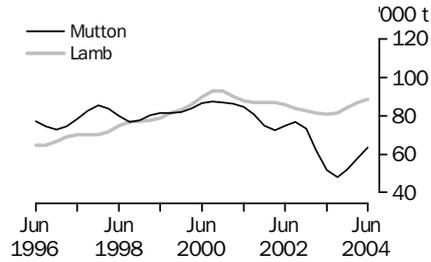
MEAT PRODUCTION TREND

BEEF



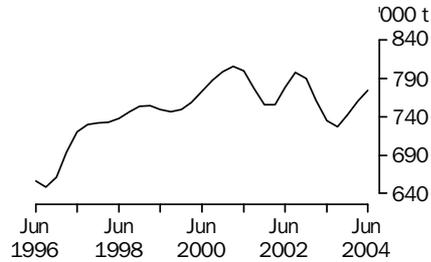
In June quarter 2004, the trend estimate for beef production rose by 2% to 514,000 tonnes.

MUTTON AND LAMB



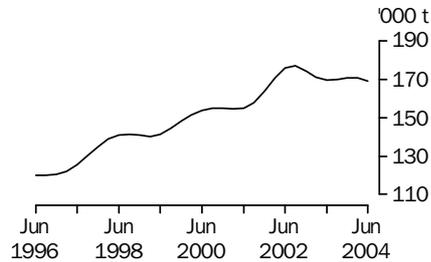
The trend estimate for mutton production in June quarter 2004 rose by 9% to 63,500 tonnes. The trend estimate for lamb production rose marginally to 88,500 tonnes.

TOTAL RED MEAT



The trend estimate for red meat production rose by 2% to 774,000 tonnes in June quarter 2004, with increases reported for beef, mutton and lamb production.

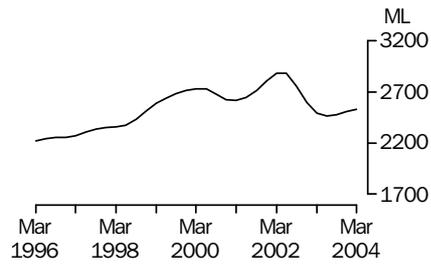
CHICKEN MEAT



The trend estimate for chicken meat production in June quarter 2004 fell slightly to 169,000 tonnes, the lowest quarterly trend estimate since December quarter 2001.

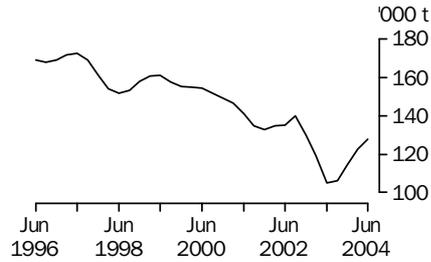
LIVESTOCK PRODUCTS TREND

WHOLE MILK INTAKE BY FACTORIES



An improvement in seasonal conditions in March quarter 2004 saw the trend estimate for whole milk intake by factories increase marginally to 2.5 billion litres.

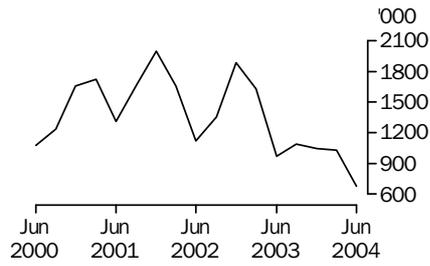
BROKERS AND DEALERS RECEIVALS OF TAXABLE WOOL



The trend estimate for wool receivals by brokers and dealers for June quarter 2004 rose by 4% to 128,000 tonnes.

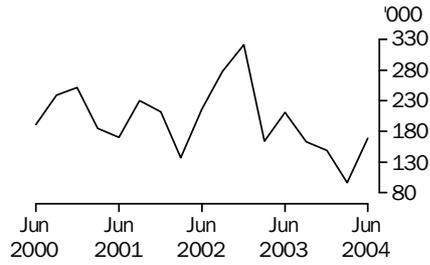
LIVESTOCK EXPORTS ORIGINAL

EXPORTS OF LIVE SHEEP



Live sheep exports fell by 34% to 678,000 in June quarter 2004, due to the tight domestic supply of sheep and high sale yard prices. The gross value of live sheep exports fell by 35% to \$44.7 million, with unit value dropping marginally to \$65.99.

EXPORTS OF LIVE CATTLE



Increased demand in Asian markets saw live cattle exports rise by 75% to 169,000 in June quarter 2004. The gross value of live cattle exports rose by 74%, to \$95.2 million. Unit value remained steady at \$563.84.

SEASONAL AND TREND INFLUENCES IN LAMB SLAUGHTERINGS

INTRODUCTION

To understand the underlying behaviour of an original series of data over time, the Australian Bureau of Statistics (ABS) estimates and publishes seasonally adjusted and trend series. Seasonally adjusted series have had systematic calendar related influences (including seasonal influences) estimated and removed from the original series. Trend series are the smoothed seasonally adjusted series, where the irregular influences have been dampened.

This article uses the quarterly Australian lamb slaughterings series to demonstrate how seasonally adjusted and trend estimates are derived by the ABS. The article explains, by decomposition of the series, why the ABS recommends using trend series for interpreting the underlying behaviour of a series. In doing so, the article also addresses the nature of the seasonal and irregular influences that can be seen in this lamb slaughterings series and whether these influences are changing over time.

TYPES OF TIME SERIES PUBLISHED BY ABS

To assist informed decision making, ABS time series statistics are published in three forms: original, seasonally adjusted and trend estimates.

Original estimates are the actual estimates the ABS derives from the data supplied by respondents to its surveys. Original estimates are affected by systematic calendar related influences, irregular influences and the long term underlying trend.

Seasonally adjusted estimates are derived by estimating the systematic calendar related influences and then removing them from the original estimates. Seasonally adjusted estimates will still contain irregular influences that can mask the underlying behaviour of a series.

Trend estimates are derived by using the seasonally adjusted estimates and then dampening any irregular influences. This results in estimates that provide an improved measure of the underlying direction of the series.

In order to produce seasonally adjusted estimates, the ABS uses a modified version of the US Bureau of the Census X11 procedure, which is widely used by statistical agencies around the world. Seasonal adjustment is a complicated process. For specific detailed information on the seasonal adjustment process used by the ABS, please refer to the free publications *An Introductory Course on Time Series Analysis* (cat. no. 1346.0.55.001) and *Information Paper: A Guide to Interpreting Time Series – Monitoring Trends* (cat. no. 1349.0.)

SYSTEMATIC CALENDAR RELATED INFLUENCES

There are two main types of systematic calendar related influences contained in original estimates: seasonal influences and trading day influences.

Seasonal influences, in slaughtering collections, occur for a variety of reasons.

- They may reflect different lambing and calving seasons across the country due to varying climatic conditions and feed availability (e.g. lambing in Victoria is, in most cases, timed to avoid the harsh winter conditions in that state).
- They may reflect traditional behaviour associated with various social events (e.g. Christmas and the associated holiday season which result in the closure of abattoirs and the subsequent decrease in slaughter numbers).

SYSTEMATIC CALENDAR
RELATED INFLUENCES
continued

- They may reflect changes in producer husbandry and marketing practices with producers moving to market lambs in autumn when prices are generally higher.

Trading day influences refer to activity associated with the number and type of days in a particular month. For instance, slaughtering statistics are collected monthly with a calendar month typically comprising of four weeks (28 days) plus an extra two or three days. If one (or more) of these extra days is a working day, then the overall activity for the month will tend to be higher than if the extra day was a Sunday. Also, if the extra day(s) is a working day associated with a higher than usual activity, then the overall activity for the month will again be higher. For example, if more slaughtering occur on Thursdays, then a month containing five Thursdays will show a greater level of activity than a month with four Thursdays and, say, five Mondays (presuming Mondays are just average production days).

While a trading day effect is common in monthly series, they are rarely seen in typical ABS quarterly series. A typical ABS quarterly series uses March, June, September and December as the reference periods, each with either 90, 91 or 92 days. Quarters with 91 days contain the same number of each day so do not experience the trading day effect. The other quarters only lose or gain a day and unless the activity on this day is significant, the effect is nearly impossible to quantify accurately. This explains the lack of trading day adjustment on the quarterly lamb slaughtering series examined later in this paper.

IRREGULAR INFLUENCES

Irregular influences are unpredictable and are not systematic nor calendar related. Examples of irregular influences are those caused by one-off events such as a dramatic price change affecting the market, abnormally severe frost or hail at lambing time resulting in reduced supply later in the year, or industrial action in the abattoirs. Sampling and non-sampling errors that behave in an irregular or erratic fashion with no noticeable systematic pattern are also irregular influences.

SEASONALLY ADJUSTING
STATE AND AUSTRALIAN
LEVEL TIME SERIES

When time series are related in an aggregative way (e.g. state and Australian level), there are two methods which can be used to seasonally adjust them, the indirect (aggregative) or the direct (disaggregative) method. That is:

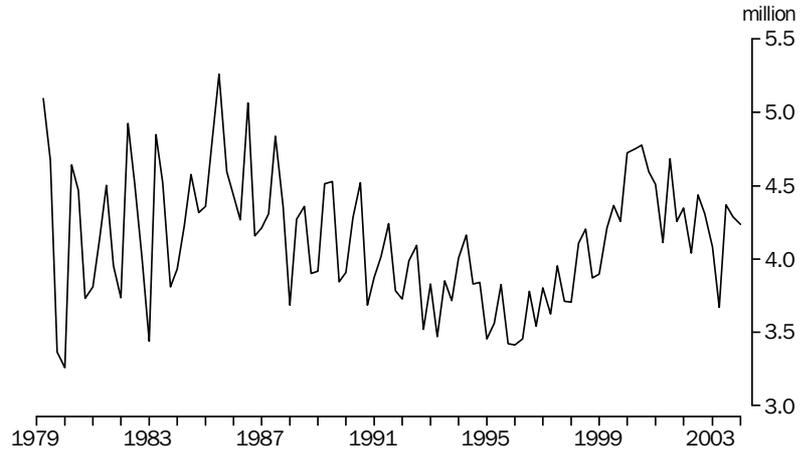
- *indirect method*: seasonally adjust each of the state series individually, then sum all the values to obtain the seasonally adjusted series for Australia. This method is preferable if the states each have very different seasonal patterns.
- *direct method*: sum all of the original state series to form an Australian series and then seasonally adjust this total series directly. This may remove any residual seasonality from the aggregated series where seasonality in the state series is minor and difficult to identify.

The seasonally adjusted quarterly Australian lamb slaughtering series is created by direct adjustment. That is, the original Australian level data are seasonally adjusted, rather than first adjusting the state series then aggregating to an adjusted Australian level. This method is used to reduce the effects of the volatility of the data at the state level.

GRAPHICAL BREAKDOWN
OF A SERIES

The following sequence of diagrams shows the time series decomposition of the Australian lamb slaughtering series on a quarterly basis. Graphs 1 to 5 illustrate the contributions of the seasonal, irregular and trend components to the behaviour of the original series.

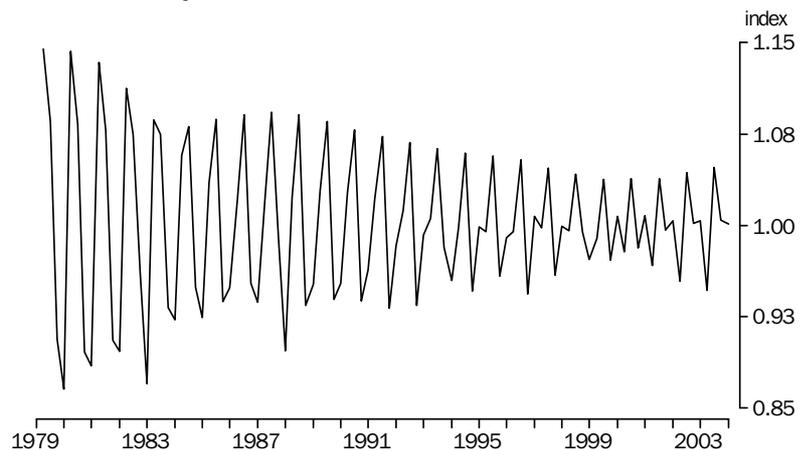
1. LAMB SLAUGHTERINGS, Original series—Sep Qtr 1979 to Jun Qtr 2004



The original estimates are represented in Graph 1. It shows that since September 1979, the underlying movement in the lamb slaughtering series has been periodic with a little less volatility becoming evident through the 1990s.

In June quarter 2004, the original lamb slaughtering series showed 4,236,897 lambs were sent to market.

2. LAMB SLAUGHTERINGS, Seasonal factors—Sep Qtr 1979 to Jun Qtr 2004



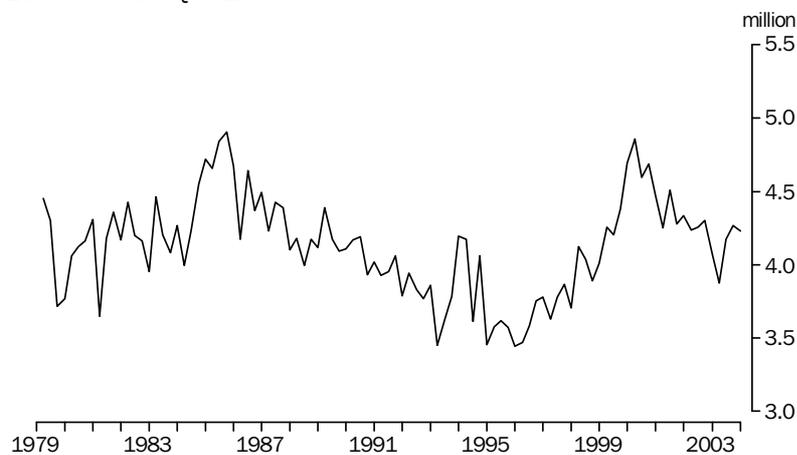
Graph 2 illustrates the seasonal behaviour of the lamb slaughtering series. This graph has been scaled differently to Graph 1 to enable seasonal fluctuations in lamb slaughtering to be seen more clearly.

From this graph we can see that the lamb slaughtering series is definitely seasonal and hence the underlying movement in the original series is indeed masked by a seasonal influence. The graph also shows how changes in producer practices have reduced the seasonality of supply over this 25 year period.

GRAPHICAL BREAKDOWN
OF A SERIES *continued*

In June quarter 2004, the seasonal factor was 1.00122, indicating that seasonal influences are negligible in that quarter.

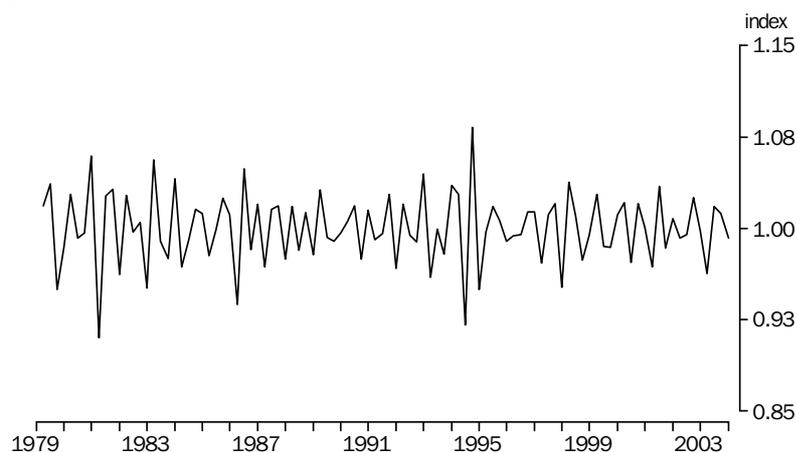
3. LAMB SLAUGHTERINGS, Seasonally adjusted series—Sep Qtr 1979 to Jun Qtr 2004



The seasonally adjusted series shown in Graph 3 is obtained by removing the estimated seasonal factors from the original series. On average, the quarterly percentage change, in absolute terms, of the seasonally adjusted series from September 1979 to June 2004 is only 4.62% compared with 8.32% for the original series in Graph 1. Note that the underlying direction of the series has not been distorted by the removal of systematic calendar related influences.

The June quarter 2004 seasonally adjusted estimate (4,231,738 lambs) is obtained by dividing the original estimate (4,236,897 lambs) by the seasonal factor (1.00122) prior to rounding.

4. LAMB SLAUGHTERINGS, Irregular factors—Sep Qtr 1979 to Jun Qtr 2004



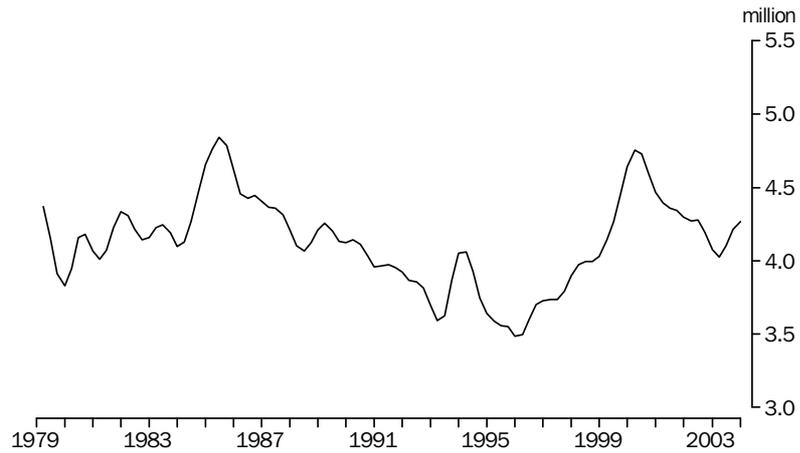
Irregular or random influences, which can mask the underlying quarter to quarter movement in a series, are still present in the seasonally adjusted series. Graph 4 presents the irregular factors for Australian lamb slaughterings.

GRAPHICAL BREAKDOWN
OF A SERIES *continued*

The irregular factors do not display any consistent pattern, are not increasing or decreasing over time, and are generally smaller than the seasonal influences. Occasional abnormally large or small irregular factors can occur in this series, but these are not systematically calendar related.

In June quarter 2004, the irregular factor was estimated to be 0.99181, indicating the seasonally adjusted estimate was 1% below the trend estimate.

5. LAMB SLAUGHTERINGS, Trend series—Sep Qtr 1979 to Jun Qtr 2004



Graph 5 presents the trend for quarterly Australian lamb slaughterings. It represents the underlying direction of the original series after seasonal factors and irregular influences have been removed. On average, the absolute quarterly percentage change of the trend is about 1.86% compared to 4.62% in the seasonally adjusted series and 8.32% in the original series.

The June quarter 2004 trend estimate (4,266,675 lambs) is obtained by dividing the seasonally adjusted estimate (4,231,738 lambs) by the irregular factor (0.99181) prior to rounding.

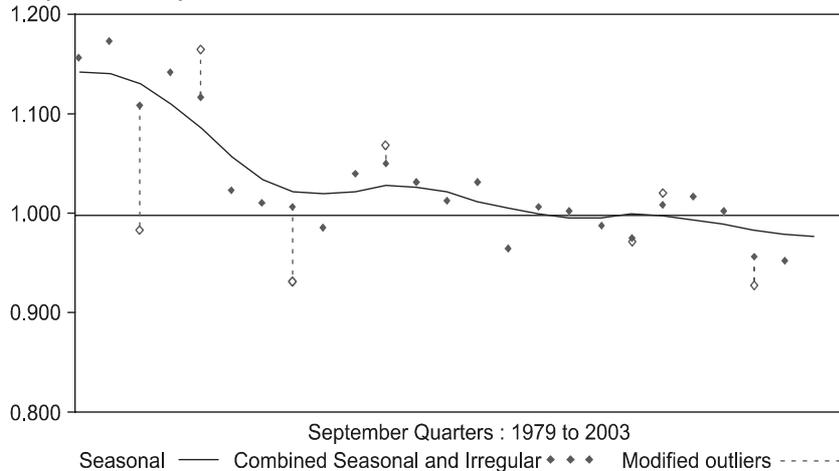
CHANGES IN SEASONAL
PATTERNS

Graph 6 (below) illustrates all September quarter estimates of the seasonal and irregular factors influencing lamb slaughterings in Australia for the years 1979 to 2003. The horizontal axis represents years. The combined seasonal and irregular factors (represented by diamonds) and the smoothed seasonal pattern (represented by the line) are plotted against the vertical axis. A seasonal-irregular of 1.1, for example, indicates that the original estimate for the September quarter that year was 1.1 times that of an average quarter (or 10% larger).

The graph clearly shows how the September quarter seasonal factors are evolving over the time. Values of the seasonal factors above the neutral line (of 1.00) indicate seasonally high quarters, and those values below the line indicate seasonally low quarters.

CHANGES IN SEASONAL PATTERNS *continued*

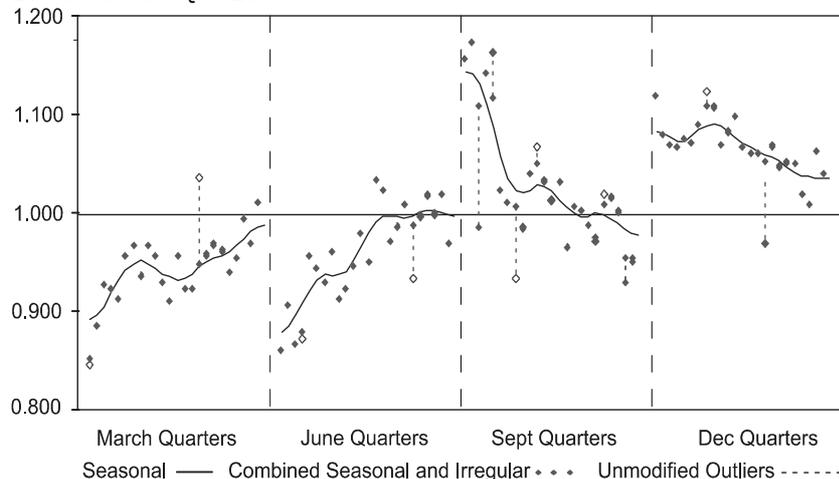
6. LAMB SLAUGHTERINGS, Seasonal and irregular factors: September quarters—1979 to 2003



The seasonal pattern in the lamb slaughterings series for all quarters is shown in Graph 7. As we have already seen in Graph 2, the seasonality of this series was in decline until recent years, but now appears to be increasing. Graph 7 shows that at the beginning of the study period (September 1979), the March and June quarters were the seasonally low quarters, while the September and December quarters were seasonally high. A shift occurred in 1984 that saw December surpass September as the seasonal high quarter for slaughterings, and the beginning of a continuing relative decline in September quarter slaughterings. We can see that at the end of the period, September is now the seasonally low quarter as lamb slaughterings begin to balance out across quarters.

This less volatile seasonal series is due to a number of influences, including changes in breeding patterns (e.g. improved sheep husbandry and genetics) and farm management practices (irrigation or use of new plant varieties to improve pasture growth in late summer/early autumn, particularly in the mid 1990s) as producers attempt to provide more lambs in those periods with traditionally low supplies and high prices. Also, with the expansion of international markets, demand for Australian lamb meat has become more stable.

7. LAMB SLAUGHTERINGS, Seasonal and irregular factors—Sep Qtr 1979 to Jun Qtr 2004



HOW IRREGULAR ARE THE
IRREGULARS?

The largest positive irregular factor in the lamb slaughterings series in the past 25 years occurred in the March 1995 quarter, when the seasonally adjusted estimate was 8.3% above the trend. The largest negative factor occurred in the September 1981 quarter when the seasonally adjusted estimate was 9.1% below the trend estimate. In the last eight years of the series, the degree of fluctuation of the irregulars has been fairly consistent.

The volatility in a seasonally adjusted series occurs as a consequence of the irregular influences remaining in the seasonally adjusted series. Both the seasonal-irregular graphs presented in Graphs 6 and 7 and the irregular factors in Graph 4 provide an indication of the size of the irregular factors relative to the seasonal factors for the lamb slaughterings series. In Graphs 6 and 7, the difference between any given dot and the corresponding point on the seasonal line will provide a measure of the irregular factor.

As well, the clustering of the combined irregular and seasonal factors (shown as diamonds) around the seasonal factors (line) in Graph 7 provides an indication of the volatility of particular quarters. Over the last 25 years, the clustering of the factors has been reasonably tightly grouped across all quarters despite the odd volatile moment. However, a closer look seems to show September and December quarters becoming a little 'rougher' in the late 1990s to the early 2000s.

LONG TERM INFLUENCES

Long term influences on a time series are best viewed in the trend estimates which capture events lasting greater than eight months but without the distortion by the seasonal and/or the irregular factors. An example of a long term influence in an agricultural context would be a drought. The effects of droughts in 1994–95 and 2002–03 can be clearly seen in Graph 5.

A typical drought pattern might show an increase in slaughterings when graziers sell off stock as feed becomes scarce. Then follows a fall in slaughterings as stock numbers reduce and core numbers are retained to rebuild the flock when the season improves. During the 1994–95 drought, flock numbers dropped to their lowest for 40 years with matings down 2%, lambs marked down 8%, and the proportion of lambs marked to ewes mated at 72%, the lowest ever recorded. Because of the dry conditions, lamb slaughterings peaked in August 1994, a month or two earlier than normal, as producers tried to reduce grazing pressure. Overall, the trend estimate of lamb slaughterings for the 1994 year was up 8% on the previous year. With flock rebuilding during 1995 and 1996 and the low lamb marking percentages in 1994 and 1995, the lamb slaughterings trend estimates in 1995 and 1996 fell 9% and 3% respectively. Improved seasonal conditions in 1996 saw lambs marked rise 3% which contributed to a 5% increase in the lamb slaughterings trend estimate for the following year, 1997.

More recently, the effects of the drought in 2002–03 are clearly evident in the trend series and this will continue to influence the shape of the series for several more quarters.

TAKE CARE IN
INTERPRETING QUARTER
TO QUARTER MOVEMENTS

As outlined above, the original series of the lamb slaughterings time series consists of three components of behaviour; seasonal effects, irregular fluctuations and trend behaviour, with the irregular fluctuations generally dominating the movements in the seasonally adjusted series.

TAKE CARE IN
INTERPRETING QUARTER
TO QUARTER MOVEMENTS
continued

The table below clearly shows the dominance (82%) of the irregulars' influence on the seasonally adjusted lamb slaughtering series over the last 25 years. In the last five years, the irregular contribution (70%) has declined but still dominates the contribution from the trend in the movement of the seasonally adjusted series.

8. SUMMARY OF INFLUENCES ON LAMB SLAUGHTERING SERIES

	<i>Trend</i>	<i>Irregular factors</i>	<i>Seasonally adjusted</i>
Last 25 years			
AAPC(a)	1.86	4.01	4.62
RCVSA(b)	17.75	82.25	..
Last 10 years			
AAPC(a)	1.78	3.73	4.36
RCVSA(b)	18.53	81.47	..
Last 5 years			
AAPC(a)	1.94	2.97	3.68
RCVSA(b)	29.88	70.12	..

- .. not applicable
- (a) AAPC is the average absolute percentage change quarter to quarter.
- (b) RCVSA is the relative contribution to the variability of the seasonally adjusted.

Specifically, in the latest quarter, the three contributions to the 1.1% decrease in original lamb slaughtering for June 2004 (from 4.28 million in the March quarter to 4.23 million in the June quarter) are:

- 0.3% decrease in the seasonal factor, from 1.0045 to 1.0012;
- 1.2% increase in the trend, from 4.22 million to 4.27 million; and
- 2.0% decrease in the irregular factor, from 1.0121 to 0.9918.

Looking at this another way, the 0.8% decrease in the seasonally adjusted estimate from 4.27 million to 4.23 million in the June quarter 2004 comprises:

- 1.2% increase in the trend estimate; and
- 2.0% decrease in the irregular.

Clearly, the irregular component dominated the overall movement in the seasonally adjusted estimate in this case, as it has in about 75% of cases over the last 25 years. This high contribution of the irregular, evident in the example and the summary measures, makes the direction of the quarter to quarter movement of the original series and the seasonally adjusted series difficult to interpret with confidence. The original series may therefore not be appropriate to use to assess quarter to quarter movements as this series will contain calendar related, irregular and trend influences which can all evolve over time. The trend series, where the impact of seasonality has been removed and the irregular has been reduced, is strongly encouraged to be used to interpret quarter to quarter movements. Care should be taken when interpreting movements at the end of the series, especially the last three estimates.

This dominant impact of the irregular component in period to period movements occurs in most economic series and is the reason why the ABS recommends using the trend series for interpreting the underlying behaviour of a series.

LIVESTOCK SLAUGHTERED, Australia(a): All Series

<i>Quarter</i>	<i>Bulls, bullocks and steers</i>	<i>Cows and heifers</i>	<i>Total cattle (excluding calves)</i>	<i>Calves</i>	<i>Sheep</i>	<i>Lambs</i>	<i>Pigs</i>	<i>Chickens</i>
	'000	'000	'000	'000	'000	'000	'000	'000
ORIGINAL								
2003								
March	941.4	950.5	1 891.9	157.6	3 614.5	4 307.7	1 408.4	103 360.2
June	943.7	1 087.2	2 030.9	261.0	2 271.4	4 083.3	1 500.1	101 682.1
September	951.2	997.9	1 949.1	480.1	1 899.9	3 667.9	1 437.9	105 746.9
December	1 017.9	916.3	1 934.2	201.5	2 736.3	4 371.5	1 376.9	107 480.2
2004								
March	945.6	903.2	1 848.8	126.1	3 076.2	4 285.5	1 352.3	106 367.5
June	1 016.3	1 004.5	2 020.8	218.1	2 708.4	4 236.9	1 424.1	100 459.3
SEASONALLY ADJUSTED								
2003								
March	1 002.0	994.1	1 996.1	319.7	3 257.1	4 300.3	1 473.1	103 586.8
June	946.9	998.3	1 945.2	285.5	2 536.3	4 067.6	1 443.5	103 116.4
September	922.6	978.7	1 901.4	246.8	2 090.8	3 875.3	1 417.7	107 425.9
December	985.1	978.9	1 964.0	311.6	2 548.8	4 174.2	1 395.1	104 181.1
2004								
March	1 007.6	946.0	1 953.6	254.6	2 741.8	4 266.1	1 390.4	105 698.1
June	1 018.3	921.7	1 940.0	239.1	3 026.2	4 231.7	1 370.0	101 817.0
TREND								
2003								
March	990.0	1 025.4	2 015.4	299.0	3 198.4	4 195.5	1 446.1	104 132.3
June	955.1	998.2	1 953.3	288.5	2 585.6	4 075.3	1 443.3	104 362.6
September	945.8	980.5	1 926.3	279.7	2 309.4	4 024.2	1 424.0	105 314.3
December	970.7	969.5	1 940.2	274.0	2 448.2	4 102.0	1 399.9	105 428.8
2004								
March	1 001.7	948.4	1 950.1	265.0	2 733.9	4 215.1	1 385.2	104 388.3
June	1 021.4	927.8	1 949.2	250.1	3 010.1	4 266.7	1 372.4	102 775.8

(a) For more information refer to paragraphs 5 to 9 of the Explanatory Notes.

LIVESTOCK PRODUCTS, Australia(a): All Series

Quarter	RED MEAT						Chicken meat tonnes	Whole milk intake by factories ML	Brokers and dealers receivals of taxable wool tonnes
	Beef tonnes	Veal tonnes	Mutton tonnes	Lamb tonnes	Pig meat tonnes	Total red meat tonnes			
ORIGINAL									
2003									
March	473 184	8 594	69 589	85 222	102 714	739 303	171 463	2 349	113 419
June	499 323	8 953	43 734	81 381	111 490	744 881	164 280	1 781	71 921
September	489 378	12 683	39 847	73 146	106 120	721 174	169 979	2 370	121 566
December	497 502	7 945	60 488	90 068	98 551	754 555	175 765	3 431	135 827
2004									
March	483 454	6 644	64 694	89 804	96 531	741 128	172 068	2 441	117 290
June	527 514	7 821	54 684	88 430	104 697	783 145	165 723	nya	92 899
SEASONALLY ADJUSTED									
2003									
March	500 244	11 599	63 571	83 746	108 704	767 864	172 893	2 452	118 365
June	484 116	9 179	50 401	80 680	105 929	730 305	166 347	2 476	100 119
September	479 470	8 393	43 334	78 969	103 410	713 576	171 592	2 475	107 368
December	496 063	10 298	54 593	86 064	100 869	747 887	170 321	2 505	114 700
2004									
March	511 999	8 934	58 436	88 094	100 465	767 928	172 394	2 543	122 885
June	510 871	8 036	63 099	87 637	99 441	769 084	167 700	nya	129 481
TREND									
2003									
March	502 406	9 566	62 225	81 494	106 156	761 847	171 167	2 496	119 011
June	486 676	9 573	51 465	80 851	105 949	734 514	169 485	2 462	104 717
September	484 252	9 495	47 904	81 717	103 855	727 223	169 918	2 477	106 088
December	494 922	9 207	51 902	84 371	101 477	741 879	170 822	2 508	114 389
2004									
March	506 293	9 034	58 048	87 170	100 219	760 764	170 696	2 529	122 517
June	514 173	8 536	63 451	88 464	99 386	774 010	169 298	nya	127 846

nya not yet available

(a) For more information refer to paragraphs 5 to 9 and 13 to 15 of the Explanatory Notes.

NUMBER OF LIVESTOCK SLAUGHTERED(a), Bulls, Bullocks and Steers: All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	'000	'000	'000	'000	'000	'000	'000
ORIGINAL							
2003							
March	247.8	172.1	408.4	46.6	43.0	23.2	941.4
June	218.9	154.3	476.8	38.9	36.0	18.6	943.7
September	180.7	137.5	547.3	31.8	40.6	13.1	951.2
December	201.5	144.9	535.9	46.6	63.3	25.4	1 017.9
2004							
March	208.6	170.6	444.3	41.0	50.6	30.3	945.6
June	203.0	160.8	542.2	34.6	46.0	29.5	1 016.3
SEASONALLY ADJUSTED							
2003							
March	242.5	158.5	487.3	41.9	45.1	19.6	1 002.0
June	224.1	160.1	470.0	40.2	40.3	18.5	946.9
September	180.6	155.3	482.7	37.2	43.7	15.3	922.6
December	201.4	136.9	528.4	43.8	52.2	26.8	985.1
2004							
March	204.1	155.9	530.8	36.8	51.0	25.5	1 007.6
June	207.5	166.2	534.4	35.6	51.6	29.4	1 018.3
TREND							
2003							
March	242.4	160.0	484.1	40.3	43.1	18.8	990.0
June	218.3	157.4	477.9	40.0	42.9	17.8	955.1
September	198.2	150.7	490.8	40.2	45.2	19.3	945.8
December	196.0	148.6	513.9	39.7	48.9	22.9	970.7
2004							
March	201.8	153.0	531.0	38.4	51.6	26.7	1 001.7
June	209.6	160.9	539.1	36.7	52.4	29.4	1 021.4

(a) For more information refer to paragraph 4 of the Explanatory Notes.

NUMBER OF LIVESTOCK SLAUGHTERED(a), Cows and Heifers: All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	'000	'000	'000	'000	'000	'000	'000
ORIGINAL							
2003							
March	238.2	247.7	308.9	49.2	71.5	33.9	950.5
June	235.1	256.4	448.0	50.9	58.9	36.8	1 087.2
September	219.2	220.4	437.5	32.5	61.7	25.6	997.9
December	217.9	233.8	342.6	35.1	62.2	23.7	916.3
2004							
March	190.3	243.6	330.2	38.1	71.2	28.8	903.2
June	194.1	246.1	428.7	38.8	67.5	28.4	1 004.5
SEASONALLY ADJUSTED							
2003							
March	247.3	242.8	361.6	46.8	67.9	30.3	994.1
June	220.5	255.8	385.2	48.2	63.0	30.7	998.3
September	224.1	228.3	397.3	35.6	63.2	33.8	978.7
December	221.6	230.9	387.8	35.8	60.2	25.6	978.9
2004							
March	192.4	238.8	388.2	36.3	67.3	25.6	946.0
June	181.9	245.7	368.0	36.7	72.3	23.8	921.7
TREND							
2003							
March	239.5	255.1	380.7	49.0	66.2	30.6	1 025.4
June	230.6	243.7	383.2	44.4	64.6	32.2	998.2
September	222.9	235.5	389.9	39.1	62.1	30.6	980.5
December	212.6	233.7	391.1	36.2	63.1	28.1	969.5
2004							
March	198.7	237.0	383.1	35.6	66.6	25.4	948.4
June	183.1	243.9	373.6	36.6	70.1	23.2	927.8

(a) For more information refer to paragraph 4 of the Explanatory Notes.

NUMBER OF LIVESTOCK SLAUGHTERED(a), Total Cattle (excluding Calves): All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	'000	'000	'000	'000	'000	'000	'000
ORIGINAL							
2003							
March	486.0	419.8	717.3	95.8	114.5	57.2	1 891.9
June	453.9	410.7	924.8	89.8	94.8	55.5	2 030.9
September	399.8	357.8	984.8	64.3	102.2	38.7	1 949.1
December	419.4	378.6	878.5	81.7	125.5	49.1	1 934.2
2004							
March	398.9	414.2	774.5	79.1	121.7	59.0	1 848.8
June	397.1	406.9	970.9	73.3	113.4	57.9	2 020.8
SEASONALLY ADJUSTED							
2003							
March	489.9	401.3	848.9	88.7	113.0	49.9	1 996.1
June	444.6	415.8	855.2	88.4	103.4	49.3	1 945.2
September	404.7	383.6	880.0	72.8	107.0	49.1	1 901.4
December	423.0	367.8	916.1	79.6	112.3	52.4	1 964.0
2004							
March	396.4	394.7	919.0	73.1	118.4	51.1	1 953.6
June	389.4	411.9	902.4	72.3	123.9	53.2	1 940.0
TREND							
2003							
March	481.8	415.1	864.8	89.3	109.2	49.4	2 015.4
June	448.9	401.1	861.1	84.4	107.4	50.1	1 953.3
September	421.1	386.2	880.8	79.3	107.3	49.9	1 926.3
December	408.6	382.3	905.0	75.9	112.1	51.0	1 940.2
2004							
March	400.5	390.0	914.1	74.0	118.2	52.1	1 950.1
June	392.7	404.7	912.7	73.2	122.6	52.6	1 949.2

(a) For more information refer to paragraph 4 of the Explanatory Notes.

NUMBER OF LIVESTOCK SLAUGHTERED(a), Calves: All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	'000	'000	'000	'000	'000	'000	'000
ORIGINAL							
2003							
March	83.4	44.5	24.7	2.4	1.3	1.1	157.6
June	66.4	164.2	23.0	2.9	1.3	2.9	261.0
September	56.4	362.9	23.4	2.2	1.3	33.7	480.1
December	53.7	115.3	21.4	1.1	1.1	8.7	201.5
2004							
March	56.6	45.5	19.7	1.5	1.3	1.3	126.1
June	55.2	135.5	20.7	1.9	1.1	3.6	218.1
SEASONALLY ADJUSTED							
2003							
March	77.9	215.0	24.7	2.7	1.3	14.4	319.7
June	59.7	186.2	21.4	2.5	1.4	12.2	285.5
September	59.5	155.7	23.2	1.9	1.2	10.9	246.8
December	61.9	198.8	23.4	1.5	1.0	15.0	311.6
2004							
March	52.8	217.7	19.6	1.7	1.3	17.2	254.6
June	49.6	153.9	19.3	1.6	1.2	15.3	239.1
TREND							
2003							
March	60.5	207.3	23.1	2.8	1.4	12.9	299.0
June	63.5	187.3	23.1	2.4	1.3	12.5	288.5
September	63.0	180.6	22.9	1.9	1.2	12.8	279.7
December	57.7	188.9	22.1	1.7	1.2	14.3	274.0
2004							
March	54.6	191.6	20.7	1.6	1.2	15.9	265.0
June	50.4	183.9	19.0	1.6	1.2	16.5	250.1

(a) For more information refer to paragraph 4 of the Explanatory Notes.

NUMBER OF LIVESTOCK SLAUGHTERED(a), Sheep: All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
'000	'000	'000	'000	'000	'000	'000	'000
ORIGINAL							
2003							
March	1 236.8	1 009.9	269.3	359.2	590.8	148.6	3 614.5
June	814.9	642.7	227.0	180.0	290.5	116.3	2 271.4
September	611.0	541.6	216.2	185.2	274.7	71.3	1 899.9
December	790.2	808.7	240.0	282.4	514.3	100.8	2 736.3
2004							
March	948.2	920.6	229.1	266.1	604.1	108.1	3 076.2
June	952.4	816.2	214.4	206.8	452.4	66.1	2 708.4
SEASONALLY ADJUSTED							
2003							
March	1 181.1	876.9	266.6	308.5	489.8	107.0	3 257.1
June	875.1	722.7	221.4	220.5	388.2	114.0	2 536.3
September	632.6	645.5	217.4	213.4	302.6	114.4	2 090.8
December	746.7	720.7	247.4	244.3	452.9	104.0	2 548.8
2004							
March	907.7	800.9	226.5	229.7	499.1	78.0	2 741.8
June	1 023.6	918.1	209.7	253.3	606.8	64.9	3 026.2
TREND							
2003							
March	1 207.0	869.0	263.9	313.4	436.1	100.2	3 198.4
June	878.5	737.7	232.6	239.2	390.1	112.9	2 585.6
September	708.7	676.5	225.8	217.8	368.7	114.0	2 309.4
December	753.2	718.3	229.9	227.5	419.3	99.7	2 448.2
2004							
March	877.2	804.3	227.6	240.1	508.8	82.4	2 733.9
June	1 012.2	894.4	218.5	248.6	595.3	67.2	3 010.1

(a) For more information refer to paragraph 4 of the Explanatory Notes.

NUMBER OF LIVESTOCK SLAUGHTERED(a), Lambs: All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	'000	'000	'000	'000	'000	'000	'000
ORIGINAL							
2003							
March	1 102.5	1 685.8	81.8	820.1	521.8	95.7	4 307.7
June	1 037.5	1 639.6	75.3	727.6	514.9	88.4	4 083.3
September	912.8	1 478.3	96.1	574.2	501.0	105.5	3 667.9
December	1 056.0	1 747.7	143.3	700.0	629.0	95.5	4 371.5
2004							
March	1 087.0	1 625.9	142.1	727.7	598.7	104.1	4 285.5
June	988.5	1 622.6	154.8	693.9	663.0	114.1	4 236.9
SEASONALLY ADJUSTED							
2003							
March	1 087.5	1 716.8	87.2	784.9	526.1	96.1	4 300.3
June	1 042.3	1 692.6	76.7	681.0	510.4	91.7	4 067.6
September	913.7	1 514.4	83.3	662.8	555.9	98.0	3 875.3
December	1 065.4	1 629.7	154.6	686.7	572.9	98.9	4 174.2
2004							
March	1 069.9	1 655.5	151.8	693.2	603.1	104.7	4 266.1
June	995.6	1 671.0	157.7	652.6	658.0	118.2	4 231.7
TREND							
2003							
March	1 072.8	1 714.1	76.3	730.4	512.9	92.8	4 195.5
June	1 015.8	1 648.1	80.6	710.9	527.4	94.7	4 075.3
September	998.7	1 597.0	102.5	681.1	546.0	95.8	4 024.2
December	1 018.6	1 604.5	131.1	676.2	576.2	100.4	4 102.0
2004							
March	1 039.0	1 641.6	153.6	678.4	611.5	107.1	4 215.1
June	1 039.8	1 678.1	164.7	671.0	639.1	113.2	4 266.7

(a) For more information refer to paragraph 4 of the Explanatory Notes.

NUMBER OF LIVESTOCK SLAUGHTERED(a), Pigs: All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	'000	'000	'000	'000	'000	'000	'000
ORIGINAL							
2003							
March	441.5	244.4	317.8	220.3	171.3	11.1	1 408.4
June	475.7	269.4	329.5	235.2	176.4	11.6	1 500.1
September	453.9	248.0	335.7	215.8	170.6	11.6	1 437.9
December	439.4	243.7	326.1	191.3	162.3	11.7	1 376.9
2004							
March	414.6	233.8	320.9	202.3	167.7	10.7	1 352.3
June	443.1	247.7	335.4	211.5	173.8	10.2	1 424.1
SEASONALLY ADJUSTED							
2003							
March	466.0	257.1	327.9	218.8	173.6	11.7	1 473.1
June	461.7	261.6	315.9	218.9	168.5	11.1	1 443.5
September	442.2	246.1	338.5	216.9	170.3	11.8	1 417.7
December	439.9	243.0	329.7	208.5	168.1	11.5	1 395.1
2004							
March	429.4	240.3	328.1	198.5	169.0	11.3	1 390.4
June	428.9	240.5	321.9	196.6	166.3	9.7	1 370.0
TREND							
2003							
March	464.7	259.1	312.1	222.2	170.4	11.8	1 446.1
June	458.2	255.6	324.7	218.9	170.5	11.5	1 443.3
September	447.1	249.8	332.3	214.7	169.7	11.5	1 424.0
December	437.9	243.8	330.8	208.3	168.7	11.5	1 399.9
2004							
March	431.6	240.5	328.1	201.1	168.1	11.0	1 385.2
June	427.9	239.7	322.6	195.2	166.9	10.2	1 372.4

(a) For more information refer to paragraph 4 of the Explanatory Notes.

NUMBER OF CHICKENS SLAUGHTERED (a): All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Australia
	'000	'000	'000	'000	'000	'000
ORIGINAL						
2003						
March	36 188.5	29 496.2	18 703.4	np	np	103 360.2
June	35 613.2	29 138.0	18 282.3	np	np	101 682.1
September	38 377.1	29 312.9	19 209.3	np	np	105 746.9
December	36 797.4	31 092.4	20 288.0	np	np	107 480.2
2004						
March	37 155.1	30 319.2	19 761.1	np	np	106 367.5
June	37 029.2	29 621.5	18 213.7	np	np	100 459.3
SEASONALLY ADJUSTED						
2003						
March	36 287.4	29 784.2	18 632.9	np	np	103 586.8
June	35 950.1	29 400.2	18 663.3	np	np	103 116.4
September	38 724.3	29 946.3	19 740.6	np	np	107 425.9
December	35 739.7	30 194.4	19 440.3	np	np	104 181.1
2004						
March	37 009.0	29 989.6	19 683.6	np	np	105 698.1
June	37 376.2	29 897.6	18 604.4	np	np	101 817.0
TREND						
2003						
March	36 921.0	29 519.2	18 725.4	np	np	104 132.3
June	36 733.7	29 685.3	18 949.1	np	np	104 362.6
September	36 887.8	29 891.9	19 385.6	np	np	105 314.3
December	36 968.2	30 026.3	19 556.6	np	np	105 428.8
2004						
March	36 900.7	30 049.3	19 359.4	np	np	104 388.3
June	36 874.6	29 952.0	18 953.4	np	np	102 775.8

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

(a) For more information refer to paragraphs 8 and 9 of the Explanatory Notes.

NUMBER OF LIVESTOCK SLAUGHTERED(a): Original

Financial year	New South Wales '000	Victoria '000	Queensland '000	South Australia '000	Western Australia '000	Tasmania '000	Australia '000
BULLS, BULLOCKS AND STEERS							
2001-02	820.5	630.6	2 150.0	182.0	137.7	80.6	4 002.4
2002-03	961.6	630.0	1 993.7	166.6	173.4	79.9	4 006.3
2003-04	793.7	613.7	2 069.7	153.9	200.4	98.3	3 930.9
COWS AND HEIFERS							
2001-02	992.1	800.6	1 364.2	150.6	230.6	79.4	3 621.7
2002-03	968.9	1 020.5	1 521.6	192.5	255.9	112.9	4 076.4
2003-04	821.4	943.8	1 539.0	144.5	262.5	106.5	3 821.9
TOTAL CATTLE (excluding calves)							
2001-02	1 812.6	1 431.1	3 514.1	332.6	368.3	160.0	7 624.1
2002-03	1 930.5	1 650.4	3 515.2	359.1	429.3	192.8	8 082.7
2003-04	1 615.2	1 557.5	3 608.7	298.5	462.9	204.7	7 752.9
CALVES							
2001-02	205.7	597.0	99.7	9.6	6.0	44.6	963.3
2002-03	246.1	749.3	92.1	11.0	5.3	41.2	1 145.8
2003-04	221.9	659.2	85.1	6.8	4.7	47.3	1 025.8
SHEEP							
2001-02	5 712.7	3 819.5	1 334.0	1 337.7	1 961.3	275.8	14 441.0
2002-03	5 282.2	3 641.2	1 142.0	1 431.8	1 771.8	388.3	13 657.3
2003-04	3 301.7	3 087.1	899.7	940.5	1 845.4	346.3	10 420.7
LAMBS							
2001-02	4 558.8	6 997.4	627.6	2 933.4	1 856.6	426.4	17 400.2
2002-03	4 388.8	6 904.8	340.3	2 841.1	2 021.0	374.0	16 869.8
2003-04	4 044.3	6 474.5	536.3	2 695.8	2 391.8	419.2	16 561.8
PIGS							
2001-02	1 885.0	1 042.1	1 133.7	690.0	591.4	53.1	5 402.4
2002-03	1 860.6	1 033.2	1 234.8	884.1	672.3	47.7	5 741.7
2003-04	1 751.0	973.2	1 318.1	820.9	674.4	44.2	5 591.2
CHICKENS							
2001-02	156 682.0	109 311.2	70 940.6	np	np	np	415 555.6
2002-03	149 917.0	117 892.0	75 149.3	np	np	np	419 181.0
2003-04	149 358.7	120 345.9	77 472.0	np	np	np	420 053.9

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

(a) For more information refer to paragraphs 4, 5 and 7 to 9 of the Explanatory Notes.

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes
ORIGINAL							
2003							
March	116 215	94 683	194 376	23 930	28 061	15 644	473 184
June	108 541	89 867	242 235	21 413	22 650	14 328	499 323
September	95 483	80 324	262 870	15 611	24 687	10 120	489 378
December	102 846	87 972	239 249	21 514	32 363	13 282	497 502
2004							
March	101 958	98 121	214 642	20 875	31 198	16 385	483 454
June	101 498	95 046	267 721	18 988	28 307	15 667	527 514
SEASONALLY ADJUSTED							
2003							
March	114 914	89 363	230 058	21 870	28 367	13 479	500 244
June	105 850	92 313	226 922	21 618	25 100	13 001	484 116
September	98 365	86 357	234 237	18 015	25 770	13 464	479 470
December	103 566	84 834	247 520	20 511	28 567	13 465	496 063
2004							
March	100 871	92 704	254 741	19 095	29 967	14 115	511 999
June	98 982	97 473	250 522	19 127	31 390	14 236	510 871
TREND							
2003							
March	115 453	92 094	232 117	21 760	26 726	13 156	502 406
June	106 520	89 244	229 563	20 697	26 263	13 340	486 676
September	101 547	87 080	235 385	19 780	26 424	13 346	484 252
December	100 905	87 975	245 036	19 387	27 981	13 626	494 922
2004							
March	100 723	91 369	251 453	19 326	29 931	13 972	506 293
June	100 232	95 598	254 524	19 361	31 291	14 222	514 173

(a) For more information refer to paragraphs 4 to 6 of the Explanatory Notes.

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes
ORIGINAL							
2003							
March	6 233	1 003	1 160	85	71	30	8 594
June	4 283	3 339	1 087	88	77	67	8 953
September	3 621	7 079	1 168	69	80	653	12 683
December	3 464	3 120	1 072	41	60	176	7 945
2004							
March	3 643	1 815	1 027	48	63	36	6 644
June	3 547	3 062	1 003	58	55	82	7 821
SEASONALLY ADJUSTED							
2003							
March	5 774	4 031	1 109	89	74	277	11 599
June	3 842	3 921	1 040	79	82	243	9 179
September	3 869	3 085	1 161	61	71	218	8 393
December	3 997	5 157	1 190	52	61	284	10 298
2004							
March	3 364	7 212	979	50	66	326	8 934
June	3 180	3 619	960	53	59	299	8 036
TREND							
2003							
March	4 145	4 014	1 039	89	76	250	9 566
June	4 308	3 611	1 104	78	76	245	9 573
September	4 130	4 131	1 143	63	72	249	9 495
December	3 690	5 044	1 114	54	66	274	9 207
2004							
March	3 507	5 488	1 044	50	62	303	9 034
June	3 217	5 285	955	50	60	320	8 536

(a) For more information refer to paragraphs 4 to 6 of the Explanatory Notes.

RED MEAT PRODUCED(a), Mutton: All Series

Quarter	<i>New South Wales</i>	<i>Victoria</i>	<i>Queensland</i>	<i>South Australia</i>	<i>Western Australia</i>	<i>Tasmania</i>	Australia
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes
ORIGINAL							
2003							
March	24 143	18 676	4 623	7 521	11 740	2 885	69 589
June	16 090	11 400	4 271	3 948	5 797	2 227	43 734
September	13 318	10 475	4 526	4 527	5 619	1 382	39 847
December	18 674	16 829	5 246	7 251	10 456	2 031	60 488
2004							
March	21 116	17 927	4 877	6 566	12 086	2 122	64 694
June	20 087	14 964	4 511	4 886	8 932	1 304	54 684
SEASONALLY ADJUSTED							
2003							
March	23 375	16 494	4 610	6 594	9 763	2 075	63 571
June	17 952	13 417	4 193	5 100	7 846	2 195	50 401
September	13 523	12 335	4 644	5 100	6 161	2 243	43 334
December	17 149	14 384	5 219	6 033	9 146	2 072	54 593
2004							
March	20 499	15 838	4 862	5 788	10 006	1 528	58 436
June	22 446	17 639	4 447	6 303	12 142	1 289	63 099
TREND							
2003							
March	23 828	16 027	4 743	6 725	8 730	1 934	62 225
June	17 852	13 862	4 428	5 419	7 862	2 191	51 465
September	15 370	13 050	4 644	5 239	7 470	2 232	47 904
December	16 906	14 099	4 899	5 619	8 471	1 964	51 902
2004							
March	19 742	15 813	4 868	5 995	10 221	1 632	58 048
June	22 559	17 427	4 659	6 246	11 780	1 353	63 451

(a) For more information refer to paragraphs 4 to 6 of the Explanatory Notes.

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes
ORIGINAL							
2003							
March	21 559	32 005	1 474	17 947	10 365	1 871	85 222
June	20 389	31 693	1 439	15 809	10 296	1 755	81 381
September	17 990	28 863	1 843	12 379	9 935	2 136	73 146
December	21 589	35 527	2 757	15 861	12 439	1 894	90 068
2004							
March	22 339	33 357	2 738	17 719	11 592	2 059	89 804
June	20 186	33 068	3 009	16 573	13 246	2 348	88 430
SEASONALLY ADJUSTED							
2003							
March	21 234	32 409	1 580	16 711	10 522	1 902	83 746
June	20 402	32 177	1 447	14 497	10 051	1 798	80 680
September	18 021	29 976	1 606	14 868	11 139	1 984	78 969
December	21 894	33 380	2 978	15 836	11 322	1 962	86 064
2004							
March	21 943	33 765	2 946	16 412	11 762	2 099	88 094
June	20 252	33 545	3 025	15 275	12 945	2 401	87 637
TREND							
2003							
March	20 787	32 254	1 398	15 334	10 121	1 842	81 494
June	19 909	31 588	1 513	15 299	10 501	1 876	80 851
September	19 939	31 595	1 968	15 215	10 856	1 907	81 717
December	20 682	32 474	2 534	15 574	11 380	2 008	84 371
2004							
March	21 276	33 432	2 966	15 917	12 015	2 152	87 170
June	21 337	33 945	3 173	15 835	12 513	2 283	88 464

(a) For more information refer to paragraphs 4 to 6 of the Explanatory Notes.

RED MEAT PRODUCED(a), Pig Meat: All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes
ORIGINAL							
2003							
March	33 017	16 819	24 247	16 345	11 563	626	102 714
June	36 716	19 023	25 522	17 405	12 058	659	111 490
September	34 471	17 848	26 157	15 415	11 465	656	106 120
December	32 041	17 311	24 551	13 211	10 691	642	98 551
2004							
March	30 328	16 885	23 198	14 172	11 252	593	96 531
June	32 955	18 251	25 868	15 162	11 781	566	104 697
SEASONALLY ADJUSTED							
2003							
March	35 300	17 845	25 575	16 175	11 831	668	108 704
June	34 997	18 382	23 952	16 024	11 437	622	105 929
September	33 318	17 587	26 133	15 473	11 246	665	103 410
December	32 558	17 193	25 049	14 694	11 218	638	100 869
2004							
March	31 781	17 556	24 338	13 851	11 437	633	100 465
June	31 318	17 642	24 273	13 949	11 190	537	99 441
TREND							
2003							
March	35 193	18 065	23 929	16 338	11 561	672	106 156
June	34 687	17 926	24 963	15 998	11 497	650	105 949
September	33 608	17 709	25 436	15 386	11 343	646	103 855
December	32 591	17 466	25 061	14 700	11 273	640	101 477
2004							
March	31 822	17 436	24 661	14 123	11 291	610	100 219
June	31 308	17 583	24 124	13 773	11 288	571	99 386

(a) For more information refer to paragraphs 4 to 6 of the Explanatory Notes.

TOTAL RED MEAT PRODUCED(a): All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes
ORIGINAL							
2003							
March	201 167	163 185	225 880	65 829	61 801	21 057	739 303
June	186 019	155 321	274 554	58 663	50 878	19 037	744 881
September	164 883	144 589	296 565	48 001	51 786	14 947	721 174
December	178 616	160 759	272 876	57 879	66 010	18 024	754 555
2004							
March	179 385	168 106	246 481	59 379	66 191	21 195	741 128
June	178 273	164 391	302 113	55 666	62 322	19 968	783 145
SEASONALLY ADJUSTED							
2003							
March	200 597	160 142	262 932	61 439	60 557	18 401	767 864
June	183 043	160 210	257 554	57 318	54 516	17 859	730 305
September	167 096	149 340	267 781	53 517	54 387	18 574	713 576
December	179 164	154 948	281 956	57 126	60 314	18 421	747 887
2004							
March	178 458	167 075	287 866	55 196	63 238	18 701	767 928
June	176 178	169 918	283 227	54 707	67 726	18 762	769 084
TREND							
2003							
March	199 406	162 454	263 226	60 246	57 214	17 854	761 847
June	183 276	156 231	261 571	57 491	56 199	18 302	734 514
September	174 594	153 565	268 576	55 683	56 165	18 380	727 223
December	174 774	157 058	278 644	55 334	59 171	18 512	741 879
2004							
March	177 070	163 538	284 992	55 411	63 520	18 669	760 764
June	178 653	169 838	287 435	55 265	66 932	18 749	774 010

(a) For more information refer to paragraphs 4 to 6 of the Explanatory Notes.

CHICKEN MEAT PRODUCED (a): All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Australia
	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes
ORIGINAL						
2003						
March	62 927	51 239	28 540	np	np	171 463
June	58 882	49 071	27 904	np	np	164 280
September	62 524	49 055	29 003	np	np	169 979
December	63 467	51 857	30 409	np	np	175 765
2004						
March	58 710	54 627	28 890	np	np	172 068
June	63 053	49 810	29 587	np	np	165 723
SEASONALLY ADJUSTED						
2003						
March	63 239	51 808	29 016	np	np	172 893
June	59 427	49 347	28 328	np	np	166 347
September	62 191	50 709	29 315	np	np	171 592
December	62 374	49 452	29 190	np	np	170 321
2004						
March	58 275	55 151	29 358	np	np	172 394
June	63 658	50 179	30 058	np	np	167 700
TREND						
2003						
March	62 355	51 344	28 712	np	np	171 167
June	61 324	50 187	28 795	np	np	169 485
September	61 041	50 217	28 985	np	np	169 918
December	61 024	51 252	29 240	np	np	170 822
2004						
March	61 198	52 065	29 554	np	np	170 696
June	61 507	52 143	29 807	np	np	169 298

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

(a) For more information refer to paragraphs 8 and 9 of the Explanatory Notes.

MEAT PRODUCED(a): Original

<i>Financial year</i>	<i>New South Wales</i> tonnes	<i>Victoria</i> tonnes	<i>Queensland</i> tonnes	<i>South Australia</i> tonnes	<i>Western Australia</i> tonnes	<i>Tasmania</i> tonnes	<i>Australia</i> tonnes
BEEF							
2001-02	460 964	342 898	972 749	85 882	88 593	43 923	1 996 167
2002-03	471 498	370 223	946 950	88 362	105 074	51 376	2 034 613
2003-04	401 785	361 463	984 482	76 988	116 555	55 454	1 997 848
VEAL							
2001-02	12 992	11 998	4 852	278	377	899	31 446
2002-03	16 493	16 007	4 202	341	300	826	38 220
2003-04	14 277	15 076	4 270	216	258	947	35 093
MUTTON							
2001-02	121 844	74 425	24 801	30 342	39 481	5 416	296 308
2002-03	106 106	67 552	20 741	30 893	35 431	7 495	268 218
2003-04	73 195	60 195	19 161	23 229	37 094	6 839	219 713
LAMB							
2001-02	91 401	136 325	11 851	64 285	35 618	8 466	347 947
2002-03	85 304	130 699	6 284	60 114	39 568	7 439	329 407
2003-04	82 104	130 816	10 348	62 532	47 212	8 436	341 448
PIG MEAT							
2001-02	144 146	73 652	85 940	48 329	39 996	3 159	395 534
2002-03	140 247	72 105	94 434	64 147	45 490	2 715	419 555
2003-04	129 795	70 295	99 774	57 960	45 190	2 457	405 898
TOTAL RED MEAT							
2001-02	831 347	639 298	1 100 193	229 116	204 065	61 863	3 067 401
2002-03	819 648	656 586	1 072 611	243 857	225 863	69 851	3 090 013
2003-04	701 156	637 845	1 118 035	220 926	246 309	74 134	3 000 002
CHICKEN MEAT							
2001-02	273 445	180 993	99 316	np	np	np	667 471
2002-03	256 445	204 440	114 327	np	np	np	689 826
2003-04	247 755	205 348	117 889	np	np	np	683 534

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

(a) For more information refer to paragraphs 4 to 9 in the Explanatory Notes.

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

Period	FRESH, CHILLED OR FROZEN MEAT									PROCESSED MEAT	
	Beef bone-in tonnes	Beef bone-out tonnes	Veal bone-in tonnes	Veal bone-out tonnes	Mutton bone-in tonnes	Mutton bone-out tonnes	Lamb bone-in tonnes	Lamb bone-out tonnes	Pork tonnes	Bacon and ham tonnes	Canned meat tonnes
2001-02	34 126	892 317	2 424	7 119	113 894	52 072	104 565	13 794	58 964	122	15 724
2002-03	37 467	894 430	3 675	6 458	109 345	52 275	87 907	14 082	62 927	351	17 048
2003-04	31 781	849 016	2 893	6 221	85 803	42 279	99 775	18 059	50 193	558	24 475
2003											
March	7 554	193 089	685	837	29 679	12 567	21 552	4 003	15 492	53	3 518
June	8 072	213 868	873	1 157	16 275	8 819	22 703	4 301	15 335	121	5 536
September	8 072	206 200	1 053	1 935	13 959	6 776	18 839	3 549	15 183	117	6 702
December	8 533	222 440	742	1 974	25 216	10 818	30 351	4 391	11 991	191	6 067
2004											
March	6 934	182 979	473	982	24 536	12 000	25 077	4 663	11 482	136	5 870
June	8 242	237 397	626	1 329	22 092	12 685	25 507	5 456	11 538	114	5 836

(a) For more information refer to paragraphs 10 and 11 of the Explanatory Notes.

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

<i>Period</i>	<i>Number</i>	<i>Gross weight</i>	<i>Gross value</i>	<i>Unit value</i>
	'000	'000 tonnes	\$'000	\$
.....				
SHEEP				
2001-02	6 443.2	318.0	391 705	60.79
2002-03	5 843.2	273.0	408 235	69.86
2003-04	3 844.8	188.4	266 360	69.28
2003				
March	1 632.0	72.1	115 340	70.67
June	968.4	44.6	69 714	71.99
September	1 091.2	52.2	79 320	72.69
December	1 046.7	53.2	73 698	70.41
2004				
March	1 028.9	50.4	68 609	66.68
June	677.9	32.6	44 733	65.99
.....				
CATTLE				
2001-02	797.0	293.5	525 535	659.39
2002-03	976.6	362.5	569 288	582.93
2003-04	578.8	191.3	315 175	544.53
2003				
March	164.7	57.8	100 131	607.96
June	211.3	89.7	117 120	554.28
September	163.4	51.8	81 667	499.80
December	150.0	49.8	83 738	558.25
2004				
March	96.5	32.3	54 592	565.72
June	168.8	57.5	95 177	563.84

(a) For more information refer to paragraph 12 of the Explanatory Notes.

WHOLE MILK INTAKE, By Factories(a)(b): All Series

	<i>New South Wales</i>	<i>Victoria</i>	<i>Queensland</i>	<i>South Australia</i>	<i>Western Australia</i>	<i>Tasmania</i>	<i>Australia</i>
<i>Quarter</i>	ML	ML	ML	ML	ML	ML	ML
ORIGINAL							
2002							
December	365	2 490	186	221	109	245	3 615
2003							
March	299	1 458	171	178	89	154	2 349
June	297	971	166	163	97	87	1 781
September	328	1 492	185	163	107	95	2 370
December	367	2 326	182	213	113	231	3 431
2004							
March	302	1 546	161	172	92	168	2 441
SEASONALLY ADJUSTED							
2002							
December	323	1 696	175	184	102	153	2 633
2003							
March	316	1 533	178	187	97	141	2 452
June	330	1 545	179	184	101	137	2 476
September	322	1 564	176	170	101	142	2 475
December	322	1 586	171	177	105	144	2 505
2004							
March	317	1 628	165	180	100	153	2 543
TREND							
2002							
December	325	1 661	180	184	101	147	2 598
2003							
March	321	1 570	178	185	100	142	2 496
June	323	1 542	177	181	100	139	2 462
September	324	1 558	175	177	102	141	2 477
December	321	1 591	171	176	103	146	2 508
2004							
March	318	1 616	166	177	102	150	2 529

(a) For more information refer to paragraph 13 of the Explanatory Notes.

(b) Data for Australian Capital Territory are included in New South Wales; data for Northern Territory are included in South Australia.

Source: Original series data from Dairy Australia.

MARKET MILK SALES, By Factories(a)(b): All Series

Quarter	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australia
	ML	ML	ML	ML	ML	ML	ML
ORIGINAL							
2002							
December	153	119	101	45	49	13	480
2003							
March	152	114	99	44	49	13	470
June	155	121	100	46	52	13	486
September	159	124	104	46	51	13	497
December	156	120	102	45	51	13	488
2004							
March	155	119	102	46	52	13	487
SEASONALLY ADJUSTED							
2002							
December	153	119	101	45	49	13	481
2003							
March	154	117	101	44	50	13	478
June	155	121	101	46	51	13	486
September	157	121	101	46	51	13	489
December	157	120	102	46	51	13	489
2004							
March	157	122	102	47	52	13	493
TREND							
2002							
December	154	117	101	45	50	13	479
2003							
March	154	119	101	45	50	13	481
June	155	120	101	45	51	13	484
September	156	121	101	46	51	13	488
December	157	121	102	46	51	13	490
2004							
March	157	121	103	46	52	13	492

(a) For more information refer to paragraph 13 of the Explanatory Notes.

(b) Data for Australian Capital Territory are included in New South Wales; data for Northern Territory are included in South Australia.

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								
2003								
March	33 604	27 060	3 418	13 169	33 493	2 674	113 419	76.8
June	22 836	19 327	4 357	7 500	15 519	2 381	71 921	81.8
September	40 255	27 518	6 017	18 119	26 996	2 661	121 566	84.2
December	37 540	38 987	3 360	20 980	30 149	4 811	135 827	82.4
2004								
March	32 387	29 160	4 099	16 355	33 052	2 237	117 290	83.0
June	30 633	24 000	3 652	11 528	19 657	3 429	92 899	78.1
SEASONALLY ADJUSTED								
2003								
March	38 215	30 459	3 926	14 137	27 877	3 752	118 365	..
June	29 628	28 402	3 683	10 697	24 754	2 956	100 119	..
September	32 346	26 386	4 705	15 746	25 584	2 602	107 368	..
December	33 689	28 122	5 062	17 200	27 304	3 321	114 700	..
2004								
March	37 139	32 842	4 706	17 516	27 618	3 064	122 885	..
June	39 857	35 215	3 104	16 604	30 448	4 253	129 481	..
TREND								
2003								
March	39 777	30 321	4 291	14 301	26 940	3 380	119 011	..
June	30 375	28 007	4 113	13 142	26 025	3 054	104 717	..
September	31 353	27 214	4 493	14 486	25 675	2 867	106 088	..
December	34 251	28 975	4 778	16 579	26 779	3 026	114 389	..
2004								
March	36 971	31 942	4 406	17 396	28 346	3 456	122 517	..
June	39 011	34 636	3 725	17 107	29 541	3 825	127 846	..

.. not applicable

(a) For more information refer to paragraphs 14 and 15 of the Explanatory Notes.

<i>Financial year</i>	<i>New South Wales</i>	<i>Victoria</i>	<i>Queensland</i>	<i>South Australia</i>	<i>Western Australia</i>	<i>Tasmania</i>	<i>Australia</i>
.....							
WHOLE MILK INTAKE BY FACTORIES (b) (ML)							
2000-01	1 326	6 777	760	699	393	590	10 545
2001-02	1 343	7 405	744	715	393	672	11 271
2002-03	1 301	6 584	719	733	404	585	10 326
.....							
MARKET MILK SALES BY FACTORIES (b) (ML)							
2000-01	630	455	393	199	192	50	1 920
2001-02	622	459	402	184	192	50	1 909
2002-03	616	473	403	181	200	51	1 925
.....							
BROKERS AND DEALERS RECEIVALS OF TAXABLE WOOL (Tonnes)							
2001-02	163 926	142 338	30 188	83 144	103 028	14 268	536 891
2002-03	168 138	128 444	18 287	65 054	108 739	14 357	503 020
2003-04	140 815	119 666	17 127	66 982	109 854	13 138	467 582
.....							

(a) For more information refer to paragraphs 13 to 15 of the Explanatory Notes.

(b) Data for Australian Capital Territory are included in New South Wales; data for Northern Territory are included in South Australia.

Source: Original series data from Dairy Australia

WHAT IF...? REVISIONS TO TREND ESTIMATES

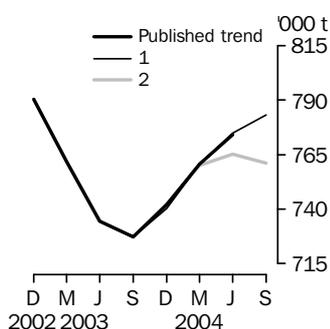
EFFECT OF NEW SEASONALLY ADJUSTED ESTIMATES ON TREND ESTIMATES

TREND REVISIONS

Recent seasonally adjusted and trend estimates are likely to be revised when original estimates for subsequent quarters become available. The approximate effects of possible scenarios on trend estimates are presented below. These illustrate the impact on trend estimates if next quarter's seasonally adjusted estimate either rises or falls by a certain percentage (based on the historical average of movements in seasonally adjusted estimates).

For further information, see paragraphs 20 and 21 of the Explanatory Notes.

RED MEAT PRODUCTION



WHAT IF NEXT QUARTER'S

SEASONALLY ADJUSTED ESTIMATE:

(1) rises by 3%

on Jun Qtr 2004

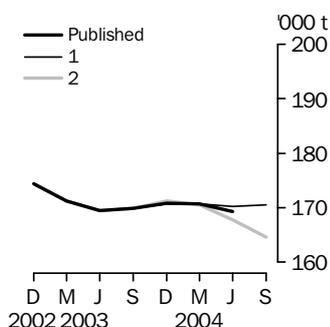
(2) falls by 3%

on Jun Qtr 2004

	<u>Trend as published</u>		<u>(1) rises by 3% on Jun Qtr 2004</u>		<u>(2) falls by 3% on Jun Qtr 2004</u>	
	number	% change	number	% change	number	% change
Jun Qtr 2003	734 514	-3.6	734 515	-3.6	734 515	-3.6
Sep Qtr 2003	727 223	-1.0	727 224	-1.0	727 224	-1.0
Dec Qtr 2003	741 879	2.0	740 496	1.8	742 483	2.1
Mar Qtr 2004	760 764	2.5	760 803	2.7	760 080	2.4
Jun Qtr 2004	774 010	1.7	774 853	1.8	765 271	0.7
Sep Qtr 2004	..	..	783 207	1.1	761 167	-0.5

.. not applicable

CHICKEN MEAT PRODUCTION



WHAT IF NEXT QUARTER'S

SEASONALLY ADJUSTED ESTIMATE:

(1) rises by 4%

on Jun Qtr 2004

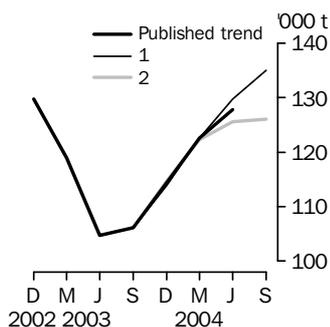
(2) falls by 4%

on Jun Qtr 2004

	<u>Trend as published</u>		<u>(1) rises by 4% on Jun Qtr 2004</u>		<u>(2) falls by 4% on Jun Qtr 2004</u>	
	number	% change	number	% change	number	% change
Jun Qtr 2003	169 485	-1.0	169 484	-1.0	169 484	-1.0
Sep Qtr 2003	169 918	0.3	169 918	0.3	169 918	0.3
Dec Qtr 2003	170 822	0.5	170 663	0.4	171 175	0.7
Mar Qtr 2004	170 696	-0.1	170 723	0.0	170 545	-0.4
Jun Qtr 2004	169 298	-0.8	170 294	-0.3	167 830	-1.6
Sep Qtr 2004	..	..	170 510	0.1	164 666	-1.9

.. not applicable

WOOL RECEIVALS



WHAT IF NEXT QUARTER'S

SEASONALLY ADJUSTED ESTIMATE:

(1) rises by 9%

on Jun Qtr 2004

(2) falls by 9%

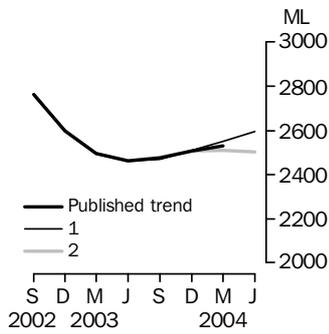
on Jun Qtr 2004

	<u>Trend as published</u>		<u>(1) rises by 9% on Jun Qtr 2004</u>		<u>(2) falls by 9% on Jun Qtr 2004</u>	
	number	% change	number	% change	number	% change
Jun Qtr 2003	104 717	-12.0	104 690	-12.0	104 690	-12.0
Sep Qtr 2003	106 088	1.3	106 124	1.4	106 124	1.4
Dec Qtr 2003	114 389	7.8	113 898	7.3	114 749	8.1
Mar Qtr 2004	122 517	7.1	122 629	7.7	122 281	6.6
Jun Qtr 2004	127 846	4.3	129 775	5.8	125 646	2.8
Sep Qtr 2004	..	..	134 932	4.0	126 079	0.3

.. not applicable

WHAT IF...? REVISIONS TO TREND ESTIMATES *continued*

WHOLE MILK INTAKE BY FACTORIES



	<i>Trend as published</i>		WHAT IF NEXT QUARTER'S SEASONALLY ADJUSTED ESTIMATE:			
	number	% change	<i>(1) rises by 2% on Mar Qtr 2004</i>		<i>(2) falls by 2% on Mar Qtr 2004</i>	
	number	% change	number	% change	number	% change
Mar Qtr 2003	2 496	-3.9	2 495	-4.0	2 495	-4.0
Jun Qtr 2003	2 462	-1.4	2 463	-1.3	2 463	-1.3
Sep Qtr 2003	2 477	0.6	2 469	0.2	2 478	0.6
Dec Qtr 2003	2 508	1.3	2 509	1.6	2 506	1.1
Mar Qtr 2004	2 529	0.8	2 552	1.7	2 510	0.2
Jun Qtr 2004	..	..	2 595	1.7	2 502	-0.3

.. not applicable

EXPLANATORY NOTES

INTRODUCTION

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

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

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

4 Unless indicated otherwise, Australian totals include data for all states and both territories.

LIVESTOCK SLAUGHTERINGS AND MEAT PRODUCTION

5 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 and by country butchers and other small slaughtering establishments.

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

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

8 Poultry slaughterings and meat produced statistics 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. Tasmanian, Northern Territory and Australian Capital Territory data are excluded from the Australian total.

9 Chicken meat is shown in dressed weight of whole birds, pieces and giblets. Some slaughterings and meat production statistics for 'Ducks and Drakes' and 'Other Fowls and Turkeys' are available by contacting the ABS on Hobart 03 6222 5974 or by writing to GPO Box 66, Hobart Tasmania 7001 (Attention: Agriculture Section).

EXPORTS OF FRESH, FROZEN AND PROCESSED MEAT

10 Table 20 shows exports of fresh, frozen and processed meat, excluding offal. International trade statistics are compiled by the ABS from information submitted by exporters and importers or their agents to the Australian Customs Service. Factors can be applied to beef, veal, mutton and lamb bone-out figures to derive bone-in carcass weight which, when added to bone-in figures, shows 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 Department of Agriculture, Fisheries and Forestry – Australia.

11 Beef also includes buffalo meat. 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. Canned meat is shown as the canned weight and excludes canned bacon and ham.

LIVE SHEEP AND CATTLE EXPORTS

12 Table 21 contains statistics of the number of live sheep and cattle exported, the gross weight, gross value and unit value. The unit value is obtained by dividing the gross value by the number of animals exported. Sheep and cattle exported for breeding are excluded.

MILK

13 Tables 2, 22, 23 and 25 contain statistics collected by Dairy Australia. Whole milk intake by factories includes the whole milk equivalent of farm cream intake. Market milk sales includes white, flavoured, high and low fat milk and UHT milk. Interstate transfers of UHT milk have been included in their state of destination.

EXPLANATORY NOTES *continued*

WOOL RECEIVALS

14 The statistics in tables 2, 24 and 25 show 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.

15 The information shown is on the basis of the state in which wool has actually been received and does not necessarily reflect the production of wool in that state.

SEASONAL ADJUSTMENT

16 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.

17 In the seasonal adjustment of the livestock estimates, account has been taken of both normal seasonal factors and 'trading day' effects, where significant, (arising from the varying length of each quarter and the varying numbers of Sundays, Mondays, Tuesdays etc. in the quarter). Adjustments are also made for the effects of change in the date of Easter holidays, again, where significant. Seasonal adjustment does not remove from the series the effect of irregular influences (e.g. abnormal weather, industrial disputes).

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

19 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 quarters. As a result of this improvement, revisions to the seasonally adjusted and trend estimates will be observed for recent periods. In most instances the only noticeable revisions will be to the previous quarter and the same quarter one year ago. A more detailed review is conducted annually prior to the June quarter release, using data up to and including the March quarter. The concurrent seasonal adjustment methodology replaces the forward factor methodology used previously.

TREND ESTIMATES

20 A trend estimate is obtained by reducing the irregular component from the seasonally adjusted series. In this publication trend estimates are generally derived by applying a seven-term Henderson moving average to the seasonally adjusted series. The seven-term Henderson, (like all Henderson averages) is symmetric, but as the end of a time series is approached, asymmetric forms of the average are applied. Unlike the weights of the standard seven-term Henderson moving average, the weights employed here have been tailored to suit the particular characteristics of individual series. While the asymmetric weights enable the trend to be calculated for recent quarters, it does result in revisions to the estimates for the most recent three quarters as additional observations become available. Revisions of trend estimates will also occur with revisions to the original data and re-estimation of seasonal factors.

21 Sensitivity analysis indicates the potential magnitude and direction of revisions created to the last three estimates. It aims to show how a specified movement in the seasonally adjusted data in the next period will affect the trend path of the time series. By showing how sensitive the trend estimates are to the addition of new data, the analysis provides information which can be used in the assessment of the trend's stability.

22 For further information, see *Information Paper: A Guide to Interpreting Time Series – Monitoring 'Trends', an Overview* (cat. no. 1348.0) or contact the Assistant Director, Time Series Analysis on Canberra 02 6252 6345.

EXPLANATORY NOTES *continued*

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GENERAL ACKNOWLEDGMENT

24 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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ISSN 0728 4047

RRP \$23.00