

August 2021

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 2021/22 is 310 Mkg. This is a 5.2% increase on the 2020/21 estimated production of 294 Mkg. This is an upward revision from the Committee's forecast of 305 Mkg in April 2021.
- Widespread rainfall across many wool producing regions is expected to generate high pasture availability in Spring when soil temperatures increase. Breeding ewes are reported to be in good condition in key regions with lambing and marking rates both expected to rise on the back of high scanning percentages.
- Favourable seasonal conditions in most key wool producing regions are expected to increase average cut per head by 1.8% to 4.49 kg greasy.
- Shorn wool production in Tasmania is forecast to increase by 13.8% to 10.7 Mkg greasy in 2021/22. New South Wales is forecast to increase by 7.0% (106.1 Mkg greasy), Victoria by 5.8% (74.8 Mkg greasy), South Australia by 5.6% (54.5 Mkg greasy) and Western Australia by 0.7% (56.9 Mkg greasy). Queensland is forecast to decline by 2.8% to 7.0 Mkg greasy.
- The BOM outlook for September to November 2021 is for above average median rainfall across much of Australia with below average maximum temperatures.
- The AWPFC's first estimate of shorn wool production for the 2020/21 season is 294 Mkg greasy, a 3.7% increase on the 284 Mkg greasy for the 2019/20 season. The positive adjustment from the April forecast reflects the favourable end to the 2020/21 season and the impact that it had on per head production (4.41 kg greasy, up 6.8%) compared to the 2019/20 season.
- Sheep and lamb turn off between July 2020 and March 2021 was 19% lower than the same period in 2019/20 as producers seek to rebuild their flocks. There was a 44% decrease in sheep slaughter, a 6% decrease in lamb slaughter and a 47% decrease in live

FURTHER INFORMATION

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export numbers. Despite this, the number of sheep shorn, estimated to be down by 2.6% to 66.8 million head in 2020/21, continues to limit shorn wool production.

- Shorn wool production in 2020/21 is estimated to increase in Victoria, up 11.9% to 70.7 Mkg greasy, New South Wales (99.2 Mkg, up 5.2%), Tasmania (9.4 Mkg, up 4.4%) and South Australia (51.6 Mkg, up 3.2%). However, shorn wool production will decrease in both Western Australia (56.5 Mkg, down 5.5%) and Queensland (7.2 Mkg, down 4.0%).
- AWTA volumes of greasy wool tested during 2020/21 were 7.6% higher than 2019/20. Volumes in each state increased on a year-on-year basis except Western Australia (down 4.3%). The greatest increase occurred in Tasmania (up 18.2%), followed by New South Wales (up 15.2%), South Australia (up 7.5%), Victoria (up 6.8%) and Queensland (up 2.3%).
- The weight of wool tested in the 18 micron and finer categories and the 24 micron, and 25-to-26- micron categories decreased. The largest decreases occurred in the less than 16.6 microns category (down 25.2%) and the 25 – 26- micron category (down 17.7%). The weight of wool tested in the 19 to 23 micron and greater than 27- micron categories increased. The largest increases occurred in the 21- and 22- micron categories (up 42.9% and 43.0% respectively).
- All AWTA key test data parameters increased during 2020/21 compared with the 2019/20 season. Average fibre diameter was 20.8 microns (up 0.3 microns), staple length 88.3 mm (up 2.7 mm), staple strength 34.0 N/ktex (up 1.5 N/ktex), vegetable matter 2.1% (up 0.4%) and yield 63.9% (up 1.7%). As a result, predicted hauteur (TEAM-3) was 71.9 mm (up 2.2mm).
- AWEX first-hand offered bales were 23.6% higher during 2020/21 compared with the 2019/20 season.
- ABS wool receivals data for Australia between July 2020 and March 2021 increased by 0.7%. However, this is expected to increase when data for the fourth quarter of the 2020/21 season is available.
- 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	2019/20 Final Estimate	2020/21 First Estimate	Change y-o-y (%)	2021/22 Second Forecast	Change y-o-y (%)
Sheep Numbers Shorn <i>(million)</i>	68.6	66.8	-2.6%	69.0	3.3%
Average Cut Per Head <i>(kg greasy)</i>	4.13	4.41	6.8%	4.49	1.8%
Shorn Wool Production <i>(Mkg greasy)</i>	284	294	3.7%	310	5.2%

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

Shorn wool production (Mkg greasy)	NSW	VIC	WA	SA	TAS	QLD	National
2019/20 Final Estimate	94.3	63.2	59.8	50.0	9.0	7.5	284
2020/21 First Estimate	99.2	70.7	56.5	51.6	9.4	7.2	294
Change y-o-y (%)	5.2%	11.9%	-5.5%	3.2%	4.4%	-4.0%	3.7%
2021/22 Second Forecast	106.1	74.8	56.9	54.5	10.7	7.0	310
Change y-o-y (%)	7.0%	5.8%	0.7%	5.6%	13.8%	-2.8%	5.2%

- More detailed information on the shorn wool production by state in 2020/21 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 2020/21 Estimate and 2021/22 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 2020/21 season and the 2021/22 season for July;
- AWEX auction statistics for the 2020/21 season and the 2021/22 season to the 14 July 2021 (Week 2);
- ABS wool receivals data for the 2020/21 season to March 2021;
- ABS sheep and lamb turn-off for the 2020/21 season to March 2021;
- 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 2021.

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 2020/21 season are compared with previous seasons (2016/17 to 2019/20) in this report.

The month-by-month comparison of wool tested for the past five seasons (Figure 1) clearly shows the large difference in in testing volumes between the first and second halves of the 2020/21 season. AWTA testing volumes between July 2020 and January 2021 were the lowest for the past four seasons, except for September and December. From February 2021 onwards, monthly test volumes increased to similar levels tested during the 2016/17 and 2017/18 seasons.

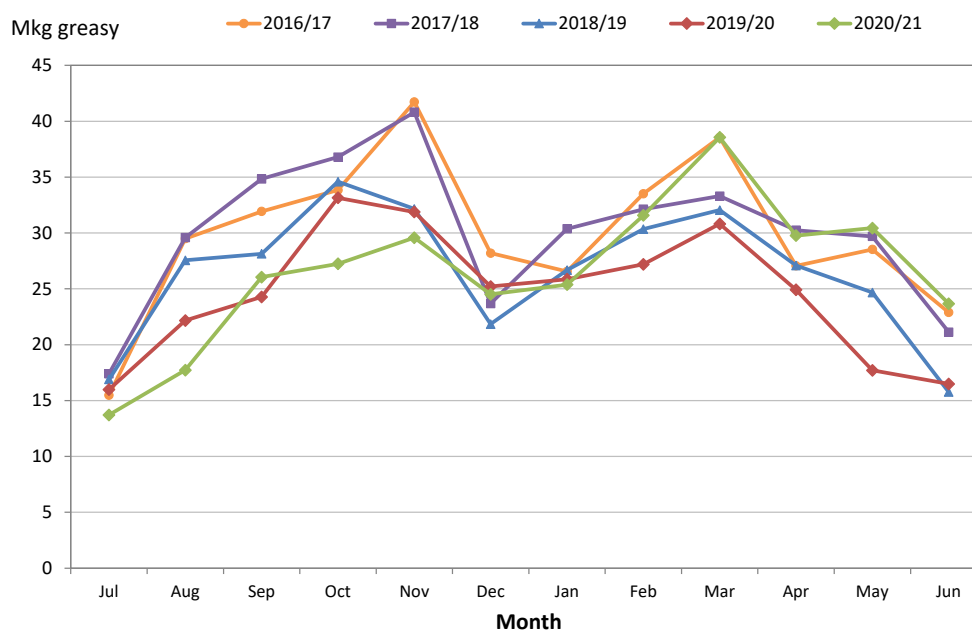


Figure 1: Comparison of monthly AWTA key test data volumes for the 2020/21 season with previous seasons (2016/17 to 2019/20)

AWTA national wool test volumes data for the 2020/21 season (Table 3) shows:

- Volumes of wool tested were 7.6% higher than the 2019/20 season and were 4.8% lower than the five-year average from 2015/16 to 2019/20.
- For the 2020/21 season, there were decreases in the weight of wool tested in the 18 micron and finer categories and the 24 micron and 25-to-26-micron categories. The largest decreases occurred in the less than 16.6 microns category (down 25.2%) and the 25 to 26-micron category (down 17.7%). The weight of wool tested in the 19 to 23 micron and greater than 27-micron categories increased. The largest increases occurred in the 21- and 22- micron categories (up 42.9 and 43.0% respectively).

Table 3: AWTA key test data volumes for the financial year by micron range 2015/16 – 2020/21 (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	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%	2020/21	-25.2%	-12.5%	-1.0%	8.5%	20.3%	42.9%	43.0%	17.7%	-2.0%	-17.7%	3.2%	31.3%	31.7%	7.6%

Micron Split (%)	Year	<16.6um	17um	18um	19um	20um	21um	22um	23um	24um	25-26um	27-28um	29-30um	>30.5um
5 year av. 2015/16 to 2019/20	Tonnes	14.51	31.28	53.45	62.29	51.84	31.89	17.47	9.31	6.29	15.22	19.92	11.33	9.62
	%	-16.8%	-9.1%	2.4%	4.5%	-1.5%	-7.4%	-19.6%	-22.2%	-17.2%	-24.9%	-13.6%	-1.4%	16.1%
2020/21	Micron	4.3%	9.4%	16.0%	18.6%	15.5%	9.5%	5.2%	2.8%	1.9%	4.6%	6.0%	3.4%	2.9%
	%	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%

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 has shifted towards the right (i.e. broader) due to the favourable seasonal conditions in 2020/21. 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).

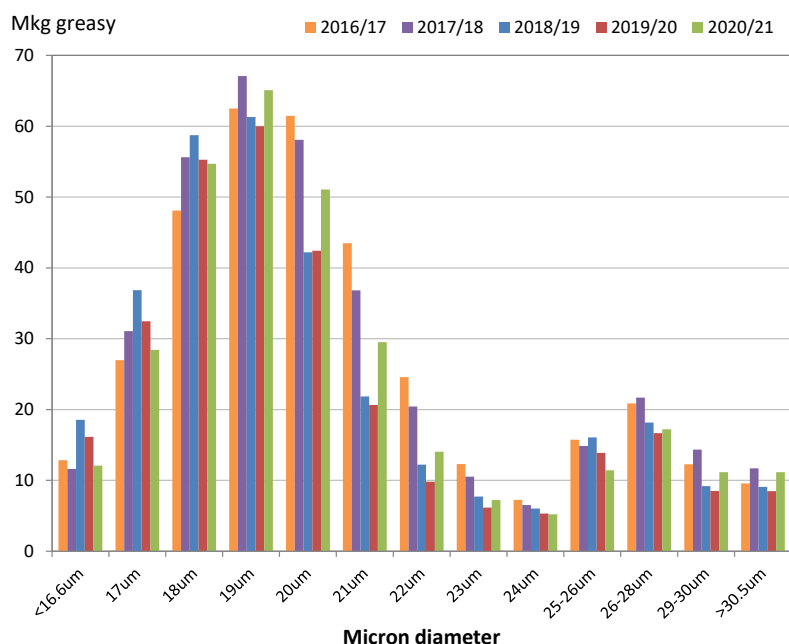


Figure 2: Australian fibre diameter profile – 2020/21 season compared with the 2016/17 to 2019/20 seasons

- Based on data by Wool Statistical Area (WSA), the volumes of wool tested in most states, except Western Australia, for the 2020/21 season increased on a year-on-year basis (Figure 3).

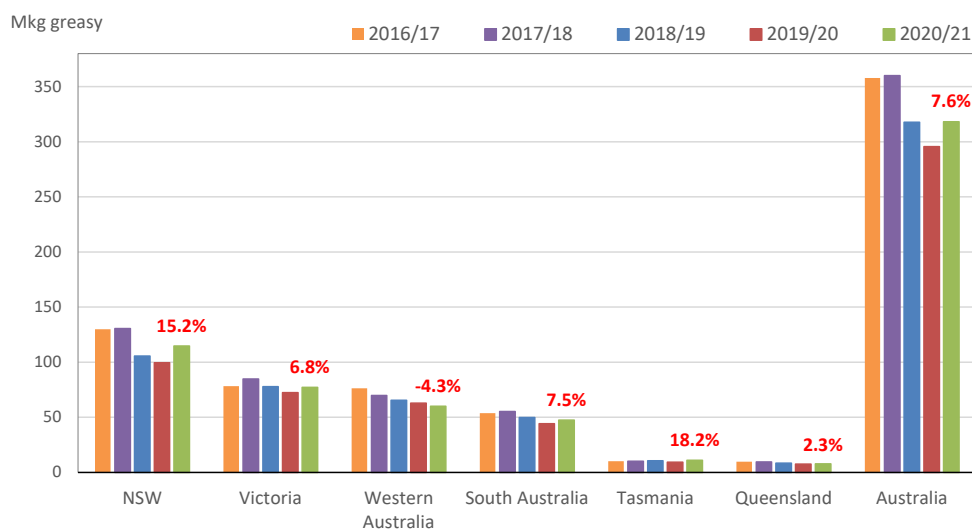


Figure 3: Volume of wool tested during the 2020/21 season (AWTA key test data) *The percentage change is the 2020/21 season compared with the same period in the 2019/20 season*

- Tasmania had the greatest increase in the volume of wool tested (up 18.2%), followed by New South Wales (up 15.2%), South Australia (up 7.5%), Victoria (up 6.8%) and Queensland (up 2.3%) (Table 4). The volume of wool tested in Western Australia declined by 4.3%.

Table 4: AWTA test data volumes by state (based on Wool Statistical Area) and Australia (based on Key Test Data) 2020/21 season compared with previous seasons (Mkg greasy)

	NSW	VIC	WA	SA	TAS	QLD	Australia
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
2020/21	114,701	77,237	60,080	47,389	11,070	7,721	318,376
% change y-o-y	15.2%	6.8%	-4.3%	7.5%	18.2%	2.3%	7.6%

- 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 2020/21 season is shown in Figure 4.
- On each graph the red dot represents the mean value of each characteristic for the 2020/21 season while the blue dot represents the mean for the 2019/20 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 2020/21.
- 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 2020/21 season, while the blue line is the mean for the 2019/20 season.
- On a national basis, compared with the 2019/20 season, fibre diameter was higher at 20.8 microns (up 0.3 microns), staple length was up 2.7 mm to 88.3 mm and staple strength was up 1.5 N/ktex to 34.0 N/ktex (Figure 4a). Vegetable matter was higher at 2.1% (up 0.4%), yield was up 1.7% to 63.9% and predicted hauteur (TEAM 3) was up 2.2 mm to 71.9 mm (Figure 4b).

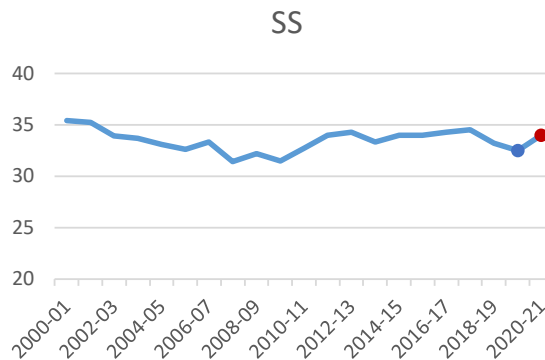
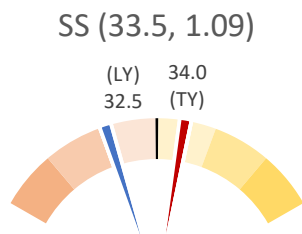
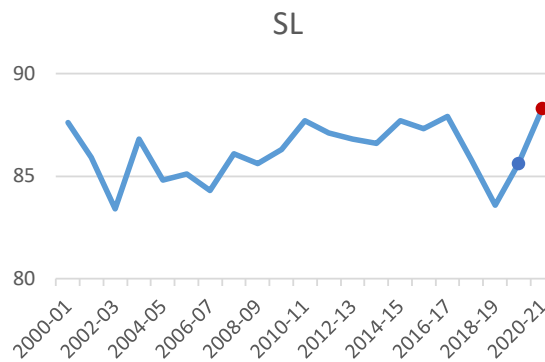
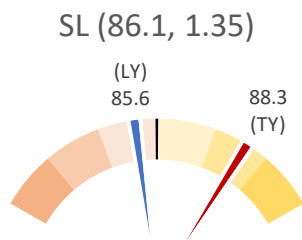
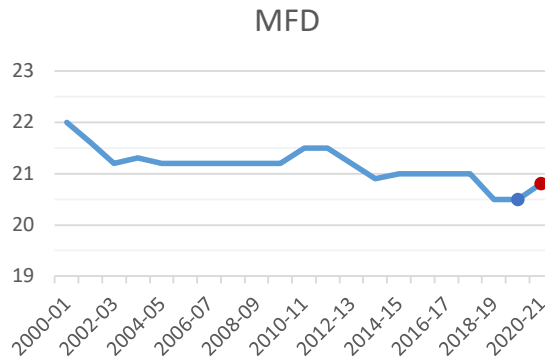
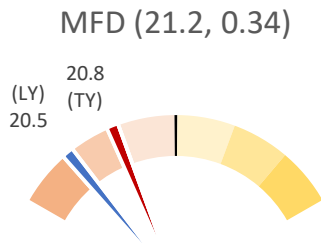


Figure 4a: AWTA Key Test Data (by sampling site) fibre diameter (MFD), staple length (SL) and staple strength (SS) for the Australian wool clip for the full season (2000/01 to 2020/21)

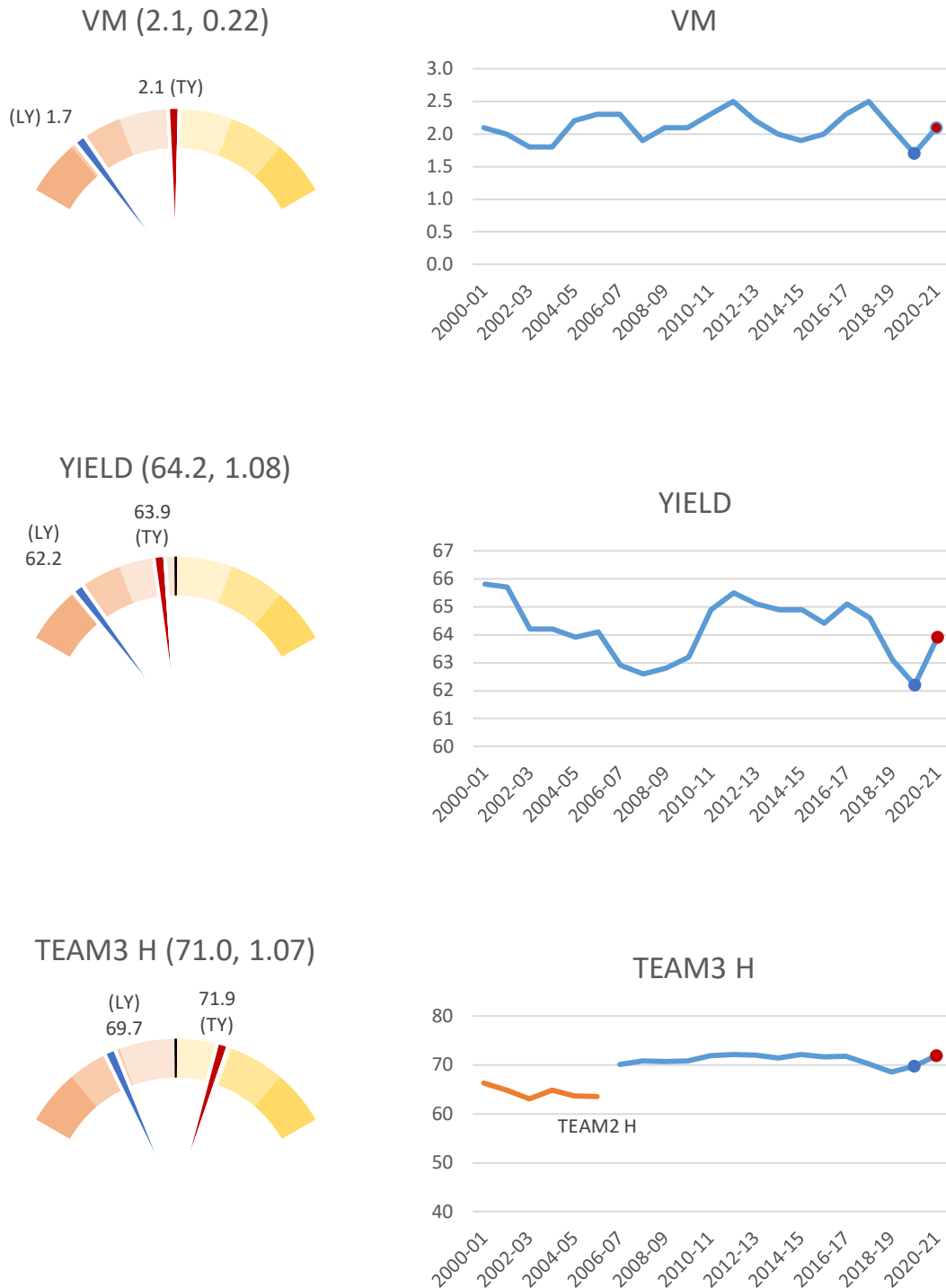


Figure 4b: AWTA Key Test Data (by sampling site) vegetable matter (VM), yield (YIELD) and TEAM 3 H (TEAM 3 H) for the Australian wool clip for the full season (2000/01 to 2020/21)

AWEX auction statistics

The AWEX auction statistics for the 2020/21 season show an increase in firsthand wool offering volumes compared with the 2019/20 season (Table 5).

- Firsthand bales offered (i.e. excluding reoffers) for Australia were 23.6% higher compared with the 2019/20 season.
- Large increases were evident in each state. New South Wales was up 31.8%, Queensland was up 28.5%, Victoria up 27.3%, South Australia up 19.3%, Western Australia up 12.7% and Tasmania up 5.9%.
- There was a 27.9% increase in the volume of first-hand Merino wool offered across Australia, and a 6.8% increase in first-hand Crossbred wool offered. The share of Merino wool of all first-hand offered wool was 82.2% in 2020/21 compared with 79.3% in 2019/20.
- There was an 11.2% increase in the volume of 'Prem-shorn' Merino fleece wool in 2020/21 (18.8 Mkg) compared with 2019/20 (16.9 Mkg).
- As a percentage share of the total, 11% of Australian first-hand bales offered were prem shorn during 2020/21. On a state-by-state basis this ranged from 38% in New South Wales to 1% in Tasmania.

Table 5: AWEX Auction Statistics 2020/21 season

2020/21	NSW	VIC	WA	SA	TAS	QLD	AUST
First hand bales offered (% change on 2019/20)	31.8%	27.3%	12.7%	19.3%	5.9%	28.5%	23.6%
Merino first hand offered (% change on 2019/20)	36.4%	32.5%	14.6%	26.4%	16.4%	28.6%	27.9%
Crossbred first hand offered (% change on 2019/20)	14.1%	16.2%	-10.8%	-8.5%	-12.9%	0.0%	6.8%
Merino first hand offered (% share)	81.7%	71.1%	94.3%	84.1%	70.2%	98.8%	82.2%
Crossbred first hand offered (% share)	18.3%	28.9%	5.7%	15.9%	29.8%	1.2%	17.8%
Merino First Hand 'Prem' Shorn Fleece							
Weight (Mkg)	7.1	2.4	3.5	5.2	0.1	0.4	18.8
% share of total	38%	13%	19%	28%	1%	2%	
% change on 2019/20	25%	9%	0%	6%	0%	0%	11%

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 2020 to March 2021 were higher compared with the same time in 2019/20 (Table 6):

- Wool receivals for Australia increased by 0.7% up to March 2021.
- Wool receivals for July 2019 to March 2020 were 15.2% below the five-year average.
- Wool receivals increased in South Australia (up 9.5%), New South Wales (up 5.7%), Queensland (up 3.8%) and Victoria (up 2.0%). Wool receivals decreased in both Western Australia (down 11.8%) and Tasmania (down 3.7%).
- Wool receivals in all states were between 8.5% (Queensland) and 23.1% (western Australia) below the five-year average.

Table 6: ABS Wool Receivals data from July 2020 to March 2021

Mkg	NSW	VIC	WA	SA	TAS	QLD	AUS
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
2020/21	69.737	68.545	51.099	38.138	4.503	3.047	235.070
% change 2020/21 vs 2019/20	5.7%	2.0%	-11.8%	9.5%	-3.7%	3.8%	0.7%
Five year average 2015/16 to 2019/20	81.487	78.865	66.470	41.804	5.312	3.331	277.268
% change 2020/21 vs 5 year av	-14.4%	-13.1%	-23.1%	-8.8%	-15.2%	-8.5%	-15.2%

Sheep turn-off

Australian sheep and lamb turn-off statistics for the 2020/21 season to the end of March, sourced from the ABS, covers sheep slaughter, lamb slaughter and live exports and are compared with 2019/20 and the five-year average 2015/16 to 2019/20 (Table 7):

- There was a 44% decrease in sheep slaughter and a 6% decrease in lamb slaughter between July 2020 and March 2021 compared with the same time period in the previous season.
- The number of live sheep exported from Australia decreased by 47% during this time.
- Total turnoff of sheep and lambs between July and 2020 and March 2021 was 19% lower than 2019/20 and 22% below the five-year average.

Table 7: ABS Sheep turn off data for 2020/21 from July 2020 to March 2021

Parameter	Financial year to-date			5-yr FYTD	
	July 2019 to March 2020	July 2020 to March 2021	% Δ	Avg	%Δ
Sheep slaughter ('000 hd)	7,229	4,034	-44%	6,679	-40%
Sheep weights (kg/hd cwt)	25.2	26.0	3%	24.6	6%
Mutton production (tonnes cwt)	181,822	104,999	-42%	164,115	-36%
Lamb slaughter ('000 hd)	15,750	14,816	-6%	16,779	-12%
Lamb weights (kg/hd cwt)	23.5	24.5	4%	22.6	8%
Lamb production (tonnes cwt)	369,391	362,610	-2%	378,976	-4%
Live exports (Year to Dec- 2020) ('000 hd)	789	416	-47%	1,184	-65%
Total Turnoff ('000 hd)	23,768	19,266	-19%	24,642	-22%

Bureau of Meteorology (BoM) seasonal rainfall seasonal outlook

Seasonal conditions remained above average across most key wool producing regions of Australia since the April AWPFC meeting (Figure 5). However, the eastern pastoral and south-east regions of South Australia and central Queensland remained dry.

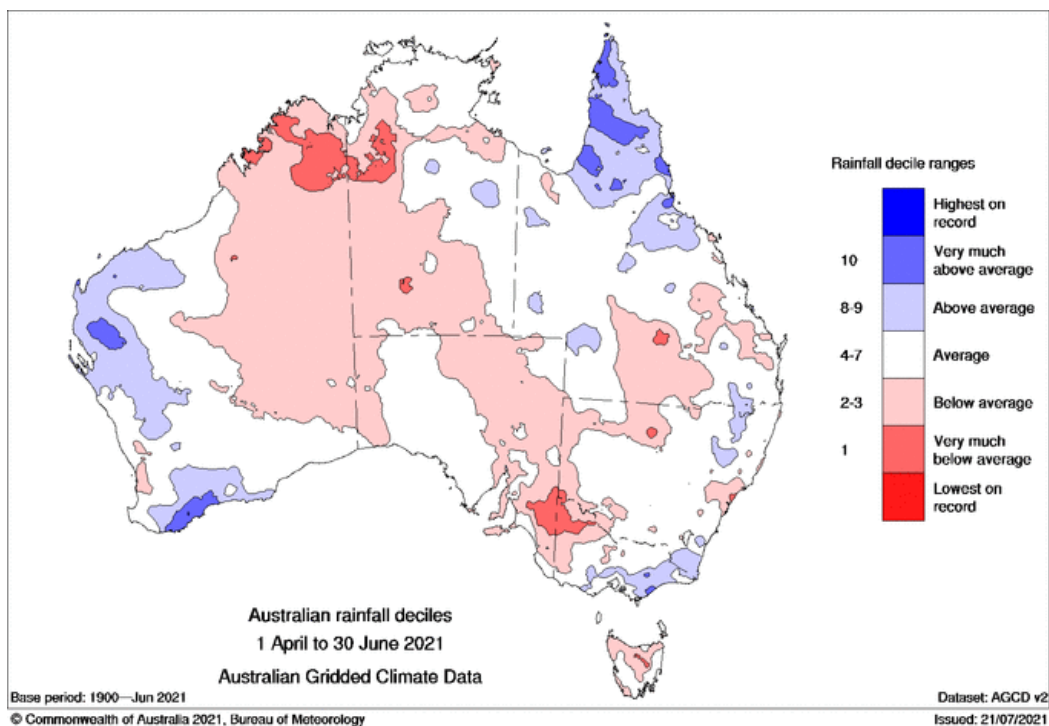


Figure 5: Australian rainfall deciles, April to June 2021

The rainfall deciles for the past 12 months (Figure 6) clearly show the improvement in seasonal conditions in many of the major wool growing regions across the country during the 2020/21 season. The northwest pastoral zone of South Australia and most of New South Wales received above average rainfall. However, the southeast regions of South Australia and

Queensland, along with the western regions of Victoria and Tasmania received average rainfall.

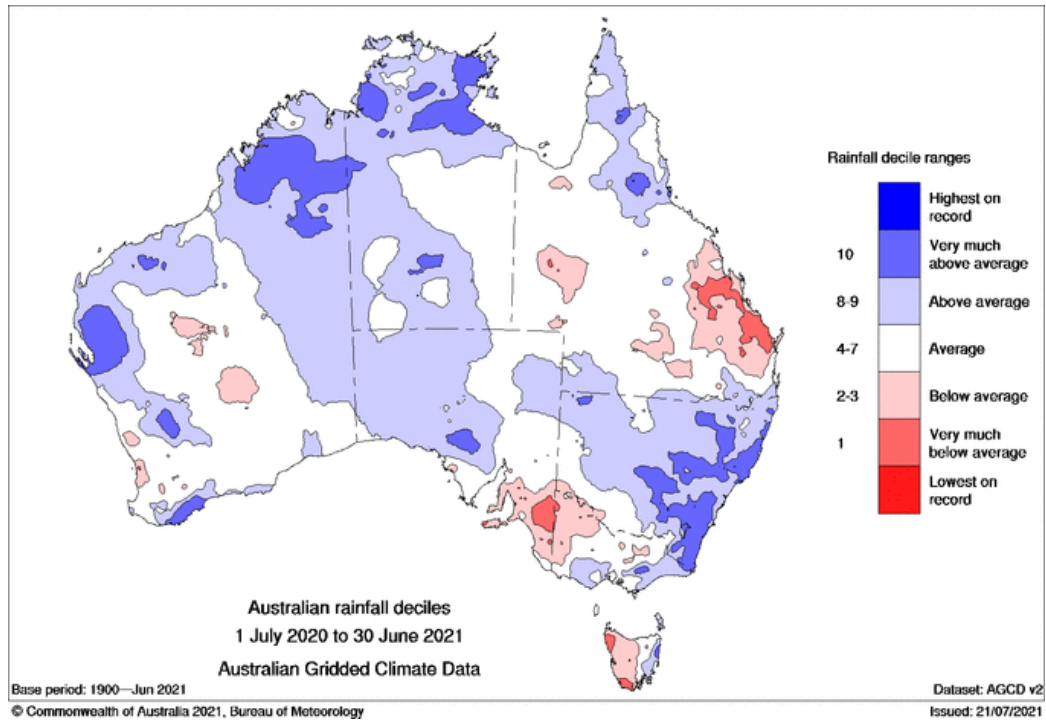


Figure 6: Australian yearly rainfall deciles, 2020/21 season

The improved rainfall during the 2020/21 season has moved the landscape water balance to average and above average for many key wool producing regions (Figure 7). While some pockets of Western Australia, South Australia, Victoria and Queensland remain below average, their landscape water balance levels are higher than the 2019/20 season.

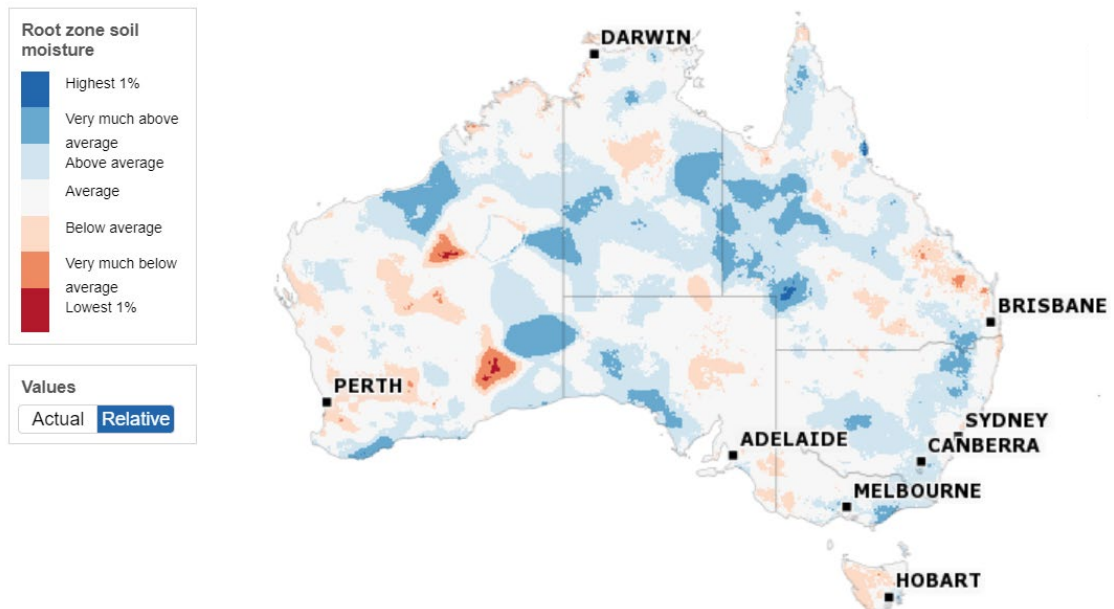


Figure 7: Australian landscape water balance, 2020/21 season

The Bureau of Meteorology’s outlook for the September to November 2021 period is for rainfall to be above average across much of eastern Australia and average in Western Australia (Figure 8) along with below average maximum temperatures in key regions except southern Victoria and Tasmania which are forecast to be warmer than average (Figure 9).

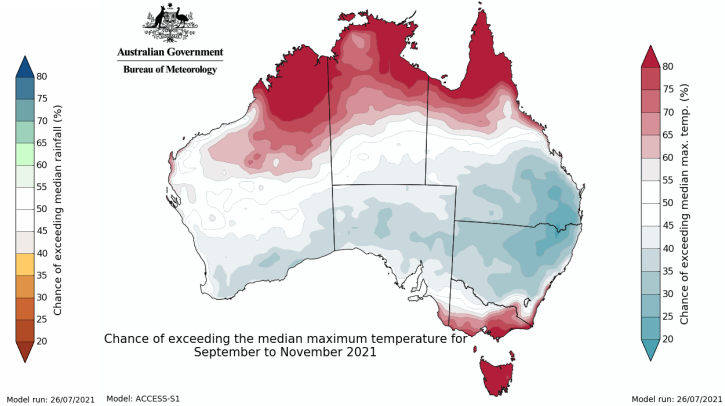
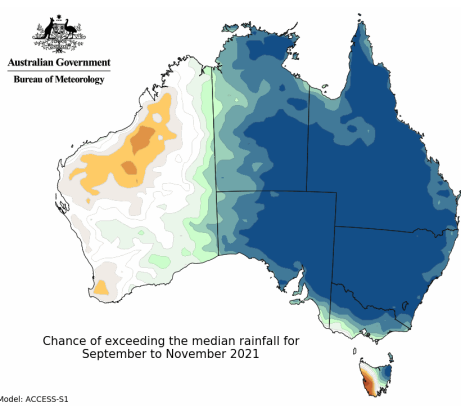


Figure 8: Chance of exceeding median rainfall (Sep – Nov 2021)

Figure 9: Chance of exceeding median maximum temperature (Sep – Nov 2021)

In its update on 29 July 2021, the Bureau noted rainfall to October is likely to be above median for most of Australia, however, parts of western WA are likely to see below median rainfall. Maximum temperatures to October are likely to be above median for the northern tropics and south-eastern parts of Australia. For some parts of central NSW, below median daytime temperatures are more likely. Above median minimum temperatures for August to October are very likely for all of Australia except in the south-west. A negative Indian Ocean Dipole is underway, and large parts of the eastern Indian Ocean are warmer than average. This can favour above average winter–spring rainfall for parts of Australia. The El Niño–Southern Oscillation is neutral, but three of seven models suggest La Niña thresholds may be reached during spring. La Niña increases the chances of above average spring rainfall for much of eastern and northern Australia

Results from the MLA and AWI Wool and Sheepmeat Survey

The results from the survey conducted in June 2021 indicated that a very high proportion of growers (92%) intended to maintain (55%) or increase (37%) the size of their breeding ewe numbers for the next 12 months. For those producers intending to increase their ewe flocks, 63% will retain more replacement ewes than normal, 41% will retain more older ewes and 30% will purchase more additional ewes.

Most Merino producers expect to cut higher 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 2020/21 and for 2021/22 in each state as reported by the AWPFC state committees in August 2021. The state committees reported that seasonal conditions in most major sheep producing areas across Australia have maintained or improved since their last meeting in April.

New South Wales

Favourable seasonal conditions across most of New South Wales since the April meeting through to end of June were expected to increase average cut per head. AWTA key test data showed a 3 mm increase in staple length and a 0.3 micron increase in fibre diameter. The Committee reported good lambing and marking percentages during 2020/21 and noted producers kept wether lambs to shear and then sell as hoggets due to high mutton prices. **Shorn wool production in 2020/21 is expected to increase by 5.2% compared with 2019/20 to 99.2 Mkg greasy.**

The Committee noted an increase in the number of shedding breeds and goats in Western regions of the state and a move to cattle in other areas, displacing both Merinos and crossbreds. This has been exacerbated by shearer availability which is expected to become an issue again in coming months. Favourable cropping conditions and grain prices may reduce available area for sheep production. Most of NSW has received high rainfall during July which will set up a large body of spring feed and very favourable conditions for sheep production. Grazing canola and multi species crops are increasingly being used for sheep production, particularly for pregnant and lactating ewes. Ewes are in good condition with high lambing percentages to date in the new season. On the Northern and Southern Tablelands lambing conditions have been tough (snow, sleet and wind chill) and ewes on the Northern Tablelands lost condition going into lambing. Foot abscess has been an issue for twin-bearing ewes grazing wet pasture on the Tablelands. Producers in the Central West are feeding ewes and lambs. The Committee expects increases in per head production, fibre diameter, yield and vegetable matter. Wool receivals into broker stores are continuing at high levels, clearing on-farm storage for new clips. Merino wool dominates that held in store, with smaller volumes of crossbred and oddments being held. High optimism for Merino production, meat, wool and grain prices are favourable prompting investment in on-farm infrastructure (shearing sheds, yards and fencing). **Shorn wool production in 2021/22 is expected to increase by 7.0% compared with 2020/21 to 106.1 Mkg greasy.**

Victoria

Northwest regions of Victoria received below average rainfall for the season and the season has been patchy. Producers in these regions have continued to supplementary feed or manage their ewes in containment areas due to poor feed availability. Other regions of the state received average to above average rainfall. Lambing and weaning percentages were higher than 2019/20 and would have contributed to the higher sheep shorn numbers. Scanning and marking rates were favourable across much of the state with early lambing flocks recording good results. Average cut per head is expected to increase. AWTA key test data show a significant increase in staple length (+3.1 mm) to 89.4 mm, largely due to the improved seasonal conditions although delayed shearing may have contributed. Average fibre diameter and staple strength also increased year-on-year (+0.3µm and 3.0 N/ktex respectively). AWTA testing volumes have increased since March. Wool receivals into brokers stores have

increased since the April meeting (but this is older on-farm stock rather than fresh wool). **Shorn wool production in 2020/21 is expected to increase by 11.9% compared with the 2019/20 season to 70.7 Mkg greasy.**

A very wet July across most of the state has generated tough conditions for sheep production. Central and southern regions are very wet. Paddocks are very wet and ewe condition has deteriorated over the past month, which is expected to limit any year-on-year increase in per head production. Flocks lambing during the July reported some difficulties due to dystocia. Worm burdens are becoming a big issue in many flocks. Nevertheless, the wet conditions have set up most of the state for a good spring. AWTA testing figures for July were up by 30% and are expected to be up again in August, with both vegetable matter and yields expected to be higher than last season. The Committee noted a change in Merino flocks towards, bigger, plainer bodied animals (non-mulesed). This is expected to cap per head production as these types tend to have lower cut per head, although reproduction rates are expected to increase. Existing Merino producers are settled into their production system, happy with wool and mutton prices and are unlikely to change to crossbred production. New entrants to the sheep industry are more likely to base their enterprise on composite ewes. Shorn wool production is expected to increase further due to increased sheep numbers, rather than cut per head (now at 75th percentile). Competition for replacement ewes is high which is making it difficult to source numbers at acceptable prices. **Shorn wool production in 2021/22 is expected to increase by 5.8% compared with the 2020/21 season to 74.8 Mkg greasy.**

Western Australia

Wool receivals were up on previous years, but from a low base. Ewes were sent to eastern states to join rather than slaughtered which boosted the AWTA testing figures as sheep were shorn prior to transportation. Increased cropping, seeding and spraying diverted attention away from sheep production during the last part of the season. High clearance rates at auction reduced the build-up of on-farm stocks. Staple length increased, up 1.3 mm, due to shearing delays and fewer prem shorn wools as producers moved away from shorter shearing intervals (8 months) back to 12 months. **Shorn wool production in 2020/21 is expected to decline by 5.5% compared with the 2019/20 season to 56.5 Mkg greasy.**

On-farm wool stock is still being delivered into the new season. This represents 6 to 12 months or older wool not fresh wool. Shearing has been delayed by high rainfall during July. Recent AWTA tests have also been on older wool. WA sheep producers are taking advantage of higher value forward contracts for lamb and mutton offered in the eastern states compared with those offered in WA. The season remains tight in the south coast region, high rainfall and extremely cold temperatures are impacting lamb survival. Sheep numbers were reduced as producers increased production of canola. Northern and eastern regions of the state have had their best lambing season on record. Sheep numbers are down, older ewes have been removed from the system. The early crop of lambs is looking very good. Per head production is expected to increase as is mean fibre diameter due to the expected bulk of green feed during spring. Vegetable matter is also expected to increase, as pasture paddocks are currently too wet to spray. Pasture feed is expected to carry sheep for longer decreasing the need for supplementary feed compared to previous years. On-farm stock water levels have been replenished. Shearer availability is expected to be an issue in the coming months (October/November). Shorn wool production is expected to increase because of increased per

head production, despite low sheep numbers. **Shorn wool production in 2021/22 is expected to increase by 0.7% compared with the 2020/2021 season to 56.9 Mkg greasy.**

South Australia

Above average rainfall across the western and northwest regions of SA in 2020/21 replenished soil moisture and available feed, particularly in the northwest. The positive season has continued since the April meeting. However, the southeast region is dry and there has been a large sell-off of sheep (approximately 100,000 head) in the past 3 to 4 months. Full season AWTA WSA data show a 7.5% YOY increase in testing volumes. The four biggest WSA regions are at or above the 5-year average, with the rest of SA below the 5-year average. SA wool testing activity in the 5 months to June was extremely busy (biggest in 20 years) and eclipsed the normal busiest period (October & November) for the state. There was a small increase in mean fibre diameter compared to 2019/20 and moderate increases in yield and vegetable matter. There were significant increases in staple length to 90.5mm (+2.8mm) and staple strength to 35.3 N/ktex (+2.6N/ktex). The increase in staple length is due to delayed shearing (some properties waited up to 1½ months for shearers) and some movement from 6-monthly shearing back to 10 to 12 months. The Committee elected to hold fleece weight at 4.80 kg as per the April meeting. There has been a large increase in scanning percentages in pastoral flocks with an increase in twinning percentages. **Shorn wool production in 2020/21 is expected to increase by 3.2% compared with the 2019/20 season to 51.6 Mkg greasy.**

Most areas of the state received good soaking rains during July which further increased soil moisture. Pastoral production is increasing, particularly in the northwest (after a slow start) as producers are actively looking to buy ewes to increase numbers. Production in the northeast has rebounded quickly, but more rain is needed to continue the momentum. Fleece weights are expected to increase in the pastoral zone. There have been some reports of pastoral properties taking advantage of carbon farming opportunities and switching to Dorper or cattle production. The Mallee remains dry with a tough outlook for the season, fleece weights are expected to be down by 0.5 kg. Some areas of the southeast have been inundated (although these producers know how to manage this), other parts of the region are waiting for soil temperatures to rise to increase paddock feed. Fleece weights are expected to be similar to 2020/21. Optimism for sheep production is high. There is an increase in producers joining ewe lambs to grow flock numbers, while other producers are actively using electronic identification and individual management to select and retain better performing ewes in their flocks for longer. The Committee is expecting good lamb survival as producers have improved their management of breeding ewes during pregnancy. The number and condition of rams in preparation for joining is good. There is increased demand from commercial producers for on-farm testing of fibre diameter due to the increases in the price of fine wool. The Committee expects a higher sheep sell off to the mutton market given the amount of aged stock retained in certain regions for the state. **Shorn wool production in 2021/22 is expected to increase by 5.6% compared with the 2020/21 season to 54.5 Mkg greasy.**

Tasmania

A good autumn in most regions. Winter has been dry and too cold for pasture growth, but the Committee believes seasonal conditions range from average to above average across the state. Scanning percentages are good in the Midlands region, ewes in lamb are in good condition and a good lambing is expected in September/October barring any adverse events. Increases in staple length (+5.1 mm) and a 0.5 micron decrease in fibre diameter occurred

during 2020/21. No significant changes in other key test data parameters. Reduced sheep and lamb turnoff is expected for the season, with July 2020 to March 2021 showing reduced sheep and lamb slaughter (down 45% and 26% respectively). **Shorn wool production in 2020/21 is expected to increase by 4.4% compared with the 2019/20 season to 9.4 Mkg greasy.**

The Committee is expecting a good spring season. Rainfall during July will recharge soil moisture and increase pasture production. Winter lambing is expected to begin in another month. Wool cuts per head are expected to increase (up 10 to 15%) along with an increase in mean fibre diameter. There has been a move away from the traditional Saxon type superfine sheep with an increased emphasis on higher fleece cuts and improved fertility. Wool grown going forward will have had the benefit of a full good season in which to grow. High optimism and confidence among Merino producers as financial returns from both wool and meat are strong. As per the April meeting, there has been no change to the status quo between Merino and crossbred production. There have been some reports of scanned empty crossbred ewes being sold direct to slaughter without shearing. Sheep numbers are expected to increase. Wool receivals have increased throughout the state. AWTA have been busy, they are usually quiet during the three-week sale recess. Rain the past fortnight had delayed shearing. The Committee believe producers are looking to maintain numbers. **Shorn wool production in 2021/22 is expected to increase by 13.8% compared with the 2020/21 season to 10.7 Mkg greasy.**

Queensland

No change in season or sheep numbers from the April meeting. State-wide, sheep numbers remain static with re-stocking numbers being balanced by sheep sent to slaughter. Producers in the southeast are holding onto sheep to make use of available pasture from good rain. Ewes were sold into NSW during April, later than normal. **Shorn wool production in 2020/21 is expected to decline by 4.0% compared with the 2019/20 season to 7.21 Mkg greasy.**

Recent rain has spoiled standing paddock feed in northern and western regions of the state, so while quantity remains high, the quality has declined. Sheep are in good condition with high lambing percentages. The season has cut out around the Longreach region which may result in a reduction in numbers in the coming months. In mid-north regions sheep are beginning to return from agistment in NSW. Initial rain has had follow up resulting in high availability of quality sheep feed. Lambing percentages are high. Good feed in the Mitchell district but it is poor quality. In southern regions wether weaners are being sold, 50:50 split to re-stockers versus slaughter. High scanning percentages (120-160%) reported with high percentage of twins (30-60%). A lot of older ewes are on hand, they were held to build up numbers but will be sold following weaning as they are now too old to retain for another joining. Shearing is underway in some regions, with on-farm wool expected to be put up for sale during August and September. Winter feed has lifted fleece weights, ewes are in good condition off-shears. Some wether traders are beginning to re-stock. Lambs born in 2020/21 had a better start so a small increase in cut per head during 2021/22 is expected, although this may be offset by the decrease cut per head of older ewes and wethers shorn at 8-months. The Committee expects clip size and production per head to increase, but shorn wool production will continue to be constrained by low sheep numbers. Increasing sheep numbers will be difficult due to the high prices for replacements, so is likely to occur through breeding which is a much slower process. Goat production is increasing rapidly with exclusion fencing and producers are opting for goats rather than increasing Merino numbers. Demand for goats has jumped in the past

12 months, they are a low input system, can be sold at lower weights and are cheaper to sell. Some increase in shedding sheep as well, but the \$/DSE are not as good as that for Merino production – unlikely to be a long-term threat. **Shorn wool production in 2021/22 is expected to decline by 2.8% compared with 2020/21 to 7.0 Mkg greasy.**

Appendix

Table A1: Comparison of the first estimate for 2020/21 against the final estimate for 2019/20 and the second forecast for 2021/22 against the first estimate for 2020/21

2019/20 Final Estimate	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn <i>(million)</i>	22.8	15.6	14.2	11.2	2.7	2.1	68.6
Average Cut Per Head <i>(kg greasy)</i>	4.13	4.05	4.20	4.45	3.57	3.60	4.13
Shorn Wool Production <i>(Mkg greasy)</i>	94.3	63.2	59.8	50.0	9.0	7.5	284.0

2020/21 First Estimate	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn <i>(million)</i>	21.8	16.6	13.3	10.7	2.4	1.9	66.8
Average Cut Per Head <i>(kg greasy)</i>	4.55	4.25	4.25	4.80	3.95	3.70	4.41
Shorn Wool Production <i>(Mkg greasy)</i>	99.2	70.7	56.5	51.6	9.4	7.2	294.0

Change (%)	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn	-4.4%	6.4%	-6.3%	-4.5%	-11.1%	-9.5%	-2.6%
Average Cut Per Head	10.2%	4.9%	1.2%	7.9%	11.1%	2.8%	6.8%
Shorn Wool Production	5.2%	11.9%	-5.5%	3.2%	4.4%	-4.0%	3.7%

2021/22 Second Forecast	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn <i>(million)</i>	22.8	17.6	12.8	11.2	2.7	1.9	69.0
Average Cut Per Head <i>(kg greasy)</i>	4.65	4.25	4.45	4.85	4.00	3.75	4.49
Shorn Wool Production <i>(Mkg greasy)</i>	106.1	74.8	56.9	54.5	10.7	7.0	310.0

Change (%)	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn	4.6%	6.0%	-3.8%	4.7%	12.5%	0.0%	3.3%
Average Cut Per Head	2.2%	0.0%	4.7%	1.0%	1.3%	1.4%	1.8%
Shorn Wool Production	7.0%	5.8%	0.7%	5.6%	13.8%	-2.8%	5.2%

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 Numbers (million)	Average Cut Per Head (kg greasy)	Shorn Wool Production (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
2019-20	68.6	4.13	284
2020-21 ^e	66.8	4.41	294
2021-22 ^f	69.0	4.49	310

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
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
2020/21e	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%	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 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.