drought update

australian **crop and livestock report**

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overview – impact of the drought

- Most of Australia's winter grain growing regions are clearly in the grip of serious drought. Consequences for the farm sector, especially for broadacre winter grains and grazing livestock, are likely to be severe in terms of lost production and forced sales respectively.
- Seasonal conditions have deteriorated markedly since mid-September, with little or no worthwhile rain and continued warmer temperatures, particularly in South Australia, Victoria, New South Wales, southern Queensland and parts of Western Australia. As a result, production of the major winter crops in 2006-07 will be substantially lower and cattle and sheep slaughterings higher than were forecast in ABARE's *Australian Crop Report* released on 19 September, and *Australian Commodities* released on 25 September.
- Output of the three main winter grains, wheat, barley and canola, is now forecast to be down by over 60 per cent from last year and over a million tonnes less than during the 2002-03 drought.
- Taking into account the downward revision in crop and livestock earnings identified in this report, the gross value of farm production of these commodities in 2006-07 is forecast to be down by 35 per cent or $6.2 billion below the value in 2005-06. After allowing for the effects of inflation, the gross value of production of these commodities in 2006-07 is forecast to be 16 per cent less than in the 2002-03 drought.
- Taking into account this latest revision to farm sector forecasts and the flow-on effects on the rest of the Australian economy, the drought is estimated to reduce economic growth in Australia in 2006-07 by around 0.7 percentage points from what would otherwise have been achieved.

winter crop production in 2006-07

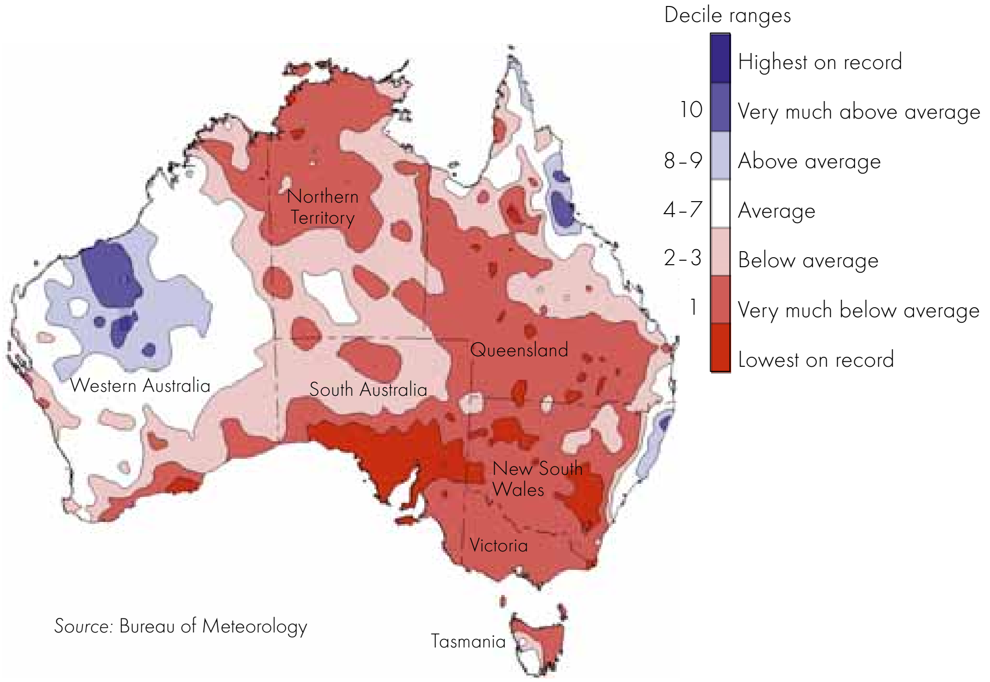
With the exception of central Queensland and pockets of northern New South Wales, rainfall during the key crop growing months of May to October has been very much below average or the lowest on record over virtually the entire winter grain belt.

Since the release of ABARE's *Australian Crop Report* on 19 September, areas of rainfall deficiency have generally expanded or intensified over South Australia, New South Wales and Victoria (map 1). The dryness has been exacerbated by temperatures that were well above average, combined with periods of strong winds and frosts in some areas. In contrast, the rainfall deficiencies eased in Western Australia as a result of above average September rainfall.

Rainfall in the first three weeks of October was patchy and largely confined to shower activity. The poor conditions have resulted in an earlier start to the harvest this season. It is generally too late for further rainfall to significantly improve crop yields, particularly if warmer temperatures continue to prevail.

Continued exceptionally dry conditions mean that production of the three major winter crops, wheat, barley and canola, in 2006-07 is forecast to decline to around 13.6 million tonnes, down 63 per cent from last season's harvest of 36.4 million tonnes for these crops (table A). A harvest of this size would be the smallest for these crops since the drought of 1994-95, when 12.1 million tonnes were harvested.

map 1 **Australian rainfall deciles, 1 August to October (month to date) 2006**



Source: Bureau of Meteorology

The national wheat crop is forecast to be 9.5 million tonnes in 2006-07, down 15.5 million tonnes from last season. The national barley crop is forecast to be down 64 per cent to 3.6 million tonnes and canola down 69 per cent to 440 000 tonnes. Canola production is forecast to be the lowest for the past ten years.

Production in New South Wales is likely to decline the most – down from 10.4 million tonnes in 2005-06 to just 2.7 million tonnes this season, reflecting the extremely poor seasonal conditions. In 2002-03, production of wheat, barley and canola in New South Wales was 3.1 million tonnes.

A ABARE forecasts of Australian winter crop production

	1994-95	2002-03	2005-06 s	forecasts for 2006-07		
				june crop report	september crop report	october
	kt	kt	kt	kt	kt	kt
Australia a						
wheat	8 961	10 132	25 090	22 784	16 408	9 549
barley	2 913	3 865	9 869	8 485	5 840	3 588
canola	264	871	1 441	1 393	775	440
total	12 138	14 868	36 400	32 662	23 023	13 577
New South Wales						
wheat	875	2 497	7 921	6 800	5 310	2 100
barley	291	428	2 245	1 950	1 350	580
canola	73	184	254	248	151	20
total	1 239	3 109	10 420	8 998	6 811	2 700
Victoria						
wheat	944	890	2 705	2 625	2 000	690
barley	448	478	2 059	1 810	1 131	540
canola	57	177	338	408	238	90
total	1 449	1 545	5 102	4 843	3 369	1 320
Queensland						
wheat	225	601	1 385	1 105	770	750
barley	73	148	259	201	122	100
total	298	749	1 644	1 306	892	850
Western Australia						
wheat	5 438	4 047	9 478	8 604	5 800	4 900
barley	915	1 349	2 598	2 039	1 712	1 600
canola	108	299	630	504	251	260
total	6 461	5 695	12 706	11 147	7 763	6 760
South Australia						
wheat	1 487	2 072	3 578	3 624	2 500	1 090
barley	1 159	1 440	2 685	2 457	1 500	750
canola	26	210	218	233	136	70
total	2 672	3 722	6 481	6 314	4 136	1 910

a Total includes Tasmania. **s** Preliminary estimate.

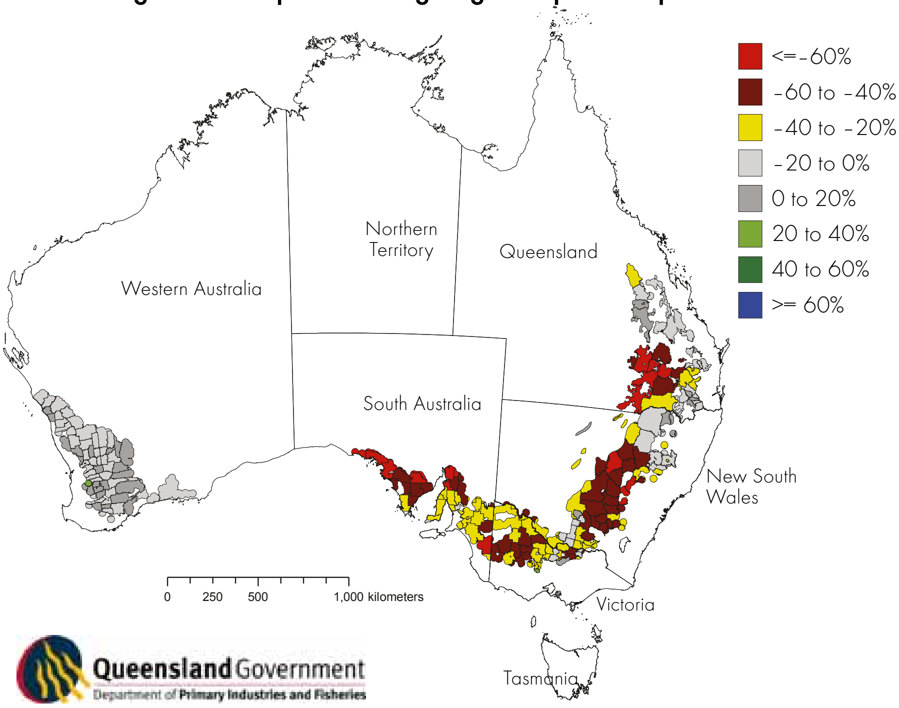
In many areas, seasonal conditions appear to be worse than during the last major drought in 2002-03, and comparable to the 1982-83 drought. However, improved management practices and the development of improved grain varieties since 1982-83 mean that growers may generally achieve relatively better production outcomes from limited rainfall. Practices such as direct drilling have improved soil structure and stability and, more importantly, have improved the ability of growers to conserve limited soil moisture.

The gross value of production of the three major winter grains is forecast to be around $3.7 billion in 2006-07, compared with an estimated $8.1 billion in 2005-06. However, reflecting the substantial increase in world and Australian grain prices since early this year, unit gross value of production is forecast to increase from $224 a tonne in 2005-06 to $273 a tonne in 2006-07.

A clear picture of the grain growing areas hardest hit by the drought emerges from the wheat yield simulation model developed by the Queensland Department of Primary Industries and Fisheries. The model integrates climatic (daily temperature, rainfall) impacts on broad soil and crop parameters, along with crop management practices to predict likely yield outcomes by shire.

The outlook at the beginning of October (map 2) was for wheat yields to be 40–60 per cent below the long term average across most growing regions in southern Queensland,

map 2 **percentage departure of the forecast shire median yield for the 2006 season from the long-term shire median wheat yield, given a "consistently negative" SOI phase during August-September period**



southern and central New South Wales, South Australia and Victoria (colored maroon and yellow). There are some pockets within these states where yields are expected to be more than 60 per cent below average. In Western Australia, yields are expected to be close to the long term average (colored grey).

fig A **major winter crop production**
Australia

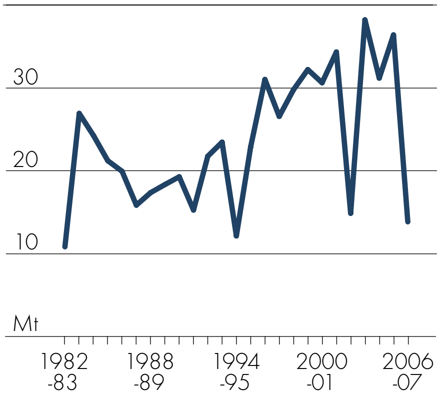
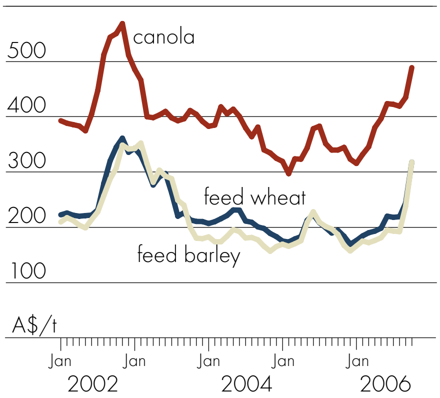


fig B **grain prices**
Australia, monthly, ended October 2006



seasonal conditions in the states

New South Wales

Seasonal conditions continue to deteriorate across all grain growing regions, with almost the entire grain belt now drought declared. Dry conditions and above average temperatures during September and early October have significantly reduced yield potential. Total crop failures are likely in many areas.

September rainfall in New South Wales was variable. The central and southern slopes west of the Great Divide, and the north western and inland southern border regions all recorded below average rainfall. There were areas in the north west of the state, the South West Slopes and parts of the Central Tablelands and Central Slopes that recorded very much below average rainfall. Some localised pockets in those regions also recorded the lowest September rainfall on record. October rainfall has also been well below average. This, combined with above average temperatures, is expected to result in a significant decline in yields.

The potential harvestable area for grain in New South Wales continues to decline as growers cut crops for hay and silage, or graze them out. The estimated wheat area to be harvested is around 1.7 million hectares, from an estimated area planted of 3.35 million hectares.

Production of the three major winter grains in New South Wales is forecast to be 2.7 million tonnes, making it the smallest harvest since 1994-95 when 1.2 million tonnes were produced.

Victoria

September rainfall in Victoria was well below average in all parts of the state, with the exception of a few pockets in Gippsland, where rainfall was close to average. This lack of rainfall was combined with a widespread and severe frost that affected large areas of northern and central Victoria on 25 September. October has remained very dry to date, with little or no chance of crops improving from this point.

Potential crop yields in the Mallee continue to decline in the face of warm days and little rain. Recent frosts have damaged flowering crops, further reducing expected yield. In the Wimmera, production will be very poor this season because of the lack of moisture. Some wheat crops in the southern Wimmera could yield as much as 1 tonne of grain per hectare but most are being cut for hay or grazed.

Victorian production of the three major winter grains in 2006-07 is forecast to be 690 000 tonnes for wheat, 540 000 tonnes for barley and 90 000 tonnes of canola. Overall, production is forecast to be down by around 74 per cent from the previous season.

Queensland

Dry seasonal conditions resulted in very few planting opportunities in most of the southern cropping areas. However, central Queensland received early planting rain and, as a result, all planting intentions were realised. While conditions have remained good in central Queensland, well below average winter rainfall resulted in significant yield penalties in the small areas planted to winter grains in southern Queensland.

Average rainfall was recorded during September for most of the state's cropping region. This slightly improved expectations for the crop, especially for late planted crops in most parts of southern Queensland. It also ensured an average to above average crop for most areas of central Queensland.

Queensland production of wheat and barley in 2006-07 is forecast to be 850 000 tonnes, just over half of what was produced last season, but above what was produced in 2002-03 because of the good seasonal conditions in central Queensland. Around 70 per cent of the total crop in 2006-07 is expected to come out of central Queensland. This compares with around 40 per cent from that region in an average year.

Western Australia

Intermittent rain across the central and southern grain growing regions during September and October has maintained crop development in those areas. However, above average temperatures in October mean that further rainfall will be required to maintain crop potential.

Conditions at the beginning of the winter cropping season in the northern part of the grains belt were poor. As a result, the area sown to winter crops in this region was well below average and it is estimated that production will be about 20 per cent of the five year average. However, across the rest of the grains belt, winter crops will achieve yields close to the historical average. Harvesting of some crops has commenced earlier than usual, with canola in the Esperance region already being harvested. The hot and dry finish to the season is encouraging the early canola harvest.

In 2006-07, production of the major winter grains in Western Australia is forecast to be just over half of last season's production. Wheat production is forecast to be 4.9 million tonnes, barley production 1.6 million tonnes and canola 260 000 tonnes.

South Australia

Total winter rainfall in South Australia has been well below average for most grain growing regions. Light patchy rainfall, above average temperatures and frequent windy conditions throughout September put crops in all districts under severe moisture stress. September rainfall varied from below average to very much below average, with most of the Eyre Peninsula having the lowest rainfall on record for the second month in a row. The first three weeks of October have remained very dry, further reducing potential yields of crops that have not already been grazed or cut for hay.

With harvesting close or already begun, there remains little potential for improvement in crop yields. Some grain growers in the worst affected regions have been reduced to harvesting for seed recovery at best.

Production of the three major winter grains in South Australia in 2006-07 is forecast to be around 1.9 million tonnes, well short of the nearly 6.5 million tonnes produced last season.

B supply and disposal of major Australian winter crops a

	2001-02	2002-03	2003-04	2004-05	2005-06 s	2006-07 f
	kt	kt	kt	kt	kt	kt
wheat						
production	24 299	10 132	26 132	21 905	25 090	9 549
domestic use	4 894	5 666	5 139	5 282	5 527	6 162
– human and industrial	2 291	2 378	2 351	2 361	2 408	2 456
– feed **b**	2 100	2 700	2 185 c	2 338 c	2 618 c	3 142 c
– seed	503	588	603	584	501	564
exports	16 317	9 107	17 867	14 675	15 488	10 814
barley						
production	8 280	3 865	10 382	7 740	9 869	3 588
domestic use	2 535	2 016	2 476	2 685	2 805	2 907
– as malt and other human use	161	165	168	172	176	166
– feed **b**	2 200	1 650	2 100	2 300	2 450	2 560
– seed	174	201	208	213	180	181
export	5 274	2 608	6 996	4 862	5 737	2 458
– feed barley	2 971	885	4 241	2 798	3 386	874
canola						
production	1 756	871	1 703	1 542	1 441	440
domestic use	399	354	501	423	540	318
– crushers	393	349	495	418	535	314
– seed	6	5	6	5	5	5
exports	1 380	517	1 202	892	858	242

a Export figures are for winter crop years defined as follows: October–September for wheat; November–October for barley and canola, Production may not equal the sum of apparent domestic use and exports in any one year due to reductions or increases in stocks. **b** Calculated as a residual: production less exports less change in stocks. **c** Does not include imports. **s** ABARE estimate. **f** ABARE forecast.
Note:The export data refer to market year export periods, so are not comparable with financial year export figures published elsewhere.

summer crops outlook

The rainfall outlook for summer crops is not promising. The Australian Bureau of Meteorology in its latest seasonal rainfall outlook (26 October 2006) indicates drier than normal conditions for south east Queensland and northern New South Wales during the main sowing period for summer crops.

The chances of exceeding the median rainfall for the November–January period are between 30 and 40 per cent for northern New South Wales and south east Queensland, with some areas having a 25–30 per cent chance. These probabilities mean that there is a 60–75 per cent chance of falls being below median falls. (click here for map)

There is also a moderate to strong shift in the odds toward warmer than normal conditions. Averaged over the coming three months, the chances are between 60 and 75 per cent of higher than average maximum temperatures across the eastern half of Australia, and 75–85 per cent over much of southern Queensland. (click here for map)

livestock production in 2006-07

As with the winter crops, below average spring rainfall and high seasonal temperatures have severely limited spring pasture growth in South Australia, Victoria, New South Wales and south eastern Queensland. Poor pasture growth and increasing prices for feed grains have resulted in farmers moving to reduce stock numbers in recent weeks as they attempt to preserve numbers of breeding stock into next year.

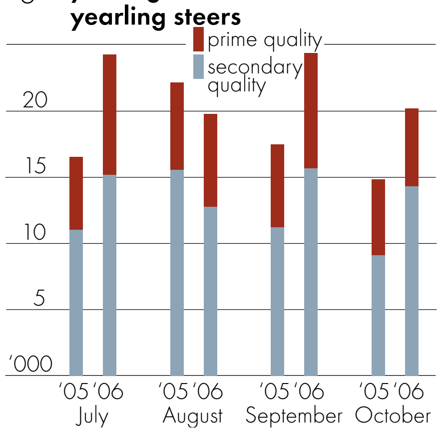
beef and veal

As a result of limited feed and water supplies and the poor seasonal outlook in many parts of eastern Australia, cattle yardings have increased significantly in recent weeks. In the first three weeks of October, national yardings of steers and cows increased by 36 per cent compared with the same period last year. In seeking to manage their way through the drought, farmers have been turning off a greater number of stock at lighter weights and in poorer condition. The influx of stock to the market has resulted in saleyard prices for secondary trade steers and cows falling sharply – by 29 per cent and 36 per cent respectively, compared with the same period last year.

Currently, conditions in the main cattle producing regions in Queensland (accounting for approximately 45 per cent of the national herd) appear to be slightly better than in the other states. This means that there is unlikely to be any major drought induced increase in slaughterings in Queensland. However, with conditions in South Australia, Victoria and New South Wales unlikely to improve in the near term, cattle slaughterings in these states are expected to be considerably higher than in 2005-06. Slaughterings for Australia as a whole are now forecast to be around 9 million in 2006-07, about 2 per cent higher than the September forecast of 8.8 million.

Poor seasonal conditions and the associated higher turnoff for slaughter, and lower saleyard demand for store cattle, mean that the Australian weighted saleyard indicator price of beef cattle is forecast to average around 280 cents a kilogram dressed weight in 2006-07, around 4 per cent less than the September forecast and 13 per cent below the 2005-06 average. With the effect on revenues of lower prices outweighing

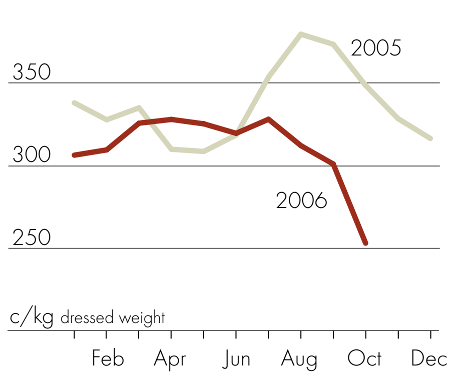
fig C **yardings of beef cows and yearling steers**



Prime quality: yearling steers of 330–400 kilograms dressed weight, C3 (muscle/fat) and cows of 400–520 kilograms dressed weight, D3 (muscle/fat).
Secondary quality: yearling steers of 330–400 kilograms dressed weight; C1, C2, D1, D2 (muscle/fat) and cows of 400–520 kilograms dressed weight; D1, D2, E1, E2 (muscle/fat).

fig D **beef prices: cow**
400–520 kg live weight: D1, D2, E1 and E2 (muscle/fat)

fig E **beef prices: yearling steer**
330–400 kg live weight: C1, C2, D1 and D2 (muscle/fat)



that of higher turnoff, the gross value of beef production is forecast to fall by 13 per cent in 2006-07 to $6.6 billion.

mutton and lamb

Yardings of sheep and lambs have increased significantly in all states over the past few weeks as seasonal conditions have continued to deteriorate. Many producers are having to make hard decisions about which stock they can afford to carry over the summer.

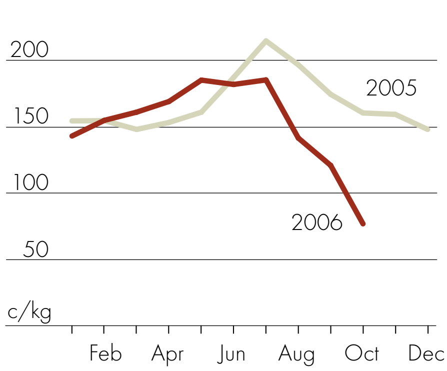
The forecast total number of lambs slaughtered for 2006-07 has not changed from the 19 million published in the September edition of ABARE's quarterly forecasting journal, *Australian Commodities*. However, more lambs than previously expected will be sold for slaughter in the period to December. Lack of pasture and the resulting earlier turnoff of many lambs mean that average slaughter weights are expected to be lower than previously forecast. Lamb production in 2006-07 is therefore forecast to fall by 3 per cent to around 370 000 tonnes.

Saleyard prices for secondary trade lambs have averaged 171 cents a kilogram dressed weight in the first three weeks of October, 34 per cent lower than at the same time last year. Average lamb prices over the period to December will be affected by the increased turnoff. However, with fewer lambs available for slaughter in the new year, saleyard prices in the first half of calendar 2007 may be higher than previously expected. For 2006-07 as a whole, the saleyard indicator price for lamb is forecast to average 270 cents a kilogram, around 13 per cent less than forecast in September and 20 per cent below the average in 2005-06.

In contrast to lamb, total slaughter of adult sheep is forecast to rise as a result of the drought. Slaughterings are now forecast to be around 13 million in 2006-07, about 9 per cent more than the September forecast, as producers reduce stock numbers over the coming months. The upward revision in the forecast is based entirely on the failure of spring rains across most areas. Production of mutton is forecast to increase by only 4 per cent in 2006-07 to 256 000 tonnes.

fig F **lamb prices**
18.1 – 20 kg dressed weight; fat score 1, 2

fig G **mutton prices**
18.1 – 24 kg dressed weight; fat score 1, 2



Saleyard prices for secondary mutton averaged 77 cents a kilogram dressed weight in the first three weeks of October, 52 per cent lower than for the same period last year. With turnoff expected to remain high, saleyard prices are forecast to decline further over the remainder of 2006. However, prices could improve somewhat in the first half of 2007. For the year as a whole, the saleyard indicator price for adult slaughter sheep is forecast to average 100 cents a kilogram in 2006-07, around 30 per cent less than forecast in September and 43 per cent down on the 2005-06 average.

Reflecting the effects of the drought on slaughterings on the condition of stock being turned off and on prices received at saleyards, the gross value of sheep meat production is forecast to fall by 35 per cent or around $760 million in 2006-07, to $1400 million. This compares with the September forecast of $1980 million.

C ABARE forecasts of Australian livestock production

		1994-95	2002-03	2005-06 s	forecasts for 2006-07		
					june AC	september AC	october
beef and veal							
cattle numbers	million	25.7	26.7	28.5	29.2	29.1	27.9
slaughterings	'000	8 268	9 229	8 401	8 775	8 800	9 000
production	kt	1 803	2 073	2 077	2 141	2 141	2 160
sheep meat							
sheep numbers	million	120.9	99.3	100	104	101	96
slaughterings							
sheep	'000	17 500	13 657	11 830	11 730	11 900	13 000
lamb	'000	15 289	16 870	18 666	18 900	19 000	19 000
production							
mutton	kt	354	268	244	248	250	256 000
lamb	kt	268	329	382	395	397	370 000

s Preliminary estimate. **AC** *Australian Commodities*