August 2020

Australian Wool Production Forecast Report

Australian Wool Production Forecasting Committee

Summary

- The Australian Wool Production Forecasting Committee's (AWPFC) second forecast of Australian shorn wool production in 2020/21 is 280 mkg. This is a 1.1% decline from 2019/20, but an upward revision from the Committee's forecast of 276 mkg at its April 2020 meeting.

- The season has significantly improved over the past few months in many wool growing regions, compared with the previous couple of years. Welcome rainfall through much of New South Wales, Victoria, Tasmania and southern Queensland in recent months has stimulated pasture growth and replenished on farm water supplies. However, this was tempered by persistent dry conditions in much of Western Australia, the pastoral region of South Australia and central Queensland.

- Sheep and lamb turn off in 2019/20 was 10% lower than in 2018/19 as producers in some regions of the country seek to rebuild their flocks. Despite this, the number of sheep shorn, estimated to be down by 5.2% to 65.0 million head, remains a key limiting factor to shorn wool production in the short term, particularly in Western Australia and New South Wales.

- A gradual increase in average cut per head, up 3.9% to 4.30 kg greasy, is expected because of improved seasonal conditions in many wool growing regions.

- The BOM outlook for October to December 2020 is for above average median rainfall across much of Australia with below average maximum temperatures.

- The AWPFC's first estimate of shorn wool production in 2019/20 is 283 mkg greasy, a 5.5% decline on the 300 mkg greasy for the 2018/19 season, which reflects the sustained dry and drought conditions across large parts of the country last season.

- Queensland is estimated to have had the greatest decline in shorn wool production in 2019/20 with a 7.4% reduction from 2018/19 to 7.5 mkg greasy. South Australian shorn wool production declined by 7.9% to 50.0 mkg and Tasmania by 6.7% to 8.4 mkg. Victoria is estimated to have produced 63.2 mkg greasy (down 5.5%) with smaller declines in New

FURTHER INFORMATION
Mr Russell Pattinson, National Committee Chairman
Tel: +61 0419 872 684

South Wales (94.3 mkg, down 4.8%) and Western Australia (59.8 mkg greasy, down 3.9%).

- Average yield ended the 2019/20 season at 62.2%, down 0.9% on 2018/19. Mean fibre diameter was unchanged at 20.5 microns while staple length increased by 2 mm to 85.6 mm as producers moved away from shorter shearing intervals (e.g. every 6-months) to shearing every 8- or 12-months.

- AWTA volumes of greasy wool tested during 2019/20 were 7.0% lower than at the same time in 2018/19. Volumes in each state declined on a year-on-year basis. The greatest decline occurred in South Australia (down 11.7%), followed by Tasmania (down 11.3%), Queensland (down 10.1%), Victoria (down 7.1%), New South Wales (down 5.6%) and Western Australia (down 4.2%).

- Decreases in the weight of wool tested occurred in all micron categories except for 20 microns (up 0.6%). Significant decreases occurred in the 23 microns (down 20.2%), 22 microns (down 19.6%), 25 – 26 microns (down 13.6%), 16.6 microns and finer (down 12.9%), 17 microns (down 11.9%) and 24 microns (down 11.8%). All other micron categories decreased by between 2.1% (19 microns) to 8.2% (26 to 28 microns).

- AWEX first-hand offered bales were 17.9% lower during 2019/20 compared with the 2018/19 season.

- ABS wool receivals data for Australia fell by 12.8% between July 2019 and March 2020.

- ABS sheep turn-off data during 2019/20 showed a 15% decrease in sheep slaughter, an 8% decrease in lamb slaughter and a 5% decrease in live export. Total turn-off was 10% lower compared with 2018/19.

- Table 1 summarises the estimates and forecasts for Australia and Table 2 shows the estimates and forecasts for each state.

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

Parameter	2018/19 Final Estimate	2019/20 First Estimate	*Change y-o-y (%)*	2020/21 Second Forecast	*Change y-o-y (%)*
Sheep Numbers Shorn (million)	72.5	68.4	*-5.8%*	65.0	*-5.0%*
Average Cut Per Head (kg)	4.13	4.14	*+0.3%*	4.30	*+3.9%*
Shorn Wool Production (mkg greasy)	300	283	*-5.5%*	280	*-1.1%*

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

Shorn wool production (mkg greasy)	NSW	VIC	WA	SA	TAS	QLD	National
2018/19 Final Estimate	99.1	66.9	62.2	54.3	9.0	8.1	300
2019/20 First Estimate	94.3	63.2	59.8	50.0	8.4	7.5	283
Change Y-O-Y (%)	*-4.8%*	*-5.5%*	*-3.9%*	*-7.9%*	*-6.7%*	*-7.4%*	*-5.5%*
2020/20 Second Forecast	*92.1*	*67.3*	*55.0*	*49.5*	*9.0*	*6.7*	*280*
Change Y-O-Y (%)	*-2.3%*	*6.5%*	*-8.0%*	*-1.0%*	*7.1%*	*-10.7%*	*-1.1%*

- 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 Estimate and 2020/21 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 and the 2020/21 season for July;
- AWEX auction statistics for the 2019/20 season and the 2020/21 season to the 10 July 2020 (Week 2);
- ABS wool receivals data for the 2019/20 season to March 2020;
- ABS sheep and lamb turn-off for the 2019/20 season;
- 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 2019/20 season are compared with previous seasons (2015/16 to 2018/19) in this report.

The month-by-month comparison of wool tested for the past five seasons (Figure 1) shows the 2019/20 season tracking below the previous four seasons during August to October 2019 and February to May 2020 inclusive.

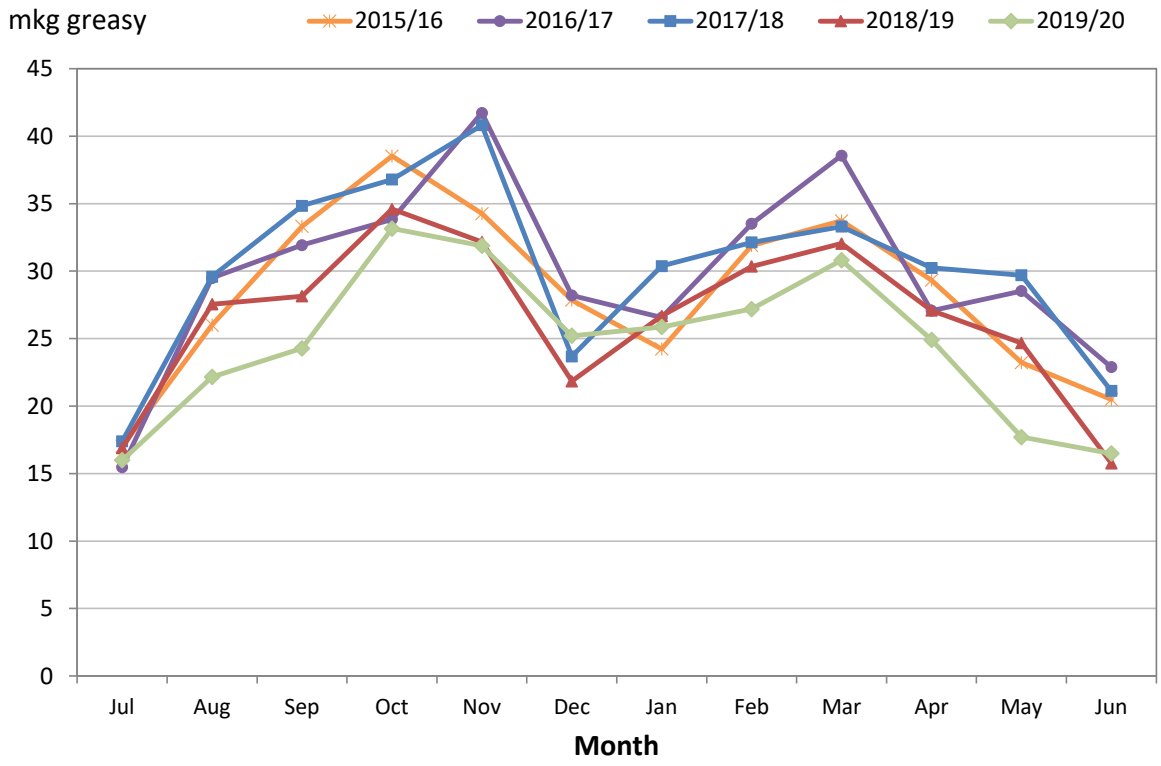

Figure 1: Comparison of monthly AWTA key test data volumes for the 2019/20 season with previous seasons (2015/16 to 2018/19)

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

- Volumes of wool tested were 7.0% lower than the 2018/19 season and were 15.1% lower than the five-year average from 2014/15 to 2018/19.
- The total volume of wool tested during 2019/20 was the lowest in the past ten seasons.
- For the 2019/20 season, there were decreases in the weight of wool tested in all micron categories except for 20 microns (up 0.6%). Significant decreases occurred in the 23 microns (down 20.2%), 22 microns (down 19.6%), 25 – 26 microns (down 13.6%), 16.6 microns and finer (down 12.9%), 17 microns (down 11.9%) and 24 microns (down 11.8%). All other micron categories decreased by between 2.1% (19 microns) to 8.2% (26 to 28 microns).

Table 3: AWTA key test data volumes for the financial year by micron range 2014/15 – 2019/20 (mkg greasy)

Parameter	Year	<16.6um	17um	18um	19um	20um	21um	22um	23um	24um	25-26um	26-28um	29-30um	>30.5um	TOTAL
AWTA FY Total mkg greasy	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
	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
	2016/17	12.86	26.99	48.10	62.49	61.46	43.48	24.58	12.29	7.25	15.73	20.86	12.27	9.58	357.94
	2017/18	11.63	31.07	55.63	67.08	58.09	36.83	20.44	10.53	6.51	14.88	21.68	14.36	11.69	360.41
	2018/19	18.54	36.85	58.74	61.31	42.20	21.85	12.22	7.71	6.03	16.06	18.17	9.18	9.09	317.96
	2019/20	16.14	32.47	55.26	60.01	42.43	20.66	9.82	6.15	5.32	13.88	16.68	8.50	8.47	295.80
Y-O-Y change%	2019/20	-12.9%	-11.9%	-5.9%	-2.1%	0.6%	-5.4%	-19.6%	-20.2%	-11.8%	-13.6%	-8.2%	-7.3%	-6.8%	-7.0%
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%	
	2019/20	5.5%	11.0%	18.7%	20.3%	14.3%	7.0%	3.3%	2.1%	1.8%	4.7%	5.6%	2.9%	2.9%	
5 year av. 2014/15 to 2018/19	Tonnes	13.60	30.59	53.18	63.79	54.93	35.47	20.24	10.61	6.63	15.65	21.35	12.46	9.84	348.34
	% change 19/20 vs	18.7%	6.1%	3.9%	-5.9%	-22.8%	-41.7%	-51.5%	-42.0%	-19.8%	-11.3%	-21.9%	-31.8%	-13.9%	-15.1%
	Micron split %	3.9%	8.8%	15.3%	18.3%	15.8%	10.2%	5.8%	3.0%	1.9%	4.5%	6.1%	3.6%	2.8%	

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 microns

- The micron profile of the Australian wool clip has 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 (at the end of this report).

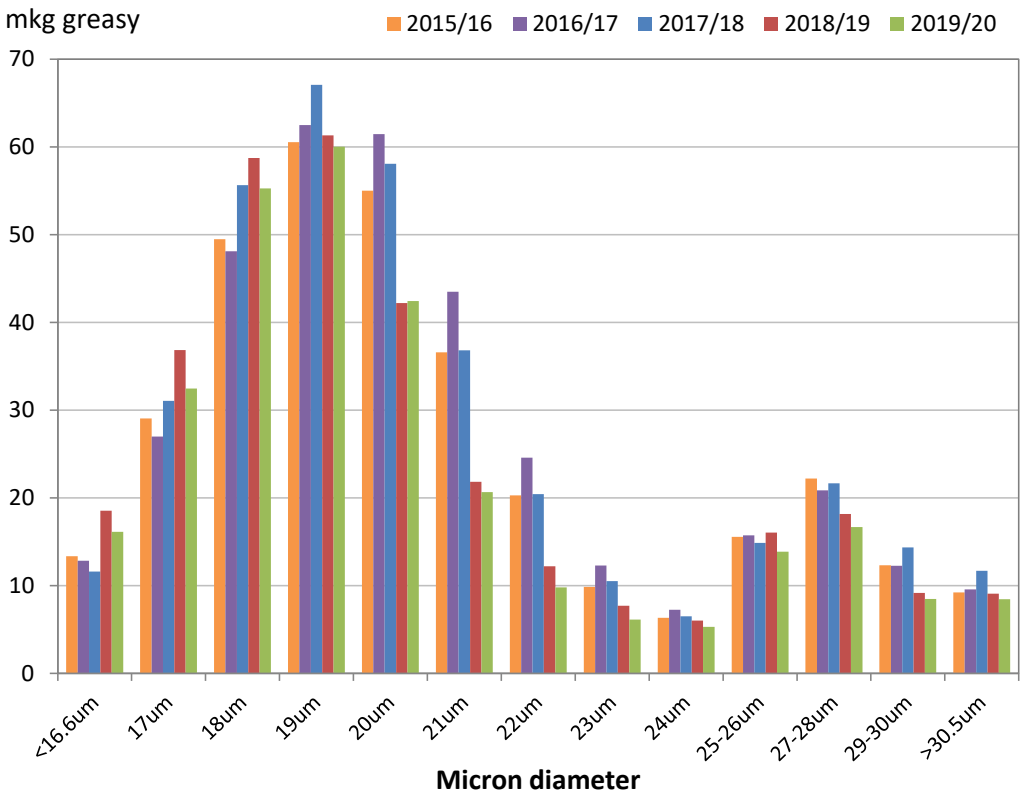

Figure 2: Australian fibre diameter profile – 2019/20 season compared with the 2015/16 to 2018/19 seasons

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

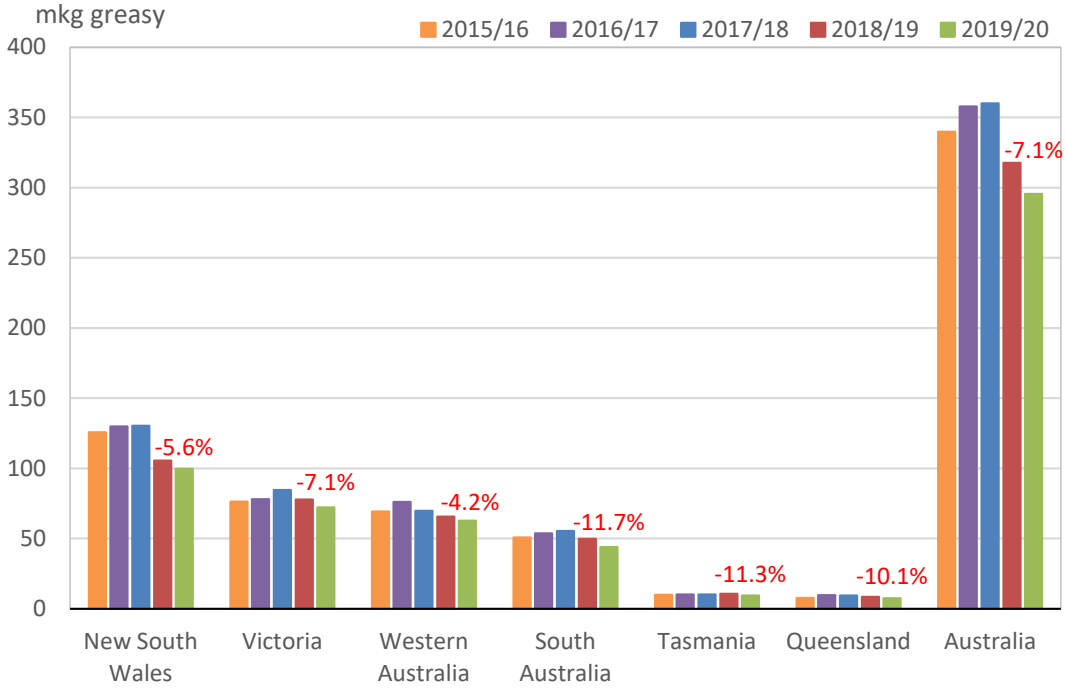

Figure 3: Volume of wool tested during the 2019/20 season (AWTA key test data) *The percentage change is the 2019/20 season compared with the same period in the 2018/19 season*

- South Australia had the largest decline in the volume of wool tested (down 11.7%), followed by Tasmania (down 11.3%), Queensland (down 10.1%), Victoria (down 7.1%), New South Wales (down 5.6%) and Western Australia (down 4.2%) (Table 4).
- A proportion of the decrease in the weight of wool tested in Tasmania is due to wool being tested and stored in Victoria.

Table 4: AWTA test data volumes by state (based on Wool Statistical Area) and Australia (based on Key Test Data) 2019/20 season compared with previous seasons (mkg greasy)

	NSW	VIC	WA	SA	TAS	QLD	Australia
2014/15	133,657	84,841	72,338	52,767	11,702	10,176	365,481
2015/16	125,672	76,350	69,374	50,837	9,847	7,848	339,928
2016/17	129,901	78,145	76,214	53,680	10,067	9,778	357,943
2017/18	130,456	84,712	69,890	55,315	10,192	9,452	360,410
2018/19	105,512	77,840	65,534	49,930	10,559	8,388	317,956
2019/20	99,593	72,298	62,765	44,093	9,366	7,545	295,804
% change y-o-y	-5.6%	-7.1%	-4.2%	-11.7%	-11.3%	-10.1%	-7.0%

- 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) 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 while the blue dot represents the mean for 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, fibre diameter was unchanged at 20.5 µm, staple length was up 2.0 mm to 85.6 mm and staple strength was down 0.7 to 32.2 N/ktex (Figure 4a). Vegetable matter was down 0.4% to 1.7%, yield was down 0.9% to 62.2% and predicted hauteur was up 1.2 mm to 69.7 mm (Figure 4b).
- Fibre diameter, yield and vegetable matter are at their lowest levels since the 2000/01 season.

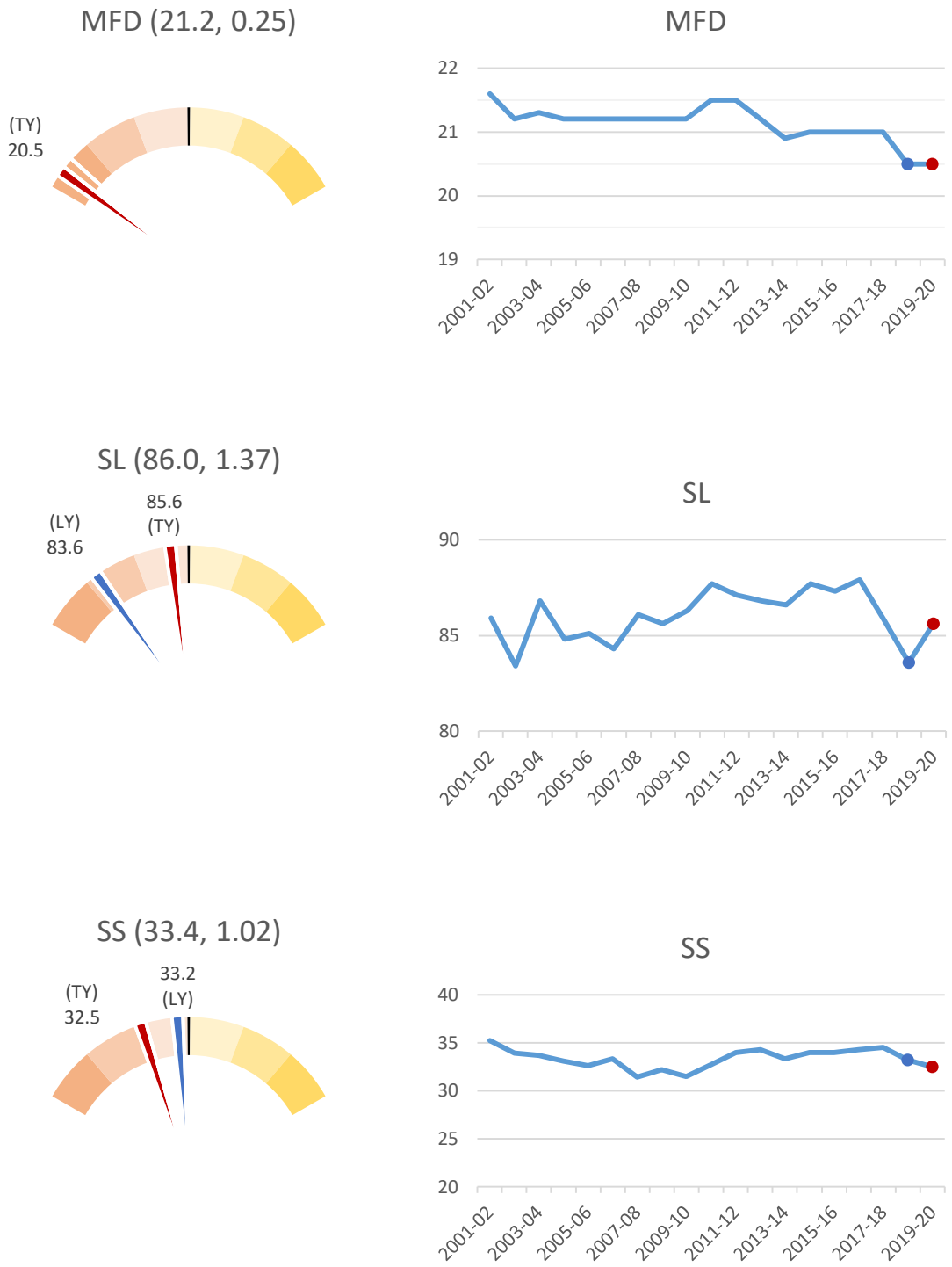

Figure 4a: AWTA Key Test Data (by sampling site) fibre diameter (MFD), staple length (SL) and staple strength (SS) for the Australian wool clip for the full season (2000/01 to 2019/20)

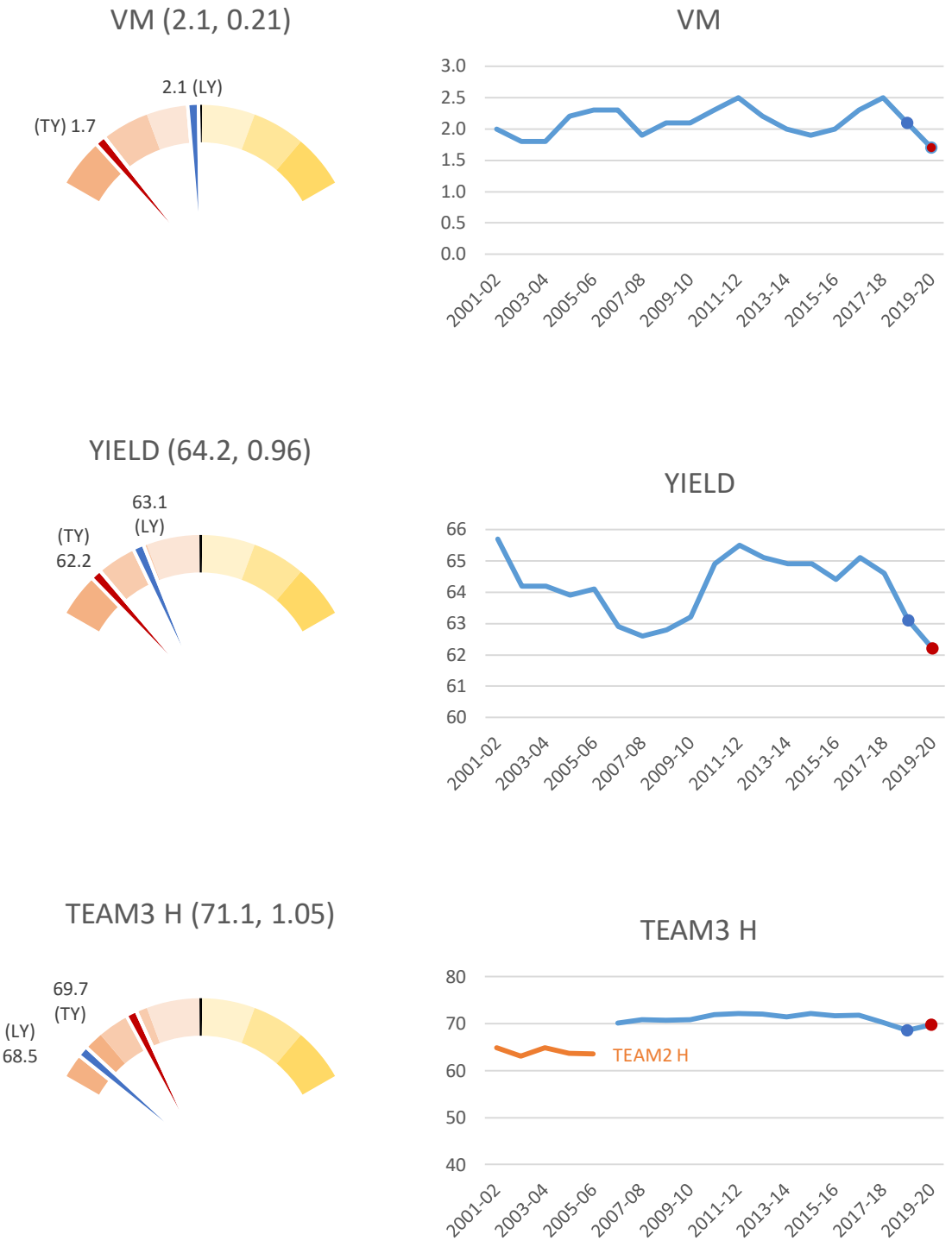

Figure 4b: AWTA Key Test Data (by sampling site) vegetable matter (VM), yield (YIELD) and TEAM 3 H (TEAM 3 H) for the Australian wool clip for the full season (2000/01 to 2019/20)

AWEX auction statistics

The AWEX auction statistics for the 2019/20 season show a decrease in first hand wool offering volumes compared with the same time period in 2018/19.

- First hand bales offered (i.e. excluding reoffers) for Australia were 17.9% lower compared with the 2018/19 season.
- Large decreases were evident in each state. Queensland was down 22.9%, Tasmania was down 21.1%, Victoria down 19.6%, South Australia down 19.4%, Western Australia down 16.8% and New South Wales down 16.2%.
- There was a 17.1% decrease in the volume of first-hand Merino wool offered across Australia, and a 21.0% decrease in first-hand Crossbred wool offered. The share of Merino wool of all first-hand offered wool was 79.3% in 2019/20 compared with 78.5% in 2018/19.
- There was a 24.0% decrease in the volume of 'Prem-shorn' Merino fleece wool in 2019/20 (16.9 mkg) compared with 2018/19 (22.2 mkg).
- As a percentage share of the total, 10% of Australian first-hand bales offered were prem shorn during 2019/20. On a state-by-state basis this ranged from 14% in South Australia to 4% in Tasmania.

Table 5: AWEX Auction Statistics 2019/20

2019/20	NSW	VIC	WA	SA	TAS	QLD	AUST
First hand bales offered (% change on 2018/19)	-16.2%	-19.6%	-16.8%	-19.4%	-21.1%	-22.9%	-17.9%
Merino first hand offered (% change on 2018/19)	-14.2%	-17.1%	-17.3%	-20.3%	-19.9%	-22.3%	-17.1%
Crossbred first hand offered (% change on 2018/19)	-22.7%	-24.3%	-9.3%	-15.7%	-23.2%	-42.8%	-21.0%
Merino first hand offered (% share)	78.8%	68.3%	92.7%	79.3%	63.9%	97.7%	79.3%
Crossbred first hand offered (% share)	21.2%	31.7%	7.3%	20.7%	36.1%	2.3%	20.7%
Merino First Hand 'Prem' Shorn Fleece							
Weight (mkg)	5.7	2.2	3.5	4.9	0.1	0.4	16.9
% share of total	10%	8%	10%	14%	4%	7%	10%
% change on 2018/19	-20%	-27%	-20%	26%	-50%	-20%	-24%

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 July 2019 to March 2020 were lower compared with the same time in 2018/19 (Table 6):

- Wool receivals for Australia fell by 12.8% up to March 2020.
- Wool receivals for July 2019 to March 2020 were the lowest for the past five seasons and 18.8% below the five-year average.
- Wool receivals decreased in all states. The largest falls occurred in Victoria (down 15.7%), New South Wales (down 12.5%), South Australia (down 11.6%), Western Australia (down 10.9%), Queensland (down 9.7%) and Tasmania (down 4.5%).
- Wool receivals in all states were at least 13.0% below the five-year average.

Table 6: ABS Wool Receivals data

mkg	NSW	VIC	WA	SA	TAS	QLD	AUS
2014/15	93.812	79.493	58.292	42.967	6.944	3.645	285.154
2015/16	85.701	77.747	63.672	44.987	6.307	3.105	281.517
2016/17	91.783	81.468	73.236	45.159	5.388	3.649	300.685
2017/18	88.587	88.273	72.493	44.640	5.296	3.710	303.000
2018/19	75.401	79.663	65.032	39.404	4.894	3.253	267.649
2019/20	65.963	67.174	57.915	34.830	4.676	2.936	233.491
% change 2019/20 vs 2018/19	*-12.5%*	*-15.7%*	*-10.9%*	*-11.6%*	*-4.5%*	*-9.7%*	*-12.8%*
Five year average 14/15 to 18/19	87.057	81.329	66.545	43.431	5.766	3.472	287.601
% change 2019/20 vs 5 year av	*-24.2%*	*-17.4%*	*-13.0%*	*-19.8%*	*-18.9%*	*-15.4%*	*-18.8%*

Sheep turn-off

Australian sheep and lamb turn-off statistics for the 2019/20 season, sourced from the ABS, covers sheep slaughter, lamb slaughter and live exports and are compared with 2018/19 and the five-year average 2014/15 to 2018/19 (Table 7):

- There was a 15%deacrese in sheep slaughter and an 8% decrease in lamb slaughter and 2019/20 compared with 2018/19.
- The number of live sheep exported from Australia decreased by 5% during this time.
- Total turnoff of sheep and lambs in 2019/20 was 10% lower than 2018/19 and 10% below the five-year average.

Table 7: ABS Sheep turn off data for 2019/20

Parameter	Financial year to-date			5-yr FYTD	
	July 2018 to Jun 2019	July 2019 to Jun 2020	% Δ	Avg	%Δ
Sheep slaughter ('000 hd)	9,730	8,268	-15%	8,365	-1%
Sheep weights (kg/hd cwt)	23.7	25.2	6%	24.1	4%
Mutton production (tonnes cwt)	230,488	208,102	-10%	201,585	3%
Lamb slaughter ('000 hd)	22,086	20,270	-8%	22,772	-11%
Lamb weights (kg/hd cwt)	22.7	23.8	5%	22.5	6%
Lamb production (tonnes cwt)	501,349	481,617	-4%	512,420	-6%
Live exports ('000 hd)	1,006	960	-5%	1,687	-43%
Total Turnoff ('000 hd)	32,822	29,497	-10%	32,824	-10%

Bureau of Meteorology (BoM) seasonal rainfall seasonal outlook

Seasonal conditions improved across southern Queensland, most of New South Wales, Victoria and Tasmania between 1 January and 30 June 2020 receiving average or above average rainfall (Figure 5). The driest regions continue to include much of Western Australia, the pastoral region of South Australia and central Queensland.

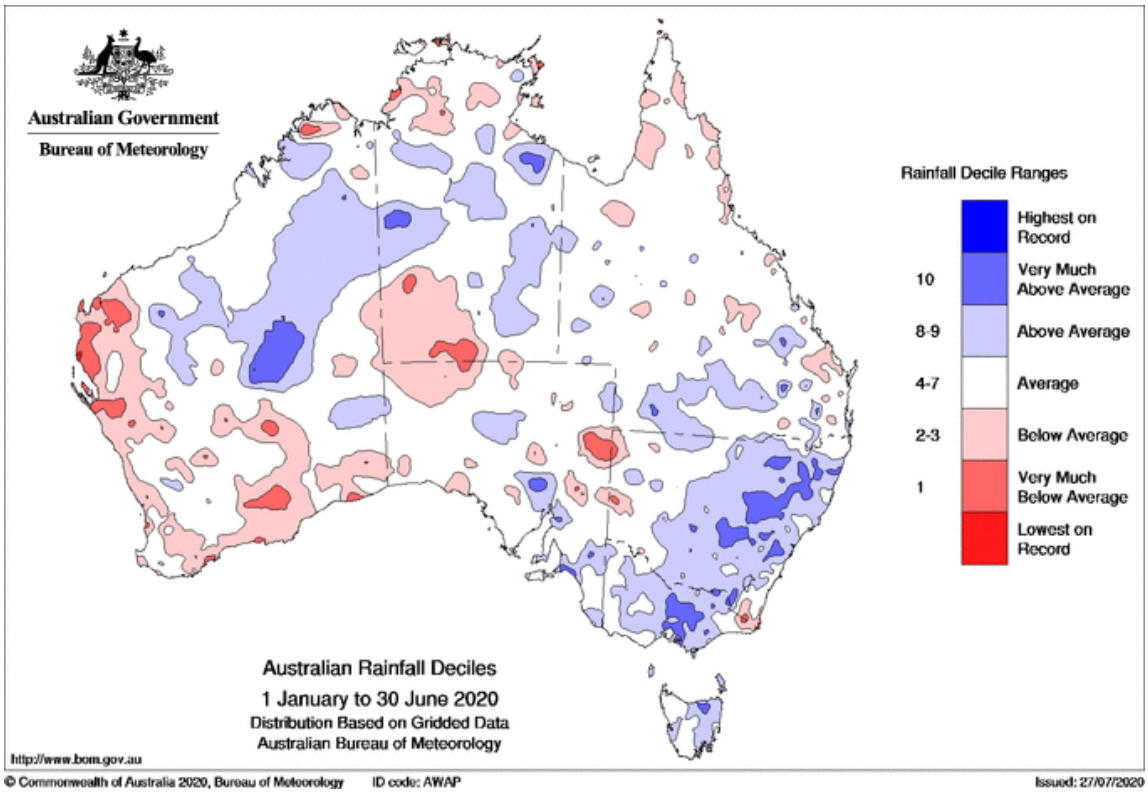

Figure 5: Australian rainfall deciles 1 January to 30 June 2020

The rainfall deciles for the past 12 months (Figure 6) clearly show how dry it has been across many of the major wool growing regions across the country during the 2019/20 season.

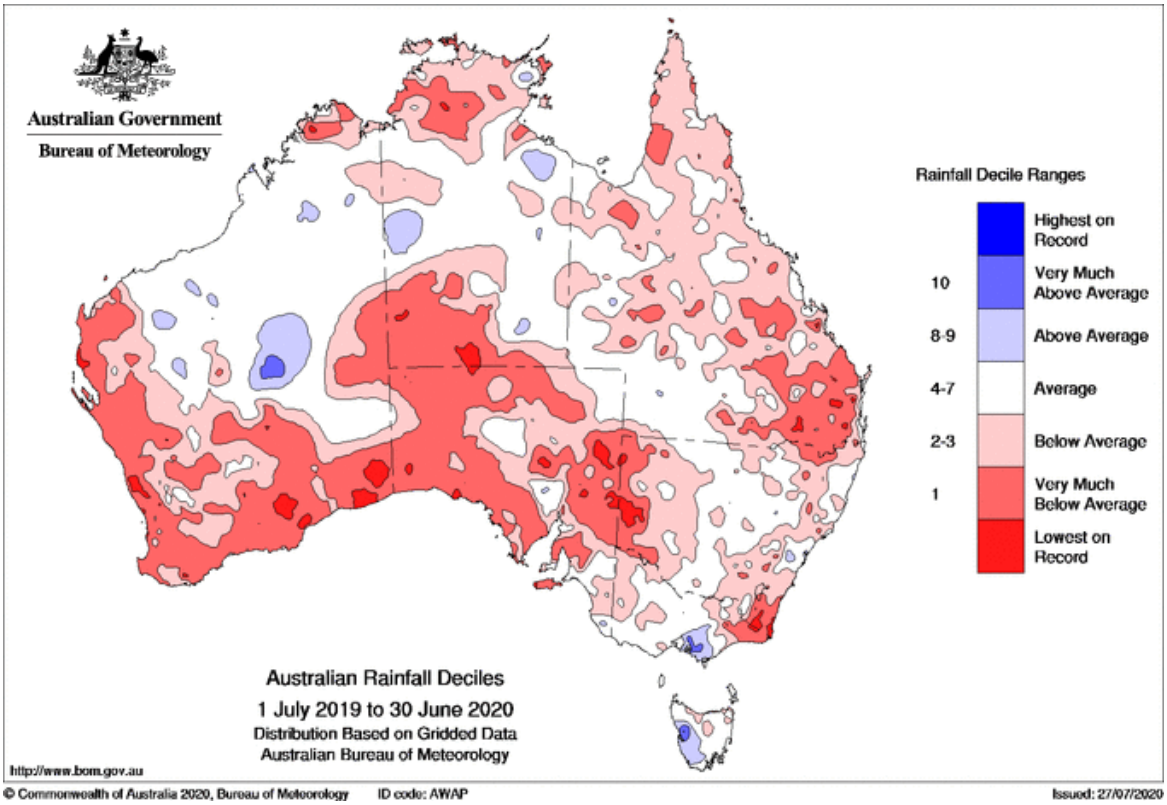

Figure 6: Australian yearly rainfall deciles July 2019 to June 2020

The improved rainfall during the second half of the 2019/20 season has moved the landscape water balance to average and above average for many key wool producing regions (Figure 7). Western Australia remains the exception with average to below average landscape water balance for much the state. Continuing rainfall will be required to maintain these levels into the 2020/21 season.

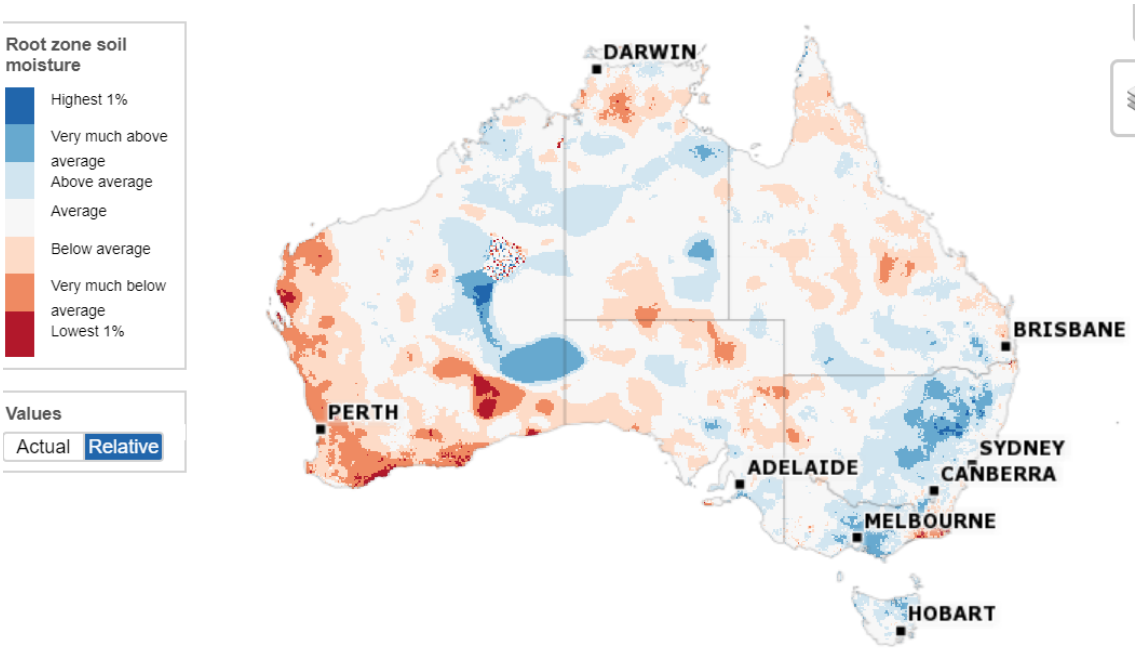

Figure 7: Australian landscape water balance, 2019/20 season

The Bureau of Meteorology's outlook for the October to December 2020 period is that rainfall is likely to be above average across much of Australia (Figure 8) along with below average maximum temperatures (Figure 9).

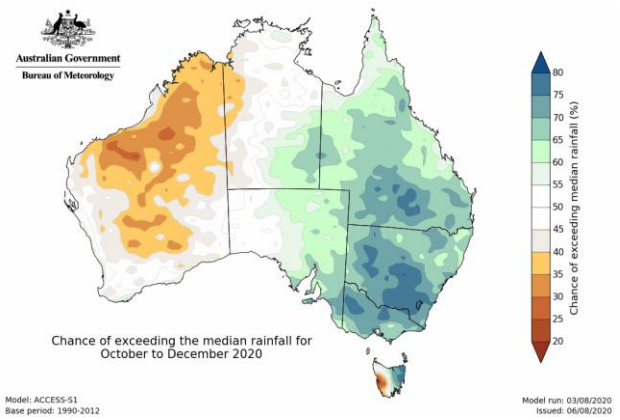

Figure 8: Chance of exceeding median rainfall (Oct – Dec 2020)

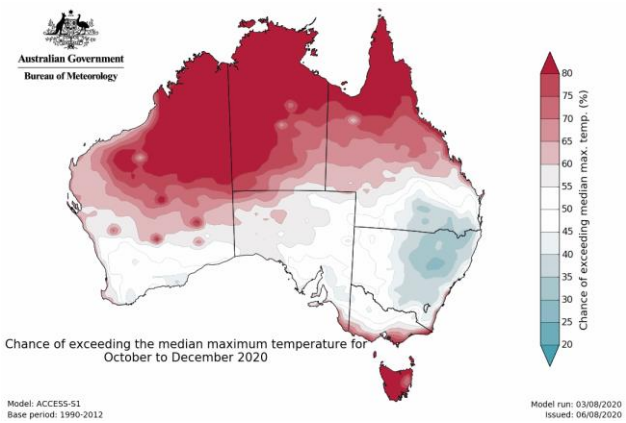

Figure 9: Chance of exceeding median maximum temperature (Oct – Dec 2020)

In its update on 4 August 2020, the Bureau noted that the El Niño–Southern Oscillation (ENSO) and Indian Ocean Dipole (IOD) were neutral. The chance of a La Nina event forming in the coming months increased to around 50%, which is twice the normal likelihood. The cooling trend in the tropical Pacific Ocean eased during June, but further cooling was likely to occur. Most models suggest sea surface temperatures will approach or exceed La Nina thresholds during the southern hemisphere spring. Some of the typical precursors of a La Nina event are in place.

Results from the MLA and AWI Wool and Sheepmeat Survey

The results from the survey conducted in June 2020 indicated that most growers (53%) intended to maintain the size of their ewe flock for the next 12 months with 41% of survey respondents indicating they intended to increase the size of their ewe flock. This compared with 28% of producers intending to increase the size of their ewe flock in June 2019. For those producers intending to increase their ewe flocks, 45% will retain more older ewes than normal, 61% will retain more replacement ewes and 28% will purchase more additional ewes.

Most Merino producers expect to cut similar fleece weights from their ewe (58%) and wether (60%) flocks this year compared with last year. About a quarter of producers are expecting higher cuts (25% and 27% for ewe and wether flocks) with 17% and 13% expecting lower ewe and wether cuts respectively.

State Committee input

The following provides a summary of seasonal conditions and wool production forecast in 2019/20 and for 2020/21 in each state as reported by the AWPFC state committees in August 2020. The state committees reported that seasonal conditions in most major sheep producing areas across Australia have improved since their last meeting in April.

New South Wales

The season has improved throughout most of New South Wales; however, two thirds of the state is still classified as drought affected. Low sheep numbers will continue to constrain wool production. Average cut per head will increase, although fleeces shorn in the last quarter of 2019/20 will remain impacted by dust and low yields. Some producers did bring shearing forward to clear the dust and give their sheep a lift. AWTA wool testing volumes were 30% down during May. Brokers reported that producers who shore were in no rush to send their wool into the store and acknowledged that there was a build-up of stocks on farm. **Shorn wool production in 2019/20 is expected to decline by 4.8% compared with 2018/19 to 94.3 mkg greasy**.

The impact of the drought on wool production will continue into 2020/21 but decrease as the season progresses. Yield is expected to increase significantly in the first half of the season, with increases in vegetable matter also expected from a proliferation of clover burr and grasses in summer. **Shorn wool production in 2020/21 is expected to decline by 2.3% compared with 2019/20 to 92.1 mkg greasy**.

Victoria

The northwest region state remains tough but there is a bulk of feed from rainfall earlier in the year. The central, north east and south west regions have had a fantastic autumn, with improvements in the Gippsland region. June was a dry month throughout much of the state. Producers have begun to rebuild their flocks but are coming off a low base. High pregnancy scanning rates have been achieved with markedly better Autumn lambing compared with 2018/19 season. Survival rates to marking are 110 to 120%. A lot of dry sheep sold due to high mutton prices. AWTA May testing figures were down by 30% as wool was kept on farm and not tested in store. **Shorn wool production in 2019/20 is expected to decline by 5.5% compared with the 2018/19 season to 63.2 mkg greasy**.

There are concerns over farm water supplies in the northwest of Victoria and an increase in cattle numbers in the north east. Little to no rain fell during July, with most producers hoping the forecasted August rain will eventuate. Producers will move away from Merino production if wool prices remain low and sell Merino wethers in Spring which would normally be kept to 12 months of age. There is a movement toward increasing the proportion of terminal sires in Merino flocks or toward a more dual-purpose Merino system. COVID-19 will restrict interstate ram purchases with producers looking locally for stud rams. There is some potential to hold on to stock longer due to reduced abattoir capacity if slaughter rates and lamb prices continue to decline. Additional shearing of these sheep will contribute to increased shorn wool production. **Shorn wool production in 2020/21 is expected to increase by 6.4% compared with the 2019/20 season to 67.3 mkg greasy**.

Western Australia

No significant improvement in the season since the April meeting. Well below average conditions in the north of the state where on-farm water is adequate at present. Lambing percentages are above average, but breeding ewe numbers are down significantly so overall lamb numbers will be reduced. Shearing contractors report numbers are down by 25%, but no change in client numbers. Wool cuts in the region will be down 0.5 to 1 kg. Central regions of Western Australia have had a good lambing with results approaching 130%. Stock numbers decreased as producers rationalise flock size, selling dry ewes and older ewes. Wool cuts are on par with previous seasons as producers have fed sheep to get their stock through the summer and autumn period. In the south and south coast on-farm water supplies remain low. Paddock feed availability is also low as May and June remained dry. Estimates of up to 1.4m sheep moved out of the region. Poor lambing percentages, down to 52%. Wool cut expected to be down 5%. Unknown quantity of wool held on farm untested due to fall in wool market. Some broker clients are holding between 50 -100 bales on farm. Many of the interstate movements of sheep were breeding ewes and were sold in the wool. **Shorn wool production in 2019/20 is expected to decline by 4.0% compared with the 2018/19 season to 59.8 mkg greasy**.

Good recent rainfall south of the Great Eastern Highway with widespread falls of between 10 and 60 ml in early August. This has relieved water issues on farm and slowed down the rate of stock turnoff. Some producers were shearing in anticipation of turning some of their stock off. Following this recent rain, these stock may now be retained. The remaining flock is younger than last season as dry and older ewes were sold. Delays in shearing are expected over August and September which will flow into October due to COVID-19 border restrictions affecting shearer movements from the Eastern States and New Zealand. The current wool market levels will encourage more wool to be retained on farm. AWTA July and August test volumes are well back on previous seasons, but 2-3 days increased sampling could easily turn these figures around. The Committee are expecting significantly reduced wool test volumes for the first half of 2020/21 with a rebound in the second half of the season. **Shorn wool production in 2020/21 is expected to decline by 7.9% compared with the 2019/20 season to 55.0 mkg greasy**.

South Australia

No change in the Upper North and Pastoral regions of the state which are now in their 4th year of drought. Sheep numbers across the state remain below average. Numbers are down in the north of the state, the Mallee and the West Coast. Continued year-on-year decline in flocks in these regions with some clips reduced to less than 20% of 'normal' bale numbers. An increased amount of wool is being held on farm due to fall in wool prices, particularly low yielding types (36 – 44%). The south east region is on par with 2018/19, fleece weights up by 0.5 kg in WSAs S28 and S30 but this is not enough to lift the state's shorn wool production. Decrease in fleece weight due to fewer Merinos and increased proportion of crossbreds. **Shorn wool production in 2020/21 is expected to decline by 8.1% compared with the 2019/20 season to 50.0 mkg greasy**.

Increase in staple length due to reduced prem shearing as producers move from 6-month shearing to 12-months to reduce costs. Some crossbred producers seeking to shear twice in 3 years. Little rain occurred during July, producers are hopeful of forecast rain in mid-August eventuating, particularly those north of Goyder's Line. Pastoral areas are reduced to core

breeders, some have stock on agistment in NSW. Sheep numbers continue to constrain production. Interstate transfers have slowed. 80% of sheep producers in the southeast trade sheep and don't have the capacity to breed up numbers. Availability of store sheep will limit increased production from traders. Producers are wary of the impact of reduced abattoir capacity on lamb prices. A fall in lamb prices relative to pelt value will result in lambs sent to slaughter in wool and reduce sheep shorn numbers. Shearer availability is a concern due to COVID-19 restrictions on NZ shearers entering Australia. If the season remains dry in the next few months, further stock reductions will occur. **Shorn wool production in 2020/21 is expected to decline by 0.9% compared with the 2019/20 season to 49.5 mkg greasy**.

Tasmania

Exceptional season in the north of the state, wet but mild weather in June with good lambing conditions for those producers that lambed early. Some rain along the east coast, with good feed but follow-up rain required to recharge soil moisture. Cut per head on grown sheep lower due to poor season. Some clips reduced by up to 20%. **Shorn wool production in 2019/20 is expected to decline by 6.1% compared with the 2018/19 season to 8.4 mkg greasy**.

Many properties are lower in numbers due to poor season in 2019/20. Producers on the east coast are looking to build numbers but are coming off a low base. Recent snow but no associated wind or rain so expected to have little impact on current lambing. Also recent follow-up rain (25 – 40 ml) along the east coast. Currently too cold for any significant pasture growth which has stalled due to the colder than normal conditions. Good indications for a favourable spring in terms of feed and lambing percentages. This, together with lower sheep numbers is expected to increase average cut per head by about 10%. Move to fat lamb production by producers that began a few years ago continues. Current wool price levels are weighing heavily on producers' minds. Currently in between joinings, with the decision on which breed of ram to use to be made in the next few months. At this stage, no decision to move away from Merinos. Composite ewe flocks breeding fat lambs are disengaged with the wool prices and beginning to reduce their fibre diameter. Pre-lambing liveweights have been reasonable. **Shorn wool production in 2020/21 is expected to increase by 6.0% compared with the 2019/20 season to 9.0 mkg greasy**.

Queensland

No change in the season across much of the state since the April meeting. In the central west, which represents 50 – 60% of the state's production, the season remained tight and worsened to the end of June. Producers have taken advantage of demand for stock from other regions and opportunistically reduced numbers. These animals have generally been sold in the wool. Other areas of the state are a mixed bag. The southern regions of the state have improved slightly and seem reasonable, with more sheep retained and good wool cuts from recent shearings. A *small* amount of restocking is occurring with wethers relocated from other areas of Queensland. However, the season dropped off in May and June. There is an increase in exclusion fencing in preparation for a return to better seasonal conditions. On a state basis, per head production is not expected to increase given the difficult seasonal conditions in the Central West of the state. Wool is being held untested on-farm which would account for the disparity between the AWTA WSA test figures (-10.1%) and the Committee's estimate. **Shorn wool production in 2019/20 is expected to decline by 7.7% compared with the 2018/19 season to 7.5 mkg greasy**.

Feed has run out in many areas. Some forced sales have occurred. Lambs (3-4 months old) have been sold in the wool (these would have been shorn in 2020/21). Some indication of producers holding onto lambs to fatten and sell for slaughter when the feed runs out. Wool tests were higher than normal in July, due to big lots being re-handled for direct shipment. Elevated first-hand auction data due to producers holding over wool. Season outlook appears favourable but low sheep numbers continue to constrain production. Strong enquiry in for Merino rams in areas which have had a good season and are protected by exclusion fencing. **Shorn wool production in 2020/21 is expected to decline by 10.7% compared with 2019/20 to 6.7 mkg greasy.**

Appendix

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

2018/19	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn (million)	24.8	16.7	14.6	11.8	2.4	2.2	72.5
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	299.6

Change (%)	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn	-9.6%	4.6%	-2.9%	5.3%	-4.1%	4.9%	-2.3%
Average Cut Per Head	-13.0%	-5.2%	-9.9%	-10.9%	1.7%	-9.1%	-9.8%
Shorn Wool Production	-21.4%	-0.8%	-12.5%	-6.1%	-2.4%	-5.1%	-11.9%

2019/20 First Estimate	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn (million)	22.8	15.6	14.2	11.2	2.4	2.1	68.4
Average Cut Per Head (kg)	4.13	4.05	4.20	4.45	3.55	3.60	4.14
Shorn Wool Production (mkg greasy)	94.3	63.2	59.8	50.0	8.4	7.5	283.1

Change (%)	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn	-7.8%	-6.7%	-2.8%	-5.0%	0.1%	-7.0%	-5.8%
Average Cut Per Head	3.3%	1.3%	-1.2%	-3.3%	-6.1%	-1.4%	0.3%
Shorn Wool Production	-4.8%	-5.5%	-3.9%	-7.9%	7.1%	-7.4%	-5.5%

2020/21 Second Forecast	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn (million)	20.9	16.0	13.1	10.6	2.4	1.9	65.0
Average Cut Per Head (kg)	4.40	4.20	4.20	4.65	3.90	3.60	4.30
Shorn Wool Production (mkg greasy)	92.1	67.3	55.0	49.5	9.0	6.7	279.5

Change (%)	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn	-8.3%	2.6%	-7.9%	-5.2%	2.9%	-10.7%	-4.9%
Average Cut Per Head	6.5%	3.7%	0.0%	4.5%	9.9%	0.0%	3.8%
Shorn Wool Production	-2.3%	6.5%	-8.0%	-1.0%	7.1%	-10.7%	-1.1%

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.

Table A2: Australian wool production statistics since 1991/92

Year	Sheep (million)	Average (kg)	Shorn (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
2019-20	68.4	4.14	283
2020-21f	65.0	4.30	280

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

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	5.5%	11.0%	18.7%	20.3%	14.3%	7.0%	3.3%	2.1%	1.8%	4.7%	5.6%	2.9%	2.9%	20.5

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, exporters, processors, private treaty merchants, AWEX, AWTA, ABARES, ABS, MLA, state departments of Agriculture, sheep pregnancy scanners 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.