

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 285 mkg greasy. This is a 5.0% decline from the levels in 2018/19. The decline is due to lower sheep shorn numbers.
- High adult slaughter rates in 2018/19, up 16% on 2017/18, and reported low marking rates have contributed to a decrease in the number of sheep shorn.
- Seasonal conditions in key wool producing areas in western Victoria, southeast South Australia and Western Australia are reasonable. However, significant parts of New South Wales, Queensland, eastern Victoria, southern and eastern Tasmania and the pastoral regions of South Australia continue to experience dry to drought conditions.
- The AWPFC's estimate of shorn wool production in 2018/19 is 300 mkg, a 12.1% decline on the 2017/18 season. The dry finish to the 2018/19 season in some areas resulted in further falls in key wool test parameters since April. Average yield ended the season at 63.1% down 1.5% on 2017/18. Mean fibre diameter was down by 0.5 microns to 20.5 microns and staple length was down 2.2 mm. The season ending levels of these three parameters were either at, or near, the lowest levels since the 2000/01 season.
- New South Wales is estimated to have the greatest decline in shorn wool production in 2018/19 with a 21.2% reduction from 2017/18 to 99.1 mkg greasy. Victoria declined by 9.0% to 66.9 mkg and South Australia by 8.7% to 54.3 mkg. Western Australia is estimated to have produced 62.2 mkg greasy (down 4.5%) with smaller declines in Tasmania, (9.0 mkg, down 3.2%) and Queensland (8.1 mkg greasy, down 2.4%).
- AWTA volumes of greasy wool tested during 2018/19 were 11.7% lower than in 2017/18. Volumes in most states declined on a year-on-year basis. The greatest decline occurred in New South Wales (down 19.1%), followed by South Australia (down 9.7%), Victoria (down 8.1%), Western Australia (down 6.2%) and Queensland (down 4.3%). Tasmania was the only state to record an increase, up 3.6%.

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- AWTA data showed a significant increase in the weight of wool tested at 16.5 microns and finer (up 59.5%), at 17 microns (up 18.6%) and at 18 microns (up 5.6%). The 25 26 micron category (up 7.9%) was the only other to record an increase in the weight tested. All other categories recorded falls.
- AWEX first-hand bales offered were 14.1% lower during 2018/19 compared with 2017/18.
- ABS wool receival data for Australia fell by 14.9% in 2018/19 compared with 2017/18. Receivals in 2018/19 were at the lowest level since the ABS receival series began in 1973.
- ABS sheep turn-off data during 2018/19 showed a 16% increase in sheep slaughter, a 6% decrease in lamb slaughter and a 49% decrease in live export. Total turn-off was 3% lower compared with 2017/18.
- THE BOM outlook for August to October 2019 is for average to below average median rainfall across much of Australia with above average maximum temperatures.
- Table 1 summarises the estimates and forecasts for Australia and Table 2 shows the estimates and forecasts for each state.

Parameter	2017/18 Final Estimate	2018/19 Final Estimate	Change y-o-y (%)	2019/20 Second Forecast	Change y-o-y (%)
Sheep Numbers Shorn (million)	76.8	72.5	-5.5%	68.2	-5.9%
Average Cut Per Head (kg)	4.45	4.13	-7.2%	4.19	+1.5%
Shorn Wool Production (mkg greasy)	341	300	-12.1%	285	-5.0%

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

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 Second Forecast	87.8	66.7	62.1	53.2	8.7	6.7	285
Change Y-O-Y (%)	-11.4%	-0.3%	-0.2%	-2.0%	-3.3%	-17.3%	-5.0%

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

- More detailed information on the shorn wool production by state in 2018/19 and 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 2018/19 Estimate and 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 2018/19 season and the 2019/20 season for July;
- AWEX auction statistics for the 2018/19 season;
- ABS wool receivals data for the 2018/19 season;
- ABS sheep numbers as at 30th June 2019 and ABS sheep and lamb turn-off in 2018/19;
- Information on current and expected seasonal conditions from the Bureau of Meteorology; and
- Survey information gathered on sheep producer and wool grower intentions, including results from the MLA/AWI Wool and Sheep Survey.

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 full 2018/19 season compared with previous seasons and for July 2019 compared with July in previous seasons are presented in this report.

The month-by-month comparison of wool tested for the current and past four seasons (Figure 1) shows the 2018/19 season tracking below each of the previous seasons for most of the year. A five-year low in the volume of wool tested occurred during September, November and December 2018 as well as February, March and June 2019.



Figure 1: Comparison of monthly AWTA key test data volumes for the 2018/19 season with previous seasons (2014/15 to 2017/18)

AWTA national wool test volumes data for the 2018/19 season (Table 3) shows:

- Volumes of wool tested during 2018/19 were 11.7% lower than at the same time in 2017/18 and were 10.6% less than the five-year average from 2013/14 to 2017/18.
- The total volume of wool tested in the 2018/19 season was the lowest in the past five seasons.
- For the 2018/19 season, there were significant increases in the weight of wool tested at 16.5 microns and finer (up 59.5%), at 17 microns (up 18.6%) and at 18 microns (up 5.6%). The 25 26 microns category (up 7.9%) was the only other to record an increase in the weight tested. All other categories recorded falls, the largest being 21 microns (down 40.5%), 22 microns (down 40.1%), 29 30 microns (down 36.1%), 20 microns (down 27.3%), 23 microns (down 26.7%) and greater than 30.5 microns (down 22.2%).

Table 3: AWTA key test data volumes by micron range for the full seasons from 2013/14 – 2018/19 (mkg greasy)

Parameter	Year	<16.6um	17um	18um	19um	20um	21um	22um	23um	24um	25-26um	26-28um	29-30um	>30.5um	TOTAL
	2013/14	13.55	29.78	51.46	62.86	56.56	38.37	22.02	12.06	7.61	18.44	22.48	11.03	7.35	353.57
	2014/15	11.62	29.01	53.94	67.53	57.91	38.56	23.65	12.62	7.01	16.00	23.85	14.20	9.59	365.48
AWTA FY	2015/16	13.37	29.05	49.49	60.54	55.00	36.60	20.30	9.88	6.35	15.57	22.21	12.32	9.24	339.93
Total mkg greasy	2016/17	12.86	26.99	48.09	62.43	61.44	43.47	24.58	12.28	7.26	15.71	20.85	12.27	9.58	357.79
	2017/18	11.62	31.06	55.60	66.98	58.01	36.75	20.40	10.52	6.51	14.88	21.66	14.35	11.68	360.02
	2018/19	18.54	36.84	58.69	61.24	42.19	21.85	12.22	7.71	6.03	16.05	18.14	9.17	9.09	317.76
Y-O-Y change%	2018/19	59.5%	18.6%	5.6%	-8.6%	-27.3%	-40.5%	-40.1%	-26.7%	-7.3%	7.9%	-16.2%	-36.1%	-22.2%	-11.7%
	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%	
Micron Split (%)	2018/19	5.8%	11.6%	18.5%	19.3%	13.3%	6.9%	3.8%	2.4%	1.9%	5.1%	5.7%	2.9%	2.9%	
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	Tonnes	12.60	29.18	51.72	64.07	57.78	38.75	22.19	11.47	6.95	16.12	22.21	12.83	9.49	355.36
5 year av. 2013/14 to 2017/18	% change 17/18 vs 5 yr av	47.1%	26.3%	13.5%	-4.4%	-27.0%	-43.6%	-44.9%	-32.8%	-13.2%	-0.4%	-18.3%	-28.5%	-4.2%	-10.6%
	Micron split %	3.5%	8.2%	14.6%	18.0%	16.3%	10.9%	6.2%	3.2%	2.0%	4.5%	6.2%	3.6%	2.7%	

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 – 2018/19 season compared with the 2014/15 to 2017/18 seasons

• Based on data by Wool Statistical Area (WSA), the volumes of wool tested in each state, except Tasmania, for the 2018/19 season declined on a year-on-year basis (Figure 3).



Figure 3: Volume of wool tested in the 2018/19 season compared with previous seasons. The percentage change is the 2018/19 season compared with the 2017/18 season.

New South Wales recorded the largest decline in the volume of wool tested during 2018/19 (down 19.1%), followed by Queensland (down 11.3%), South Australia (down 9.7%), Victoria (down 8.1%) and Western Australia (down 6.2%) (Table 4). Tasmania was the only state to record an increase, up 3.6%.

Year	NSW	Vic	WA	SA	Tas	Qld	Australia
2013/14	125.6	81.6	75.7	47.6	11.0	12.0	353.6
2014/15	133.7	84.8	72.3	52.8	11.7	10.2	365.5
2015/16	125.7	76.4	69.4	50.8	9.8	7.8	339.9
2016/17	129.9	78.1	76.2	53.7	10.1	9.8	357.8
2017/18	130.5	84.7	69.9	55.3	10.2	9.5	360.0
2018/19	105.5	77.8	65.5	49.9	10.6	8.4	317.8
% change y-o-y	-19.1%	-8.1%	-6.2%	-9.7%	3.6%	-11.3%	-11.7%

Table 4: AWTA test data volumes by state (based on Wool Statistical Area) for the 2018/19 season (mkg greasy)

- The AWTA Key Test data for the 2018/19 season showed the impact of the continuing dry season on wool quality around Australia (Table 5).
- On a national basis, compared with the 2017/18 season, yields in 2018/19 were down by 1.5% to 63.1% and vegetable matter down by 0.4% to 2.1%. Fibre diameter was down by 0.5 µm to 20.5 µm. Staple length decreased by 2.2 mm to 83.6 mm and staple strength was also lower at 33.2 N/kt down 1.3 N/kt.

Table 5: AWTA key test data statistics for the financial year - 2017/18 and 2018/19

July - June		NSW	VIC	WA	SA	TAS	QLD	AUST
WSA	WEIGHT (mkg)	130.46	84.71	69.89	55.32	10.19	9.45	360.02
	YIELD (%)	64.3	66.1	63.1	62.6	70.5	61.5	64.6
	VM (%)	3.1	2.2	1.7	3.1	1.0	4.2	2.5
2017/18 Kov Tost	MFD (µm)	20.6	22.1	19.6	21.1	21.8	19.9	21.0
Data	SS (Nkt)	35.9	34.8	32.0	34.4	35.9	36.8	34.5
	SL (mm)	85.0	86.0	85.1	87.9	88.2	84.8	85.8
	MID-BREAK (%)	52.6	49.3	51.1	50.6	45.0	52.6	50.8
WSA	WEIGHT (mkg)	105.51	77.84	65.53	49.93	10.56	8.39	317.76
	YIELD (%)	62.2	64.9	61.5	61.5	70.3	61.5	63.1
	VM (%)	2.5	1.9	1.9	2.3	0.8	2.8	2.1
2018/19 Kov Tost	MFD (µm)	20.0	21.5	19.3	20.7	22.3	19.5	20.5
Data	SS (Nkt)	33.8	34.2	30.2	34.0	36.4	35.0	33.2
	SL (mm)	81.8	84.1	83.8	85.2	89.1	81.7	83.6
	MID-BREAK (%)	46.9	46.8	47.5	46.8	48.3	51.2	47.1
WSA	WEIGHT (%)	-19.1%	-8.1%	-6.2%	-9.7%	3.6%	-11.3%	-11.7%

WSA	WEIGHT (%)	-19.1%	-8.1%	-6.2%	-9.7%	3.6%	-11.3%	-11.7%
DIFF.	YIELD (%)	-2.1	-1.2	-1.6	-1.1	-0.2	0.0	-1.5
	VM (%)	-0.6	-0.3	0.2	-0.8	-0.2	-1.4	-0.4
	MFD (µm)	-0.6	-0.6	-0.3	-0.4	0.5	-0.4	-0.5
Data	SS (Nkt)	-2.1	-0.6	-1.8	-0.4	0.5	-1.8	-1.3
Data	SL (mm)	-3.2	-1.9	-1.3	-2.7	0.9	-3.1	-2.2
	MID-BREAK (%)	-5.7	-2.5	-3.6	-3.8	3.3	-1.4	-3.7

- A graphical representation of the changes in fibre diameter (MFD), vegetable matter (VM), staple length (SL), yield (YIELD), staple strength (SS) and hauteur (TEAM 3 H) from the 2000/01 season to the 2018/19 season is shown in Figure 4.
- On each graph the red dot represents the mean value of each characteristic in the 2018/19 season while the blue dot represents the mean in the 2017/18 season.
- The values above the gauge on the left-hand side of each graph show the mean and standard deviation respectively for that characteristic.

- 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 2018/19 season, while the blue line is the mean for the 2017/18 season.
- Fibre diameter is at its lowest level since the 2000/01 season, while yield and staple length are near their lowest levels since 2000/01.



Each measure is the year-to-date average. Values in brackets above the gauges are the mean and standard deviation respectively. Each coloured segment on the gauges represents one standard deviation with the mean at 12 o'clock (centre). For the mean and standard deviation, n=18, except for TEAN3 H where n=13.

Based on AWTA key test data, Livestock Dynamics analysis.

Figure 4: AWTA Key Test Data (by sampling site) for Australian wool clip from the 2000/01 to 2018/19 seasons.

For 2019/20, AWTA data on test volumes was only available for July:

- The volumes of wool tested in July 2019 was 5.0% lower than in July 2018. This was 7% lower than the five-year average for July (2014/15 to 2018/19).
- Queensland (-14.1%) and South Australia (-13.5%) recorded the largest decreases, with New South Wales down 8.6% and Victoria down 3.0%. Both Tasmania (up 0.2%) and Western Australia (up 13.9%) recorded an increase in the volume of wool tested compared with July 2018. However, in Western Australia the volume of wool tested in July 2018 was unusually low (1,809 tonnes compared with the 2014/15 to 2017/18 five-year average of 2,791 tonnes).

AWEX auction statistics

The AWEX auction statistics for the 2018/19 season show a reduction in first-hand wool offered volumes compared with 2017/18 (Table 6).

- First-hand bales offered (i.e. excluding reoffers) for Australia were 14.1% lower during 2018/19.
- The most significant decreases were evident in New South Wales (down 21.6%) and Queensland (down 15.1%), with Western Australia, Victoria and South Australia all down by 10.0%. Tasmania was down by 9.6%.
- There was a 14.4% decrease in the volume of first-hand Merino wool offered across Australia, and an 12.9% decrease in first-hand Crossbred wool offered. The share of Merino wool of all first-hand offered wool was 78.5% in 2018/19 compared with 78.8% for 2017/18.
- The percentage reductions in the volume of first-hand offered Merino wool were similar (within 2%) to the total reduction in first-hand wool offered in each state. However, there were significant decreases in the volume of first-hand offered Crossbred wool in Queensland (down 35.8%), New South Wales (down 19.2%) and WA (down 16.2%). Smaller decreases occurred in Victoria (down 9.8%) South Australia (down 8.1%) and Tasmania (down 6.6%).
- There was a 10% decrease in the volume of 'Prem-shorn' Merino fleece wool during 2018/49 (22.2 mkg) compared with 2017/18 (24.3 mkg).
- As a percentage share of the total, 10% of Australian first-hand bales offered were prem shorn during 2018/19. On a state-by-state basis this ranged from 14% in South Australia to 4% in Tasmania.

2018/19	NSW	VIC	WA	SA	TAS	QLD	AUST
First hand bales offered (% change on 2017/18)	-21.6%	-10.0%	-10.0%	-10.0%	-9.6%	-15.1%	-14.1%
Merino first hand offered (% change on 2017/18)	-22.3%	-10.2%	-9.5%	-10.4%	-11.3%	-14.2%	-14.4%
Crossbred first hand offered (% change on 2017/18)	-19.2%	-9.8%	-16.2%	-8.1%	-6.6%	-35.8%	-12.9%
Merino first hand offered (% share)	77.0%	66.3%	93.3%	80.2%	62.9%	96.9%	78.5%
Crossbred first hand offered (% share)	23.0%	33.7%	6.7%	19.8%	37.1%	3.1%	21.5%
Merino First Hand 'Prem' Sho	orn Fleece						
Weight (mkg)	7.1	3.0	4.4	6.9	0.2	0.5	22.2
% share of total	10%	8%	10%	14%	4%	7%	10%
% change on 2017/18	-15%	-6%	-10%	-3%	0%	0%	-9%

Table 6: AWEX Auction Statistics 2018/19

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 2018/19 compared with previous seasons are shown in Table 7.

- Wool receivals for Australia fell by 14.9% in 2018/19 which is a larger year-on-year percentage decrease than both the AWTA test data and the AWEX first-hand offered data.
- Wool receivals for 2018/19 were the lowest for the past five seasons and 10.3% below the five-year average. In fact, in 2018/19 wool receivals 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 Queensland (down 21.6%), South Australia (down 18.1%), New South Wales (down 16.2%), Victoria (down 14.4%), Western Australia (down 11.9%) and Tasmania (down 7.3%).
- Wool receivals in all states were below the five-year average.

mkg	NSW	VIC	WA	SA	TAS	QLD	AUS
2013/14	116.421	89.920	79.485	48.522	9.426	5.762	349.539
2014/15	121.443	99.824	74.531	53.709	9.406	4.909	363.824
2015/16	110.792	98.539	78.888	54.676	8.126	3.971	354.990
2016/17	118.956	102.995	88.141	54.547	7.562	4.763	376.967
2017/18	117.504	114.705	86.699	54.784	7.210	5.042	385.945
2018/19	98.482	98.216	76.401	44.869	6.684	3.953	328.608
% change 2018/19 vs 2017/18	-16.2%	-14.4%	-11.9%	-18.1%	-7.3%	-21.6%	-14.9%
Five year average 13/14 to 17/18	117.023	101.197	81.549	53.248	8.346	4.889	366.253
% change 2018/19 vs 5 year av	-15.8%	-2.9%	-6.3%	-15.7%	-19.9%	-19.2%	-10.3%

Table 7: ABS Wool Receivals data

Sheep turn-off

Australian sheep and lamb turn-off statistics for the 2018/19 season covers sheep slaughter, lamb slaughter and live exports and is compared with the 2017/18 season and the five-year average from 2013/14 to 2017/18 (Table 8):

- There was a 16% increase in sheep slaughter and a 6% decrease in lamb slaughter during 2018/19 compared with 2017/18.
- The number of live sheep exported from Australia fell by 49% in 2018/19.
- Total turnoff of sheep and lambs during 2018/19 was 3% lower compared with 2017/18 and 1% below the five-year average.

	F	inancial yea	r	5-yr FY		
Parameter	July 2017 to June 2018	July 2018 to June 2019	%Δ	Avg	%Δ	
Sheep slaughter ('000 hd)	8,396	9,730	16%	8,433	15%	
Sheep weights (kg/hd cwt)	24.2	23.7	-2%	23.8	-1%	
Mutton production (tonnes cwt)	203,582	230,488	13%	201,065	15%	
Lamb slaughter ('000 hd)	23,432	22,086	-6%	22,735	-3%	
Lamb weights (kg/hd cwt)	22.7	22.7	0%	22.3	2%	
Lamb production (tonnes cwt)	531,425	501,349	-6%	507,004	-1%	
Live exports (Year to Jan-2019) ('000 hd)	1,994	1,010	-49%	2,037	-50%	
Total Turnoff ('000 hd)	33,822	32,825	-3%	33,204	-1%	

Table 8: ABS Sheep turn off data for 2018/19

Bureau of Meteorology (BoM) seasonal rainfall seasonal outlook

Current seasonal conditions in key wool producing regions in western Victoria, southeast South Australia and Western Australia are reasonable. However, significant parts of New South Wales, Queensland, eastern Victoria, southern and eastern Tasmania and the pastoral regions of South Australia continue to experience dry to drought conditions. Rainfall between 1 April and 31 July 2019 in these latter regions, continues to be either below average or very much below average (Figure 5).



Figure 5: Australian rainfall deciles 1 April to 31 July 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 (August 2018 to July 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). Parts of south east South Australia, western Victoria and central Queensland have average soil moisture levels in the root zone.



Figure 7: Australian landscape water balance, year-to-date 12 August 2019.

The Bureau of Meteorology's outlook for the August to October 2019 period is that median rainfall is likely to be average to below average across much of Australia (Figure 8) along with above average maximum temperatures (Figure 9).



rainfall (August to October 2019)

Figure 9: Chance of exceeding median maximum temperature (August to October 2019)

In its update on 23 July 2019, the Bureau noted that the El Niño–Southern Oscillation (ENSO) tracker was **inactive**. The tropical Pacific Ocean was likely to remain ENSO-neutral for the remainder of 2019.

Results from MLA and AWI Wool and Sheepmeat Survey

The results from the survey conducted in June 2019 indicated that most growers (61%) intended to maintain the size of their ewe flock for the next 12 months. More than a quarter of survey respondents (28%) indicated they intended to increase the size of their ewe flock with 10% intending to decrease. For those producers intending to increase their ewe flocks, 36% will retain more older ewes than normal, 58% will retain more replacement ewes and 39% will purchase more additional ewes. The percentages for wether flocks were similar (24% increase, 53% maintain and 18% decrease).

Most Merino producers (60%) expect to cut similar fleece weights from their ewe and wether flocks this year compared with last year, with some expecting higher cuts (13% and 16% for ewe and wether flocks) and about a quarter expecting lower cuts (27% and 24% for ewe and wether flocks).

State Committee inputs

The following provides a summary of seasonal conditions and wool production forecast in 2018/19 and 2019/20 in each state as reported by the AWPFC state committees in August 2019. The state committees reported that seasonal conditions in most sheep producing areas across Australia showed no improvement since their last meeting in April.

New South Wales

There was no improvement in the season or wool production in most of New South Wales between May and the end of July. Feed availability and low water supplies continue to constrain production in the Central West, Central Tablelands, Northern Tablelands, North West and Western regions. In these areas, there has been little to no rain, no winter crop and low sheep numbers. Water supply is critical in some areas and is further limiting production as local councils are prioritising water for town supplies. Some areas in the south east of the southwest slopes and plains are quite good, stock were grazed on winter crops but require more rain to generate additional value from the available feed. The Southern Tablelands have no stress on the current season, but low dam water supplies and soil moisture levels are a concern going forward. A 12.5% reduction in sheep shorn together with a 9.9% decrease in average annual cut per head, due to finer fibre diameter (-0.6 µm) and shorter staple length (-3.2 mm), reduced **shorn wool production in 2018/19 by 21.2% to 99.1 mkg**.

For 2019/20, concerns regarding some producers not joining, variable conception rates (depending on whether ewes are being fed maintenance or production rations) and expected reduced lamb survival from another season of feeding lambing ewes is expected to negatively impact sheep shorn numbers. There is some indication that wool yields are increasing, and shorn wool production will start to increase if spring rains eventuate. Despite this **shorn wool production is forecast to decrease by a further 11.4% to 87.8 mkg in 2019/20**.

<u>Victoria</u>

April to May saw stagnant seasonal conditions. Late winter rain led to a lack of feed, premshearing and sale of ewes and wethers in many areas. The north central region was the exception, but overall sheep shorn numbers decreased as dry ewes were sold to the mutton trade and wether flocks were reduced to levels 50% smaller than 'normal'. Average annual cut per head decreased by 6.5% due to a 0.6 µm reduction in fibre diameter and together with a

2.6% reduction in sheep shorn, **reduced shorn wool production in 2018/19 by 9.0% to 66.9 mkg**.

There are mixed conditions going forward into 2019/20 with sheep numbers down up to 30% in the Gippsland region, 5 to 10% lower in the Central and South West and slightly higher in the Central to southern Wimmera. Overall lower sheep numbers will hamper any increase in wool production. While the season in most areas is improving, there is no excess water in the soil profile. Follow up rains are required to give producers the confidence to increase sheep numbers. **Shorn wool production is forecast to decrease by 0.3% to 66.7 mkg in 2019/20**.

Western Australia

A very good summer in regions north of Perth with no rain to spoil standing dry feed. No change in sheep numbers in that region with plenty of rain following a late break of the season in June. In other regions, the season remains tight with producers feeding and seeking to hold numbers. Lambing percentages in February to April were back on the previous year, later percentages (July to August) were good but overall lower than last season. The south coast region is still tight and extremely patchy with rainfall to date at 50% of 'normal' levels. Lower average cut per head, due to finer fibre diameter (-0.3 μ m) and shorter staple length (-1.3 mm), **reduced shorn wool production in 2018/19 by 4.5% to 62.2 mkg**.

Current seasonal conditions indicate a return to an average season going forward. Fleece weights are expected to increase, however a low marking rate in 2018/19 and increased interstate movement of sheep is expected to reduce the number of sheep shorn. Shorn wool production is forecast to decrease marginally by 0.2% to 62.1 mkg in 2019/20.

South Australia

Late general rains below Goyder's line produced good general pasture germination but it remains short due to cold temperatures. The lower to mid-southeast and Kangaroo Island have good pasture and soil moisture. Areas outside of Goyder's Line remain poor although some pockets have had good rain. The Upper Southeast and Mallee are generally adequate, but some poor pockets are evident in the Mallee. There has been no change in conditions in the pastoral regions with minimal rain and feed. Many pastoral properties have either completely destocked or are holding historically low sheep numbers. Production increases in the south east region did not fully compensate for the reduction in the pastoral zones. Sheep shorn numbers to marginally decrease with average annual cut per head down due to finer fibre diameter (-0.4 μ m) and shorter staple length (-2.7mm) leading to **an 8.7% reduction in shorn wool production in 2018/19 to 54.3 mkg**.

No rebound in production in the pastoral regions is expected. Reasonable scanning results inside Goyder's line are a positive factor, although lambing results have been mixed. A further reduction in sheep numbers in the pastoral zone is expected as few ewes will be joined this season producing no or few lambs. Conditions in the south-east are much better. Average annual cut per head is expected to maintain 2018/19 levels but lower sheep shorn numbers will drive a **2.0% reduction in shorn wool production to 53.2 mkg in 2019/20**.

<u>Tasmania</u>

The northern regions had a good autumn with sheep numbers and wool production on par with last season and experiencing relatively normal conditions. The season has been late but

relatively mild with few frosts. A sustained north-westerly weather pattern is continuing to reduce production in the southern and eastern regions with little to no rain on the east coast. Areas south of Bothwell are poor. Wool cuts were down in these regions and producers sold off sheep to reduce numbers with sheep shorn before sale. New trading regulations by major buyers that require crossbred lambs to be shorn prior to shipping to the mainland has increased the amount of crossbred lambs wool shorn in Tasmania. Lower sheep shorn numbers and lower annual average cut per head **reduced shorn wool production by 3.2% to 9.0 mkg in 2018/19**.

A reduction in fleece weights, up to 1 kg, in new season Merino shearing resulting from a poor autumn in the south of the state. The recent trend of an increase in crossbred lamb production appears to have stabilised. Merino producers are starting to increase numbers on the back of high wool and sheepmeat prices as an increase in pure Merino joinings is evident. Shorn wool production is forecast to reduce by 3.3% to 8.7 mkg in 2019/20.

Queensland

No improvement in seasonal conditions since April, with historically poor conditions in western Queensland. While some good rains did fall in the south west, no follow up rains occurred, and an expected cold and windy August will quickly deteriorate the quality and quantity of available pasture. Regions south of Augathella are poor while north of the Warrego Highway is not too bad. Water supplies are critically low in many areas. Average cut per head is estimated to have declined by 2.7% due to significant reductions in fibre diameter (-0.4 μ m) and shorter staple length (-3.1mm) from older ewes being sold and retention of younger breeding ewes. This **reduced shorn wool production in 2018/19 by 2.4% to 8.1 mkg**.

While some strategic buying of sheep, woolly wether lambs and young ewes in good condition, is occurring, the selloff is still greater than the buy in. The price of breeding ewes is the limiting factor for those producers looking to build numbers. high wool and sheepmeat prices are generating confidence but purchasing remains hesitant. Any expected increase in fleece weight in central areas will be negated by decreases in the southern and eastern regions. A reduction in sheep shorn is forecast to **reduce shorn wool production by 17.3% to 6.7 mkg in 2019/20**.

Appendix

Table A1: Comparison of the estimate for 2018/19 and the second forecast for 2019/20against the estimates for 2017/18

2017/18	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn (million)	28.30	17.20	14.80	11.90	2.40	2.20	76.80
Average Cut Per Head (kg)	4.40	4.30	4.40	5.00	3.90	3.80	4.45
Shorn Wool Production (mkg greasy)	125.70	73.50	65.10	59.50	9.30	8.30	341
Change (%)	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn	3.3%	7.6%	-1.8%	6.1%	-3.2%	3.4%	3.4%
Average Cut Per Head	-4.3%	1.9%	-6.7%	-3.1%	5.0%	-5.4%	-2.8%
Shorn Wool Production	-0.3%	9.0%	-8.4%	2.8%	1.0%	-2.8%	0.2%
2018/19 Estimate	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)	99.10	66.90	62.20	54.30	9.00	8.10	300
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	01 00/						
	-21.270	-9.0%	-4.5%	-8.7%	-3.2%	-2.4%	-12.1%
2019/20 Second Forecast	-21.2%	-9.0% VIC	-4.5% WA	-8.7% SA	-3.2% TAS	-2.4% QLD	-12.1% National
2019/20 Second Forecast Sheep Numbers Shorn (million)	NSW 22.00	-9.0% VIC 16.30	-4.5% WA 14.10	-8.7% SA 11.60	-3.2% TAS 2.40	-2.4% QLD 1.80	-12.1% National 68.20
2019/20 Second Forecast Sheep Numbers Shorn (million) Average Cut Per Head (kg)	NSW 22.00 4.00	-9.0% VIC 16.30 4.10	-4.5% WA 14.10 4.40	-8.7% SA 11.60 4.60	-3.2% TAS 2.40 3.64	-2.4% QLD 1.80 3.65	-12.1% National 68.20 4.19
2019/20 Second Forecast Sheep Numbers Shorn (million) Average Cut Per Head (kg) Shorn Wool Production (mkg greasy)	NSW 22.00 4.00 87.80	- <u>9.0%</u> VIC 16.30 4.10 66.70	-4.5% WA 14.10 4.40 62.10	-8.7% SA 11.60 4.60 53.20	-3.2% TAS 2.40 3.64 8.70	-2.4% QLD 1.80 3.65 6.70	-12.1% National 68.20 4.19 285
2019/20 Second Forecast Sheep Numbers Shorn (million) Average Cut Per Head (kg) Shorn Wool Production (mkg greasy) Change %	NSW 22.00 4.00 87.80 NSW	-9.0% VIC 16.30 4.10 66.70 VIC	-4.5% WA 14.10 4.40 62.10 WA	-8.7% SA 11.60 4.60 53.20 SA	-3.2% TAS 2.40 3.64 8.70 TAS	-2.4% QLD 1.80 3.65 6.70 QLD	-12.1% National 68.20 4.19 285 National
2019/20 Second Forecast Sheep Numbers Shorn (million) Average Cut Per Head (kg) Shorn Wool Production (mkg greasy) Change % Sheep Numbers Shorn	 -21.2% NSW 22.00 4.00 87.80 NSW -11.3% 	-9.0% VIC 16.30 4.10 66.70 VIC -2.4%	-4.5% WA 14.10 4.40 62.10 WA -3.4%	-8.7% SA 11.60 4.60 53.20 SA -1.7%	-3.2% TAS 2.40 3.64 8.70 TAS 0.0%	-2.4% QLD 1.80 3.65 6.70 QLD -18.2%	-12.1% National 68.20 4.19 285 National -5.9%
2019/20 Second Forecast Sheep Numbers Shorn (million) Average Cut Per Head (kg) Shorn Wool Production (mkg greasy) Change % Sheep Numbers Shorn Average Cut Per Head	-21.2% NSW 22.00 4.00 87.80 NSW -11.3% 0.0%	-9.0% VIC 16.30 4.10 66.70 VIC -2.4% 2.5%	-4.5% WA 14.10 4.40 62.10 WA -3.4% 3.5%	-8.7% SA 11.60 4.60 53.20 SA -1.7% 0.0%	-3.2% TAS 2.40 3.64 8.70 TAS 0.0% -3.7%	-2.4% QLD 1.80 3.65 6.70 QLD -18.2% 0.0%	-12.1% National 68.20 4.19 285 285 National -5.9% 1.5%

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.

	Sheep Numbers	Average Cut Per	Shorn Wool
Year	Shorn	Head	Production
	(million)	(kg)	(mkg greasy)
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	68.2	4.19	285

 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%	11.6%	18.5%	19.3%	13.3%	6.9%	3.8%	2.4%	1.9%	5.1%	5.7%	2.9%	2.9%	20.5

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

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.