

Australian Wool Production Forecast Report

Australian Wool Production Forecasting Committee

Summary

- The Australian Wool Production Forecasting Committee forecasts that Australian shorn wool production in 2019/20 will reach 272 mkg greasy. This is a 9.2% reduction from 2018/19. The decline is due to lower sheep shorn numbers and lighter average fleece weights due to continuing dry conditions in key wool growing regions.
- High adult slaughter rates in 2018/19, up 16% on 2017/18, reduced the number of sheep available to be shorn in 2019/20.
- Persistent dry to drought conditions, limited pasture and stock water availability in key wool growing regions combined with strong returns for mutton and lamb continue to reduce the number of sheep on Australian farms and expected fleece weights.
- Shorn wool production in New South Wales is forecast to decline to 85.5 mkg greasy (down 13.7%), Victoria 63.7 mkg (down 4.8%), Western Australia 59.3 mkg (down 4.7%), South Australia 48.6 mkg (down 10.5%), Tasmania 8.4 mkg (down 6.7%) and Queensland 6.7 mkg (down 17.3%).
- AWTA volumes of greasy wool tested during between 1 July 2019 to 31 October 2019 were 10.8% lower than the corresponding period in 2018/19. Volumes in all states declined when compared to the same time period in 2018/19. The greatest decline occurred in Queensland (down 17.2%), followed by South Australia (down 14.2%), New South Wales (down 12.4%), Victoria (down 10.1%), Tasmania (down 8.1%) and Western Australia (down 4.8%).
- AWEX first-hand bales offered in 2019/20 up to the end of week 18 (31 October 2019) were 22.8% lower compared with the same time period in 2018/19.
- ABS wool receival data for Australia in the first quarter of the 2019/20 season (July to September) fell by 16.1% compared with the same time period in 2018/19.

FURTHER INFORMATION Mr Russell Pattinson, National Committee Chairman Tel: +61 0419 872 684 © Australian Wool Innovation Limited November 2019. This document may be reproduced and disseminated with attribution to Australian Wool Innovation Limited (ABN 12 095 165 558).

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- ABS sheep turn-off data from July to the end of September 2019/20 showed a 20% decrease in sheep slaughter, a 5% decrease in lamb slaughter and a 77% increase in live export compared to last season. Total turn-off was 10% lower compared with the first quarter of 2018/19.
- The BOM outlook for January to March 2020 is for average to below average median rainfall across much of Australia's wool producing regions with above average maximum temperatures.

| Parameter | 2017/18 Final Estimate | 2018/19 Final Estimate | Change y-o-y (%) | 2019/20 Third Forecast | Change y-o-y (%) |
|---------------------------------------|------------------------------|------------------------------|------------------------|------------------------------|------------------------|
| Sheep Numbers Shorn (million) | 76.8 | 72.5 | -5.6% | 67.1 | -7.5% |
| Average Cut Per Head (kg) | 4.45 | 4.13 | -7.2% | 4.06 | -1.7% |
| Shorn Wool Production (mkg greasy) | 341 | 300 | -12.0% | 272 | -9.2% |

Table 1: Summary of wool production estimates and forecasts for Australia

Table 2: Summary of wool production estimates and forecasts for individual states

| Shorn wool production (mkg greasy) | NSW | VIC | WA | SA | TAS | QLD | National |
|---------------------------------------|--------|-------|-------|--------|-------|--------|----------|
| 2017/18 Final Estimate | 125.7 | 73.5 | 65.1 | 59.5 | 9.3 | 8.3 | 341 |
| 2018/19 First Estimate | 99.1 | 66.9 | 62.2 | 54.3 | 9.0 | 8.1 | 300 |
| Change Y-O-Y (%) | -21.2% | -9.0% | -4.5% | -8.7% | -3.2% | -2.4% | -12.1% |
| 2019/20 Third Forecast | 85.5 | 63.7 | 59.3 | 48.6 | 8.4 | 6.7 | 272 |
| Change Y-O-Y (%) | -13.7% | -4.8% | -4.7% | -10.5% | -6.7% | -17.3% | -9.2% |

• More detailed information on the shorn wool production by state in 2019/20 can be found in Table A1 in the Appendix to this report.

• The Appendix also provides historical data for Australia, including sheep numbers shorn, average cut per head and shorn wool production (Table A2) as well as the micron profile (Table A3) since 1991/92.

Detail on the 2019/20 Forecast

Major data inputs

The AWPFC forecasts are based on detailed consideration by the state and national committees of data from various sources including:

- AWTA wool test data for the 2019/20 season from 1 July to 31 October 2019;
- AWEX auction statistics for the 2018/19 season from 1 July to 31 October 2019;
- ABS wool receivals data for the 2018/19 season from 1 July to 30 September 2019;
- ABS sheep numbers as at 30th June 2019 and ABS sheep and lamb turn-off in 2019/20 from 1 July to 30 September 2019; and
- Information on current and expected seasonal conditions from the Bureau of Meteorology.

AWTA wool test data

Every month AWTA releases data on the volumes of greasy wool tested within the various diameter categories for the month and the season to date. Data for the 2019/20 season from 1 July to 31 October 2019 compared with the same time period in previous seasons are presented in this report.

The month-by-month comparison of wool tested during July and October in the current and past four seasons (Figure 1) shows the 2019/20 season tracking below each of the previous seasons for August, September and October.

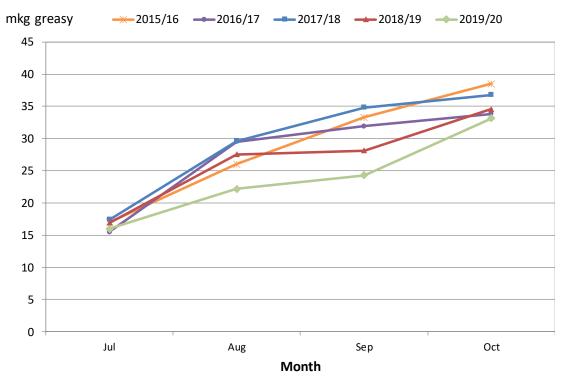


Figure 1: Comparison of monthly AWTA key test data volumes during July and October for the 2019/20 season with previous seasons (2015/16 to 2018/19)

AWTA national wool test volumes data for the 2019/20 season to the end of October (Table 3) shows:

- Volumes of wool tested between 1 July and 31 October 2019/20 were 10.8% lower than at the same time in 2018/19 and were 16.9% less than the five-year average from 2014/15 to 2018/19.
- The total volume of wool tested from 1 July and 31 October 2019/20 was the lowest in the past five seasons.
- For the 2019/20 season, there were significant decreases in the weight of wool tested across the entire micron range from less than 16.6 microns to greater than 30.5 microns. The largest decreases occurred in the 22 (down 33.7%) and 23 (down 28.8%) micron categories.

Table 3: AWTA key test data volumes by micron range between 1 July and 31 October for 2014/15 to 2019/20 seasons (mkg greasy)

| Parameter | Year | <16.6um | 17um | 18um | 19um | 20um | 21um | 22um | 23um | 24um | 25-26um | 26-28um | 29-30um | >30.5um | TOTAL |
|----------------------------------|---------------------------------|---------|--------|-------|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| | 2014/15 | 5.12 | 10.92 | 17.74 | 22.26 | 20.65 | 15.38 | 8.95 | 4.42 | 1.96 | 4.31 | 6.48 | 3.90 | 1.91 | 124.00 |
| | 2015/16 | 5.45 | 10.01 | 16.43 | 21.90 | 20.61 | 13.80 | 6.95 | 2.77 | 1.63 | 4.00 | 6.11 | 3.52 | 1.70 | 114.87 |
| AWTA FY | 2016/17 | 5.47 | 9.04 | 14.60 | 20.85 | 20.71 | 14.94 | 7.72 | 2.94 | 1.52 | 3.51 | 5.07 | 2.84 | 1.54 | 110.74 |
| Total mkg greasy | 2017/18 | 4.32 | 9.93 | 16.80 | 21.85 | 21.78 | 15.69 | 7.94 | 3.37 | 1.60 | 3.73 | 5.82 | 3.68 | 2.12 | 118.63 |
| | 2018/19 | 7.49 | 12.03 | 19.01 | 21.35 | 16.88 | 9.00 | 4.78 | 2.31 | 1.48 | 4.16 | 4.91 | 2.12 | 1.67 | 107.18 |
| | 2019/20 | 6.47 | 10.64 | 17.73 | 20.33 | 15.41 | 7.51 | 3.17 | 1.64 | 1.32 | 3.79 | 4.44 | 1.78 | 1.37 | 95.58 |
| Y-O-Y change% | 2019/20 | -13.6% | -11.5% | -6.8% | -4.8% | -8.7% | -16.6% | -33.7% | -28.8% | -10.9% | -8.8% | -9.6% | -15.8% | -17.9% | -10.8% |
| Micron Split (%) | 2018/19 | 7.0% | 11.2% | 17.7% | 19.9% | 15.8% | 8.4% | 4.5% | 2.2% | 1.4% | 3.9% | 4.6% | 2.0% | 1.6% | [|
| | 2019/20 | 6.8% | 11.1% | 18.5% | 21.3% | 16.1% | 7.9% | 3.3% | 1.7% | 1.4% | 4.0% | 4.6% | 1.9% | 1.4% | |
| | Tonnes | 5.57 | 10.38 | 16.91 | 21.64 | 20.13 | 13.76 | 7.27 | 3.16 | 1.64 | 3.94 | 5.68 | 3.21 | 1.79 | 115.08 |
| 5 year av. 2014/15 to 2018/19 | % change 19/20 vs 5 yr av | 16.1% | 2.4% | 4.8% | -6.1% | -23.5% | -45.4% | -56.4% | -48.1% | -19.5% | -3.8% | -21.9% | -44.5% | -23.3% | -16.9% |
| | Micron split % | 4.8% | 9.0% | 14.7% | 18.8% | 17.5% | 12.0% | 6.3% | 2.7% | 1.4% | 3.4% | 4.9% | 2.8% | 1.6% | |

Note: The micron categories refer to a range of -0.4 and +0.5um around each number. For example, 18um is between 17.6 and 18.5 micron

The micron profile of the Australian wool clip continues to show two distinct peaks; one centred around 19 micron wool (finer than 16.6 microns up to 23 microns); and a second centred around 27 - 28 microns (from 24 microns to 30.5 microns and broader) (Figure 2). A historical comparison of the Australian wool clip's micron profile percentage share and average micron can be found in Appendix Table A3.

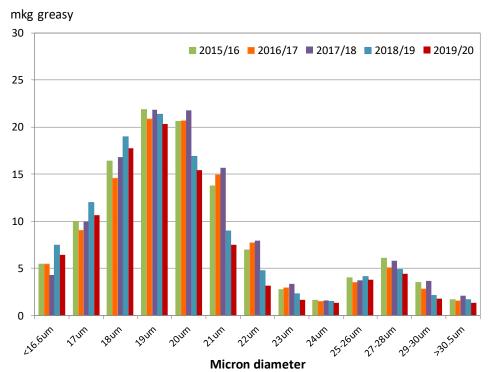


Figure 2: Australian fibre diameter profile from 1 July to 31 October in the 2019/20 season compared with the July to October period in the 2015/16 to 2018/19 seasons

 Based on data by Wool Statistical Area (WSA), the volumes of wool tested in each state, between 1 July and 31 October for the 2019/20 season declined on a year-on-year basis (Figure 3).

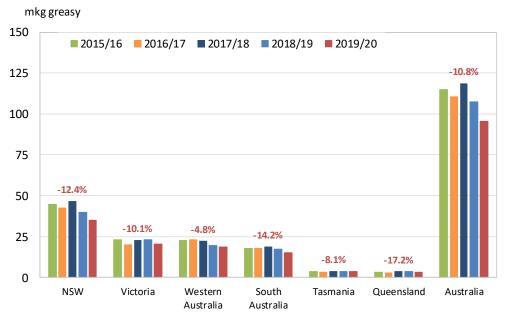


Figure 3: Volume of wool tested from 1 July to 31 October in the 2019/19 season compared with the July to October period in the 2015/16 to 2018/19 seasons. The percentage change is the 2019/20 season compared with the 2018/19 season.

• Queensland recorded the largest decline in the volume of wool tested during July to October 2019 (down 17.2%), followed by New South Wales (down 12.4%), South Australia

(down 14.2%), Victoria (down 10.1%), Tasmania (down 8.1%) and Western Australia (down 4.8%) (Table 4).

| Year | NSW | Vic | WA | SA | Tas | Qld | Australia |
|----------------|--------|--------|-------|--------|-------|--------|-----------|
| 2014/15 | 48.4 | 26.3 | 22.7 | 18.4 | 4.4 | 3.8 | 124.0 |
| 2015/16 | 44.9 | 23.0 | 22.4 | 17.9 | 3.7 | 3.0 | 114.9 |
| 2016/17 | 42.7 | 20.2 | 23.3 | 17.9 | 3.5 | 3.0 | 110.7 |
| 2017/18 | 46.8 | 23.0 | 22.3 | 18.8 | 4.0 | 3.8 | 118.6 |
| 2018/19 | 39.7 | 22.9 | 19.7 | 17.4 | 3.8 | 3.7 | 107.2 |
| 2019/20 | 34.8 | 20.6 | 18.7 | 14.9 | 3.5 | 3.1 | 95.6 |
| % change y-o-y | -12.4% | -10.1% | -4.8% | -14.2% | -8.1% | -17.2% | -10.8% |

Table 4: AWTA test data volumes by state (based on Wool Statistical Area) between 1July to 31 October for the 2014/15 to 2019/20 seasons (mkg greasy)

- A graphical representation of the AWTA Key Test Data changes in fibre diameter (MFD), vegetable matter (VM), staple length (SL), yield (YIELD), staple strength (SS) and hauteur (TEAM 3 H) between 1 July to 31 October from the 2000/01 season to the 2019/20 season is shown in Figure 4.
- On each graph the red dot represents the mean value of each characteristic for the 2019/20 season to the end of October while the blue dot represents the mean for the corresponding time period in the 2018/19 season.
- The values above the gauge on the left-hand side of each graph show the mean and standard deviation respectively for that characteristic from 2000/01 to 2019/20.
- Each coloured segment on the gauges represents one standard deviation with the mean at 12 o-clock (centre). For MFD, VM, SL, YIELD and SS, the mean and standard deviation are based on data from the 2000/01 season onwards. For TEAM 3 the mean and standard deviation are based on data from the 2006/07 season onwards.
- The red line on each gauge is the mean for the 2019/20 season, while the blue line is the mean for the 2018/19 season.
- On a national basis, compared with the 2018/19 season to the end of October, yields in 2019/20 were down by 0.8% to 62.8%, vegetable matter down by 0.6% to 1.8%, fibre diameter was down by 0.1 µm to 20.0 µm and staple strength was also lower at 33.4 N/kt down 0.8 N/kt. Staple length increased by 1.9 mm to 87.7 mm.
- Fibre diameter and yield are at their lowest levels since the 2000/01 season.

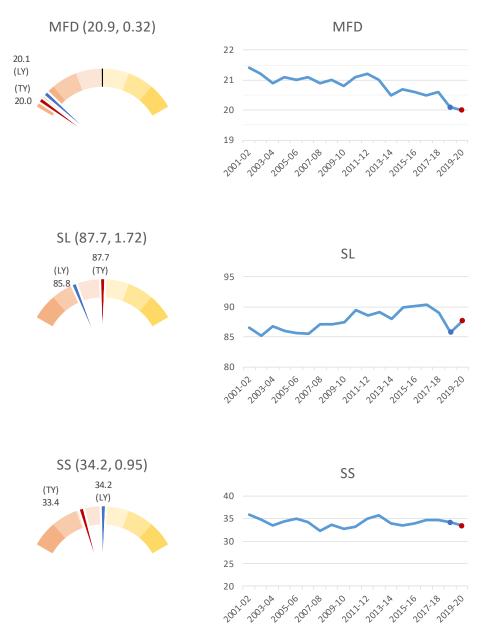


Figure 4a: AWTA Key Test Data (by sampling site) fibre diameter (MFD), staple length (SL) and staple strength (SS) for the Australian wool clip from 1 July to 31 October for the 2000/01 to 2019/20 seasons

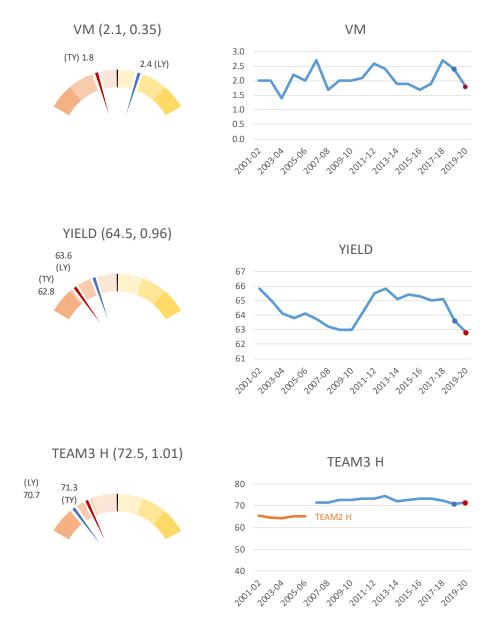


Figure 4b: AWTA Key Test Data (by sampling site) vegetable matter (VM), yield (YIELD) and TEAM 3 H (TEAM 3 H) for the Australian wool clip from 1 July to 31 October for the 2000/01 to 2019/20 seasons

AWEX auction statistics

The AWEX auction statistics for the 2019/20 season up to week 18 (31 October 2019) show a reduction in first-hand wool offered volumes compared with the same time period in 2018/19 (Table 5).

- First-hand bales offered (i.e. excluding reoffers) for Australia were 22.8% lower during the first four months of the 2019/20 season.
- The most significant decreases were evident in Queensland (down 33.9%), New South Wales (down 24.3%), South Australia (down 23.9%), Victoria (down 23.2%), Tasmania (down 23.1%) and Western Australia (down 18.7%).
- There was a 23.9% decrease in the volume of first-hand Merino wool offered across Australia, and an 17.1% decrease in first-hand Crossbred wool offered. The share of

Merino wool of all first-hand offered wool was 82.5% in 2019/20 compared with 83.7% for 2018/19.

- There was a 16% decrease in the volume of 'Prem-shorn' Merino fleece wool to date during 2019/20 (5.1 mkg) compared with 2018/19 (6.1 mkg).
- As a percentage share of the total, 10% of Australian first-hand bales offered were prem shorn to date during 2019/20. On a state-by-state basis this ranged from 14% in South Australia to 4% in Tasmania.

| 2019/20 | NSW | VIC | WA | SA | TAS | QLD | AUST |
|---|------------|--------|--------|--------|--------|--------|--------|
| First hand bales offered (% change on 2018/19) | -24.3% | -23.2% | -18.7% | -23.9% | -23.1% | -33.9% | -22.8% |
| Merino first hand offered (% change on 2018/19) | -25.2% | -85.3% | -18.9% | -26.4% | -34.7% | -33.6% | -23.9% |
| Crossbred first hand offered (% change on 2018/19) | -20.5% | 170.1% | -15.6% | -3.4% | 2.9% | -46.5% | -17.1% |
| Merino first hand offered (% share) | 78.8% | 14.5% | 94.5% | 86.3% | 58.9% | 98.3% | 82.5% |
| Crossbred first hand offered (% share) | 21.2% | 85.5% | 5.5% | 13.7% | 41.1% | 1.7% | 17.5% |
| Merino First Hand 'Prem' Sho | orn Fleece | | | | | | |
| Weight (mkg) | 1.7 | 0.6 | 1.2 | 1.4 | 0.1 | 0.2 | 5.1 |
| % share of total | 10% | 8% | 10% | 14% | 4% | 7% | 10% |
| % change on 2018/19 | -23% | -16% | 9% | -22% | -29% | -11% | -16% |

Table 5: AWEX Auction Statistics to week 18 in the 2019/20 season

Note: Data on 'prem shorn' wool from AWEX is based on the assessed length of the wool being offered. it is defined as <85 - 75 mm, depending on micron and excluding weaners and lambs wool.

Australian Bureau of Statistics (ABS) data

The ABS provide data on wool receivals and sheep and lamb turnoff.

Wool receivals

National wool receivals for Australia and by state of receival (note that this is not by state of production) for July to September 2019 compared with the same period in previous seasons are shown in Table 6.

- Wool receivals for Australia fell by 16.1% in 2019/20.
- Wool receivals for July to September 2019 were the lowest for the past five seasons and 22.2% below the five-year average. In fact, wool receivals during the September quarter of 2019/20 were at their lowest level since the ABS wool receivals series began in 1973.
- Wool receivals decreased in all states. The largest falls occurred in Victoria (down 24.0%), South Australia (down 18.3%), Western Australia and Queensland (down 11.9%), New South Wales (down 10.7%) and Tasmania (down 6.1%).
- Wool receivals in all states were below the five-year average.

| mkg | NSW | VIC | WA | SA | TAS | QLD | AUS |
|---|--------|--------|--------|--------|--------|--------|--------|
| 2014/15 | 30.56 | 22.50 | 14.78 | 13.58 | 2.59 | 1.66 | 85.67 |
| 2015/16 | 28.10 | 19.24 | 16.00 | 15.97 | 2.24 | 1.56 | 83.11 |
| 2016/17 | 26.10 | 19.71 | 20.24 | 15.18 | 2.04 | 1.36 | 84.64 |
| 2017/18 | 27.86 | 22.95 | 18.24 | 14.98 | 2.01 | 1.62 | 87.67 |
| 2018/19 | 22.46 | 22.55 | 16.19 | 13.43 | 1.60 | 1.35 | 77.58 |
| 2019/20 | 20.04 | 17.14 | 14.27 | 10.97 | 1.51 | 1.19 | 65.11 |
| % change | -10.7% | -24.0% | -11.9% | -18.3% | -6.1% | -11.9% | -16.1% |
| Five year average (2014/15 to 2018/19) | 27.02 | 21.39 | 17.09 | 14.63 | 2.10 | 1.51 | 83.74 |
| % change (2019/20 vs 5 year av) | -25.8% | -19.9% | -16.5% | -25.0% | -28.2% | -21.2% | -22.2% |

Table 6: ABS Wool Receivals data July to September 2019

Sheep turn-off

Australian sheep and lamb turn-off statistics for July to September 2019 covers sheep slaughter, lamb slaughter and live exports and is compared with the same time period in 2018/19 season and the five-year average from 2014/15 to 2018/19 for the July to September quarter (Table 7):

- There was a 20% decrease in sheep slaughter and a 5% decrease in lamb slaughter from July to September 2019 compared to the same period in 2018.
- The number of live sheep exported from Australia increased by 77% during July to September 2019 due to changed trading conditions but remained well below the five-year average (down 85%).
- Total turnoff of sheep and lambs in the first quarter of 2019 was 10% lower compared with the same time in 2018 and 13% below the five-year average.

| _ | Finan | cial year to-date | 9 | 5-yr FYTD | | |
|-----------------------------------|---------------------------|---------------------------|------|-----------|------------|--|
| Parameter | July 2018 to Sept 2018 | July 2019 to Sept 2019 | %Δ | Avg | % ∆ | |
| Sheep slaughter ('000 hd) | 2,559 | 2,036 | -20% | 1,986 | 2% | |
| Sheep weights (kg/hd cwt) | 24 | 25 | 6% | 25 | 2% | |
| Mutton production (tonnes cwt) | 60,854 | 51,103 | -16% | 48,752 | 5% | |
| Lamb slaughter ('000 hd) | 4,926 | 4,666 | -5% | 5,365 | -13% | |
| Lamb weights (kg/hd cwt) | 22 | 23 | 7% | 22 | 6% | |
| Lamb production (tonnes cwt) | 106,738 | 108,485 | 2% | 117,774 | -8% | |
| Live exports ('000 hd) | 37 | 66 | 77% | 447 | -85% | |
| Total Turnoff ('000 hd) | 7,521 | 6,768 | -10% | 7,798 | -13% | |

Table 7: ABS Sheep turn off data for June to September 2019

Bureau of Meteorology (BoM) seasonal rainfall seasonal outlook

Since August, reasonable seasonal conditions have only been evident in western Victoria, southeast South Australia and the mid-north of Tasmania. Poor seasonal conditions in many other wool producing regions in New South Wales, South Australia, Queensland and Western Australia have continued through Spring. Rainfall between 1 August and 31 October 2019 in these latter regions, continues to be either below average or very much below average (Figure 5).

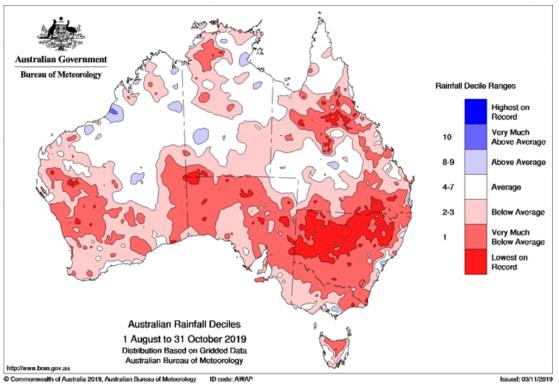


Figure 5: Australian rainfall deciles 1 August to 31 October 2019

The rainfall deciles for the past 12 months (Figure 6) clearly show how dry it has been in key wool producing regions across the country in the past year.

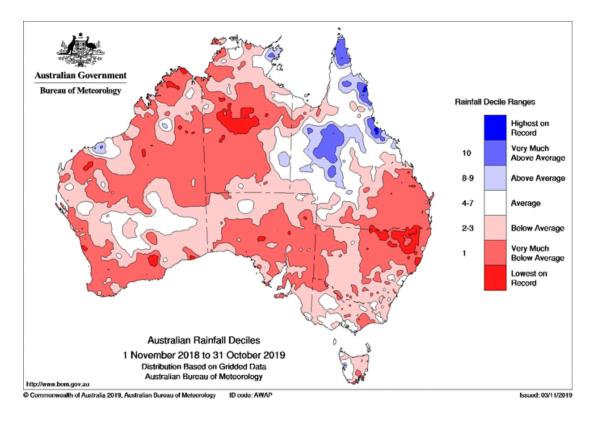


Figure 6: Australian yearly rainfall deciles (1 November 2018 to 31 October 2019)

The low rainfall deciles combined with continuing high temperatures have contributed to the historical low landscape water balance across most of Australia (Figure 7). Key wool producing regions in Western Australia, South Australia, New South Wales, Queensland and Tasmania have below average to the lowest 1% of soil moisture levels in the root zone.

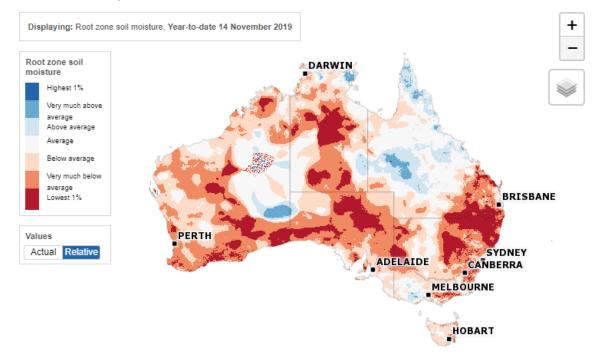
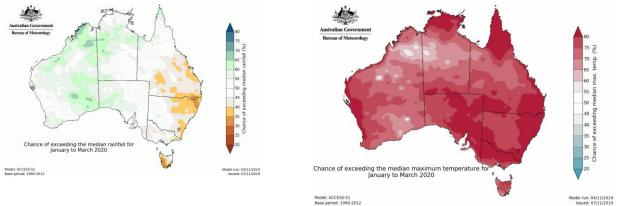


Figure 7: Australian landscape water balance, year-to-date 14 November 2019

The Bureau of Meteorology's outlook for January to March 2020 period is that median rainfall is likely to be average to below average across much of Australia's wool producing regions (Figure 8) along with above average maximum temperatures (Figure 9).



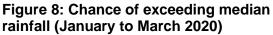


Figure 9: Chance of exceeding median maximum temperature (January to March 2020)

In its update on 12 November 2019, the Bureau noted that the El Niño–Southern Oscillation (ENSO) tracker was **inactive**, with the strong positive Indian Ocean Dipole (IOD) event continuing, likely to decline slowly and persist into mid-summer.

State Committee inputs

The following provides a summary of seasonal conditions and wool production forecast in 2019/20 in each state as reported by the AWPFC state committees in November 2019. The state committees reported that seasonal conditions in most sheep producing areas across Australia showed no improvement since their last meeting in August.

New South Wales

Severe drought conditions continue across most of the state. Some rain in the North West lead to a decent winter which will lift production, albeit from very low numbers. Most other regions (New England, North West, Central West, Northern Riverina, Monaro, Central and Southern Slopes) remain very dry with no signs of improvement since August. While a few localised areas have fared better than others over spring, with short high-quality feed assisting in maintaining stock condition, they are now moving into dry times. High rates of destocking, with total flock dispersals in the Northern Tablelands and producers in many areas are selling off stock that can't be bred from (wether lambs, ewe lambs and older ewes) with large yarding's in the last few months due to low stock water supplies and fodder availability. Many flocks haven't joined and are running dry ewes for the 2nd year. The magnitude of the fall in production is beginning to taper off as the big reductions occurred last season when the drought began to bite.

Management shearing is being undertaken to give breeding ewes a lift, for those producers who are choosing to join. Many flocks are now being managed in containment areas which has helped maintain fleece weight in some areas, however the forecast going forward is for a reduction in cut per head. The NSW Committee's 3rd forecast of shorn wool production for 2019/20 at 85.48 mkg, down 13.7% on 2018/19.

<u>Victoria</u>

South of the Divide the season is reasonable, the western Victoria and the North West regions are fantastic, however the Gippsland region continues to be very ordinary, with low sheep numbers and further falls in per head production. The season in the North East has improved dramatically due to good September and November rains and producers are expected to at least maintain stock numbers. Fleece weights are expected to be higher than the previous season as good feed conditions in the past 4 months have increased sheep condition and wool cuts. Staple length is longer compared with the same time period in 2018/19. A reduction in wool cut in the south west corner of the state will be counteracted by increases in the northern and western regions. Overall lambing rates are expected to be on par with last season. Wool receivals are beginning to increase. The Committee believed that stock numbers in Victoria were reduced prior to Autumn in 2018/19 and have held reasonably steady since then. **The Vic Committee's 3rd forecast of shorn wool production for 2019/20 at 63.71 mkg, down 4.8% on 2018/19.**

Western Australia

The South Coast and Great Southern regions have now had 2 years of lowest rainfall on record. Water is an issue and frost damaged crops were cut for hay. Lambing percentages are expected to be average. Many properties have destocked in the Esperance region with few lambs being kept on farm. Northern and wheatbelt regions are dry and in same situation as southern regions. Pasture growth is sitting at decile 1 and the normal seasonal sheep

turnoff is occurring earlier which will impact wool cuts. Large sheep turnoff in past 2-3 months in eastern and northern regions will see stable numbers moving forward, although more sheep remain to be sold from southern regions. Many lambs have been sold to the store market to decrease on-farm numbers. Remaining stock will be shorn. Some wool quality is holding as many producers have maintained stock feeding for 12 months. Current low pasture availability across most of the state will lead to a tough summer and reduced wool cuts (down 5-8% compared with 2018/19) due to low pasture quality despite availability of grain screenings. Availability of stock water is a major issue in many regions. There is some indication of a move towards crossbred production systems at the expense of Merino production, although this is not yet evident in the test results. This is expected to continue while the wool prices are volatile and lamb prices are lower than in the Eastern states. **The WA Committee's 3rd forecast of shorn wool production for 2019/20 at 59.27 mkg, down 4.8% on 2018/19**.

South Australia

Most pastoral properties are back to core breeders. Some, predominantly in the North East, are completely destocked and in a dire situation. The North West and Gawler Ranges are also experiencing drought, with big numbers coming out of those areas. Some pastoral producers are feeding and retaining breeding ewes to ensure they have ewes to breed from and rebound post drought. Generally good feed levels on Kangaroo Island, although there is concern over water shortages going into summer. The Lower South East is currently looking very good, despite lower than average rainfall. Producers are conscious of access to and purchase price of sheep to increase numbers - don't want to pay too much when the general break does happen. It has been a reasonable season, south of the Murray. Any increase in sheep numbers will come in the south east, but producers are very conservative regarding stock numbers and will look to maintain not increase. Exceptionally dry finish for the south east which was beneficial for livestock and lamb finishing. Fleece weights are expected to be down by ½ kg and fibre diameter by 0.5 µm. The mid-North is looking fair, most producers are hanging onto stock with an average year expected going forward. The West Coast has had some reasonable pockets of rain and while sheep numbers remain static, fleece weight and fibre diameter are expected to be down. No increase in the number of sheep in SA. Fleece weights down due to 2nd shearing in the Mallee, increased crossbred shearing (3¹/₂ - 4kg/hd max) and fewer heavy (6 kg) Merino fleeces in the north. The SA Committee 's 3rd shorn wool production forecast for 2019/20 at 48.60mkg, down 10.6% on 2018/19.

<u>Tasmania</u>

Lower rainfall produced a tight winter, but the mild conditions in the North resulted in good lamb survival. North Midlands remains tight albeit with some late rain, expecting some reduction in cut per head (down 5%). Pasture feed on the shallow sandy soils has hayed off due to recent higher temperatures and windy conditions. Particularly tight and tough conditions in the South with year on year decrease in cut per head (down 15 - 18%). Conditions are stable with good scanning percentages. The East Coast is in its 3rd year of drought with westerly weather patterns continuing to prevent any significant rainfall. The region did receive 30 - 40 mm 2 months ago but not effective with little if any pasture growth, significant bare ground and no subsoil moisture. In the East and Southern Midlands have had lower than average rainfall and high lamb mortality. Some clips will be reduced by up to 25% as ewe and wether numbers have reduced due to lack of pasture feed availability and the low supply of supplementary feed product. Producers have capitalised on the current increase in lamb and mutton prices being paid by processors. Flinders Island has had a good season to date. The

West Coast has received above average rainfall. Producers decided in autumn which ewes to join, supplementary fed and committed these ewes to lamb. As a result, numbers were held but a reduction is expected at weaning when older ewes will be shorn and sold. High grain, mutton and prem wool prices (\$10 - 11 /kg) prices are persuading producers to prem shear and reduce numbers rather than feed during summer. Large mutton numbers are being processed bare shorn at local abattoir. The Tas Committee's 3rd forecast of shorn wool production for 2019/20 at 8.44 mkg, down 6.7%.

Queensland

No change in seasonal conditions since August meeting. Some rainfall in the Central West region, up to 2 inches, but very patchy. Continued sell-off of sheep in Central West, however wool producers are trying to keep breeding ewes for as long as possible. Further rain is needed soon. For the few flocks which have scanned in the last 3 - 4 months, scanning rates have been good to exceptional. Conception rates are great, even in the Mitchell area where ewes have been in poor condition. In the Western region, more sheep have been sold to date this season compared with the same time last season. A lot of the sheep sold in last 6 - 10 weeks had ½ or ¼ skins. For the sheep that remain, current shearing is progressing extremely well considering there is no feed in the paddock. Fleece weights are cutting a little better than expected, but overall numbers will be down in terms of number of bales due to fewer sheep in the region. **The Qld Committee's 3rd forecast of shorn wool production for 2019/20 at 6.73 mkg, down 17.3% on 2018/19.**

Appendix

Table A1: Comparison of the estimates for the 2017/18 and 2018/19 seasons with the third forecast for 2019/20

| 2017/18 | NSW | VIC | WA | SA | TAS | QLD | National |
|---------------------------------------|--------|-------|-------|--------|-------|--------|----------|
| Sheep Numbers Shorn (million) | 28.3 | 17.2 | 14.8 | 11.9 | 2.4 | 2.2 | 76.8 |
| Average Cut Per Head (kg) | 4.40 | 4.30 | 4.40 | 5.00 | 3.90 | 3.80 | 4.45 |
| Shorn Wool Production (mkg greasy) | 125.7 | 73.5 | 65.1 | 59.5 | 9.3 | 8.3 | 341.0 |
| 2018/19 | NSW | VIC | WA | SA | TAS | QLD | National |
| Sheep Numbers Shorn (million) | 24.80 | 16.70 | 14.60 | 11.80 | 2.40 | 2.20 | 72.50 |
| Average Cut Per Head (kg) | 4.00 | 4.00 | 4.25 | 4.60 | 3.78 | 3.65 | 4.13 |
| Shorn Wool Production (mkg greasy) | 99.1 | 66.9 | 62.2 | 54.3 | 9.0 | 8.1 | 300.0 |
| Change % | NSW | VIC | WA | SA | TAS | QLD | National |
| Sheep Numbers Shorn | -12.4% | -2.9% | -1.4% | -0.8% | 0.0% | 0.0% | -5.6% |
| Average Cut Per Head | -9.1% | -7.0% | -3.4% | -8.0% | -3.1% | -3.9% | -7.2% |
| Shorn Wool Production | -21.2% | -9.0% | -4.5% | -8.7% | -3.2% | -2.4% | -12.0% |
| 2019/20 Third Forecast | NSW | VIC | WA | SA | TAS | QLD | National |
| Sheep Numbers Shorn (million) | 21.6 | 15.5 | 14.1 | 11.6 | 2.4 | 1.8 | 67.1 |
| Average Cut Per Head (kg) | 3.95 | 4.10 | 4.20 | 4.20 | 3.55 | 3.65 | 4.06 |
| Shorn Wool Production (mkg greasy) | 85.5 | 63.7 | 59.3 | 48.6 | 8.4 | 6.7 | 272.2 |
| Change % | NSW | VIC | WA | SA | TAS | QLD | National |
| Sheep Numbers Shorn | -12.9% | -7.2% | -3.4% | -1.7% | 0.0% | -18.2% | -7.4% |
| Average Cut Per Head | -1.3% | 2.5% | -1.2% | -8.7% | -6.1% | 0.0% | -1.7% |
| Shorn Wool Production | -13.7% | -4.8% | -4.7% | -10.5% | -6.7% | -17.3% | -9.3% |

Note: Totals may not add due to rounding

Historical Australian Production Figures

The tables below provide historical sheep shorn numbers, wool production, fleece weight and micron share statistics since 1991/92 for background information.

| Year | Sheep | Average | Shorn | | |
|----------|-----------|---------|-------|--|--|
| Tear | (million) | (kg) | (mkg | | |
| 1991-92 | 180.9 | 4.43 | 801 | | |
| 1992-93 | 178.8 | 4.56 | 815 | | |
| 1993-94 | 172.8 | 4.49 | 775 | | |
| 1994-95 | 156.2 | 4.37 | 682 | | |
| 1995-96 | 145.6 | 4.50 | 655 | | |
| 1996-97 | 152.0 | 4.35 | 661 | | |
| 1997-98 | 150.0 | 4.22 | 633 | | |
| 1998-99 | 153.6 | 4.33 | 665 | | |
| 1999-00 | 144.2 | 4.30 | 619 | | |
| 2000-01 | 139.5 | 4.31 | 602 | | |
| 2001-02 | 118.6 | 4.68 | 555 | | |
| 2002-03 | 116.6 | 4.28 | 499 | | |
| 2003-04 | 104.7 | 4.53 | 475 | | |
| 2004-05 | 106.0 | 4.49 | 475 | | |
| 2005-06 | 106.5 | 4.33 | 461 | | |
| 2006-07 | 101.4 | 4.24 | 430 | | |
| 2007-08 | 90.2 | 4.43 | 400 | | |
| 2008-09 | 79.3 | 4.52 | 362 | | |
| 2009-10 | 76.2 | 4.50 | 343 | | |
| 2010-11 | 76.2 | 4.53 | 345 | | |
| 2011-12 | 76.4 | 4.48 | 342 | | |
| 2012-13 | 78.8 | 4.47 | 352 | | |
| 2013-14 | 78.0 | 4.37 | 341 | | |
| 2014-15 | 76.9 | 4.50 | 346 | | |
| 2015-16 | 73.4 | 4.43 | 325 | | |
| 2016-17 | 74.3 | 4.58 | 340 | | |
| 2017-18 | 76.8 | 4.45 | 341 | | |
| 2018-19 | 72.5 | 4.13 | 300 | | |
| 2019-20f | 67.1 | 4.06 | 272 | | |

Table A2: Australian wool production statistics since 1991/92

| Year | <16.5 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25/26 | 27/28 | 29/30 | >30.5 | Average Fibre Diameter (um) |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------------------|
| 1991/92 | 0.1% | 0.7% | 3.2% | 7.9% | 15.2% | 21.5% | 20.0% | 13.4% | 7.1% | 5.5% | 2.9% | 1.6% | 1.0% | 22.0 |
| 1992/93 | 0.0% | 0.3% | 1.9% | 5.4% | 12.0% | 19.9% | 20.6% | 15.6% | 10.0% | 7.9% | 3.0% | 1.9% | 1.6% | 22.4 |
| 1993/94 | 0.1% | 0.5% | 2.4% | 5.9% | 12.1% | 18.8% | 20.8% | 15.7% | 10.0% | 7.4% | 2.8% | 1.9% | 1.7% | 22.4 |
| 1994/95 | 0.1% | 0.6% | 3.5% | 8.6% | 15.2% | 20.9% | 19.9% | 13.0% | 7.0% | 4.7% | 2.8% | 2.0% | 1.7% | 22.0 |
| 1995/96 | 0.0% | 0.6% | 3.3% | 8.2% | 15.3% | 20.8% | 18.5% | 13.2% | 8.1% | 6.0% | 2.7% | 1.8% | 1.6% | 22.1 |
| 1996/97 | 0.2% | 0.8% | 3.9% | 9.7% | 15.3% | 20.1% | 18.3% | 13.1% | 7.4% | 5.3% | 2.3% | 1.9% | 1.8% | 22.0 |
| 1997/98 | 0.2% | 1.2% | 4.5% | 9.8% | 14.8% | 19.4% | 18.3% | 12.8% | 7.7% | 5.4% | 2.6% | 1.8% | 1.5% | 21.9 |
| 1998/99 | 0.2% | 1.1% | 4.2% | 8.8% | 14.6% | 19.6% | 18.6% | 14.0% | 7.6% | 5.1% | 2.7% | 2.0% | 1.5% | 22.0 |
| 1999/00 | 0.1% | 1.0% | 4.2% | 9.3% | 14.4% | 19.1% | 18.2% | 13.6% | 7.7% | 5.2% | 2.9% | 2.4% | 1.9% | 22.1 |
| 2000/01 | 0.2% | 1.3% | 5.2% | 11.1% | 15.7% | 18.5% | 16.4% | 11.4% | 6.8% | 5.1% | 3.6% | 2.8% | 1.9% | 22.0 |
| 2001/02 | 0.3% | 2.0% | 7.2% | 14.4% | 19.9% | 18.9% | 12.9% | 7.7% | 4.1% | 3.7% | 3.8% | 3.1% | 1.9% | 21.6 |
| 2002/03 | 1.0% | 3.9% | 9.8% | 15.7% | 18.9% | 17.6% | 12.0% | 6.6% | 2.9% | 3.4% | 3.7% | 2.9% | 1.7% | 21.2 |
| 2003/04 | 0.7% | 3.6% | 9.9% | 15.8% | 18.3% | 16.6% | 11.9% | 7.5% | 3.6% | 3.5% | 3.8% | 2.9% | 1.8% | 21.3 |
| 2004/05 | 1.2% | 4.2% | 10.5% | 16.5% | 18.7% | 15.9% | 10.7% | 6.2% | 3.2% | 3.6% | 4.1% | 3.1% | 2.0% | 21.2 |
| 2005/06 | 1.4% | 4.7% | 9.7% | 15.1% | 18.7% | 17.1% | 11.5% | 5.9% | 2.9% | 3.9% | 4.5% | 2.9% | 1.6% | 21.2 |
| 2006/07 | 2.0% | 5.9% | 11.8% | 15.9% | 16.9% | 14.0% | 9.9% | 6.2% | 3.4% | 4.3% | 4.4% | 3.2% | 2.1% | 21.2 |
| 2007/08 | 1.9% | 5.3% | 10.9% | 16.8% | 18.4% | 14.3% | 9.2% | 5.5% | 3.0% | 4.1% | 4.8% | 3.6% | 2.2% | 21.2 |
| 2008/09 | 2.0% | 5.7% | 11.4% | 16.6% | 18.5% | 15.0% | 9.1% | 4.4% | 2.3% | 3.8% | 5.1% | 3.8% | 2.2% | 21.2 |
| 2009/10 | 2.3% | 6.2% | 12.6% | 17.1% | 17.5% | 13.2% | 8.4% | 4.6% | 2.5% | 4.1% | 5.4% | 3.9% | 2.3% | 21.2 |
| 2010/11 | 1.5% | 4.8% | 11.0% | 16.8% | 18.0% | 13.5% | 8.4% | 5.4% | 3.0% | 3.9% | 5.5% | 5.0% | 3.1% | 21.5 |
| 2011/12 | 1.8% | 5.6% | 12.0% | 17.1% | 16.6% | 12.3% | 8.3% | 5.3% | 2.9% | 4.2% | 5.8% | 4.7% | 3.3% | 21.5 |
| 2012/13 | 2.5% | 7.0% | 13.3% | 17.5% | 16.8% | 12.0% | 7.3% | 4.1% | 2.3% | 4.6% | 6.2% | 4.0% | 2.5% | 21.2 |
| 2013/14 | 3.8% | 8.4% | 14.6% | 17.8% | 16.0% | 10.9% | 6.2% | 3.4% | 2.2% | 5.2% | 6.4% | 3.1% | 2.1% | 20.9 |
| 2014/15 | 3.2% | 7.9% | 14.8% | 18.5% | 15.8% | 10.5% | 6.5% | 3.5% | 1.9% | 4.4% | 6.5% | 3.9% | 2.6% | 21.0 |
| 2015/16 | 3.9% | 8.5% | 14.6% | 17.8% | 16.2% | 10.8% | 6.0% | 2.9% | 1.9% | 4.6% | 6.5% | 3.6% | 2.7% | 21.0 |
| 2016/17 | 3.6% | 7.5% | 13.4% | 17.4% | 17.2% | 12.1% | 6.9% | 3.4% | 2.0% | 4.4% | 5.8% | 3.4% | 2.7% | 21.0 |
| 2017/18 | 3.2% | 8.6% | 15.4% | 18.6% | 16.1% | 10.2% | 5.7% | 2.9% | 1.8% | 4.1% | 6.0% | 4.0% | 3.2% | 21.0 |
| 2018/19 | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 5.8% | 20.5 |
| 2019/20* | 6.8% | 11.1% | 18.5% | 21.3% | 16.1% | 7.9% | 3.3% | 1.7% | 1.4% | 4.0% | 4.6% | 1.9% | 1.4% | 20.0 |

Table A3: Australian micron profile of AWTA wool test volume statistics since 1991/92 (% share and average micron)

*2019/20 data is for 1 July to 31 October 2019

Explanation of revised AWPFC data series

At the December 2005 meeting, the national Committee made the decision to collate and review the key variables (shorn wool production, cut per head, number of sheep shorn) used in the committee from the available industry sources and to create a consistent historical data series at both a state and national level. This was required as some differences existed between industry accepted figures and the AWPFC data series and to ensure a consistent methodology over time. This process resulted in changes to the parameters 'average cut per head' and the 'number of sheep shorn' for some seasons at both a state and national level.

Modus operandi for the Australian Wool Production Forecasting Committee

The Australian Wool Production Forecasting Committee draws together a range of objective data and qualitative information to produce consensus-based, authoritative forecasts four times a year for Australian wool production.

The Committee has a two-level structure, with a National Committee considering information and advice from state sub-committees. It is funded by Australian Wool Innovation Limited, which also provides an independent representative in the role of the Chairman of the National Committee.

The National and state sub-committees comprise wool producers, wool brokers, sheep pregnancy scanners, exporters, processors, private treaty merchants, AWEX, AWTA, ABARES, ABS, MLA, state departments of Agriculture and AWI.

The Committee releases its forecasts in the forms of a press release and a report providing the detailed forecasts, historical data and commentary on the key drivers of the forecasts.