December 2020

Australian Wool Production Forecast Report

Australian Wool Production Forecasting Committee

Summary

- The Australian Wool Production Forecasting Committee's (AWPFC) third forecast of Australian shorn wool production in 2020/21 is 287 mkg. This is a 1.1% increase on the 2019/20 seasons production of 284 mkg.

- Most wool producing regions in New South Wales, Victoria, South Australia, and Tasmania have had exceptional spring seasons with high feed availability and relatively low sheep numbers leading to increased fleece weights in many regions, with favourable seasonal conditions forecast for the next few months. Important drought breaking rain has fallen in the pastoral regions of South Australia.

- The number of sheep shorn, estimated to be down by 5.5% to 64.8 million head, remains a key factor limiting recovery in Australian shorn wool production despite total sheep and lamb off between July and September being 15 % less than the same time in 2019. The high turn off figures in 2019/20 have contributed to the large year-on-year decrease in sheep slaughter (down 44%).

- Decreases in shorn wool production are expected in Queensland (down 13.3% to 6.5 mkg greasy) and Western Australia (down 9.5% to 54.1 mkg greasy). Increases in shorn wool production are expected in all other states with Tasmania up 16.7% to 10.5 mkg greasy, Victoria up 7.4% to 67.9 mkg greasy, South Australia up 5.2% to 52.6 mkg greasy and New South Wales up 1.0% to 95.2 mkg greasy.

- The average wool cut per head for the 2020/21 season is expected to increase by 7.3% due to improved seasonal conditions, along with wool producers returning to longer shearing intervals and some delays in shearing due to reduced shearer availability which is resulting in longer fleece wool. AWTA key test data from July to November show a year-on-year increase in fibre diameter of 0.2 microns, a 2.9 mm increase in staple length, a 1.3 N/ktex increase in staple strength and a 0.8% increase in yield.

FURTHER INFORMATION
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- AWTA volumes of greasy wool tested between July and November 2020 were 10.3% lower than at the same time in 2019. Volumes in each state declined on a year-on-year basis. The greatest decline occurred in Queensland (down 22.7%), Western Australia (down 15.4%), South Australia (down 11.1%), Victoria (down 10.9%), New South Wales (down 6.6%) and Tasmania (down 1.4%).
- AWEX first-hand offered bales were 0.1% lower between July and November (to week 22) compared with the same period of the 2019 season.
- ABS wool receivals data for Australia for the September quarter (July to September 2020) fell by 10.9% compared with the 2019 September quarter.
- The AWPFC's final estimate of shorn wool production in 2019/20 is 284 mkg greasy, a 5.3% 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.
- AWTA and AWEX data for the full 2019/20 season were presented in the Australian Wool Production Forecast Report in August 2020. The only 2019/20 full season data not available to the AWPFC in August were the ABS wool receivals, which were down 13.6% from 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 Final Estimate	*Change y-o-y (%)*	2020/21 Third Forecast	*Change y-o-y (%)*
Sheep Numbers Shorn (million)	72.5	68.6	*-5.4%*	64.8	*-5.5%*
Average Cut Per Head (kg)	4.13	4.13	*0.0%*	4.43	*+7.3%*
Shorn Wool Production (mkg greasy)	300	284	*-5.3%*	287	*+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 Final Estimate	94.3	63.2	59.8	50.0	9.0	7.5	284
Change Y-O-Y (%)	*-4.8%*	*-5.5%*	*-3.9%*	*-7.9%*	*0.0%*	*-7.4%*	*-5.3%*
2020/20 Third Forecast	*95.2*	*67.9*	*54.1*	*52.6*	*10.5*	*6.5*	*287*
Change Y-O-Y (%)	*1.0%*	*7.4%*	*-9.5%*	*5.2%*	*16.7%*	*-13.3%*	*1.1%*

- More detailed information on the shorn wool production by state in 2019/20 and 2020/21 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 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 to November 2020;
- AWEX auction statistics for the 2019/20 season and the 2020/21 season to the 25 November 2020 (Week 22);
- ABS wool receivals data for the 2019/20 season and the first quarter of the 2020/21 season (July to September 2020);
- ABS sheep and lamb turn-off for the 2019/20 season and the first quarter of the 2020/21 season (July to September 2020);
- Information on current and expected seasonal climate forecasts from the Bureau of Meteorology; and
- Survey information gathered on sheep producer and wool grower intentions, including results from the October 2020 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 were presented in the Australian Wool Production Forecast Report in August 2020.

Data for the 2020/21 season from 1 July to 30 November 2020 compared with the same months in previous seasons (2016/17 to 2019/20) are presented in this report.

The month-by-month comparison of wool tested for the past five seasons (Figure 1) shows the 2020/21 season tracking below the previous four seasons during July, August, October and November 2020. The volume of wool tested during September 2020 was greater than that tested in September 2019.

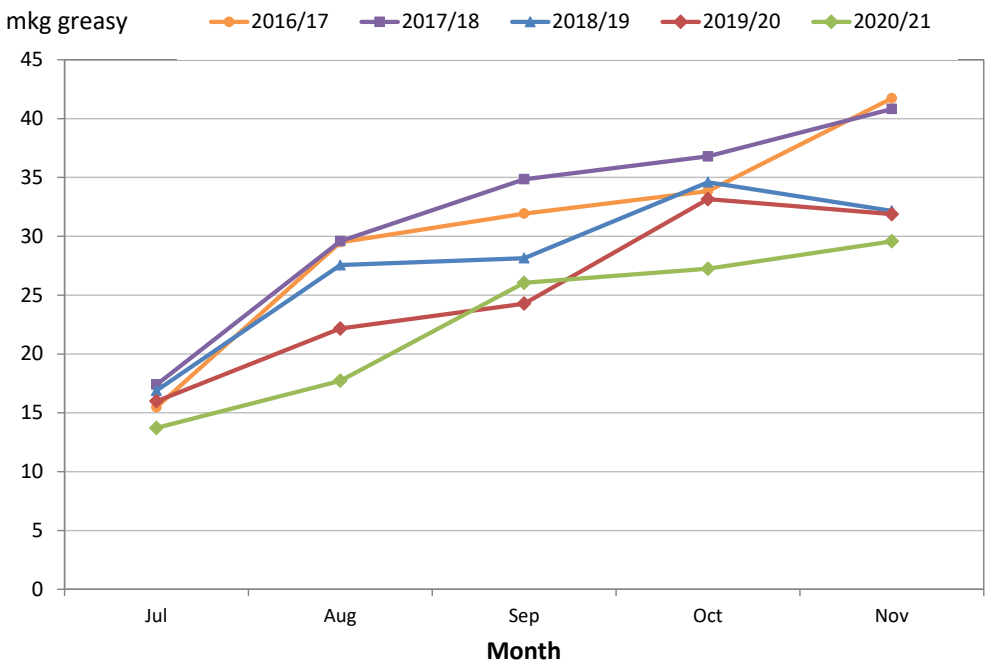

Figure 1: Comparison of monthly AWTA key test data volumes for July to November period during the 2020/21 season with previous seasons (2016/17 to 2020/21)

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

- Volumes of wool tested between July and November 2020 were 10.3% lower than the same period in 2019 and were 21.5% lower than the July to November five-year average from 2015/16 to 2019/20.
- The total volume of wool tested from July to November 2020 was the lowest for the past ten seasons.
- For July to November 2020, there were decreases in the weight of wool tested in many micron categories except for 21 microns (up 25.6%), 22 microns (up 33.4%), 23 microns (up 3.5%), 29 – 30 microns (up 26.9%) and greater than 30.5 microns (up 6.4%). Significant decreases occurred in the 25 – 26 microns (down 37.9%), less than 16.6 microns (down 32.2%),17 microns (down 26.6%), 24 microns (down 23.8%), 26 – 28 microns (down 20.1%), 18 microns (down 17.0%), 19 microns (down 10.7%) and 20 microns (down 3.6%).

Table 3: AWTA key test data volumes for July to November by micron range 2015/16 - 2020/21 (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	2015/16	6.99	12.79	21.38	27.97	25.55	16.95	8.68	3.63	2.41	5.90	8.96	5.13	2.82	149.14
	2016/17	7.24	11.92	20.03	28.36	27.73	19.52	10.05	4.16	2.53	5.89	8.04	4.45	2.54	152.46
	2017/18	5.50	13.26	23.28	29.69	28.00	19.39	10.19	4.50	2.49	5.66	8.58	5.68	3.35	159.59
	2018/19	9.59	15.76	25.15	27.46	20.60	10.78	5.93	3.20	2.25	6.23	6.96	3.08	2.44	139.43
	2019/20	7.98	13.85	23.96	26.92	19.74	9.39	4.05	2.30	2.02	5.66	6.75	2.70	2.21	127.55
	2020/21	5.41	10.17	19.90	24.05	19.03	11.79	5.41	2.38	1.54	3.52	5.39	3.43	2.35	114.37
Y-O-Y change%	2020/21	-32.2%	-26.6%	-17.0%	-10.7%	-3.6%	25.6%	33.4%	3.5%	-23.8%	-37.9%	-20.1%	26.9%	6.4%	-10.3%
Micron Split (%)	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%	
	2020/21	4.7%	8.9%	17.4%	21.0%	16.6%	10.3%	4.7%	2.1%	1.3%	3.1%	4.7%	3.0%	2.1%	
5 year av. 2015/16 to 2019/20	Tonnes	7.46	13.52	22.76	28.08	24.32	15.20	7.78	3.56	2.34	5.87	7.86	4.21	2.67	145.63
	%	*-27.5%*	*-24.7%*	*-12.6%*	*-14.4%*	*-21.8%*	*-22.4%*	*-30.5%*	*-33.1%*	*-34.4%*	*-40.1%*	*-31.4%*	*-18.4%*	*-12.1%*	*-21.5%*
	Micron	5.1%	9.3%	15.6%	19.3%	16.7%	10.4%	5.3%	2.4%	1.6%	4.0%	5.4%	2.9%	1.8%	

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).

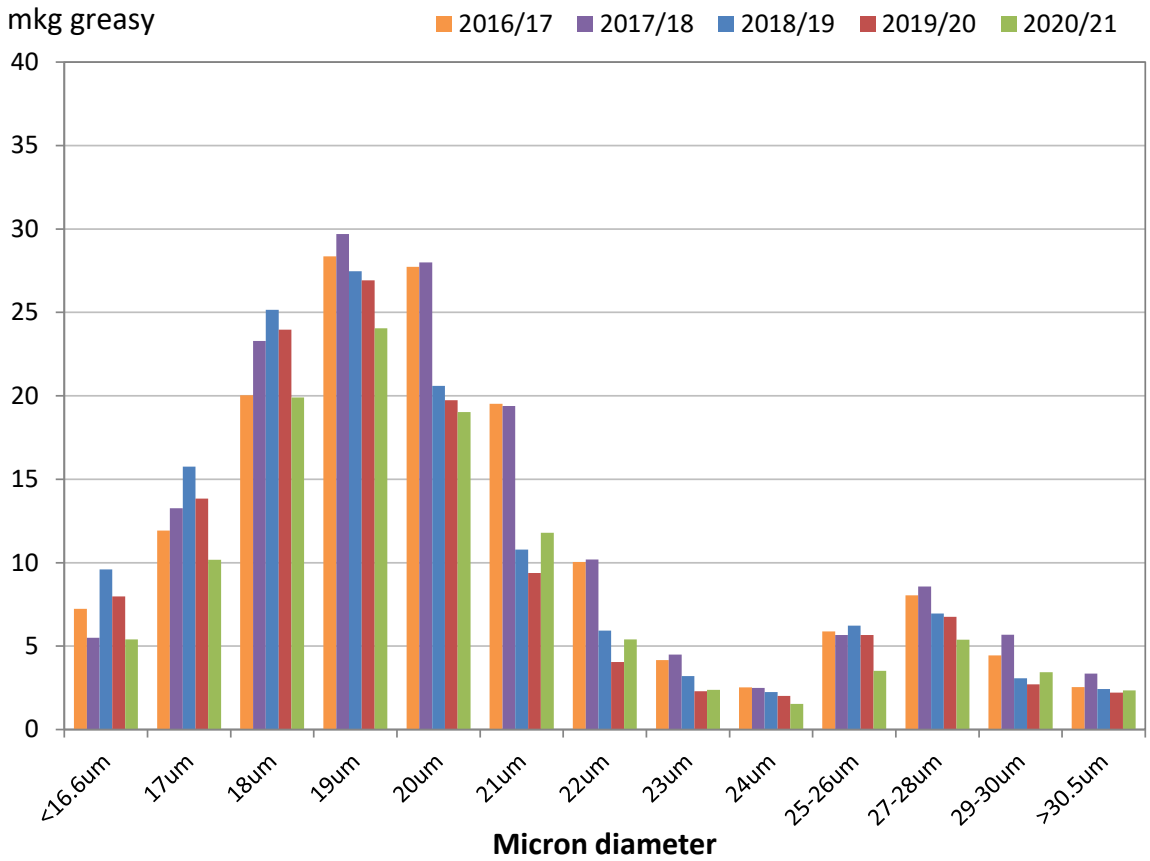

Figure 2: Australian fibre diameter profile - July to November 2020 compared with the same months during the 2015/16 to 2018/19 seasons

- Based on data by Wool Statistical Area (WSA), the volumes of wool tested in each state during July and November 2020 declined on a year-on-year basis (Figure 3).

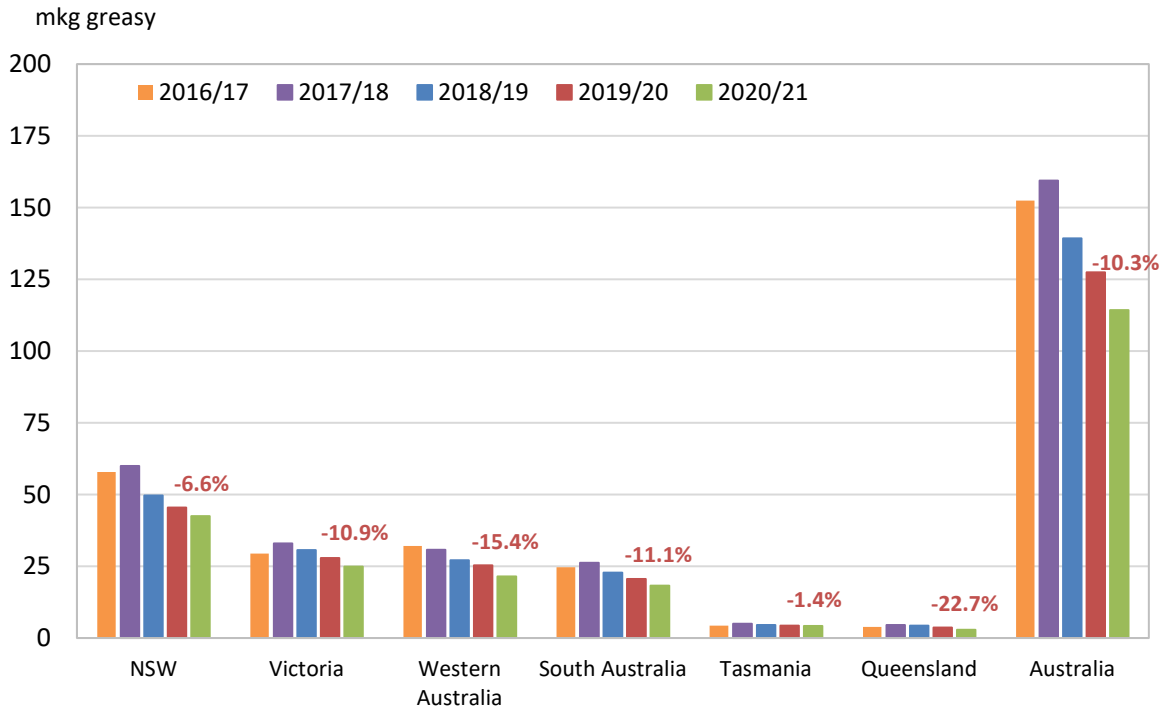

Figure 3: Volume of wool tested during July to November 2020 season (AWTA key test data) compared with the same period in previous seasons. *The percentage change is the 2020/21 season compared with the same period in the 2019/20 season*

- Queensland had the largest decline in the volume of wool tested (down 22.7%), followed by Western Australia (down 15.4%), South Australia (down 11.1%), Victoria (down 10.9%), New South Wales (down 6.6%) and Tasmania (down 1.4%) (Table 4).

Table 4: AWTA test data volumes (mkg greasy) by state (based on Wool Statistical Area) and Australia (based on Key Test Data) between July and November 2020 season compared with the same 5 months in previous seasons (2015/16 to 2019/20)

	NSW	VIC	WA	SA	TAS	QLD	Australia
2015/16	56,240	31,630	29,465	23,993	4,469	3,345	149,142
2016/17	57,918	29,472	37,236	29,406	4,376	3,897	152,460
2017/18	59,967	32,962	30,731	26,283	4,972	4,528	159,586
2018/19	49,725	30,686	27,096	22,857	4,594	4,379	139,431
2019/20	45,548	27,911	25,391	20,553	4,351	3,711	127,549
2020/21	42,527	24,869	21,474	18,271	4,290	2,870	114,367
% change y-o-y	*-6.6%*	*-10.9%*	*-15.4%*	*-11.1%*	*-1.4%*	*-22.7%*	*-10.3%*

- A graphical representation of the AWTA Key Test Data changes in fibre diameter (MFD), vegetable matter (VM), staple length (SL), yield (YIELD), staple strength (SS) and hauteur (TEAM 3 H) between July and November 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 up 0.2 µm to 20.4 µm, staple length was up 2.9 mm to 90.1 mm, staple strength was up 1.3 N/ktex to 34.3 N/ktex (Figure 4a). Vegetable matter was unchanged at 1.7%, yield was up 0.8% to 64.0% and predicted hauteur was up 2.0 mm to 72.7 mm (Figure 4b).

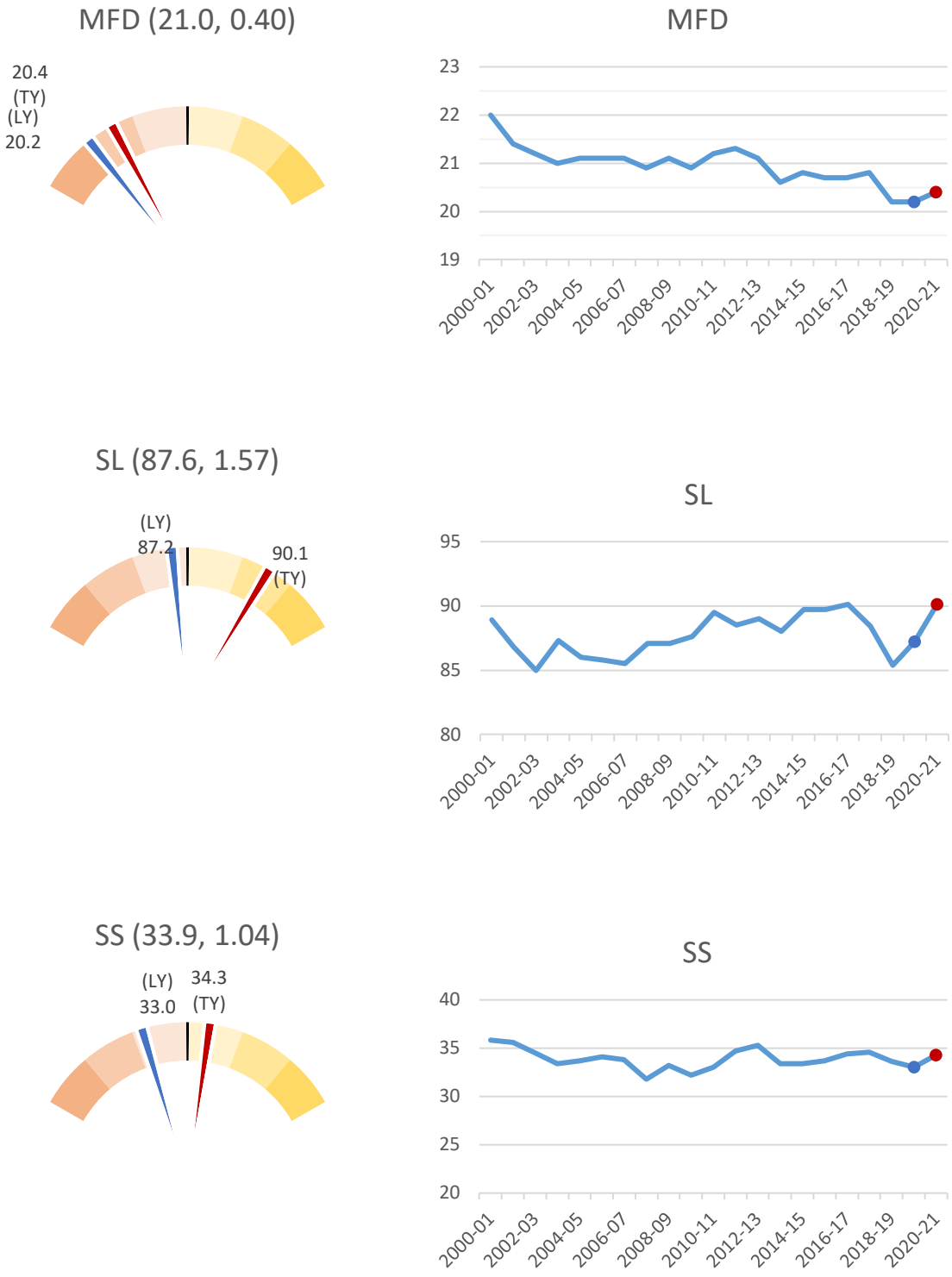

Figure 4a: AWTA Key Test Data (by sampling site) fibre diameter (MFD), staple length (SL) and staple strength (SS) for the Australian wool clip for July to November from 2000 to 2020

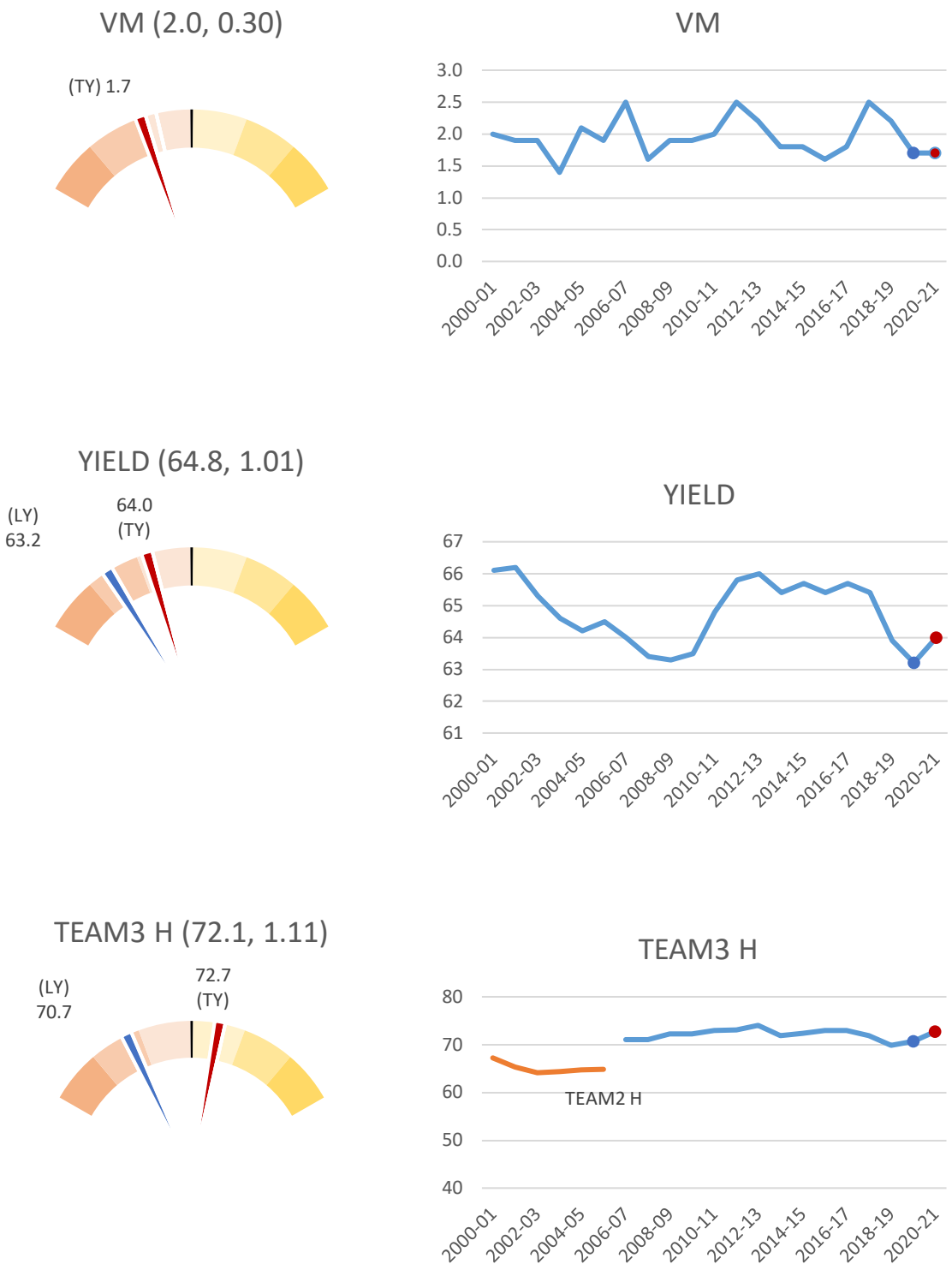

Figure 4b: AWTA Key Test Data (by sampling site) vegetable matter (VM), yield (YIELD) and TEAM 3 H (TEAM 3 H) for the Australian wool clip for July to November from 2000 to 2020

AWEX auction statistics

AWEX auction statistics for the 2019/20 season were presented in the Australian Wool Production Forecast Report in August 2020.

The AWEX auction statistics for the July to November 2020 (to week 22) season show a decrease in first hand wool offering volumes compared with the same time period in 2019/20.

- First hand bales offered (i.e. excluding reoffers) for Australia were 0.1% lower compared with the 2019/20 season.
- Decreases occurred in Queensland (down 6.4%), South Australia (down 5.3%), Western Australia (down 1.9%) and Tasmania (down 0.3%). However, first hand offered bales increased in Victoria (up 6.4%) and New South Wales (up 1.0%).
- There was a 2.7% increase in the volume of first-hand Merino wool offered across Australia, and a 13.2% decrease in first-hand Crossbred wool offered. The share of Merino wool of all first-hand offered wool was 84.7% during July to November 2020 compared with 82.4% for the same time in 2019.
- There was an 8% decrease in the volume of 'Prem-shorn' Merino fleece wool during July to November 2020 (5.9 mkg) compared with the same time in 2019 (6.4 mkg).
- As a percentage share of the total, 10% of Australian first-hand bales offered were prem shorn during July to November 2020. On a state-by-state basis this ranged from 14% in South Australia to 4% in Tasmania.

Table 5: AWEX Auction Statistics 2020/21 to week 22

2020/21	NSW	VIC	WA	SA	TAS	QLD	AUST
First hand bales offered (% change on 2019/20)	1.0%	6.4%	-1.9%	-5.3%	-0.3%	-6.4%	-0.1%
Merino first hand offered (% change on 2019/20)	5.6%	6.4%	-0.6%	-1.3%	10.6%	-5.4%	2.7%
Crossbred first hand offered (% change on 2019/20)	-16.3%	6.4%	-22.9%	-29.1%	-18.9%	-58.4%	-13.2%
Merino first hand offered (% share)	82.6%	75.7%	95.6%	89.3%	69.9%	99.2%	84.7%
Crossbred first hand offered (% share)	17.4%	24.3%	4.4%	10.7%	30.1%	0.8%	15.3%
Merino First Hand 'Prem' Shorn Fleece							
Weight (mkg)	2.2	0.8	1.2	1.6	0.0	0.2	5.9
% share of total	10%	8%	10%	14%	4%	7%	10%
% change on 2019/20	-4%	0%	-14%	0%	-50%	-16%	-8%

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 2019/20 season were 13.6% lower than the 2018/19 season (Table 6):

- Wool receivals for the 2019/20 season were the lowest for more than 10 seasons and 13.6% below the five-year average.
- Wool receivals during 2019/20 decreased in all states except for Queensland which increased by 3.8% to 4.102 mkg. The largest fall occurred in Victoria (down 16.9%) followed by Tasmania (down 16.7%), New South Wales (down 14.9%), Western Australia (down 11.4%) and South Australia (down 8.5%).
- Wool receivals in Tasmania, New South Wales and Victoria were at least 20% below the five-year average.

Table 6: ABS Wool Receivals data 2019/20 Full Season

mkg	NSW	VIC	QLD	SA	WA	TAS	AUS
2014/15	121.443	99.824	4.909	53.709	74.531	9.406	363.822
2015/16	110.792	98.539	3.971	54.676	78.888	8.126	354.992
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
% change 2019/20 vs 2018/19	*-14.9%*	*-16.9%*	*3.8%*	*-8.5%*	*-11.4%*	*-16.7%*	*-13.6%*
Five year average 14/15 to 18/19	113.435	102.856	4.528	52.517	80.932	7.798	362.065
% change 2019/20 vs 5 year av	*-26.2%*	*-20.6%*	*-9.4%*	*-21.8%*	*-16.4%*	*-28.6%*	*-21.6%*

National wool receivals for July to September 2020 season were 10.9% lower than the same period in 2019 (Table 7):

- Wool receivals for Australia fell by 10.9% compared with the September quarter in 2019.
- Wool receivals for July to September 2020 were the lowest for the past five seasons and 27.1% below the five-year average.
- Wool receivals decreased in all states except for Queensland which increased by 16.1%. The largest fall occurred in Tasmania (down 25.0%), New South Wales (down 13.7%), Western Australia (down 11.5%), South Australia (down 7.1%) and Victoria (down 0.7%).
- Wool receivals for the September quarter in Tasmania and New South Wales were at least 30% below the five-year average.

Table 7: ABS Wool Receivals data 2019/20 Full Season

mkg	NSW	VIC	WA	SA	TAS	QLD	AUS
2015/16	28.101	19.241	1.561	15.971	16.002	2.238	83.114
2016/17	26.104	19.710	1.362	15.182	20.239	2.043	84.640
2017/18	27.863	22.951	1.622	14.983	18.243	2.009	87.671
2018/19	22.456	22.546	1.352	13.428	16.192	1.603	77.577
2019/20	20.042	17.136	1.191	10.970	14.269	1.505	65.113
2020/21	17.303	17.010	1.054	10.196	10.696	1.748	58.007
% change 2020/21 vs 2019/20	*-13.7%*	*-0.7%*	*-11.5%*	*-7.1%*	*-25.0%*	*16.1%*	*-10.9%*
Five year average 15/16 to 19/20	24.913	20.317	1.418	14.107	16.989	1.880	79.623
% change 2020/21 vs 5 year av	*-30.5%*	*-16.3%*	*-25.6%*	*-27.7%*	*-37.0%*	*-7.0%*	*-27.1%*

Sheep turn-off

Australian sheep and lamb turn-off statistics for the 2019/20, sourced from the ABS were presented in the Australian Wool Production Forecast Report in August 2020.

Australian sheep and lamb turn-off statistics for the July to September 2020 season, sourced from the ABS, covers sheep slaughter, lamb slaughter and live exports and are compared with the same time during 2019 and the July to September five-year average 2016/17 to 2019/20 (Table 8):

- There was a 44% decrease in sheep slaughter and an 2% decrease in lamb slaughter between July and September 2020 compared to the same period in 2019.
- The number of live sheep exported from Australia decreased by 59% during this time.
- Total turnoff of sheep and lambs to the end of September 2020 was 15% lower than the same time in 2019 and 23% below the five-year average.

Table 8: ABS Sheep turn off data for 2019/20

Parameter	Financial year to-date			5-yr FYTD	
	July 2019 to September 2019	July 2020 to September 2020	% Δ	Avg	%Δ
Sheep slaughter ('000 hd)	2,036	1,144	-44%	1,983	-42%
Sheep weights (kg/hd cwt)	25.1	27.0	8%	24.7	9%
Mutton production (tonnes cwt)	51,103	30,874	-40%	48,950	-37%
Lamb slaughter ('000 hd)	4,666	4,594	-2%	5,158	-11%
Lamb weights (kg/hd cwt)	23.2	24.9	7%	22.2	12%
Lamb production (tonnes cwt)	108,485	114,600	6%	114,437	0%
Live exports (Year to Jan-2019) ('000 hd)	145	59	-59%	350	-83%
Total Turnoff ('000 hd)	6,847	5,797	-15%	7,491	-23%

Bureau of Meteorology (BoM) seasonal rainfall seasonal outlook

Seasonal conditions in the past six months have improved in most wool producing regions, except Western Australia and Queensland. Most of New South Wales, South Australia and Victoria have received average or above average rainfall between 1 May to 31 October 2020 (Figure 5). The driest regions continue to include much of Western Australia as well as central and south eastern Queensland.

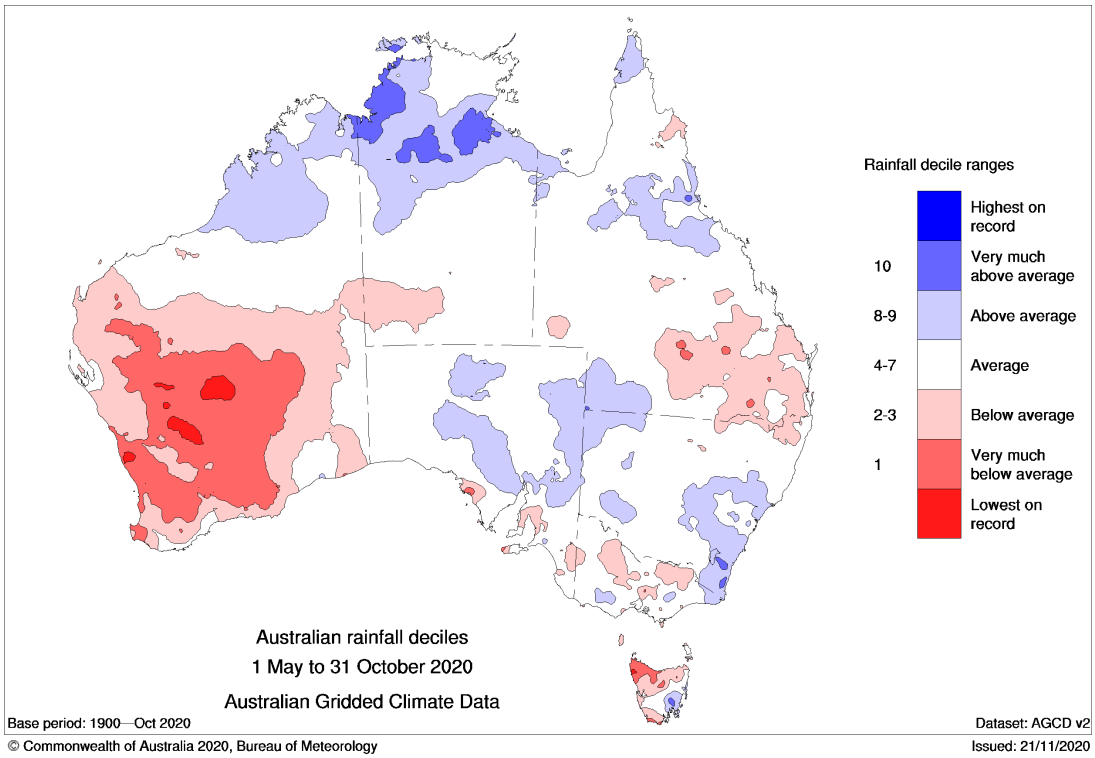

Figure 5: Australian rainfall deciles 1 May to 31 October 2020

The rainfall deciles for the past 12 months (Figure 6) clearly show how dry it has been across Western Australia since 1 January 2020. While above rainfall was received in many sheep producing regions of Western Australia during November (Figure 7) it was not at the right time for pasture production and insufficient to replenish on farm water stocks in some regions. Important drought breaking rain has fallen in the pastoral regions of South Australia.

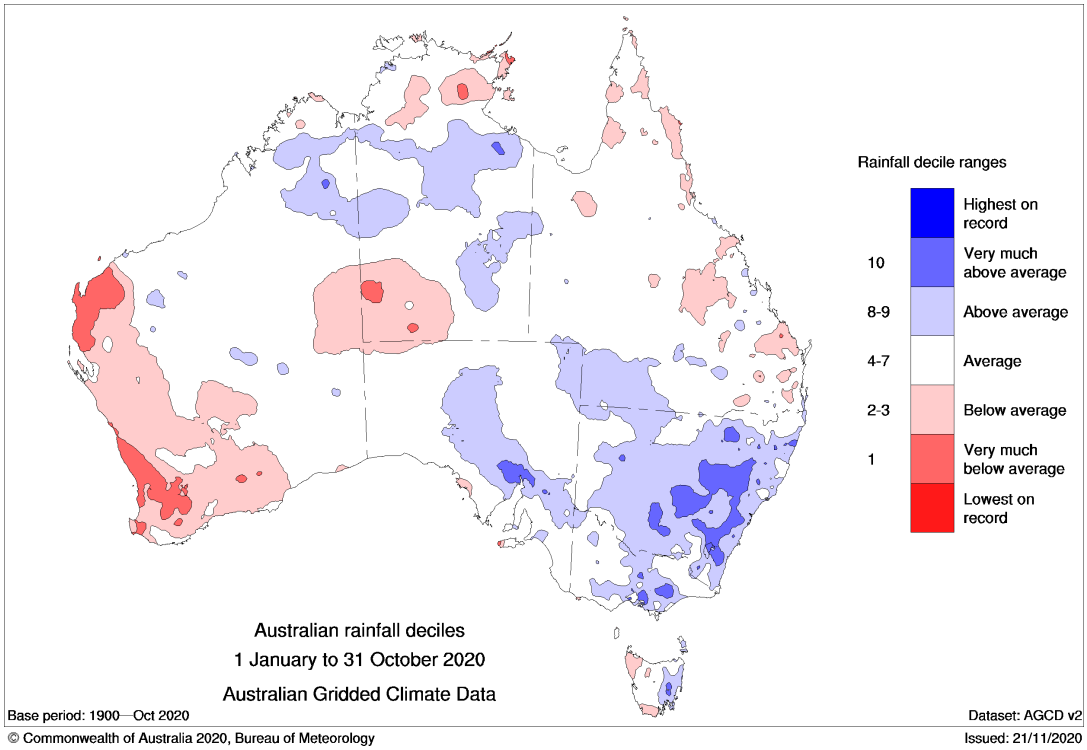

Figure 6: Australian yearly rainfall deciles July 2019 to June 2020

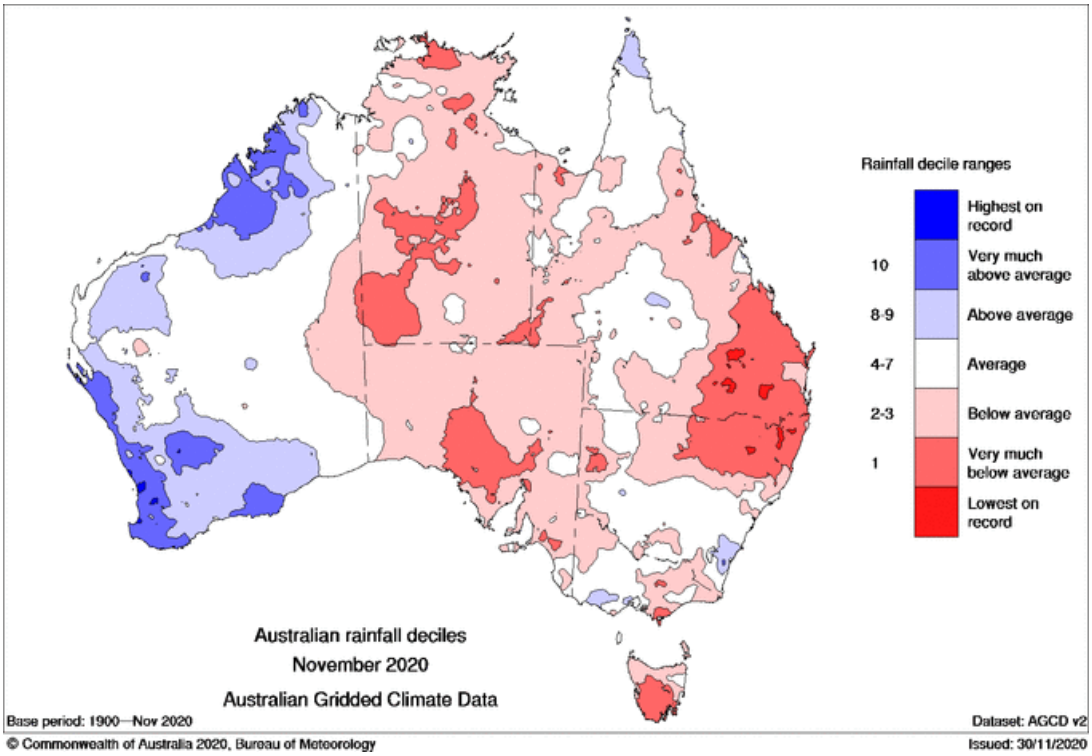

Figure 7: November 2020 Australian rainfall deciles

Rainfall during 2020 has moved the landscape water balance to average and above average for many key wool producing regions (Figure 8), however continuing rainfall will be required to maintain these levels into the second half of the 2020/21 season. Western Australia remains The exception with average to below average landscape water balance for much the state.

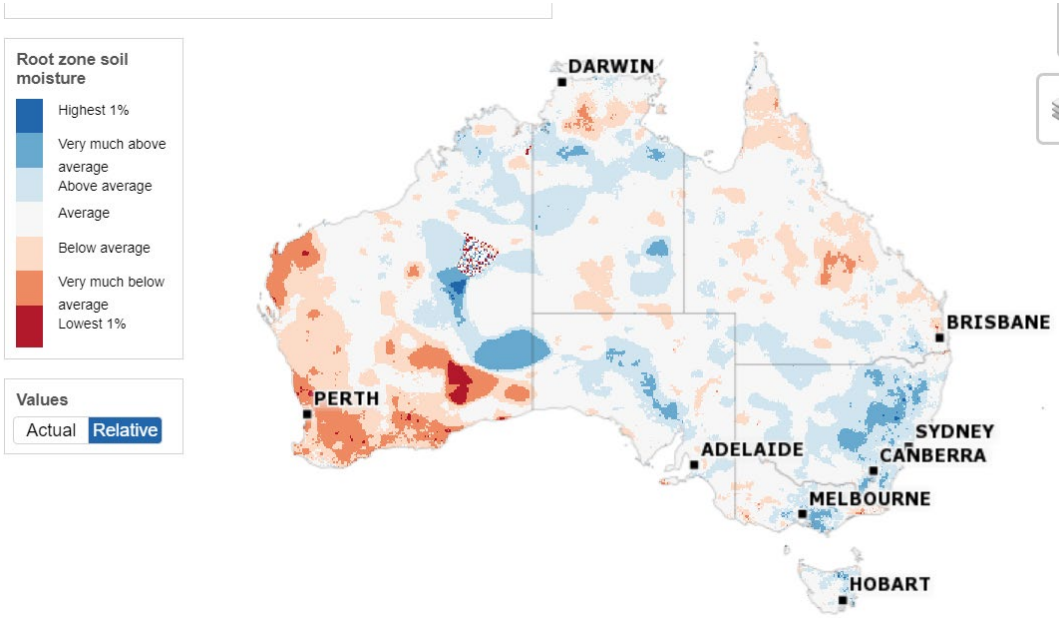

Figure 8: Australian landscape water balance, 2019/20 season

The Bureau of Meteorology's outlook for the December 2020 to February 2021 period is that rainfall is likely to be above average across much of Australia (Figure 9) along with average to below average maximum temperatures (Figure 10), except for much of Victoria and South Australia.

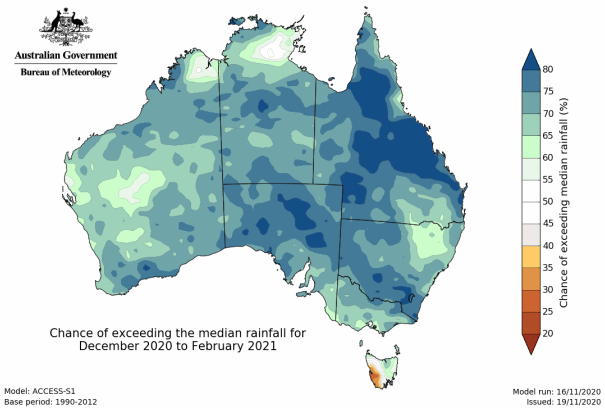

Figure 9: Chance of exceeding median rainfall (Dec 20 – Feb 21)

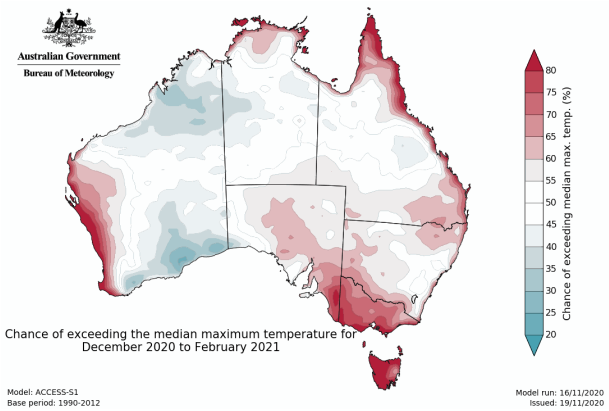

Figure 10: Chance of exceeding median maximum temperature (Dec 20 – Feb 21)

In its update on 24 November 2020, the Bureau noted that all climate models they survey indicate further cooling of the central equatorial Pacific Ocean and for La Niña thresholds to be net until at least February 2021. The La Niña is expected to peak at moderate to strong levels.

Results from the MLA and AWI Wool and Sheepmeat Survey

The results from the survey conducted in October 2020 indicate more than 40% of wool producers intend to increase breeding ewe numbers, compared with 27% of producers in October 2019. Merino wool producers expect to cut similar or higher fleece weights from their ewe, wether and lamb flocks compared with the October 2019 survey.

State Committee input

The following provides a summary of seasonal conditions and wool production forecast for 2020/21 in each state as reported by the AWPFC state committees in December 2020. The state committees reported excellent seasonal conditions in most major sheep producing areas across Australia, except for Western Australia and Queensland.

New South Wales

An exceptional season has occurred throughout most of New South Wales. NSW DPI's drought map currently shows all of the state, except from north of Guyra to the Queensland border and around the Monaro, classified as non-drought or on track to recovery. Whilst still dry, the late Monaro season and expected follow up rain in the next month will see conditions in that region significantly improve. Many regions are reporting their best cropping and grazing seasons for more than 20 years. On-farm feed availability is plentiful with hay and grain supplies for stock being re-built.

There is some concern regarding a proliferation of grass seeds affecting sheep production and the occurrence of hard head weeds, particularly in degraded pasture systems. Sheep are being grazed on stubbles as soon as they are available to reduce the impact of grass seeds and hard heads. Grass seeds and favourable conditions for flystrike during October and November increased demand for shearing contractors to shear lambs and crutch ewes prior to chemical treatment. Shearing is running about 3 to 4 weeks behind as a result with few New Zealand or interstate shearers working in NSW. On-going harvest and hay production in southern regions is limiting the availability of part-time shearers further delaying shearing.

Sheep numbers are beginning to stabilise as producers seek to re-build numbers, however available sheep and cost of replacements is an on-going issue. Sheep purchased from Western Australia will impact on the 2021/22 forecast as they are transported after shearing. High replacement cattle prices are increasing demand for sheep, producing strong demand for Merino rams with increases in average prices at ram sales. Significant demand and record prices for Terminal breeds of rams is making them difficult to source, with demand due to reduced ram purchases during the drought rather than any significant move to crossbred lamb production. The high cost of crossbred ewes (>$400) is prompting some producers to retain and join 1st cross ewe lambs rather than sell for slaughter.

Increases in fibre diameter (+0.2 µm), vegetable matter (+0.3%), staple length (+2.8mm) and yield (+1.2%) due to the favourable season and low stocking rates are expected to increase average cut per head to 4.50 kg. Staple strength, currently down by 2.1 N/Ktex, is expected to rebound in the second half of the season as the position of break moves to the top portion of the staple. Yield is expected to increase further as the season progresses with a further increase in vegetable matter. Mixed farming operations expecting bumper crops are tending to hold wool on farm (untested) with the fall in crossbred wool prices, which currently don't

cover shearing costs, exacerbating this issue. **Shorn wool production in 2020/21 is expected to increase by 0.9% compared with 2019/20 to 95.2 mkg greasy**.

Victoria

A fantastic season is currently extending throughout most of Victoria. Wool production in some regions is expected to be up to 10% higher, although sheep numbers remain at similar levels to last season. Hay making and silage is in full swing as producers seek to make use of the abundance of available paddock feed. Approximately 30 to 40% more livestock would be required to make use of the current feed supply. Mixed farmers are seeking warmer weather to allow crops to ripen. Sheep from Western Australia are predominantly moving into northern Victoria onto mixed farming properties, although some truckloads are landing into southern areas.

Shearing is delayed by about 3 weeks due to shearer availability resulting in shearing taking longer. Agriculture Victoria are recommending producers plan for later shearing. Clips that would normally be shorn prior to Christmas, will now be shorn in early to mid-January. Many producers have moved away from 6- or 8- month shearing intervals towards annual shearing due to shearer availability as well as a reduction in the prices paid for prem shorn wool and the difficulty of managing shorter shearing intervals with the reproduction cycle in a predominantly ewe-based flock.

Fleece weights are expected to increase given the low stock numbers and available feed supply and increases in the fibre diameter, staple length and staple strength of wool tested between July and November. Mixed farmers in particular are in no hurry to have their wool tested and moved to store, preferring to hold it on-farm untested.

Merino ram sales have been good throughout Victoria. Sheep producers are now actively seeking higher quality rams (middle to top end of the catalogue) as they seek to rebuild their flocks. Crossbred rams are increasingly difficult to source. **Shorn wool production in 2020/21 is expected to increase by 7.4% compared with the 2019/20 season to 67.8 mkg greasy**.

Western Australia

An average season is underway in the northern regions (north and north eastern wheatbelt) of the state despite low rainfall. In these areas, on-farm feed supplies are average as rain fell at the right time for pasture growth. Lambing percentages and cut per head are expected to be close to normal. However, in most other wool producing regions of Western Australia rainfall has not been sufficient to generate significant run off into dams. The rainfall pattern was more conducive for crop production rather than pasture, with recent late rain reducing the quality of the dry standing feed. Despite this, ewe condition is good throughout most of the state with good lambing and weaning percentages due to reduced stock numbers on many properties.

Mid-August to Easter is the peak time for shearing in Western Australia. Shearing is about 6 weeks behind schedule, although it is expected shearers will catch up as harvest ceases. Fewer producers are shearing at 6- or 8-month intervals, with more opting to 10-12 months. Current shearings are reporting fibre diameter increases of about 0.5 µm.

Large numbers of sheep continued to be transferred interstate with 310,000 in October and a further 289,400 in November. Of the 1.8 million head transferred east since January 2020,

817,000 have been ewes (45% of the total). Reports also indicate that even cast-for-age ewe (5 - 6 years old) have been sold into the eastern states. All interstate transfers would have been sold bare shorn or within 3 months of shearing. A further reduction in numbers is expected in February as ewes scanned in lamb are sold, although summer rainfall may decrease this turn off.

Meat (84 to 95 cents/kg higher) and re-stocker ($2.00 to $3.50/head higher) prices in the eastern state continue to eclipse those offered in WA. Live exporters are scrambling to source numbers. Few wethers are in the system as they were sold as wether lambs.

There are variable repots on the amount of wool held on-farm prior to testing – ranging from negligible to significant. Concerns are being raised regarding the expected low number of breeding ewes available in the state for joining in 2021 and the sheep flock moving away from Merino toward crossbred production. **Shorn wool production in 2020/21 is expected to decline by 9.5% compared with the 2019/20 season to 54.1 mkg greasy**.

South Australia

Drought breaking rain in the pastoral regions has transformed the country with available feed seeing the return of sheep from agistment. While some producers have purchased sheep from Western Australia, many are opting to breed up numbers due to the cost of replacements so no further ewe turn-off will occur. However, recovery will be protracted as many properties destocked or reduced to very low numbers of core breeders during the drought. Further summer rainfall is required to consolidate the feed base. Vegetable matter levels are expected to increase due to the surge in feed. This will put a ceiling on any yield increase as dust and dirt will be replaced by vegetable matter.

The rest of South Australia is enjoying their best season in 5 years. Lambing percentages have been particularly good with subsequent high lamb and weaner growth rates. Weaner shearing is underway with cuts per head up by ½ kg (2 ½ to 3 ½ kg/head) with yields increasing. Fleece weight of other classes of sheep are expected to increase as drought impacts (dust and dirt) diminish and many producers opt to increase their shearing interval from 6 to 8-month intervals back to 12-months. The latter change due to decreased prices for the shorter wool and increased shearing costs.

Shearing is delayed by about 1 month due to shearer availability. Many sheds are running 1 to 2 stands fewer than normal and with reports of more learner shearers working and older shearers coaxed out of retirement, shearing is taking longer to complete in many areas. The delay in shearing is expected to contribute to the increase in fleece cut per head. Flystrike is becoming an issue in northern regions, compounded by the lack of shearers to undertake crutching.

In some regions, bales are moving off farm into store for testing although harvest is causing some delays. In the South East little wool is held on farm as producers are prepared to meet the market with new season's wool sold straight away. Broader crossbred wool is being held on farm untested due to its low market value. Pastoral wools which are due to be shorn in the first half of 2021 are expected to be tested and sold as shorn to generate cash flow following the drought. **Shorn wool production in 2020/21 is expected to increase by 5.3% compared with the 2019/20 season to 52.63 mkg greasy**.

Tasmania

A particularly good season throughout all key wool growing regions despite the driest November on record. A good autumn and great spring produced a significant feed wedge and elevated soil moisture levels which were maintained by high October rainfall. Most regions have had a good germination of clover and a significant supply of standing feed. On farm stocks of hay and silage are being re-built. This has set up good sheep condition and increased wool cuts, particularly for ewes. The drier areas of the state, the west and north west, are not big wool producing regions.

Fewer sheep were turned off during the September quarter (total turnoff -36%) which is in line with the seasonal pattern of the production cycle. These low numbers (-33% lamb slaughter and -54% adult slaughter) reflect the poor season in 2019/20 and high turn off rates between July and September 2019.

Producers have increased confidence and are seeking to maintain or increase sheep numbers. Lambing and marking percentages are markedly higher than last season. Excellent ewe condition augurs well for higher fertility during 2021.

Wool cuts per head are significantly higher than last season. Wool cuts from shearing 3 months ago were up by 15% with cuts from current shearings up 15 to 20%. Autumn shearing will also see increased wool cuts, given the volume of feed that will be carried over during summer. Some producers are retaining sheep to older ages rather than shearing and selling them as lambs. **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

The season has deteriorated since the August meeting. Little to no rainfall has occurred in key wool producing regions (Central West) during November and temperatures have increased significantly. There is little to no ground cover in northern sheep growing regions and the recent heatwave conditions have decimated any remaining pasture in southern regions.

Any re-stocking that was occurring in August has now ceased. A significant number of sheep (30,000 to 40,000) are on agistment in southern regions of Queensland as well as in New South Wales. Many of these arrangements are long term suiting both Queensland producers and those in New South Wales who can't afford to restock. There is a net movement of sheep out of the state.

Even if the forecast rain for the next few months does eventuate, it will be too late for the 2020/21 season. It will not be possible for production to increase from these historical low levels. Nevertheless, the outlook for Merino production remains positive. Construction of exclusion fencing continues with both private and public funding and there is a growing recognition that certain regions of the state are more suited to sheep production rather than cattle. There is no significant move to crossbred production, despite some Merino producers joining a proportion of their ewes to terminal rams to value add to their lambs.

Producers in the southern border regions with NSW who joined in spring now have lambs on the ground. While green feed was present at lambing, hand feeding is now occurring and some 3 to 4-month-old male lambs are being sold for cash flow ($100+ per hd for 28 to 30 kg carcass weight). While some producers are reluctant to hand feed again, some are keeping ewe lambs

in smaller paddocks and feeding to join them in 2021. These producers have a few months to make decisions regarding joining in 2021. The key joining period for producers in the more northern regions of Queensland is now, with the current heatwave conditions seeing producers hold off on putting their rams out. However, any rainfall in the next 2 weeks may prompt many to join. Rams are also being sent south to join ewes on agistment.

Shearing is on track, although there have been some delays due to the current heatwave conditions. Many sheds have reduced from 5 stands to 4 stands due to issues with shearer availability. The past 6 weeks have seen an increase in the number of producers consigning their wool to store for testing and then developing their marketing plan based on the test results and the wool market level. Before this, producers were in no hurry to send their wool to store. **Shorn wool production in 2020/21 is expected to decline by 13.1% compared with 2019/20 to 6.49 mkg greasy.**

Appendix

Table A1: Comparison of the third forecast for 2020/21 against the final estimates for 2018/19 and 2019/20

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

Change (%)	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn	-8.1%	-6.6%	-2.7%	-5.1%	12.5%	-4.5%	-5.4%
Average Cut Per Head	3.3%	1.3%	-1.2%	-3.3%	-5.6%	-1.4%	0.0%
Shorn Wool Production	-4.8%	-5.5%	-3.9%	-7.9%	0.0%	-7.4%	-5.3%

2020/21 Third Forecast	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn (million)	21.2	15.8	12.4	11.0	2.7	1.8	64.8
Average Cut Per Head (kg)	4.50	4.30	4.35	4.80	3.95	3.60	4.43
Shorn Wool Production (mkg greasy)	95.2	67.9	54.1	52.6	10.5	6.5	287.0

Change (%)	NSW	VIC	WA	SA	TAS	QLD	National
Sheep Numbers Shorn	-7.0%	1.3%	-12.7%	-1.8%	0.0%	-14.3%	-5.5%
Average Cut Per Head	9.0%	6.2%	3.6%	7.9%	10.6%	0.0%	7.3%
Shorn Wool Production	1.0%	7.4%	-9.5%	5.2%	16.7%	-13.3%	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	68.6	4.13	284
2020-21f	64.8	4.43	287

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
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
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
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	4.7%	8.9%	17.4%	21.0%	16.6%	10.3%	4.7%	2.1%	1.3%	3.1%	4.7%	3.0%	2.1%	20.4

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.