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# Crop and Pasture Report South Australia

2019-20 SEEDING AND CROP ESTABLISHMENT

JULY 2019



## Crop and Pasture Report - South Australia

This is a bi-monthly report prepared by Rural Solutions SA for the Agriculture, Food and Wine Division of Primary Industries and Regions SA (PIRSA).

Information current as of 7 July 2019.

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## Table of Contents

<u>State Summary</u>	<u>4</u>
<u>Crop Estimates</u>	<u>6</u>
<u>District Reports</u>	<u>9</u>
Western Eyre Peninsula	9
Lower Eyre Peninsula	10
Eastern Eyre Peninsula	11
Upper North	12
Mid North	13
Lower North	14
Yorke Peninsula	15
Adelaide Hills, Fleurieu Peninsula & Kangaroo Island	16
Southern Murray Mallee	19
Upper South East	20
Lower South East	21
Pastoral Areas	22

# State Summary

## WEATHER

- May rainfall varied from average to above average for most of the State to well above average on Southern Eyre Peninsula and Kangaroo Island, except for below average rainfall in a part of last year's drought affected Eastern Eyre Peninsula and parts of the Mallee.
- In the pastoral region, May rainfall was above average across much of the northern part of the North West Pastoral Zone and some areas of the North East Pastoral Zone.
- June rainfall was average for most of the State except for the Lower South East and Eastern Kangaroo Island which received below average rain and the North West Pastoral Zone and large areas of the North East Pastoral Zone which received well below average rains, continuing the drought conditions in that region.
- May maximum daily temperatures were average across most of the agricultural areas and above average in the eastern-most parts of the State, while minimum daily temperatures were mainly around the average.
- June maximum daily temperatures were mainly near average and minimum daily temperatures were below average for most of the State, with many districts experiencing frosts.

## CROPS

- South Australian crop production for 2019/20 is estimated at a near long term average of 7.95 million tonnes of grain from a crop area of 3.81 million hectares.
- The crop area sown this year has reverted to near the long-term average due to well-timed opening rains across most of the State commencing in May. This follows two consecutive seasons of smaller than average sown areas due to patchy opening rains, drought conditions and crops damaged by frost cut for hay.
- Dry sowing began in April in many districts and continued following rains in May, with most completing seeding in the last week of May or first week of June. Seeding was delayed in parts of the Mid North and Lower Murray while farmers waited for better soil moisture conditions.
- The Lower Murray and Murray Mallee districts had a poorer start to the season than other regions. Crop emergence and establishment was patchier and pasture feed poor. Some lighter soil types in these regions remain at risk of erosion.
- Elsewhere, the ideal May break to the season has resulted in good emergence and establishment of crops and pastures.
- Low subsoil moisture reserves in many districts requires good rains for the remainder of the growing season to maintain crop and pasture growth and achieve average yields.
- Parts of Western Eyre Peninsula, Lower Eyre Peninsula and Kangaroo Island have moderate to high subsoil moisture due to well above average rainfall in May and more rain in June. These areas are in a better position to maintain crop growth should dry periods occur in late winter into spring.
- Crop growth slowed in some paddocks due to the presence of herbicide residues. Dry conditions during last season and over summer and autumn slowed breakdown of herbicides applied last year. Many farmers changed crop plans to manage herbicide residues or reduce crop failure risks associated with dry subsoils at the start of the season.
- The areas sown to canola and pulses are much less than the 10-year average in most regions.
- Problematic infestations of red-legged earth mite and lucerne flea in early sown crops and pastures were confined to some wetter districts. Treatments applied limited crop damage. The cooler June weather also assisted in reducing pest numbers, allowing crops to outgrow damage.

- Snail populations are low across the State following a very dry summer and autumn, with the exception of parts of Yorke Peninsula where higher numbers have required baiting.
- Slow delivery of urea fertiliser supplies delayed some nitrogen applications on early sown crops and pastures.
- Many districts experienced frosts in June, with this slowing crop growth.

## PASTURES

- Most farmers continued feeding hay and grain to livestock, some in confined areas, to give pastures a chance to grow more bulk before grazing and to ensure nutritional requirements of stock.
- Pastures in most districts germinated and established well, except the Lower Murray and Northern Murray Mallee where pastures remain in poor condition. Growth rates slowed in most districts in June due to colder temperatures and frosts.
- Cereals sown early as forage crops will be grazed in early July.
- On-farm reserves of hay are very low and hay for purchase is difficult to find as those with remaining stocks are keeping it for their own use.
- Lambing percentages are varied. Farmers' ability to supply adequate feed to pregnant ewes was key to good lambing.
- Red legged earthmite and lucerne flea were reported in many districts, some requiring treatment, but only cockchafer infestations caused unusual amounts of damage to pastures in the Lower South East.

## PASTORAL AREAS

- Conditions remain dry except for the areas receiving above average rains (northern part of the North West Pastoral Zone and some areas of the North East Pastoral Zone).
- The entire pastoral zone has a low amount of forage of poor quality for animal feed, even in the areas with rain.
- Areas receiving rain sufficient to germinate pasture will require more rain to establish a good amount of feed.
- Stock have lost condition and numbers have been reduced in most of the pastoral zone, particularly where surface water has dried up and water carting is not an option.

## KEY LINKS TO OTHER INFORMATION

- Department for Environment and Water - Soil and Land Condition monitoring: [www.environment.sa.gov.au/Knowledge\\_Bank/Science\\_research/Monitoring\\_evaluation\\_analysis/Monitoring/Soil\\_and\\_land\\_condition](http://www.environment.sa.gov.au/Knowledge_Bank/Science_research/Monitoring_evaluation_analysis/Monitoring/Soil_and_land_condition)
- Bureau of Meteorology - Weather and rainfall observations: [www.bom.gov.au](http://www.bom.gov.au)

## NOTES ON CALCULATION OF CROP ESTIMATES

Crop estimates for the current year assume average rainfall and temperature conditions for the remainder of the growing season.

Grain estimates are for total grain production and include grain delivered for immediate sale and warehousing plus grain retained on farm for seed, feed and future sale.

Hay estimates are for total hay production and include all pasture, cereal and other crops cut for hay, both dryland and irrigated.

The estimates are based on information provided by Rural Solutions SA District Reporters from a variety of sources and are updated throughout the season as conditions change and further information becomes available. They are intended to provide an indication of crop potential at the time the report is prepared.

The estimates are updated using Australian Bureau of Statistics census data when available.

# Crop Estimates

TABLE 1: CROP ESTIMATES BY DISTRICT

		Western Eyre Peninsula	Lower Eyre Peninsula	Eastern Eyre Peninsula	Yorke Peninsula	Upper North	Mid North	Lower North	Kangaroo Island
Wheat	ha	448 900	145 300	365 900	163 000	240 000	236 000	67 000	5 400
	t	718 200	479 500	695 200	570 000	506 000	710 000	220 000	13 000
Durum	ha	0	0	0	17 000	5 000	7 000	4 300	0
	t	0	0	0	50 000	10 500	19 000	13 000	0
Barley	ha	62 400	71 800	73 900	176 000	95 000	93 000	22 000	1 600
	t	106 100	251 300	147 800	600 000	190 500	288 000	72 500	4 300
Oats	ha	15 700	3 300	5 000	6 000	4 400	9 500	3 800	3 300
	t	20 410	7 920	7 500	15 500	7 000	22 500	10 000	8 300
Rye	ha	0	0	0	0	0	0	0	0
	t	0	0	0	0	0	0	0	0
Triticale	ha	400	500	500	1 000	1 200	1 700	400	0
	t	500	1 400	800	2 000	1 200	2 500	750	0
Peas	ha	3 500	3 400	4 000	11 000	14 000	12 000	6 500	400
	t	3 500	4 760	3 600	14 000	8 500	8 500	5 100	520
Lupins	ha	1 500	22 500	5 000	1 000	3 600	1 800	500	1 000
	t	1 350	29 250	4 500	1 000	1 500	900	300	1 200
Beans	ha	0	5 500	400	10 000	10 100	10 500	3 100	3 200
	t	0	7 700	300	12 500	5 000	6 400	1 850	3 000
Chickpeas	ha	0	400	200	9 000	5 800	3 500	2 200	0
	t	0	400	100	12 500	4 000	2 100	1 100	0
Lentils	ha	1 000	3 100	2 000	104 000	6 600	12 000	5 100	0
	t	1 000	4 650	1 900	177 000	4 000	7 100	3 600	0
Vetch	ha	2 400	1 800	2 000	2 000	2 800	4 200	300	0
	t	960	1 080	900	800	400	400	60	0
Canola	ha	4 500	70 200	8 900	15 000	17 000	23 000	3 200	3 600
	t	5 400	112 320	8 900	29 000	12 000	19 000	2 900	7 900
Hay (not in total)	ha	5 600	4 700	6 000	23 000	23 500	30 000	12 500	8 500
	t	14 600	22 100	15 600	115 000	85 000	127 000	50 000	40 000
Total	ha	540 300	327 800	467 800	515 000	405 500	414 200	118 400	18 500
	t	857 420	900 280	871 500	1 484 300	750 600	1 086 400	331 160	38 220

**TABLE 1 (cont): CROP ESTIMATES BY DISTRICT**

		Central Hills & Fleurieu	Lower Murray	Nth Murray Mallee	Sth Murray Mallee	Upper South East	Lower South East	State Total
Wheat	ha	3 600	57 900	245 500	101 700	70 000	23 000	2 173 200
	t	9 500	95 500	294 600	162 700	154 000	76 000	4 704 200
Durum	ha	300	1 000	300	1 000	8 500	0	44 400
	t	600	1 100	210	1 200	15 500	0	111 110
Barley	ha	10 000	69 900	69 800	114 500	32 000	5 500	897 400
	t	25 000	132 800	97 700	206 100	80 000	19 000	2 221 100
Oats	ha	1 600	2 000	2 200	3 000	18 500	5 200	83 500
	t	3 800	2 800	2 420	4 500	40 500	13 000	166 150
Rye	ha	0	1 000	2 000	1 500	1 200	0	5 700
	t	0	1 000	1 700	1 650	1 200	0	5 550
Triticale	ha	500	8 000	1 500	15 000	1 000	500	32 200
	t	750	11 200	1 650	21 000	2 000	2 000	47 750
Peas	ha	1 000	1 000	3 500	1 000	2 400	400	64 100
	t	1 000	850	1 750	600	2 800	800	56 280
Lupins	ha	1 300	1 000	3 600	1 500	12 000	3 000	59 300
	t	1 200	1 000	2 160	1 280	12 000	5 000	62 640
Beans	ha	300	500	0	800	8 500	10 500	63 400
	t	330	450	0	640	11 200	29 000	78 370
Chickpeas	ha	200	1 000	1 500	1 500	1 200	200	26 700
	t	150	700	750	1 050	1 000	250	24 100
Lentils	ha	300	1 500	900	1 500	3 600	200	141 800
	t	250	900	360	1 200	3 600	320	205 880
Vetch	ha	0	3 500	6 600	3 000	1 200	0	29 800
	t	0	2 100	3 300	1 950	950	0	12 900
Canola	ha	3 700	1 500	4 300	2 000	15 000	12 500	184 400
	t	1 800	1 350	1 940	1 600	21 000	29 000	254 110
Hay (not in total)	ha	24 000	10 000	3 600	40 300	48 500	30 000	270 200
	t	108 000	35 000	6 500	141 100	219 000	135 500	1 114 400
Total	ha	22 800	149 800	341 700	248 000	175 100	61 000	3 805 900
	t	44 380	251 750	408 540	405 470	345 750	174 370	7 950 140

**TABLE 2: CROP ESTIMATES AGAINST FIVE YEAR AVERAGE**

		2014/15	2015/16	2016/17	2017/18	2018/19	5 year ave	2019/20
Wheat	ha	2 236 000	2 200 000	2 237 700	2 024 100	1 943 200	2 128 200	2 173 200
	t	4 672 000	4 315 500	6 460 500	4 122 500	2 993 700	4 512 800	4 704 200
Durum	ha	51 300	49 500	55 200	55 700	41 200	50 600	44 400
	t	118 250	86 750	209 700	139 400	68 920	124 600	111 110
Barley	ha	804 000	839 300	799 300	714 600	807 800	793 000	897 400
	t	1 922 000	1 978 000	2 774 800	1 640 700	1 687 300	2 000 600	2 221 100
Oats	ha	73 300	70 300	94 600	77 000	74 700	78 000	83 500
	t	120 700	103 000	258 700	149 300	118 500	150 000	166 150
Rye	ha	9 000	7 500	10 500	6 500	5 300	7 800	5 700
	t	9 300	6 200	15 700	5 100	3 150	7 900	5 550
Triticale	ha	27 100	21 800	21 500	19 900	29 400	23 900	32 200
	t	44 300	32 700	58 130	35 050	32 970	40 600	47 750
Peas	ha	98 000	102 600	97 300	90 200	65 700	90 800	64 100
	t	114 600	103 600	176 100	113 750	53 120	112 200	56 280
Lupins	ha	64 700	76 700	76 800	62 800	61 000	68 400	59 300
	t	72 250	63 850	134 800	53 400	59 950	76 900	62 640
Beans	ha	65 600	68 600	75 500	67 400	63 100	68 000	63 400
	t	93 900	77 300	166 530	101 660	79 680	103 800	78 370
Chickpeas	ha	19 700	20 500	20 500	29 700	33 600	24 800	26 700
	t	20 250	19 240	34 360	33 580	23 870	26 300	24 100
Lentils	ha	106 200	123 700	169 600	184 700	149 800	146 800	141 800
	t	152 350	120 080	447 680	260 200	177 870	231 600	205 880
Vetch	ha	23 200	29 600	32 200	32 400	28 400	29 200	29 800
	t	13 150	11 900	34 800	15 350	5 760	16 200	12 900
Canola	ha	321 200	210 500	203 000	200 200	200 100	227 000	184 400
	t	313 800	293 300	372 900	261 400	278 900	304 100	254 110
Hay (not in total)	ha	211 500	282 700	258 800	202 900	436 000	278 400	270 200
	t	763 000	1 094 800	1 454 300	948 600	1 297 000	1 111 500	1 114 400
Total	ha	3 899 300	3 820 600	3 893 700	3 565 200	3 503 300	3 736 400	3 805 900
	t	7 666 900	7 211 400	11 144 700	6 931 400	5 583 700	7 707 600	7 950 100

# District Reports

## Western Eyre Peninsula

### WEATHER

- May rainfall was above average with coastal districts from Ceduna to Elliston and west of Penong receiving very much above average rainfall.
- Cold fronts brought scattered showers in June and most districts received average rainfall.
- Soil profiles in most areas contain moderate levels of stored soil moisture.
- Daily maximum and minimum daily mean temperatures were around average for May and June.

### CROPS

- Seeding was finished by the end of May in most areas. Good soil moisture and warm soils throughout May promoted rapid germination and growth of crops.
- In June, cooler temperatures and a number of light frosts in inland districts slowed growth.
- Whilst most paddocks now have good surface cover, sandy rises were slow to establish. Some farmers doubled fertiliser and seeding rates to thicken plant cover on vulnerable soils.
- Cold conditions in June resulted in large variations in crop growth. Early dry-sown cereal crops are at mid-tillering while those sown toward the end of May are only at the 4-5 leaf stage.
- Pre-season soil testing indicated generally low amounts of nitrogen in the soil profile, most likely the result of poor medic pastures in 2018. Nitrogen fertiliser will be applied subject to the season's progression.
- Symptoms of manganese deficiency in barley crops will be treated with trace elements with routine broadleaf herbicide and fungicide applications.
- Rhizoctonia (root rot) is more prevalent than normal, perhaps due to low soil nitrogen levels.
- Pulse and medic growth was slowed in some paddocks by herbicide residues from last season due to dry conditions.
- Grass weed populations are generally low as pre-emergent herbicides provided good control. Crops that were prepared using knockdown sprays before sowing are particularly clean.
- Herbicides for broadleaf weed control were applied to crops.
- Mandalotus weevil caused some damage in early canola but most crops have outgrown this.
- Snail numbers are low due to the hot dry summer conditions.

### PASTURES

- Good rains and warm days in May resulted in rapid germination of pastures.
- Most farmers have reduced or stopped providing supplementary feed to stock as pastures have grown. Livestock are in generally good condition.
- The season's dry start and bare conditions of paddocks resulted in more paddocks being sown to cereals for feed rather than wait for volunteer regeneration of medic pastures. Some of these paddocks might be cut for hay in spring.
- A number of farmers applied superphosphate and trace element fertilisers to medic pastures to improve soil fertility and boost pasture production.
- Lambing percentages have mostly been good (90-95%) as producers supplementary-fed pregnant ewes over summer and autumn to maintain their condition.
- Control of problem grasses in pastures occurred in June.

## Lower Eyre Peninsula

### WEATHER

- May rainfall on the Lower Eyre Peninsula was very much above average. Some coastal districts near Mt Hope recorded their highest May rainfall on record. June rainfall was below average for coastal districts from Port Lincoln to Port Neill.
- Daily maximum and minimum daily mean temperatures were around the average for May and June.
- A number of light frosts occurred in the first two weeks of June.

### CROPS

- Seeding was completed by the first week of May in most districts, with most farmers sowing all of their intended crop area.
- Crop germination was generally excellent due to good soil moisture and warmer temperatures in May.
- Pre-emergent and knockdown herbicide applications have been very effective and most crops have low grass weed numbers.
- Volunteer wheat, a consequence of wasted grain from last season's high yielding crops remaining in paddocks, has caused problems in barley crops.
- The potential risk to crops of slowed breakdown of last year's herbicide residues under dry conditions has mostly been managed through changes to crop rotations and varieties.
- Early sown crops are at mid-tillering. Crops sown later in cooler conditions are only at the 4-5 leaf stage.
- Many farmers have already spread an early application of nitrogen to cereals to maintain crop vigour and are prepared to apply more fertilisers if good seasonal conditions continue.
- Red legged earth mite infestations have been common in all crops and higher than normal numbers of Bryobia mite and lucerne flea have also been noticed. These caused some damage to emerging crops and were controlled with post-emergent insecticide applications.
- Cooler weather in June seems to have reduced numbers of these pests and crops have generally been able to outgrow any damage.

### PASTURES

- There has been good germination and early growth of pasture across the region.
- Livestock are generally in good health.
- Problem grasses have not yet been removed from pastures as producers have kept them for stock feed.
- The area sown for hay is likely to be slightly above average as producers plan to replace depleted on-farm supplies.
- Red legged earth mite, Bryobia mite and lucerne flea have caused some damage to emerging pastures and have been controlled with insecticides.

## Eastern Eyre Peninsula

### WEATHER

- May rainfall was average to below average across the southern part of the region while the northern part of the district received above average rainfall. June rainfall was below average for areas around Kimba and Franklin Harbour.
- Daily maximum and minimum daily mean temperatures were around average for May and June, apart from an area from south of Cowell northwards that experienced below average minimum temperatures in June.
- A number of frosts occurred throughout June.

### CROPS

- Most seeding was completed by the first week of June and most farmers sowed all of their intended crop area.
- Warm days in the first half of May resulted in rapid germination of crops and pastures. Cooler temperatures during June slowed plant growth.
- There have been small increases in the area of canola and peas sown this year compared to last season.
- The area sown to vetch was reduced as there was good early germination of medic pastures to provide sheep feed.
- Crops on most soils types have generally established well.
- In some areas, water-repellent sandy rises have been slow to establish cover and are still vulnerable to erosion.
- Topsoils are damp from rains in mid-June but subsoils in many districts are relatively dry. Good rains in late winter and early spring will be required to maintain crop and pasture growth.
- Dry sown crops established quickly after rains and are at mid-tillering but later sown crop growth was slowed by cold conditions throughout June.
- Farmers plan to apply nitrogen to crops if good growing conditions continue throughout winter.
- Slow delivery of urea fertiliser supplies delayed some nitrogen applications on early sown crops and pastures.
- Broadleaf weed herbicides have been applied to crops. Pre-emergent and knockdown herbicide, provided good early weed control in crops, where conditions were suitable for their application.
- Red legged earth mite numbers have been above average in some central Eyre districts, particularly around Lock. Bryobia mites damaged some emerging canola. Crops were generally able to outgrow any damage caused by these pests.
- Other insect pest numbers have been low, possibly due to the high proportion of seed treated with insecticides to protect early crops against the threat of Russian wheat aphid.

### PASTURES

- Pastures have germinated well and grown considerable bulk prior to cold weather setting in. This has allowed most livestock producers to reduce or stop supplementary feeding.
- Sheep are in excellent condition with reports of good lambing percentages, most likely due to the provision of supplementary feed to pregnant ewes.
- There has been a small increase in the area sown for hay for replenishment of depleted on-farm supplies used for supplementary feeding of stock.
- Pasture grasses have been treated early this year.

## Upper North

### WEATHER

- May rainfall was very much above average for the area around Port Pirie and Crystal Brook, and above average across the south-western part of the region.
- June rainfall was above average for the coastal districts between Port Pirie and Port Augusta and average elsewhere.
- Daily maximum and minimum temperatures were average in May. Daily maximum temperatures were average in June, while daily minimum temperatures were average in northern parts and below average in the south of the district.

### CROPS

- Rainfall in May was enough to stimulate growth of sown crops although germination was patchy on heavier soil types and dry saline land where rain did not wet soil enough for complete germination.
- Several days of light showery weather throughout May kept the topsoil damp, and together with mild temperatures, provided very good seeding conditions.
- Nearly all seeding was finished by the first week of June.
- Good rainfall in parts of the district resulted in very good crop growth in this area.
- The most advanced crops in the areas of good rains are at late tillering to stem elongation stages.
- Some farmers have started post-seeding weed control and nitrogen applications on the earliest sown crops.
- Uncertainty about the market consequences of using Imidazoline herbicides on IMI-tolerant varieties of barley has caused some farmers to delay or avoid using these herbicides.
- Cold weather in the latter half of June slowed plant growth.
- There has been low activity of red legged earth mite and lucerne flea in crops.
- In marginal cropping areas, kangaroos are feeding on emerging crops as there is more green feed on these than in surrounding pasture paddocks.
- Good rains during July and August are required to maintain crop and pasture growth as subsoil moisture reserves remain very low.

### PASTURES

- In areas that received higher rainfall, livestock are grazing sown feed.
- In the eastern part of the region, where rainfall has been low, germination of new pasture growth is poor.
- Livestock feed supplies are low in regenerating pastures.
- There is little subsoil moisture and cold weather has slowed growth.
- Lambing percentages reflect ewes' nutritional status during pregnancy; those that had enough quality feed have more lambs than those who were deficient.

## Mid North

### WEATHER

- May rainfall was above average in the western part of the region. June rainfall was average across the region as a whole, but patchy with some locations within the region getting more than others.
- Maximum and minimum daily temperatures were average in May. Maximum daily temperatures were average in June but minimum daily temperatures were below average.

### CROPS

- Farmers across the region began seeding in late April under dry conditions and completed their seeding programs on schedule in the first week of June.
- Above average rains have resulted in high soil moisture levels in the Clare Valley, but elsewhere there is moderate moisture in surface layers and low moisture in the subsoil.
- Many farmers around the Snowtown area paused their cereal sowing programs for about one week in May while awaiting sufficient rainfall and soil moisture.
- Early sown crops in some areas wilted due to lack of soil moisture during late May and early June before recovering after rains in mid-June.
- Crop emergence in the Clare Valley has been good.
- Areas outside of the Clare Valley have experienced weaker emergence and require good follow-up rains to ensure sound establishment.
- Disease, snails and mice are very minor problems across the region.
- There has been problems with red legged earth mite and lucerne flea in crops in some areas.
- The area sown to hay is up 10% on last year.
- Areas sown to canola are 50% lower than usual and peas and beans are 10% lower than usual, replaced with wheat due to the very dry subsoils across much of the region.

### PASTURES

- Green pasture feed emerged in most areas of the region following rain in early May but growth across the eastern part of the region was checked until rains in mid-June refreshed plants.
- Pasture growth has slowed in most of the region due to cool temperatures.
- Most farmers are continuing to feed hay or grain to livestock to give pastures a chance to grow more bulk and ensure nutritional requirements of stock are being met.

## Lower North

### WEATHER

- May rainfall was above average in the southern half of the region. June rainfall was average across the region.
- Maximum and minimum daily temperatures were average in May. Maximum daily temperatures were average in June while minimum daily temperatures were below average in northern parts of the district and average in the remainder.

### CROPS

- Excellent soil moisture, down to 50 cm, is present west of Horrocks Highway, where heavier May and June rain fell. East of Horrocks Highway, where rainfall was less, soils have little subsoil moisture.
- Sowing started under dry conditions in late April, continued in damp conditions after rains in early May, and finished in the first week of June.
- Areas sown to canola, beans and chickpeas are 80% lower than usual due to very low soil moisture levels at the start of the season. These crops have been replaced with oats for hay production and other cereals. Peas and lentils are the most widely sown legume crops this season.
- Crop emergence has been excellent across the region.
- Some pre-emergent herbicide weed control in early sown crops has been poor.
- Some crops are also showing poor weed control along last year's harvest rows where the harvester chaff layer is thick. This may result in grain contamination of crops at harvest if not rectified during the growing season.
- Diseases, snails and mice are low across the region.
- Red legged earth mite is damaging peas, beans, lentils and legume pastures in some areas.

### PASTURES

- Emergence and establishment of both sown and volunteer pastures has been excellent across the region and has reduced the need for supplementary feeding.
- Growth rates of pasture have slowed in recent weeks due to colder temperatures.
- There is currently very little hay available for purchase.

## Yorke Peninsula

### WEATHER

- May rainfall was above average on Southern Yorke Peninsula and in the coastal areas around Kadina and Wallaroo. June rainfall was below average for the districts around Edithburgh and Yorketown.
- Maximum and minimum daily temperatures were average in May. In June, maximum daily temperatures were average while minimum daily temperatures were below average in northern and southwestern parts of the district and average in the central areas.
- Frossts were recorded five times in June in the northern part of the region.

### CROPS

- Good opening rains in early May, especially across Lower Yorke Peninsula, enabled completion of seeding with good soil moisture conditions in the seedbed.
- Subsoil moisture is low across most of the region and good rains are required for the remainder of winter and through spring to maintain growth. There are pockets of better soil moisture in areas between Port Broughton and Bute that received 50-70mm of rain in November.
- Seeding finished early for Lower Yorke Peninsula in the third week in May. Northern and Central Yorke Peninsula finished timely seeding in late May and early June respectively.
- Crops emerged well in the warm conditions during May and continue to grow well. Canola that was dry-sown in mid-April is beginning to flower.
- Frossts in June in the northern parts of the region slowed crop growth and delayed herbicide applications.
- Lack of soil moisture in most areas during the spring, summer and autumn period resulted in poor breakdown of last year's herbicide residues. This caused late changes in varieties sown this year and, in some cases, crop damage where inappropriate varieties were sown.
- Slow delivery of urea fertiliser supplies delayed some nitrogen applications on early sown crops and pastures.
- Lucerne flea has damaged cereal crops not treated with a pre-sowing insecticide seed treatment. These crops have been sprayed with insecticide to control infestations.
- Net blotch was observed in susceptible barley varieties, or barley crops not protected with a pre-sowing fungicide seed treatment.
- Ascochyta has been reported in lentils around Paskeville and chickpeas are having preventative fungicides applied to protect them against this fungus.
- Grass spraying is underway in legume crops and broadleaf weeds are being sprayed in cereal crops.
- Mice are a very minor problem across the region.
- Snails are worse than usual with more baiting than normal being undertaken for control.

### PASTURES

- There is still little, if any, quality green feed in paddocks.
- Some pastures sown at the end of April and early May have just enough bulk to meet feed demand. Sheep will go into these paddocks in early July.
- Early pastures that have been grazed have little feed to offer and will need to be de-stocked and fertilized to revitalize them before they can provide productive grazing again later in the season.
- On-farm hay stocks remain very low after heavy usage during late 2018 and early 2019.
- Lambing percentages have been average to below average due to the lack of feed and cold night time temperatures.

# Adelaide Hills, Fleurieu Peninsula & Kangaroo Island

## WEATHER

- May rainfall was very much above average for Kangaroo Island and above average for Adelaide Hills and Fleurieu Peninsula.
- June rainfall was below average for the eastern half of Kangaroo Island.
- Maximum and minimum daily temperatures for May and maximum temperatures in June were average across the region. Minimum temperatures in June were below average over most of Kangaroo Island.

## CROPS

### Central Hills/Fleurieu

- Most sowing commenced after opening rains in early May and was completed by end of June.
- There was an increase in the area sown to beans, lupins, barley, wheat and fodder and a reduction in lentils, chick peas and canola.
- Crops sown in May are showing good growth. Crops sown in June are not growing as well.
- The amount of surface soil moisture is sufficient for current crop growth requirements, but moisture is lacking at depth due to the long dry period before the opening rains.

### Kangaroo Island

- Most sowing commenced at the beginning of May and was completed by mid-June. Some dry sowing occurred in late April.
- There are no changes to crop type and area relative to last year.
- Crop emergence and early growth is good, especially in the early sown crops.
- Cereals are being affected by red legged earth mite and cut worm while canola is being affected by slugs and vegetable weevil.
- Stored soil moisture is adequate in the lighter soils and excellent for all other soil types.

## PASTURES

### Central Hills/Fleurieu

- Pasture quality has declined due to the depletion of seedbank reserves during the run of poor seasons. Supplementary feeding of livestock is still occurring in paddocks with slow pasture growth.
- Red legged earth mite is causing minor damage to pastures.
- Livestock condition and health was below average but is improving rapidly as the pasture feed improves in quality.
- Lambing percentages are expected to be satisfactory given the seasonal conditions but have come at a high cost of supplementary feeding.
- Hay area sown increased compared to last year, aiming to restore depleted reserves.

### Kangaroo Island

- Early pasture growth has been average and slowed in June by the cold. Most producers have stopped supplementary feeding livestock.
- Red legged earth mite, lucerne flea and cut worms have damaged pastures.
- Livestock condition and health is average. Farmers who had good supplementary feeding programs have stock in good condition.
- It is too early to determine the effect of the dry conditions on lambing percentages.
- There is no significant change to the area sown for hay relative to last year.

## Lower Murray

### WEATHER

- May rainfall was above average in the southern part of the region. Most rain events were light with fronts producing less than 5mm. June rainfall was average across the region.
- Daily maximum temperatures were average in May and June.
- Daily minimum temperatures were average in May and below average in northern parts in June.
- Late in June a run of mild to heavy frosts occurred across the region

### CROPS

- Dry seeding commenced in April and continued into May.
- Some farmers paused their seeding programs until better soil moisture conditions prevailed after good rainfall in mid-June.
- Crop establishment is patchy, particularly in the northern part of the region, due to the lack of rainfall and very heavy soil types.
- Most crop growth is slower than usual for this time of year.
- With little stored soil moisture, attaining average production will depend on receiving above average rainfall during winter and spring.
- The area sown to canola and pulses is well below average.
- There have been very few reports of pests and diseases.
- Frosts in June combined with dry soils slowed crop growth.
- Grass weeds are likely to be problematic due to dry conditions during early seeding and herbicide applications being delayed by frosty conditions.

### PASTURES

- Pastures are growing but there has not been enough rain to stimulate more rapid growth required to build up bulk and withstand heavy grazing pressure.
- Frost further slowed pasture growth late in June.
- Sown cereals are starting to build up bulk but are still some time away from being ready to be grazed by livestock at high stocking rates.
- Livestock still require supplementary feed and there are still sheep in containment areas as farmers try to let pastures grow more bulk to provide a greater amount of feed and surface cover for erosion protection.
- Lambing percentages vary from poor to average.
- Irrigated river flats sown to winter pasture mixes are starting to provide good amounts of feed but areas planted to kikuyu were seriously damaged by frosts in late June.

## Northern Murray Mallee

### WEATHER

- May and June rainfall was average across the region.
- Daily maximum temperatures were above average in May and mostly average in June. Daily minimum temperatures were average in May and mostly below average in June.
- Numerous frosts were reported through June.
- Strong winds occurred on some days creating isolated areas of raised dust.

### CROPS

- Most farmers have completed seeding. Some seeding began under dry conditions in late April and early May and gained momentum after 10-15 mm rainfall fell across the region on 10 May.
- Extremely dry conditions leading up to the start of this year's cropping season, lack of subsoil moisture and reduced soil cover has resulted in most farmers not sowing or reducing the area of canola and pulse crops such as chickpeas and lentils.
- These crops have been replaced with barley, wheat or chemical fallow, or sown pasture for those with livestock.
- While heavy textured flats and deep sandy rises initially suffered from lack of moisture and patchy emergence, crops are now establishing well after adequate rainfall in June.
- Frosts and cooler soil temperatures slowed growth of later sown crops.
- Soil moisture reserves are generally low and crops will be relying on good late winter and spring rainfall to reach average yield potential.
- No major insect or disease problems within crops have been observed.
- There are still many sandy rises in paddocks across the region that have little surface cover due to grazing and poor plant growth during the last two below-average seasons. These areas are vulnerable to wind erosion.

### PASTURES

- Lack of feed is of major concern, with farmers still committed to feeding livestock with hay and grain to maintain their condition. Supplementary feeding might continue through the coming months as pasture growth is slow.
- Paddocks with early sown feed are now being grazed and this may help to relieve the need for supplementary feeding.
- Some confinement feeding of livestock is being used by farmers who are well equipped to do so.
- Numerous farmers are taking advantage of high market prices to sell sheep, reduce stock numbers and reduce feed demand.

## Southern Murray Mallee

### WEATHER

- Western parts of the region received above average May rainfall in a number of light falls of less than 10mm.
- June rainfall was average across the region. Widespread rains of over 30mm occurred mid-month.
- May maximum daily temperatures ranged from average in the west to above average in the east. May minimum temperatures were average.
- June minimum daily temperatures ranged from average in the west to below average in the east. Maximum temperatures were average.
- A number of heavy frosts occurred in late June.

### CROPS

- Most farmers started dry sowing during April and this continued into May. Small rain events during the last three weeks of May initiated crop germination.
- Farmers, who did not dry sow because of non-wetting soil and concern over lack of weed germination, sowed minimal crop in May, continuing crop seeding well into June.
- Early dry sown crops are well established. Farmers have applied nitrogen, fungicide and herbicide to crops.
- Some early sown crops have areas of grassy weeds. These crops may be grazed or cut for hay.
- Most farmers with livestock enterprises planted more hay this year to restore on-farm feed reserves.
- Some wind blasting occurred mid-May but winds abated after that so that most bare areas are now well on the way to being covered.
- Greater areas of cereals were planted mainly due to farmers wanting to establish surface cover on soils to reduce erosion risk.
- Insect, snail and mice problems are not evident.
- Some net blotch showed up in barley affected by wind blasting. Treatments have been applied.
- Subsoil moisture is still low across the region. Good soaking rains are needed during winter and spring to produce average crops.
- Frosty conditions have dried soils, slowed crop growth and delayed grass spraying.
- Growth of late sown crops slowed dramatically following frosts.

### PASTURES

- Pasture feed growth is slow, so most farmers are still supplementary feeding livestock.
- Lambing percentages are varied due to available adequate feed for pregnant ewes.
- Some farmers continue to use containment feeding areas to allow slow growing pasture feed in paddocks to grow more bulk before it is grazed.
- Hay and grain stocks are at critically low levels. Off-farm supplies are difficult to find and extremely expensive.
- Lucerne and veldt grass pastures responded very quickly to earlier rains but a series of frosts in late June slowed growth. More rain is needed for further growth.
- Livestock conditions are extremely varied. Farmers have generally managed to keep animals in fair condition through the dry conditions.

## Upper South East

### WEATHER

- May rainfall across much of the region was above average. June rainfall was average.
- Maximum daily temperatures in May ranged from average in the west to above average in the east, and were average in June.
- Minimum daily temperatures were above average in western-most parts in May and average in the remainder of the region. June daily minimum temperatures were below average in southern parts.
- A number of frosts occurred in June.

### CROPS

- Dry sowing commenced mid-April, with seeding finished by the second week in June into good moist surface soil.
- Soil temperatures were warmer than normal during May, resulting in good crop emergence.
- Surface soil moisture is currently ideal but subsoil moisture remains low in some areas and significant follow-up rain will be required in late winter and early spring to achieve average yields.
- Pre-emergent herbicide treatments were very effective as a result of ideal rainfall and soil moisture conditions during and immediately following seeding.
- Grass control in legume crops has been undertaken and broadleaf weeds are currently being sprayed in cereals.
- Nitrogen is being applied to crops and pastures.
- Lucerne flea and snails are at normal levels.
- Red legged earth mite numbers built up quickly in situations where infestations were not controlled early. Frost has made plants more susceptible to mite damage.
- The canola area sown is small.
- There has been an increase in small seed production, particularly of annual clovers, as they enable better weed control and provide sheep feed options.

### PASTURES

- Pasture feed availability is low and frost has slowed pasture growth.
- Supplementary feeding of stock is still occurring where producers have feed supplies.
- Some producers are planning to wean lambs early to enable better utilisation of limited pasture feed. Weaned lambs will be put on the best quality feed.
- Overall livestock condition is average. Pregnancy scanning results for ewes were good but lambing percentages have been variable due to differing management practices, available feed and weather conditions.
- Producers have been applying nitrogen fertilisers to pastures to maximise growth but some had problems withholding paddocks from grazing for the time required to avoid nitrate poisoning of stock.
- Despite a hay shortage, most producers have not assigned more paddocks to hay production. They will be opportunistic and decide to cut crops for hay depending on moisture availability, weed populations or abundance of growth.
- There has been increased investment in feed production from annual pastures such as ryegrass and balansa clover to support livestock production.

## Lower South East

### WEATHER

- Much of the region received above average rainfall in May and below average rainfall in June.
- Maximum daily temperatures in May were average in the south and above average in the north. Minimum daily temperatures were mainly around the average.
- Minimum daily temperatures in June were below average in the north and average in the south, while maximum daily temperatures were average throughout.
- Significant frosts occurred across the region during the third week of June.

### CROPS

- Crop seeding commenced in the last week of April and finished by the end of June.
- Crop emergence and establishment has been very good.
- Soil moisture is ideal for plant growth, with no water logging.
- Frosts in late June lowered soil temperatures and slowed crop growth.
- Legumes have replaced canola in crop rotations. Canola returns are lower and weed control difficult.
- Red legged earth mite and lucerne flea infestations are occurring in some areas. This is normal for this time of the year.
- Slug damage has been reported in canola because they have managed to survive on green growth during the summer.
- An unusual amount of slug damage is also being reported in barley and wheat crops.
- There have been isolated incidences of ryegrass problems in crops. In-crop control measures have been used.
- Pre-emergent herbicides have generally been effective in controlling weeds as soil moisture conditions were ideal at the time of application.
- Slow delivery of urea fertiliser supplies delayed some nitrogen applications on early sown crops and pastures.

### PASTURES

- Frost has slowed pasture growth.
- Supplementary feeding is ongoing, particularly for cattle and early-lambing ewes.
- Body condition of cows is less than ideal for the time of year.
- Infestations of cockchafer have caused worse than usual damage to pastures.
- There has been a greater focus on investing in pasture production this year resulting in the use of growth stimulants and more attention paid to reducing insect damage.
- More producers are confinement feeding stock to enable pastures to establish and grow well before they are grazed.
- Early lambing flocks had higher lamb and ewe losses as a result of inadequate feed availability.
- The region has record low supplies of hay on hand.
- Most producers did not sow more paddocks to hay and have planned for normal hay production. They will opportunistically cut hay depending on seasonal conditions.

## Pastoral Areas

- May rainfall was above average across much of the northern part of the North West Pastoral Zone and in some areas of the North East Pastoral Zone.
- Conditions remain dry with very low availability of quality forage in many areas.
- Areas around Quorn and Hawker and extending west to the Gawler Ranges had a significant rainfall event in mid-June after the extended dry period. This germinated pasture but these areas will require more rain to establish pastures.
- The area from Maree to Oodnadatta to Marla is extremely dry. Stock have lost condition and numbers have been reduced.
- Rains around Innamincka and Moomba have grown some feed in that localised area.
- Most sheep properties have mated ewes, but reports of very low pregnancy scanning rates (less than 30%), due to the poor condition of ewes.
- Surface water has dried up in most regions of the Pastoral Zone. Properties reliant on surface water have de-stocked or are carting water. Where possible, pastoralists have installed additional water infrastructure or maintenance of existing infrastructure.
- In the northeast corner of the State, floodwaters from Queensland have flowed in the Diamantina River and Warburton Creek towards Lake Eyre. The waters have generated feed on flood-out country while the surrounding land remains dry.