

September 2022

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 for 2022/23 is 340 Mkg greasy, a 4.9% increase on the 2021/22 estimated shorn wool production of 324 Mkg greasy.
- The continuing La Niña conditions have set up a very positive spring season in key wool producing areas. Good results have been reported from autumn lambing flocks and the same is expected from those lambing in spring. However, the continued wet weather is expected to bring some challenges in the months ahead from internal parasites, flies and increased grass seeds and burr.
- The Australian sheep flock is continuing to build with an expected 4.7% increase in the number of sheep shorn to 75.0 million head during 2022/23. New South Wales continues to have the largest sheep flock (25.4 million sheep shorn), while interstate transfers and sheep slaughter from Western Australia have reduced, indicating an intention to rebuild the state flock.
- Favourable lambing and weaning percentages during 2021/22 have increased the proportion of younger sheep in the flock which is expected to hold the average cut per head at 4.53 greasy kg despite the excellent seasonal conditions.
- Shorn wool production in Queensland is forecast to increase by 13.5% to 10.1 Mkg greasy in 2022/23. Tasmania is forecast to increase by 11.7% (11.5 Mkg greasy), Western Australia by 5.7% (64.7 Mkg greasy), Victoria by 5.3% (77.8 Mkg greasy), South Australia by 4.3% (58.5 Mkg greasy) and New South Wales by 3.2% to 116.9 Mkg greasy.
- AWTa wool test volumes for July and August 2022 were up by 11.0% on a year-on-year basis. Wool test volumes decreased in Western Australia (down 4.0%) but increased in the other five states with the increase ranging from 2.7% in Tasmania to 18.1% in New South Wales.

FURTHER INFORMATION

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- First-hand offered wool at auction to week 10 was down by 11.0% compared with the same time in 2021/22. Auction offerings in Queensland (up 50.0%) and South Australia (up 20.0%) were higher, but were lower in Victoria (down 26.7%), Western Australia (down 25.0%) and New South Wales (down 12.9%). First hand offered wool from Tasmania was the same compared with weeks 1 to 10 of the 2021/22 season.
- The BOM outlook for September to November 2022 is for average to above average rainfall across most of the country, except along the west coast. Average to above average maximum temperatures were predicted across much of Western Australia, Victoria and Tasmania, however below average maximum temperatures are forecast for South Australia, southern Queensland and most of New South Wales.
- The AWPFC's estimate of shorn wool production for 2021/22 is 324 Mkg greasy, a 10.0% increase on the 2021/22 forecast due to increases in the number of sheep shorn (up 7.0%) and average cut per head (up 2.7%). Sheep shorn numbers increased to 71.6 million, due to the larger Australian sheep flock reported by the ABS 2020/21 Ag Census. This was 2.6 million more sheep shorn than the April 2022 forecast. The number of sheep expected to be shorn remains at a relatively low level (22nd percentile) and will continue to constrain shorn wool production. The low sheep numbers continue to be offset by the average cut per head (4.52 kg greasy) which remains at a historically high level (80th percentile).
- AWTa wool test volumes for the 2021/22 season were 5.3% greater than 2020/21. Wool test volumes increased in each state compared with the previous season, ranging from 1.5% in South Australia to 15.5% in Queensland.
- AWEX first hand auction offerings data was up by 3.7% in 2021/22 compared with 2020/21 and increased on a year-on-year basis in each state.
- ABS wool receivals for 2021/22 were 8.9% higher than 2020/21. Each state except for Queensland (down 16.8%) recorded higher brokers receivals compared with the previous season.
- ABS sheep slaughter data for 2021/22 was 15% higher than 2020/21 with a 1% increase in lamb slaughter. Total turnoff was just 3% higher due to a 19% reduction in live exports.
- Table 1 summarises Australian wool production and Table 2 shows the total shorn wool production by state. The 2021/22 estimate includes a clean wool estimate for average cut per head and shorn wool production. For the 2021/22 season the yield (%, Schlumberger dry top and noil yield) from the AWTa key test data was used to calculate the clean average cut per head and clean shorn wool production.

Table 1: Summary of Australian wool production

	2020/21	2021/22 Estimate	Change y-o-y (%)	2022/23 Second Forecast	Change y-o-y (%)
Sheep numbers shorn (million head)	66.9	71.6	7.0%	75.0	4.7%
Average cut per head (greasy kg/head)	4.40	4.52	2.7%	4.53	0.0%
Shorn wool production (Mkg greasy)	294	324	10.0%	340	4.9%

Yield (%, Sch dry)	63.9	64.9	1.6%
Average cut per head (clean kg/head)	2.81	2.93	4.4%
Shorn wool production (Mkg clean)	188	210	11.8%

Table 2: Total shorn wool production by state (million kg)

Season	NSW	VIC	WA	SA	TAS	QLD	AUSTRALIA
2020/21 (Mkg greasy)	99.2	70.7	56.5	51.5	9.4	7.2	294
2021/22 (Mkg greasy)	113.3	73.9	61.2	56.1	10.3	8.9	324
Change y-o-y (%)	14.2%	4.5%	8.3%	8.9%	9.6%	23.6%	10.0%
2022/23 Second Forecast (Mkg greasy)	116.9	77.8	64.7	58.5	11.5	10.1	340
Change y-o-y (%)	3.2%	5.3%	5.7%	4.3%	11.7%	13.5%	4.9%

- More detailed information on the shorn wool production by state in 2022/23 can be found in Table A1 in the Appendix to this report.
- The Appendix also provides historical data for Australia, including sheep shorn numbers, average cut per head and shorn wool production (Table A2) as well as the micron profile (Table A3) since 1991/92.

Detail on shorn wool production in 2021/22 and the 2022/23 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 2021/22 season and 2022/23 to August 2022;
- AWEX auction statistics for the 2021/22 season and 2022/23 to September 2022 (Week 10);
- ABS wool receivals data for the 2021/22 season;
- ABS sheep and lamb turn-off for the 2021/22 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 conducted in June 2022.

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 2021/22 season are compared with previous seasons (2017/18 to 2020/21) in this report.

The month-by-month comparison of wool tested for the past five seasons (Figure 1) shows higher monthly test volumes from July to November and February compared with 2020/21 but lower volumes in December, January, and March through to June. Wool test volumes in February were the highest compared with February volumes for the previous four seasons. The monthly pattern of wool tested during 2021/22 followed the general trend of a peaks September to November and February to March and troughs in April to July and December to January.

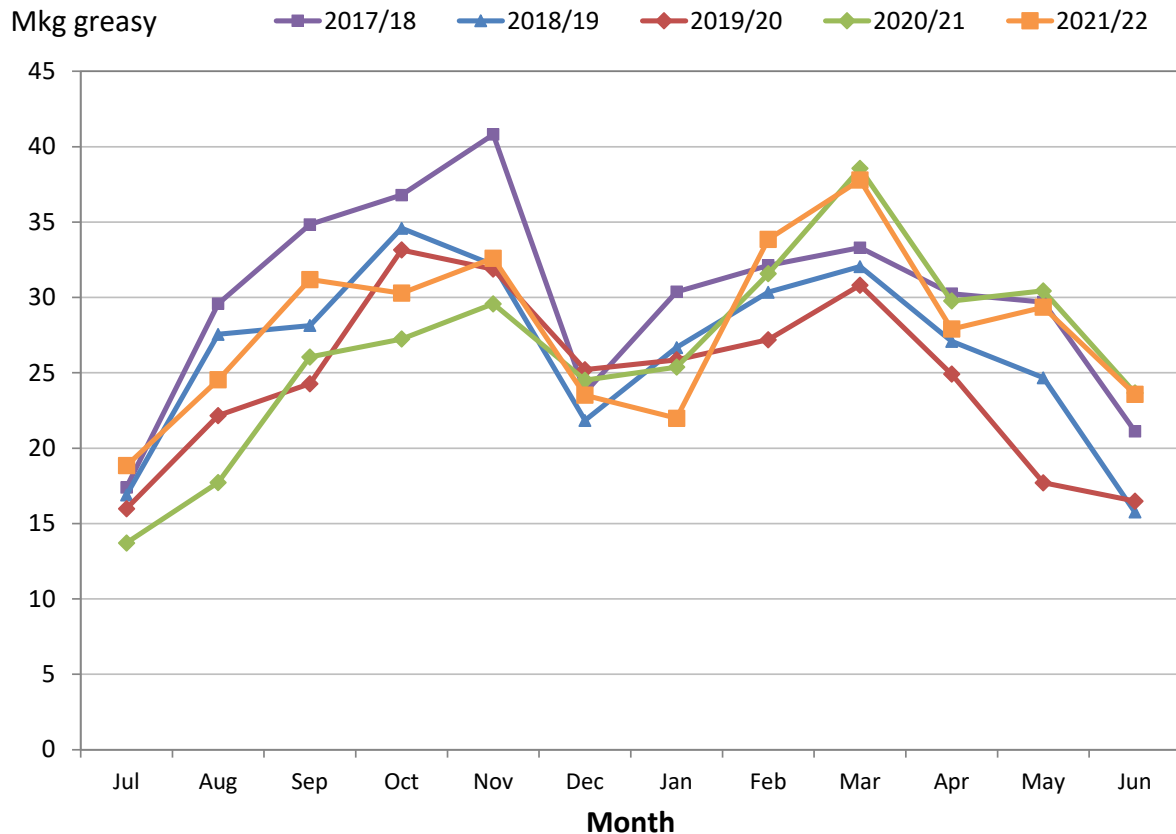


Figure 1: Comparison of monthly AWT key test data volumes for the 2021/22 season with previous seasons (2017/18 to 2020/21)

AWTA national wool test volumes data for the 2021/22 season (Table 3) shows:

- Volumes of wool tested were 5.3% higher than the 2020/21 season and were 1.5% higher than the five-year average from 2016/17 to 2020/21. Wool testing volumes in the first half of the 2020/21 were dramatically reduced by the impact of COVID-19 and the poor season and were significantly lower than the 2019/20 season.
- There were increases in the weight of wool tested in all the micron categories except the 22-micron (down 13.1%) and 29 – 30 microns (down 3.5%) categories. The largest increases occurred in the broader end of the micron range with the 25 – 26 microns category up 25.7% and the 24-micron category up 18.2%.
- The largest micron categories by volume are the 19-micron (67.35 Mkg greasy), 18-micron (55.79 Mkg greasy) and 20-micron (55.01 Mkg greasy) categories. The year-on-year percentage increase in these three micron categories were 3.4%, 2.0% and 7.7% respectively.
- The micron split (% of total weight of wool tested) during 2021/22 was very similar to that tested during 2020/21.

Table 3: AWTA key test data volumes (Mkg greasy) for the financial year by micron range 2016/17 to 2021/22 (Mkg greasy)

Parameter	Year	<16.6um	17um	18um	19um	20um	21um	22um	23um	24um	25-26um	27-28um	29-30um	>30.5um	TOTAL
AWTA FY Total Mkg greasy	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
	2020/21	12.08	28.42	54.71	65.11	51.06	29.53	14.05	7.24	5.21	11.43	17.21	11.17	11.16	318.38
	2021/22	13.10	30.76	55.79	67.35	55.01	29.87	12.21	7.82	6.16	14.36	19.24	10.78	12.68	335.13
Y-O-Y change%	2021/22	8.5%	8.2%	2.0%	3.4%	7.7%	1.2%	-13.1%	8.0%	18.2%	25.7%	11.8%	-3.5%	13.6%	5.3%
Micron Split (%)	2020/21	3.8%	8.9%	17.2%	20.4%	16.0%	9.3%	4.4%	2.3%	1.6%	3.6%	5.4%	3.5%	3.5%	
	2021/22	3.9%	9.2%	16.6%	20.1%	16.4%	8.9%	3.6%	2.3%	1.8%	4.3%	5.7%	3.2%	3.8%	
5 year av. 2016/17 to 2020/21	Tonnes	14.25	31.16	54.49	63.20	51.05	30.47	16.22	8.78	6.06	14.40	18.92	11.09	10.00	330.10
	% change 21/22 vs 5 yr av	-8.1%	-1.3%	2.4%	6.6%	7.8%	-2.0%	-24.8%	-11.0%	1.6%	-0.2%	1.7%	-2.9%	26.8%	1.5%
	Micron split %	4.3%	9.4%	16.5%	19.1%	15.5%	9.2%	4.9%	2.7%	1.8%	4.4%	5.7%	3.4%	3.0%	

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 continues to have 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).
- The fibre diameter profile continues to shift towards the right (i.e. broader) due to the continued favourable seasonal conditions. 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).

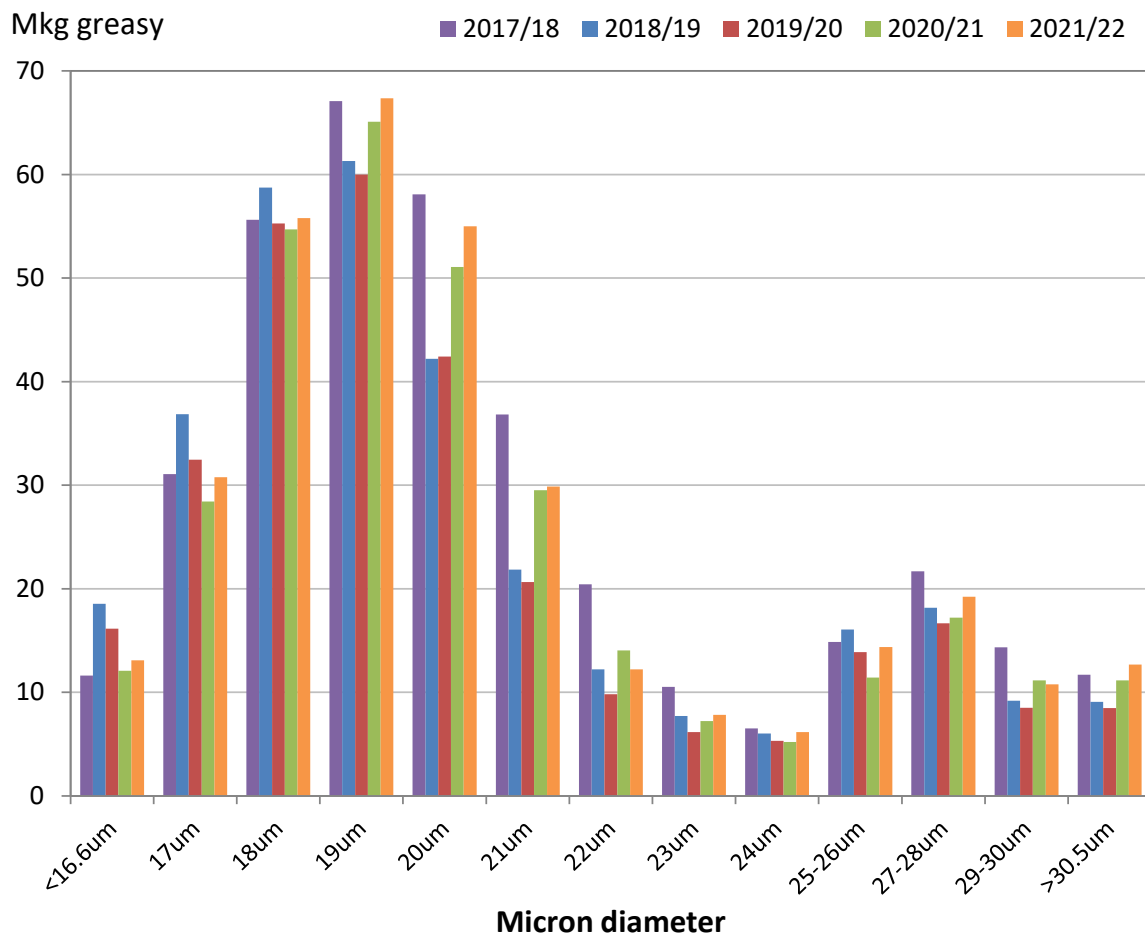


Figure 2: Australian fibre diameter profile – 2021/22 season compared with the 2017/18 to 2020/21 seasons

- Based on data by Wool Statistical Area (WSA), the volumes of wool tested during 2021/22 increased in all states on a year-on-year basis (Figure 3).
- Queensland had the greatest increase in the volume of wool tested (up 15.5%), followed by Western Australia (up 10.7%), New South Wales (up 5.3%), Tasmania (up 4.8%), Victoria (up 2.5%) and South Australia (up 1.5%).

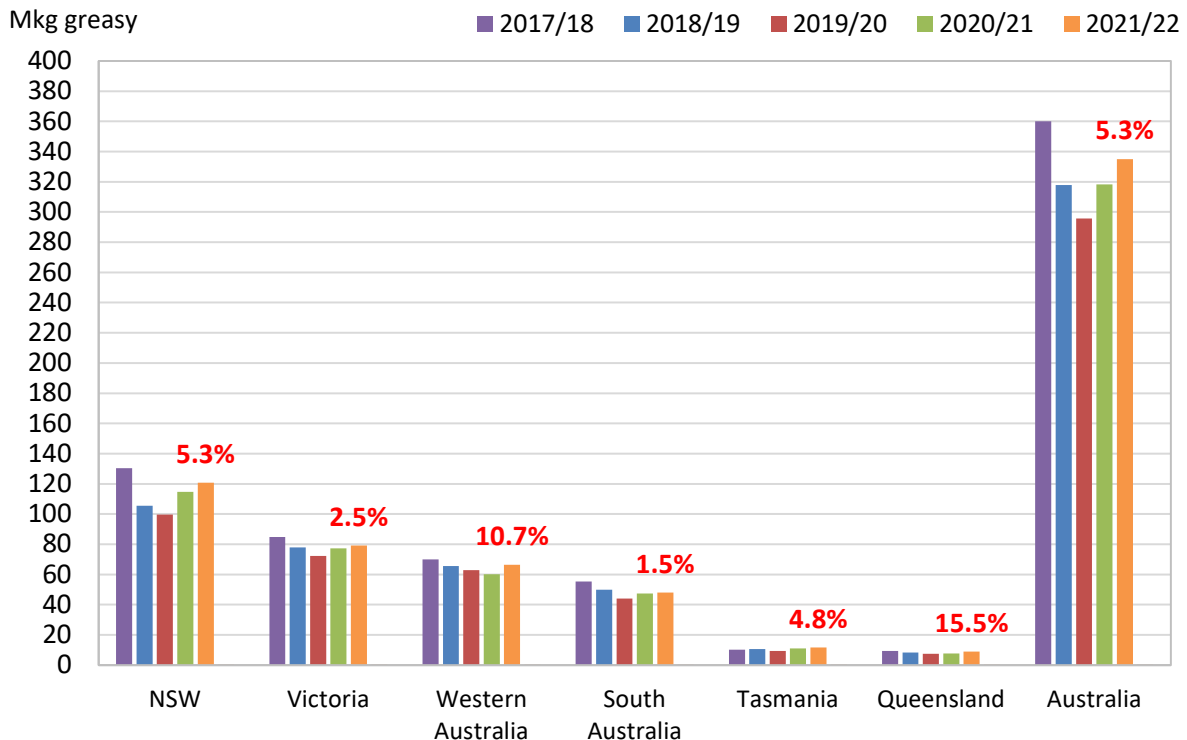


Figure 3: Volume of wool tested during 2021/22 season (AWTA key test data) compared with previous seasons (2017/18 to 2020/21). The percentage change in red font is the 2021/22 season compared with the 2020/21 season

- A graphical representation of the AWTA Key Test Data changes in mean 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 2021/22 season is shown in Figure 4.
- On each graph the red dot represents the mean value of each characteristic for the 2021/22 season while the blue dot represents the mean for the 2020/21 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 2021/22.
- 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 2021/22 season (TY), while the blue line is the mean for the 2020/21 season (LY).
- On a national basis, compared with the 2020/21 season, mean fibre diameter was the same at 20.8 microns, staple length was down 0.2 mm to 88.1 mm and staple strength was up 0.9 N/ktex to 34.9 N/ktex (Figure 4a). Vegetable matter was higher at 2.3% (up 0.2%), yield was up 1.0% to 64.9% and predicted hauteur (TEAM 3) was up 0.2 mm to 71.9 mm (Figure 4b).

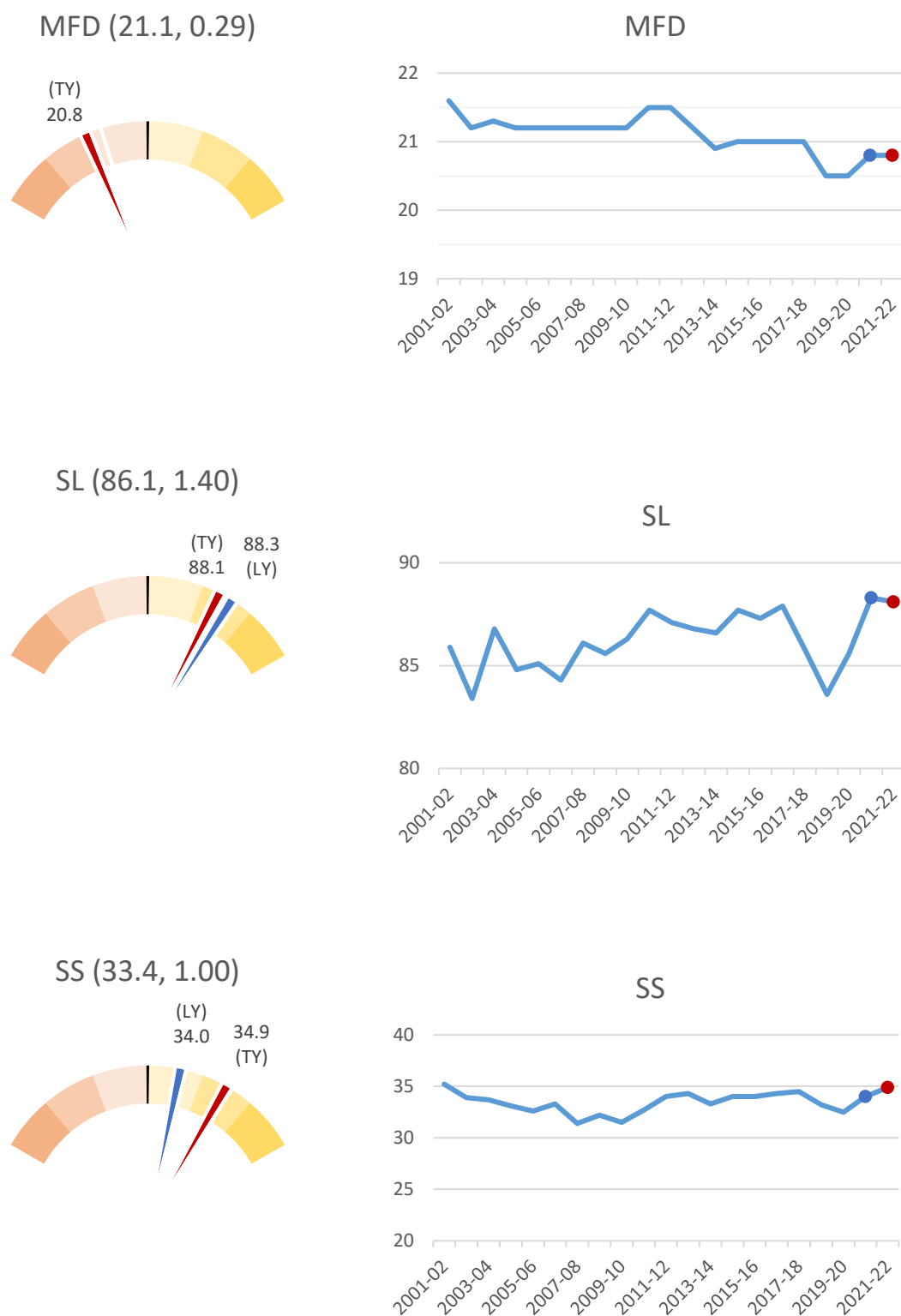


Figure 4a: AWTa Key Test Data (by sampling site) mean fibre diameter (MFD), staple length (SL) and staple strength (SS) for the Australian wool clip for full season (2000/01 to 2020/21)

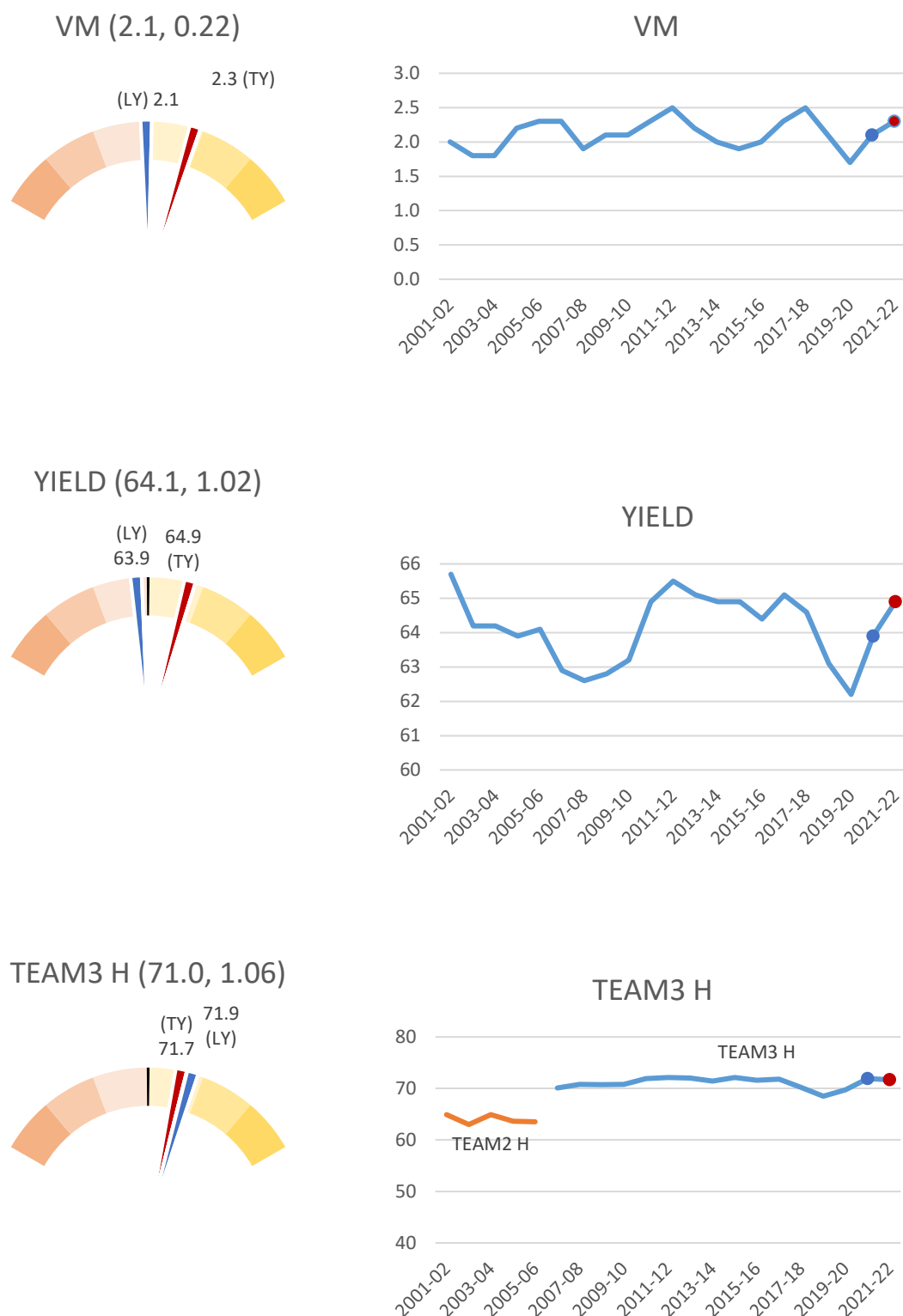


Figure 4b: AWTA Key Test Data (by sampling site) vegetable matter (VM), yield (YIELD) and TEAM 3 H (TEAM 3 H) for the Australian wool clip for full season (2000/01 to 2020/21)

AWEX auction statistics

The AWEX auction statistics for the 2021/22 season show an increase in firsthand wool offered volumes compared with the during the 2020/21 season (Table 4).

- Firsthand bales offered (i.e. excluding reoffers) for Australia were 3.7% higher compared with the 2020/21 season.
- Firsthand bales offered increased in each state. Tasmania was up 6.2%, New South Wales up 6.0%, Queensland up 5.7%, South Australia up 2.2%, Western Australia up 2.0% and Victoria up 0.7%.
- There was a small decrease (down 0.3%) in the volume of first-hand Merino wool offered across Australia, and a 23.1% increase in first-hand Crossbred wool offered. The share of Merino wool of all first-hand offered wool was 79.9% during 2021/22 compared with 83.0% in 2020/21.
- There was an 6.0% decrease in the volume of 'Prem-shorn' Merino fleece wool in 2021/22 (16.9 Mkg) compared with 2020/21 (17.9 Mkg).
- As a percentage share of the total, 7% of Australian first-hand bales offered were prem shorn during 2021/22. On a state-by-state basis this ranged from 1% in Tasmania to 42% in New South Wales.

Table 4: AWEX Auction Statistics 2021/22

2021/22	NSW	VIC	WA	SA	TAS	QLD	AUSTRALIA
First hand bales offered (% change on 2020/21)	6.0%	0.7%	2.0%	2.2%	6.2%	5.7%	3.7%
Merino first hand offered (% change on 2020/21)	1.4%	-5.5%	1.6%	-2.3%	1.6%	4.2%	-0.3%
Crossbred first hand offered (% change on 2020/21)	28.3%	16.4%	8.0%	28.8%	19.2%	88.9%	23.1%
Merino first hand offered (% share)	91.3%	67.5%	95.0%	82.0%	66.6%	97.7%	79.9%
Crossbred first hand offered (% share)	8.7%	32.5%	5.0%	18.0%	33.4%	2.3%	20.1%
Merino First Hand 'Prem' Shorn Fleece							
Weight (Mkg)	7.1	2.1	3.1	4.1	0.1	0.4	16.9
% share of total	42%	12%	18%	24%	1%	3%	7%
% change on 2020/21	0%	-13%	-9%	-11%	0%	10%	-6%

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 the 2021/22 season were 8.9% higher than 2020/21 (Table 5):

- Wool receivals for 2021/22 were 1.3% above the five-year average.
- Wool receivals increased in all states except Queensland (down 16.8%). The largest increase occurred in New South Wales (up 17.9%), followed by South Australia (up 9.8%), Western Australia (up 4.7%), Tasmania (up 4.0%) and Victoria (up 3.4%).
- Wool receivals in Western Australia, Queensland, Victoria and Tasmania were below the five-year average (down 11.5%, 9.8%, 3.6% and 1.2% respectively). Receivals in New South Wales and South Australia were above the five-year average (up 12.1% and 9.7% respectively).

Following consultation with the wool industry and exploration of other existing data sources, the ABS has ceased running the Wool Purchases, Receivals and Sales Survey.

Table 5: ABS Wool Receivals data 2020/21 Full Season

Mkg greasy	NSW	VIC	QLD	SA	WA	TAS	AUSTRALIA
2016/17	118.956	102.995	4.763	54.547	88.141	7.562	376.964
2017/18	117.504	114.705	5.042	54.784	86.699	7.210	385.944
2018/19	98.482	98.216	3.953	44.869	76.401	6.684	328.605
2019/20	83.762	81.623	4.102	41.072	67.669	5.570	283.798
2020/21	98.310	91.121	4.946	48.718	64.852	6.339	314.287
2021/22	115.868	94.254	4.116	53.512	67.890	6.595	342.232
% change 2021/22 vs 2020/21	17.9%	3.4%	-16.8%	9.8%	4.7%	4.0%	8.9%
Five year average 2016/17 to 2020/21	103.403	97.732	4.561	48.798	76.752	6.673	337.920
% change 2021/22 vs 5 year av	12.1%	-3.6%	-9.8%	9.7%	-11.5%	-1.2%	1.3%

Sheep turn-off

Australian sheep and lamb turn-off statistics for 2021/22 are shown in Table 6:

- There was a 15% increase in sheep slaughter, but lamb slaughter was down 1% compared with 2020/21.
- The number of live sheep exported from Australia decreased by 19% compared with 2020/21.
- Total turnoff of sheep and lambs during 2021/22 was 3% higher than 2020/21 but remained 10% below the five-year average.

Table 6: ABS Sheep turn off data for 2021/22 compared with 2020/21

Parameter	Financial year			5-yr FYTD	
	July 2020 to June 2021	July 2021 to June 2022	% Δ	Avg	%Δ
Sheep slaughter ('000 hd)	5,403	6,232	15%	7,670	-19%
Sheep weights (kg/hd cwt)	26.3	26.4	0%	24.7	7%
Mutton production (tonnes cwt)	142,056	164,282	16%	189,518	-13%
Lamb slaughter ('000 hd)	20,747	20,866	1%	21,776	-4%
Lamb weights (kg/hd cwt)	24.8	24.6	-1%	23.3	6%
Lamb production (tonnes cwt)	514,694	513,358	0%	507,065	1%
Live exports ('000 hd)	602	489	-19%	1,288	-62%
Total Turnoff ('000 hd)	26,753	27,587	3%	30,734	-10%

Bureau of Meteorology (BoM) seasonal rainfall seasonal outlook

Seasonal conditions during the 2021/22 season were very favourable for sheep and wool production. Rainfall deciles in most wool producing regions have ranged from average to very much above average (Figure 5). The South Australian pastoral zone, eastern Victoria, eastern Tasmania and key regions in Queensland have all received drought breaking rainfall.

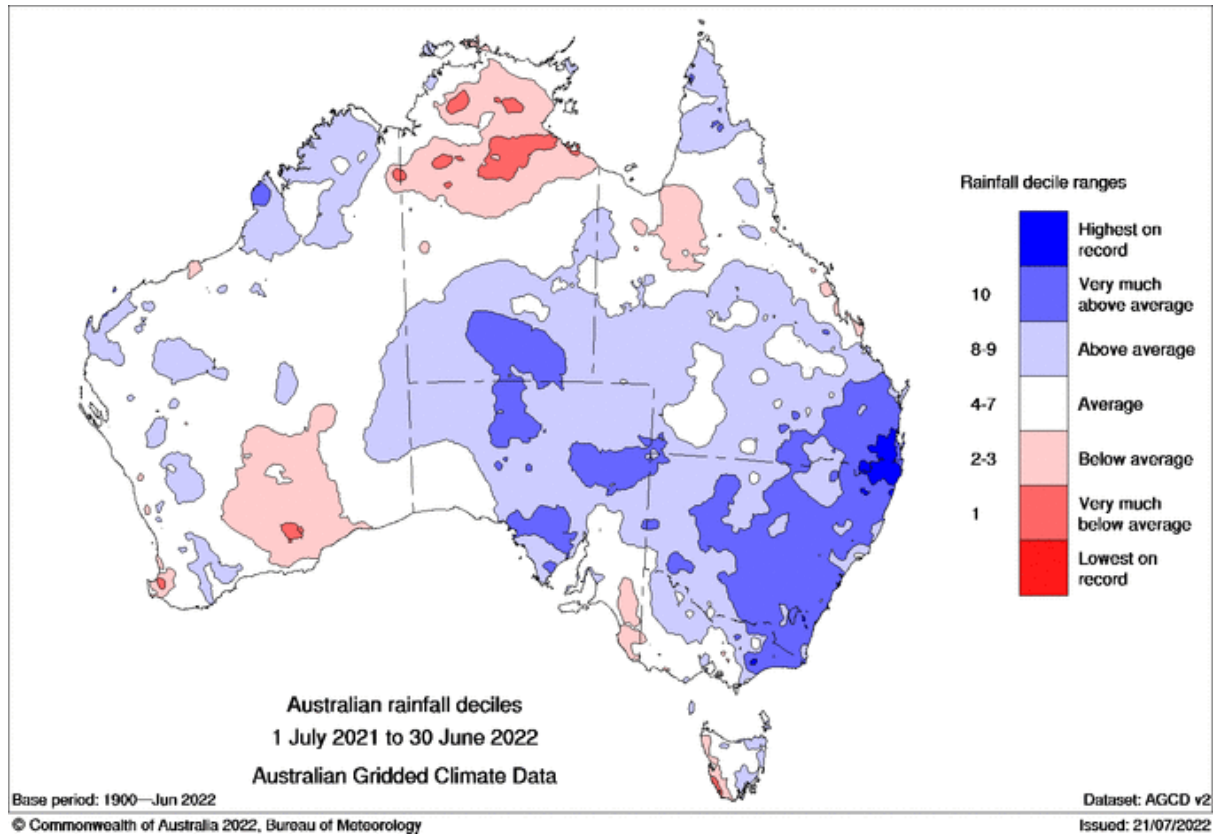


Figure 5: Australian rainfall deciles, 1 July 2021 to 30 June 2022

The average to above average rainfall during 2021/22 has shifted the landscape water balance to average and higher for many wool producing regions in Australia (Figure 6). This has generated abundant feed in many regions.

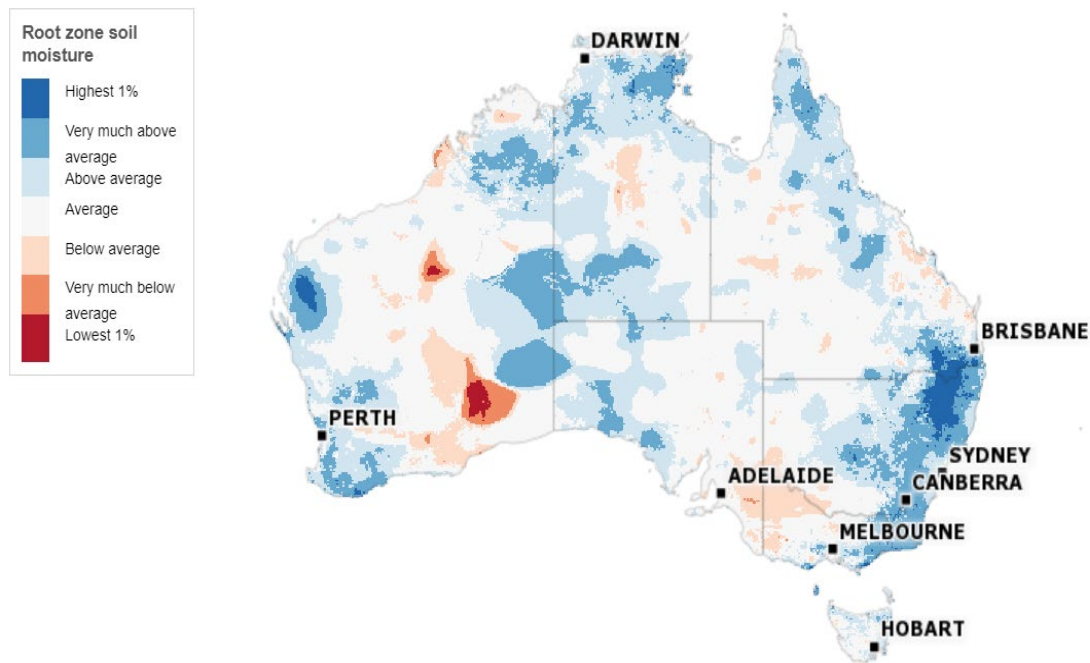


Figure 6: Australian landscape water balance, 2021/22 season

The Bureau of Meteorology's outlook for September to November 2022 is for rainfall to be average or above average across most of the country except along the west coast (Figure 7). Average to above average maximum temperatures are expected in Western Australia, Victoria and Tasmania, with below average maximum temperatures in South Australia, southern Queensland and New South Wales (Figure 8).

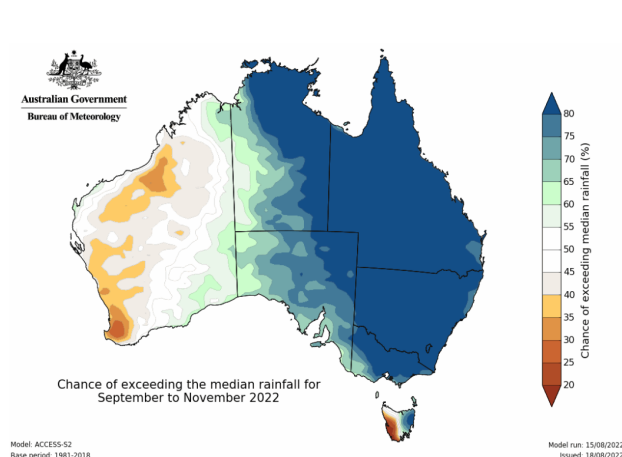


Figure 7: Chance of exceeding median rainfall (Sep – Nov 2022)

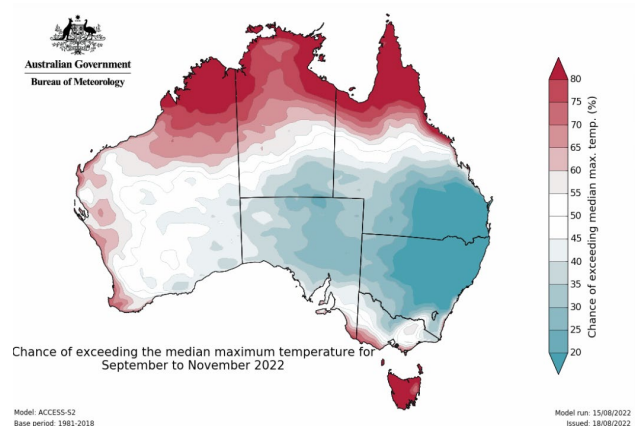


Figure 8: Chance of exceeding median maximum temperature (Sep – Nov 2022)

In its update on 25 August 2022, the Bureau noted that September to November rainfall is likely to be above median for most of the eastern half of Australia, but below median for western and south-west Tasmania, and parts of Western Australia (along the west coast and north). Maximum temperatures for September to November are likely to be above median for the west coast, Tasmania and coastal southern Victoria, but below median for New South Wales, the southern half of Queensland and most of South Australia away from the south-

east. Unusually cool maximum temperatures are two to three times more likely than average across much of central to eastern New South Wales and parts of southern and south-eastern Queensland.

A third consecutive active La Niña event was declared by the Bureau on 13 September 2022.

Results from the MLA and AWI Wool and Sheepmeat Survey

The June 2022 AWI/MLA Wool and Sheepmeat Survey found that 87% of respondents intended to either maintain or increase breeding ewe numbers, through retaining more replacement and older ewes than normal and by purchasing more additional ewes.

Most Merino producers expect to cut similar fleece weights from their ewes, wethers and lambs this season compared with last season. Less than 15% of producers are expecting lower fleece weights.

State Committee input

The following provides a summary of seasonal conditions and wool production forecast in 2021/22 and for 2022/23 in each state as reported by the AWPFC state committees in September 2022.

New South Wales

Sheep shorn numbers increased to 24.6 million, due to the larger New South Wales sheep flock reported by the ABS 2020/21 Ag Census. This was 2.3 million more sheep shorn than the April 2022 forecast. All of New South Wales, except a small region in the southwest corner of the state recorded at least above average rainfall deciles for the 2021/22 season. Rainfall deciles for many regions were very much above average. AWTa key test data show year-on-year increases in mean fibre diameter (20.6 μ m, up 0.1 μ m), staple strength (36.4 N/ktex, up 2.5 N/ktex), vegetable matter (3.1%, up 0.4%) and yield (66.2%, up 2.5%). Staple length decreased to 86.5mm (down 1.0 mm) with TEAM3 hauteur also lower (71.0mm, down 0.2 mm). The New South Wales Committee's 2021/22 estimate of shorn wool production was lower than AWTa weight of wool tested (120.8 Mkg) and the AWEX first hand offered (115.8 Mkg). Wool that was held on farm untested and tested in broker stores in response to falling wool prices in 2020, was released for sale in the last part of the season particularly from mixed farms. **The New South Wales Committee's estimate of shorn wool production for 2021/22 is 113.3 Mkg, up 14.2% on 2020/21.**

Excellent seasonal conditions across New South Wales have continued into 2022/23, although some regions are too wet. The wet conditions are impacting on sheep condition due to reduced pasture quality from a bulk of old feed in pastures which is low in quality with high moisture levels. Wet paddocks are making it difficult for producers manipulate pasture and provide supplementary feed. Growth of lambs to weaning and following weaning may be impacted. High vegetable matter levels in wool are expected as the season progresses, particularly in western regions. The Committee expect cut per head to be similar or slightly above that in 2021/22. However, the expected wet spring and summer bring a high risk of flystrike which may negatively impact per head production. Some producers are shearing early to reduce wool length and fly risk into spring. Lambing has been good in most regions with marking percentages greater than 130%. If the season continues, wether lambs are expected to be kept, shorn twice, and then sold. Producer sentiment is mixed, the continued wet conditions are having a dampening effect due to increased animal health and welfare implications. **The New South Wales Committee's second forecast of shorn wool production for 2022/23 is 116.9 Mkg, up 3.2% on 2020/21.**

Victoria

Sheep shorn numbers reduced to 17.2 million, due to the smaller Victorian sheep flock reported by the ABS 2020/21 Ag Census. This was 0.1 million fewer sheep shorn than the April 2022 forecast. Average rainfall deciles for the southern and southwestern regions of Victoria were above average in most other regions. Conditions did tighten up in June due to a big run of heavy frosts. There was no change in AWTa key test data average fibre diameter from 2020/21 (21.8 μ m) with decreases in staple length (87.8 mm, -1.6mm) and staple strength (35.3 N/ktex, -0.4 N/ktex) and small increases in vegetable matter (2.0%, +0.3%) and yield (66.0%, +0.1%). TEAM3 Hauteur decreases to 71.9 mm (-1.7 mm) compared to 2020/21. The Committee expect a small cut per head increase. The Victorian Committee's estimate for

2021/22 is lower than the AWTA weight of wool tested (79.2 Mkg) but higher than the AWEX first hand auction data (63.6 Mkg). **The Victorian Committee's estimate of shorn wool production for 2021/22 is 73.9 Mkg, up 4.5% on 2020/21.**

High cropping returns continue to displace sheep in some regions. Autumn lambing percentages were high due to favourable conditions for twin lamb survival although worm burdens are high following the wet autumn and marking results from early winter lambings were mixed. Victoria is set up for a fantastic spring, conditions are very wet with pasture growth expected to increase as temperatures rise. Some animal health and welfare issues are arising from the continued wet weather. Flies are likely to be a significant issue in late spring and summer if the wet weather continues. Some shearing has been delayed due to wet sheep and shearer availability which is expected to increase spring-shorn staple length and fleece cuts. Wool cuts are expected to increase. The number of Merino x Merino joinings is increasing as producers seek to build up Merino numbers. Merino rams mated to composite ewes is increasing to reduce the fibre diameter of composite wool and increase its value. The increasing focus on improving carcase traits in Merino sheep is also contributing to a move away from composite genotypes. Reduced processing capacity has meant some producers have had to hold onto lambs. Merino wether lambs will be held and shorn if the good season continues. **The Victorian Committee's second forecast of shorn wool production for 2022/23 is 77.8 Mkg, up 5.3% on 2020/21.**

Western Australia

Sheep shorn numbers reduced to 13.3 million, due to the smaller Western Australian sheep flock reported by the ABS 2020/21 Ag Census. This was 0.2 million fewer sheep shorn than the April 2022 forecast. The 2021/22 season ended with average rainfall deciles across much of the state's wool growing regions, patches of above average rainfall in the great southern and below average in south eastern regions. AWTA key test data show year-on-year increases in all parameters except vegetable matter (1.7%, down 0.1%). Mean fibre diameter was 19.7 μm (+0.5 μm), staple length was 89.7 mm (+3.4mm), staple strength 32.1 N/ktex (+1.6 N/ktex) and yield was 62.9% (+1.7%). TEAM3 hauteur was 71.4 mm (+2.8mm). The WSA weight of wool tested micron profile shows a decrease in finer wools (<18.5 μm) but year-on-year increases in all other categories. Retained breeding ewes and the good season have lifted wool cuts and shifted the micron profile broader. Delayed shearing (about 4 weeks) contributed to the increase in staple length. The WA Committee's estimate was lower than the AWTA weight of wool tested (66.5 Mkg) but higher than the AWEX first hand offered (54.1 Mkg). The weaker wool market at the beginning of 2021/22 prompted producers to hold off from selling, some of this wool came onto the market towards the end of the season. **The Western Australian Committee's estimate of shorn wool production for 2021/22 is 61.2 Mkg, up 8.3% on 2020/21.**

The 2022/23 season is outstanding with wet conditions in many sheep producing regions. Sheep are in good condition with many producers reporting above average to well above average wool cuts. The forecast average wool cut per head of 4.60 kg greasy is historically high at the 86th percentile. Lambing percentages have been very robust, with reports of up to 130%. Reduced mutton kills and a slowdown of interstate sheep movements has lifted sheep numbers. Live exports will resume in September, although capacity will remain restricted. Reduced processing capacity has seen a lot of lambs carried over to hoggets which has increased the sheep shorn numbers. Reduced turnoff is resulting in a rebuilding phase of the

WA flock. The high cost of cropping inputs in marginal cropping regions is pushing producers to run more sheep and plant less crop. Shearer availability is a key reason behind a move to shedding or nude sheep breeds, although at present the percentage change remains small. **The Western Australian Committee's second forecast of shorn wool production for 2022/23 is 64.7 Mkg, up 5.7% on 2021/22.**

South Australia

Sheep shorn numbers increased to 11.7 million, due to the larger South Australian sheep flock reported by the ABS 2020/21 Ag Census. This was 0.5 million more sheep than the April 2022 forecast. The 2021/22 season ended with above average rainfall through the South Australian pastoral regions with average rainfall in the southwest and southeast regions of the state. Although some parts of the southeast did receive below average rainfall. AWTA key test data show only small changes in mean fibre diameter (20.6 μm , +0.3 μm), staple length (89.3 mm, -1.2mm), staple strength (34.4 N/ktex, -0.9 N/ktex), vegetable matter (2.6%, +0.4%) and yield (61.2%, -0.7%) compared with the 2020/21 season. These changes contributed to a 1.8mm decrease in TEAM-3 hauteur from 72.8 mm for 2021/22. Fleece weights are expected to be slightly heavier than 2020/21 at 4.80 kg greasy. The SA Committee's estimate is higher than the AWTA weight of wool tested (48.1 Mkg) and AWEX first hand offered (47.2 Mkg) as the SA Committee believed some wool was held over from sale during the season. **The South Australian Committee's estimate of shorn wool production for 2021/22 is 56.1 Mkg, up 8.9% on 2020/21.**

Good rain has now occurred across most of the state with pastures beginning to grow well. Despite producers being quite buoyant in their outlook, most are looking to maintain their current level of production. The Committee is not expecting any great change in wool production. Fleece weights are also expected to be similar as the 2021/22 season. Ram sales are commencing with a positive feel, producers are purchasing their usual number of rams with the Committee expecting the number of ewes mated during 2022/23 to be similar to 2021/22. Some reports of sheep traders purchasing older drops of Merino ewes with the intention to join them to Merino lambs. This may be a reaction to the increase in value of Merino ewes relative to first cross ewes at recent sheep circuit sales and the low value of composite wool. The swing to composites (away from first cross ewes in the lower and higher rainfall regions) in the past 5 years may be moving back to a Merino x Border Leicester first cross ewe system using the Merino base. **The South Australian Committee's second forecast of shorn wool production for 2022/23 is 58.5 Mkg, up 4.3% on 2021/22.**

Tasmania

No change in sheep shorn numbers, as the ABS 2020/21 Ag Census reported a similar flock size to that forecast during April 2022. The 2021/22 season ended with average rainfall deciles across the north of the state, below average in western regions and above average in eastern regions. However significant widespread rainfall occurred in both May and June. AWTA key test data showed a small decrease in mean fibre diameter (21.5 μm , -0.1 μm) and staple length (88.9mm, -3.9mm), but an increase in staple strength (37.2 N/ktex, +2.3 N/ktex), vegetable matter (1.0%, +0.3%) and yield (70.5%, +0.5%). Predicted hauteur (TEAM-3) was 73.6mm (-0.1mm). The Tasmanian Committee's estimate is lower than the AWTA weight of wool tested (11.6 Mkg) but higher than the AWEX first hand (9.3 Mkg). A proportion of the Tasmanian clip is not sold via auction. **The Tasmanian Committee's estimate of shorn wool production for 2021/22 is 10.3 Mkg, up 9.6% on 2020/21.**

The season has opened well, following from a good autumn. July was dry, but widespread rain during August has set up a good spring. Producers are facing their third wet spring and summer with some concerns regarding animal health and welfare issues from the continued wet weather. Spring lambing ewes were in good condition when the rams were put out and high conception and lambing rates are expected. June shearing was delayed, this pushed some volume into the 2022/23 season. Variable mutton prices and a recent reduction in lamb prices may result in some sheep being held and shorn rather than sold to slaughter. More sheep are likely to be sold; however, higher weaning percentages and higher crossbred numbers mean average cut per head will be lower. **The Tasmanian Committee's second forecast of shorn wool production for 2022/23 is 11.5 Mkg, up 11.7% on 2021/22.**

Queensland

Sheep shorn numbers increased to 2.2 million, due to the larger Queensland sheep flock reported by the ABS 2020/21 Ag Census. This was 0.2 million more sheep than the April 2022 forecast. The 2020/21 season ended with average to above average rainfall deciles across the major sheep producing regions of the state. AWTA key test data show increases in each of the key test data compared with the 2020/21 except for vegetable matter which remained at 2.8%. The increases in average fibre diameter (20.1 μ m, +0.3 μ m), staple length (88.6 mm, +2.2 mm), staple strength (36.8 N/ktex, +1.4 N/ktex) and yield (62.8%, +2.0%) contributed to the 3.1mm increase in TEAM3 hauteur to 73.9 mm. Fleece weights are expected to be higher than the previous season, but were revised down from the April 2002 forecast due to increased proportion of weaners and young ewes in the flock. The Queensland Committee's fifth estimate slightly higher than the AWTA weight of wool tested (8.9 Mkg) and AWEX first hand offered (7.7 Mkg) as wet weather meant wool was unable to be transported to store for testing in the 2021/22 season. **The Queensland Committee's estimate of shorn wool production for 2021/22 is 8.9 Mkg, up 23.7% on 2020/21.**

Widespread rainfall across all major sheep producing regions has set up a phenomenal season, many producers are reporting above average to 'best ever' seasonal conditions. More producers are pregnancy scanning their breeding ewes and are re-joining empties as well as retaining and shearing Merino lambs and weaners. The average age of the Queensland flock is moving younger which will place a ceiling on average cut per head, despite the favourable season. Some reports of increasing shedding sheep numbers in southern regions of the state, but mostly by smaller operators. Larger enterprises are expected to build their Merino numbers. Goat numbers are increasing but these are not expected to displace Merino sheep. Shearing is generally on-track, however recent rainfall will lead to delays (about a month). Reports of early fly activity in western regions. 'Phenomenal' autumn lambing percentages have been reported with the same expected for spring lambing flocks given the pasture feed. There is significant ground cover throughout the state, which is expected to reduce dust content, however vegetable matter particularly burr is expected to increase. **The Queensland Committee's second forecast of shorn wool production for 2022/23 is 10.1 Mkg, up 13.5% on 2021/22.**

Appendix

Table A1: Comparison of shorn wool production in 2021/22 against the 2020/21 season and the second forecast for 2022/23 against the 2021/22 season

At their September 2022 meeting, the AWPFC National Committee resolved to include a clean estimate of shorn wool production for the 2021/22 season based on the yield (% , Schlumberger dry top and noil yield) from the AWTA key test data for 2021/22. This has been calculated for the 2020/21 season for comparison.

2020/21	NSW	VIC	WA	SA	TAS	QLD	AUSTRALIA
Sheep Numbers Shorn (million)	21.8	16.6	13.3	10.8	2.4	1.9	66.9
Average Cut Per Head (kg greasy)	4.55	4.25	4.25	4.75	3.95	3.70	4.40
Shorn Wool Production (Mkg greasy)	99.2	70.7	56.5	51.5	9.4	7.2	294.0
Yield (% , Sch dry)	63.7	65.9	61.2	61.9	70.0	60.8	63.9
Shorn Wool Production (Mkg clean)	63.2	46.6	34.6	31.9	6.6	4.4	187.9

2021/22	NSW	VIC	WA	SA	TAS	QLD	AUSTRALIA
Sheep Numbers Shorn (million)	24.6	17.2	13.3	11.7	2.6	2.2	71.6
Average Cut Per Head (kg greasy)	4.60	4.30	4.60	4.80	3.95	4.10	4.52
Shorn Wool Production (Mkg greasy)	113.3	73.9	61.2	56.1	10.3	8.9	324.0
Yield (% , Sch dry)	66.2	66.0	62.9	61.2	70.5	62.8	64.9
Shorn Wool Production (Mkg clean)	75.0	48.8	38.5	34.3	7.3	5.6	210.3

% change y-o-y							
Sheep Numbers Shorn (million)	12.8%	3.6%	0.0%	8.3%	8.3%	15.8%	7.0%
Average Cut Per Head (kg greasy)	1.1%	0.0%	8.2%	1.1%	0.0%	10.8%	2.7%
Shorn Wool Production (Mkg greasy)	14.2%	4.5%	8.3%	8.9%	9.6%	23.6%	10.0%
Yield (% , Sch dry)	3.9%	0.2%	2.8%	-1.1%	0.7%	3.3%	1.6%
Shorn Wool Production (Mkg clean)	18.7%	4.7%	11.3%	7.5%	10.6%	27.3%	11.9%

2022/23 Second Forecast	NSW	VIC	WA	SA	TAS	QLD	AUSTRALIA
Sheep Numbers Shorn (million)	25.4	17.9	14.1	12.2	3.0	2.5	75.0
Average Cut Per Head (kg greasy)	4.60	4.35	4.60	4.80	3.90	4.10	4.53
Shorn Wool Production (Mkg greasy)	116.9	77.8	64.7	58.5	11.5	10.1	340.0

% change y-o-y							
Sheep Numbers Shorn (million)	3.3%	4.1%	6.0%	4.3%	15.4%	13.6%	4.7%
Average Cut Per Head (kg greasy)	0.0%	2.3%	0.0%	0.0%	-2.5%	0.0%	0.0%
Shorn Wool Production (Mkg greasy)	3.2%	5.3%	5.7%	4.3%	11.7%	13.5%	4.9%

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

At their September 2022 meeting, the AWPFC National Committee resolved to include a clean estimate of shorn wool production for the 2021/22 season based on the yield (% *Schlumberger dry top and noil yield*) from the AWTA key test data for 2021/22. The AWTA key test data yield (*Sch dry*) for 2001/02 to 2020/21 has been used to calculate shorn wool production for these seasons.

Season	Sheep Numbers Shorn (million)	Average Cut Per Head (kg greasy)	Shorn Wool Production (Mkg greasy)	Yield (%, <i>Sch dry</i>)	Shorn Wool Production (Mkg clean)
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	65.7	364
2002-03	116.6	4.28	499	64.2	320
2003-04	104.7	4.53	475	64.2	305
2004-05	106.0	4.49	475	63.9	304
2005-06	106.5	4.33	461	64.1	296
2006-07	101.4	4.24	430	62.9	270
2007-08	90.2	4.43	400	62.6	250
2008-09	79.3	4.52	362	62.8	227
2009-10	76.2	4.50	343	63.2	217
2010-11	76.2	4.53	345	64.9	224
2011-12	76.4	4.48	342	65.5	224
2012-13	78.8	4.47	352	65.1	229
2013-14	78.0	4.37	341	64.9	221
2014-15	76.9	4.50	346	64.9	225
2015-16	73.4	4.43	325	64.4	209
2016-17	74.3	4.58	340	65.1	221
2017-18	76.8	4.45	341	64.6	220
2018-19	72.5	4.13	300	63.1	189
2019-20	68.6	4.13	284	62.2	177
2020-21	66.9	4.40	294	63.9	188
2021-22	71.6	4.52	324	64.9	210
2022-23f	75.0	4.53	340		

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

Season	<16.5	17	18	19	20	21	22	23	24	25/26	27/28	29/30	>30.5	Average Fibre Diameter (µm)
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	6.3%	10.9%	18.8%	21.1%	15.5%	7.4%	3.2%	1.8%	1.6%	4.4%	5.3%	2.1%	1.7%	20.5
2020/21	3.7%	8.6%	17.3%	20.4%	16.0%	9.4%	4.5%	2.2%	1.6%	3.6%	5.6%	3.7%	3.5%	20.8
2021/22	3.9%	9.2%	16.6%	20.1%	16.4%	8.9%	3.6%	2.3%	1.8%	4.3%	5.7%	3.2%	3.8%	20.8

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 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 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.