Crop and Pasture Report South Australia

2020–21 Winter Crop Performance

September 2020

SOUTH AUSTRALIA

Government of South Australia

Department of Primary Industries and Regions

Crop and Pasture Report South Australia

Information current as of 7 September 2020

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

Disclaimer

All Enquiries

Dave Lewis, Agriculture, Food and Wine
Department of Primary Industries and Regions (PIRSA)
Level 15, 25 Grenfell Street
GPO Box 1671, Adelaide SA 5001
T 08 8429 0472
E dave.lewis@sa.gov.au

Contents

State Summary

Weather

Rainfall

- July rainfall was below average to very much below average in all agricultural areas.
- Rainfall for August varied from very much above average in an area of the Murray Mallee to below average in part of the Western Eyre Peninsula, Southern Mallee and the South East.
- In the Pastoral areas, July rainfall was generally below average to very much below average, with pockets of average rainfall east of Port Augusta, parts of the APY Lands and an area along the eastern Queensland boarder.
- August rainfall was above average to very much above average across much of the Pastoral area. The Flinders Ranges and Woomera areas received average rainfall.

Temperature

- Mean maximum temperatures for July were above average across most of the State. July minimum temperatures were below average to very much below average for the agricultural districts and a large part of the Pastoral area. Temperatures west of Ceduna were average.
- August mean maximum temperatures were average for the agricultural area and the eastern half of the Pastoral area. Temperatures were above average in the remainder of the Pastoral area.
- Mean minimum temperatures for August were average on Eyre Peninsula, Northern and Yorke and Murray Plains and below average for most of KI, eastern Murray Mallee and South East. Minimum temperatures in most of the Pastoral area were above to very much above average.

Crops

- Total crop production is estimated to be 7.9 million tonnes from a crop area of 4.0 million hectares which is similar to the long-term average.
- Below average rainfall combined with below average minimum temperatures in July slowed crop growth. Crops in several districts became moisture stressed towards the end of July, particularly on the higher textured soils in lower rainfall areas.
- Average to above average rainfall across much of the agricultural area in August has enabled crops to fully or at least partially recover from moisture stress.
- Crops in parts of Western Eyre Peninsula, Eastern Eyre Peninsula, Upper and Mid North and Northern Yorke Peninsula have not recovered and are likely to yield well below average.
- Despite good August rainfall, many districts have only low to moderate levels of stored soil moisture and average to above average spring rainfall will be required to achieve current yield potential.
- Cereal crops vary from early stem elongation to full head emergence.
- Crops on Kangaroo Island and in the South East have benefitted from the dry winter with improved root growth and higher yield potential as a result of not being waterlogged.
- The dry conditions in July limited the opportunity for nitrogen fertiliser applications and most was only applied in August ahead of forecast rainfall fronts. Some crops have reduced yield potential, due to the delay in nitrogen application.
- Cereal leaf disease levels have been relatively low in most areas of the State but have started to increase following rain and warmer temperatures in August. Farmers in higher risk areas have applied preventative fungicides to minimise crop damage.
- Pulse crops were not as severely affected by the dry conditions and have recovered quickly following the August rains with low levels of disease and average to above average yield potential in most districts.

- Most pulse crops are at early flowering stage with the first pods starting to develop in early pea and bean crops.
- Farmers have applied preventative fungicides to most pulse crops to ensure disease levels remain low and to maximise yield potential.
- Canola crops suffered moisture stress in July but recovered with the August rains and most are at mid to full flower. Although crops are shorter than normal, most have average to above average yield potential.
- Russian wheat aphid has been widespread in most regions, however the area sprayed has varied from district to district. Early sown crops that were not treated with an insecticide seed treatment have been the worst affected.
- Cowpea aphids have been in high numbers in bean, lentil and vetch crops.
- Red legged earth mite have been in higher numbers than normal in most crops with many requiring to be sprayed to reduce damage.

Pastures

- Pasture growth slowed in July, due to the cold, dry conditions across most of the agricultural areas.
- Producers in some districts supplementary fed livestock, particularly lactating stock, to ensure good lamb and calf survival.
- Most pastures grew rapidly following rains and warmer weather in August, however some regenerating pastures had been severely stressed by frost and lack of moisture and have not recovered as well.
- Vetch pastures have grown well and are beginning to flower and are either being grazed, brown manured or cut for hay.
- Many producers in the mixed cereal, livestock zone have reduced their stock numbers, following several below average seasons and have been able to maintain these lower numbers, despite poor pasture growth over winter.
- Most districts will have adequate or even excess pasture growth in spring for current stock numbers.
- Red legged earth mite and other pasture pests have been in moderate to high numbers and have required control to reduce damage.
- Hay production will vary between districts but overall production will be lower as a result of the reduced area sown and lower biomass in some districts.

Pastoral

- Conditions had remained extremely dry across most parts of the Pastoral Zone up until early August.
- Significant rainfall in early August promoted germination in some areas and allowed perennial grass and shrubs to re-shoot, however further rain will be required in September for most areas to produce adequate amounts of pasture growth.
- In many areas, there was very little surface cover of soils due to preceding dry years.
- A few properties north-west of Port Augusta and south of Coober Pedy had sufficient rain in autumn to produce adequate pasture growth for livestock. In these few areas, producers have begun re-stocking and breeding to increase sheep numbers.
- In most other areas, rainfall has been too light to produce sufficient feed and perennial shrubs have minimal new growth.
- Many pastoralists who had been supplementary feeding core breeding stock have had to either sell or seek agistment where the on-going cost of feeding has exhausted financial resources.
- The continued decline in stock numbers is a growing concern with some smaller producers unlikely to be financially able to re-stock when it does rain.
- The rapid decline in wool prices has reduced the profitability of feeding.

- A few loads of donated hay have been distributed to pastoral properties by charitable organisations. This has partly been enabled by reduced demand for hay in eastern states where drought conditions have eased.

Key links to other information

Department for Environment, Water and Natural Resources - Soil and Land Condition monitoring

Bureau of Meteorology - Weather and rainfall observations

Notes on the 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 dry-land 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 ABS census data as 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*	438 000	156 000	373 000	162 000	262 000	248 000	66 000	4 600
	t	503 000	516 000	448 000	537 000	459 000	658 000	211 000	14 700
Durum	*ha*	0	0	0	13 500	6 500	5 000	4 200	0
	t	0	0	0	38 000	14 000	12 500	11 800	0
Barley	*ha*	95 000	76 000	79 000	163 000	88 500	96 500	19 800	2 600
	t	124 000	274 000	103 000	546 000	159 000	261 000	65 000	7 000
Oats	*ha*	15 000	4 000	4 600	3 500	4 800	4 200	2 600	1 600
	t	18 000	10 000	5 000	8 700	7 200	9 800	6 500	4 100
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	100
	t	450	1 600	600	2 800	2 400	4 500	1 100	350
Peas	*ha*	2 500	2 400	4 200	11 000	14 000	15 000	6 100	400
	t	2 000	3 600	3 300	17 500	18 000	22 500	10 300	600
Lupins	*ha*	1 500	11 000	5 000	1 000	2 900	1 800	500	1 000
	t	1 350	15 500	3 700	1 300	3 500	2 300	650	1 500
Beans	*ha*	400	9 000	400	10 700	12 200	13 000	3 100	3 400
	t	500	16 000	300	19 200	17 000	20 500	5 200	5 500
Chickpeas	*ha*	0	400	200	6 600	4 600	2 500	400	0
	t	0	550	100	8 500	6 000	3 100	500	0
Lentils	*ha*	2 000	9 000	2 000	127 000	9 900	14 500	6 200	0
	t	2 000	15 000	1 600	216 000	12 800	20 100	8 500	0
Vetch	*ha*	2 400	2 600	2 000	2 000	5 600	4 000	300	0
	t	700	1 800	900	1 000	2 200	2 000	300	0
Canola	*ha*	15 000	57 000	9 500	19 500	14 500	22 500	3 500	5 200
	t	15 000	103 000	8 500	35 200	22 000	34 000	5 200	11 000
Hay	*ha*	5 500	5 100	7 800	23 000	20 000	23 000	6 500	7 500
(not in total)	*t*	12 000	24 000	18 500	115 000	75 000	96 000	29 000	35 500
Total	*ha*	570 200	327 900	480 400	520 800	426 700	428 700	113 100	18 900
	t	667 000	957 050	575 000	1 431 200	723 100	1 050 300	326 050	44 750

TABLE 1 CROP ESTIMATES BY DISTRICT (CONT)

		Central Hills & Fleurieu	Lower Murray	Nth Murray Mallee	Sth Murray Mallee	Upper South East	Lower South East	State Total
Wheat	*ha*	4 300	60 000	258 000	110 000	71 000	23 000	2 235 900
	t	10 800	114 000	413 000	220 000	197 000	90 000	4 391 500
Durum	*ha*	300	1 000	300	0	7 000	0	37 800
	t	600	1 500	360	0	17 000	0	95 760
Barley	*ha*	10 200	75 000	60 000	120 500	30 000	7 000	923 100
	t	26 500	158 000	95 500	265 500	84 000	29 000	2 197 500
Oats	*ha*	1 600	2 000	2 200	4 000	20 000	4 700	74 800
	t	3 800	3 600	3 000	8 000	48 000	14 500	150 200
Rye	*ha*	0	1 000	5 000	1 000	1 200	0	8 200
	t	0	1 500	6 000	1 500	1 550	0	10 550
Triticale	*ha*	500	4 000	2 000	15 000	1 000	500	28 800
	t	1 300	8 000	2 800	30 000	2 200	2 000	60 100
Peas	*ha*	1 000	3 000	4 000	3 100	2 900	400	70 000
	t	1 600	4 500	4 000	4 600	4 000	800	97 300
Lupins	*ha*	1 600	1 000	5 400	4 100	11 000	2 700	50 500
	t	2 500	1 400	5 400	6 100	13 500	4 600	63 300
Beans	*ha*	300	500	0	2 000	29 500	13 800	98 300
	t	550	600	0	2 600	46 500	37 000	171 450
Chickpeas	*ha*	200	3 000	6 800	4 100	600	200	29 600
	t	250	4 200	6 800	5 000	600	250	35 850
Lentils	*ha*	300	3 000	2 000	5 000	3 000	200	182 100
	t	420	4 200	2 000	6 500	3 800	300	293 220
Vetch	*ha*	0	3 100	6 500	5 100	1 200	0	34 800
	t	0	2 500	3 200	4 000	1 100	0	19 700
Canola	*ha*	3 000	2 100	18 000	5 200	22 500	16 500	214 000
	t	4 700	3 000	18 000	9 300	38 000	39 000	345 900
Hay	*ha*	27 000	10 000	5 600	30 000	48 000	27 000	240 500
(not in total)	*t*	123 000	40 000	11 000	120 000	230 000	149 000	1 078 000
Total	*ha*	23 300	158 700	370 200	279 100	200 900	69 000	3 987 900
	t	53 020	307 000	560 060	563 100	457 250	217 450	7 932 330

TABLE 2 CURRANT ESTIMATES AGAINST PREVIOUS FIVE SEASONS

		2015/16	2016/17	2017/18	2018/19	2019/20	5 year ave	2020/21
Wheat	*ha*	2 200 000	2 237 700	2 024 100	2 000 400	2 112 100	2 114 900	2 235 900
	t	4 315 500	6 460 500	4 122 500	3 156 000	3 251 500	4 261 200	4 391 500
Durum	*ha*	49 500	55 200	55 700	42 000	42 900	49 100	37 800
	t	86 750	209 700	139 400	75 220	82 560	118 700	95 760
Barley	*ha*	839 300	799 300	714 600	818 600	990 000	832 400	923 100
	t	1 978 000	2 774 800	1 640 700	1 725 800	2 091 000	2 042 100	2 197 500
Oats	*ha*	70 300	94 600	77 000	75 700	72 800	78 100	74 800
	t	103 000	258 700	149 300	121 500	120 450	150 600	150 200
Rye	*ha*	7 500	10 500	6 500	5 300	5 700	7 100	8 200
	t	6 200	15 700	5 100	3 150	4 250	6 900	10 550
Triticale	*ha*	21 800	21 500	19 900	29 400	32 300	25 000	28 800
	t	32 700	58 130	35 050	33 500	42 250	40 300	60 100
Peas	*ha*	102 600	97 300	90 200	65 700	65 300	84 200	70 000
	t	103 600	176 100	113 750	53 600	70 100	103 400	97 300
Lupins	*ha*	76 700	76 800	62 800	61 000	51 100	65 700	50 500
	t	63 850	134 800	53 400	59 950	53 800	73 200	63 300
Beans	*ha*	68 600	75 500	67 400	63 100	98 400	74 600	98 300
	t	77 300	166 530	101 660	79 680	156 650	116 400	171 450
Chickpeas	*ha*	20 500	20 500	29 700	33 600	22 200	25 300	29 600
	t	19 240	34 360	33 580	23 870	17 000	25 600	35 850
Lentils	*ha*	123 700	169 600	184 700	149 800	164 300	158 400	182 100
	t	120 080	447 680	260 200	177 870	220 400	245 200	293 220
Vetch	*ha*	29 600	32 200	32 400	28 400	34 000	31 300	34 800
	t	11 900	34 800	15 350	5 760	9 420	15 400	19 700
Canola	*ha*	210 500	203 000	200 200	200 100	206 600	204 100	214 000
	t	293 300	372 900	261 400	278 900	347 400	310 800	345 900
Hay	*ha*	282 700	258 800	202 900	370 000	320 600	287 000	240 500
(not in total)	*t*	1 094 800	1 454 300	948 600	1 104 000	1 258 900	1 172 100	1 078 000
Total	*ha*	3 820 600	3 893 700	3 565 200	3 572 100	3 897 700	3 749 900	**3 987 900**
	t	7 211 400	11 144 700	6 931 400	5 794 900	6 466 800	7 509 800	**7 932 300**

District Reports

Western Eyre Peninsula

Weather

- July rainfall was very much below average south of Poochera and below average in areas further north and west. August rainfall varied from above average north of Cungena to below average in an area from Port Kenny to Lock.
- Mean maximum temperatures were above average to very much above average for July. August maximum temperatures varied from average in the south to very much above average in the Far West.
- Mean minimum temperatures for July ranged from very much below average in the south to average in the Far West. August temperatures were average across the district.
- A number of light frosts were reported during July and early August.

Crops

- Below average minimum temperatures, combined with dry conditions, slowed crop growth during July and early August in the southern part of the district.
- Despite good August rains, soils in districts that did not receive the early autumn rainfall have limited stored moisture and good spring rainfall will be required for crops to achieve potential yields.
- The growth stage of cereal crops is mostly between stem elongation and head emergence, with very late-sown crops at late tillering.
- August rains came at a critical time, as many crops were beginning to show signs of significant moisture stress in early August. The warmer and wetter conditions during August resulted in significantly improved crop health in most parts of the district. Crops on the heavier textured soils west of Ceduna and between Streaky Bay and Poochera did not recover as well.
- Many crops on the better soil types from Nunjikompita to Warramboo responded well to the rainfall and now have close to average yield potential if good spring rainfall is received.
- Canola and pulse crops are flowering and generally healthy with average to below average yield potential.
- Crop leaf disease levels are generally low and with most crops having lower biomass, due to dry conditions in early winter, additional fungicide applications should not be required.
- Although there have been continuing reports of armyworm and cutworm damaging crops in some districts, the numbers have generally been below control thresholds.
- Low numbers of Russian wheat aphid have been widespread in crops that did not receive an insecticide seed treatment. Numbers have generally been below control thresholds during vulnerable periods of crop growth.
- An early flight of native budworm moths has required farmers to apply an early insecticide to protect pulse crops from larval damage at flowering and early pod set.

Pastures

- Pastures responded well to August rainfall, resulting in improved surface cover in most areas of the district.
- Some farmers sprayed out annual grasses, but many have opted to allow them to grow to preserve ground cover and will spray top pastures to control seed set in spring.
- There was some vetch cut for hay in late August, with many farmers looking to cut oat and vetch paddocks in early spring to replenish on farm supplies.
- An increased number of livestock producers have pre-ordered baled barley straw to ensure adequate supplies of roughage over summer.

Lower Eyre Peninsula

Weather

- July rainfall was very much below average in most of the district. Rainfall for August was average across the district.
- Mean maximum temperatures were average to above average for July and average for August.
- Mean minimum temperatures were very much below average for July and average for August.

Crops

- Dry conditions combined with cold nights slowed crop growth during July.
- Crops have grown rapidly following August rainfall and most are healthy with average to above average yield potential.
- August rainfall has provided some stored moisture in most soil profiles, however good spring rainfall will be required for crops to achieve their yield potential.
- Canola crops are in full flower.
- There is some variation in the maturity of pulse and cereal crops but early sown pulse crops are flowering and most cereal crops out in head.
- Many farmers have applied a second application of urea and are preparing to apply more if the forecast above average spring rainfall is received.
- There was some interest in using growth regulators to slow rapid crop growth in early winter, however dry conditions during June and July restricted biomass growth and these have generally not been required.
- In-crop grass and broadleaf herbicides were applied during July and early August. Drier July conditions helped with paddock trafficability and the efficacy and timing of these applications.
- There have been reports of continued armyworm, cutworm and native budworm damage to crops, but numbers have generally been below control thresholds and crops will continue to be monitored into spring to guide insecticide applications.
- Low levels of spot form net blotch in barley and leaf rust in wheat have been observed, however these have generally been controlled with normal fungicide applications.
- Disease levels in canola and pulse crops have been relatively low.

Pastures

- Pastures have grown rapidly following August rains, with many now containing high levels of biomass.
- Livestock are in excellent condition with good lambing percentages and feed levels in pasture paddocks.
- Some pastures will to be cut for hay in spring, however most of this will be used on-farm or sold locally. The area of pasture cut for hay is expected to be close to average.

Eastern Eyre Peninsula

Weather

- July rainfall was very much below average. Rainfall for August was average across the district.
- Mean maximum temperatures were above average for July and average for August.
- Mean minimum temperatures for July were below average to very much below average and average for August.
- A number of light frosts were reported during July and early August.

Crops

- Below average minimum temperatures, combined with dry conditions, slowed the growth of crops during July.
- Many crops across the region were showing signs of significant moisture stress following dry conditions in June and July.
- Rainfall in August has enabled most crops to recover, with average to slightly below average yield potential expected. Crops on heavier soil types have not recovered as well, and have below average yield potential.
- Later sown crops in districts around Arno Bay and Wharminda, which did not receive early rainfall, have grown well and could produce close to average yields if good spring rainfall is received.
- Despite average August rains there is little stored soil moisture in most areas of the district and good spring rainfall will be required for crops to achieve their potential yields.
- Cereal crops are mostly at stem elongation to head emergence on the better soils, while crops sown late on non-wetting sands are at late tillering.
- Pulses and canola crops generally look good and are at late flowering.
- Some spot form net blotch has been reported on susceptible barley varieties, however other leaf diseases have generally been low. Dry winter conditions have resulted in lower crop biomass, reducing the risk of disease, and additional fungicide applications are not expected.
- Russian wheat aphid has been reported in low numbers in many crops that did not receive an insecticide seed treatment. Aphid numbers are being monitored in these crops, however additional sprays to protect yield potential are not expected to be required.
- An early flight of native budworm moths has required farmers to apply an early insecticide to protect pulse crops from larvae at flowering and early pod set.

Pastures

- Medic pastures have responded well to August rain, resulting in improved surface cover for erosion protection in many areas of the district.
- Crops sown for hay are likely to be cut in late September, depending on weather conditions. Most of this hay will be used on-farm or sold locally.
- Given low paddock biomass, livestock producers are preparing to supplementary feed stock in containment areas over summer to protect vulnerable soils from erosion.
- Some pastures have been ‘grass-freed’ but many growers will spray-top paddocks in spring to manage grass weed seed set whilst maintaining surface cover.

Upper North

Weather

- Rainfall for July was below average to very much below average.
- August rainfall was average across the district.
- Mean maximum temperatures were above average in July and average for August.
- Mean minimum temperatures for July were very much below average and average for August. Numerous frosts were recorded in inland areas during July and August.

Crops

- At the end of July there was still moderate amounts of stored soil moisture, but the soil surface had dried in most of the district and plants were relying on stored moisture.
- There are now moderate to high levels of stored soil moisture across most of the district.
- Crop growth has been relatively slow during July, due to cold conditions and numerous frosts.
- Early sown crops in the northern part of district grew well but became moisture stressed in late June and early July on heavier soils.
- Late sown crops stopped growing at mid-tillering growth stage in late June, until reasonable falls of rain in mid-July. These crops have recovered quickly following good August rainfall, but most will require above average spring rainfall to achieve average yields.
- Early sown cereal crops south of Booleroo are actively growing with most at flag emergence stage. Later sown crops are at booting. Most of these crops did not suffer significant moisture stress and still have average to above average yield potential.
- Farmers delayed the application of nitrogen fertiliser due to the dry conditions in July, but have applied average to above average rates in August ahead of rain fronts.
- Pea crops have grown well and are flowering with low disease levels and above average yield potential.
- Bean crops grew slowly with the cold, dry conditions and most crops are relatively short but have been flowering for several weeks with early pods starting to set.
- Canola crops were moisture stressed in late July but have recovered and are at full flower with average yield potential.
- Cow pea aphids have been present in most legume crops with many being sprayed to reduce damage.
- Russian wheat aphid is widespread across the district at low to moderate levels and a large number of paddocks not treated with an insecticide seed treatment have been sprayed.

Pastures

- Pasture growth slowed with the cold, dry conditions in July and in many areas was inadequate to meet livestock demand, resulting in producers having to supplementary feed livestock.
- Following the rain in August, pastures have grown rapidly and there is now adequate pasture feed in most areas of the district.
- Pasture growth is still limited in the area north of Orroroo and good spring rainfall will be required to ensure sufficient livestock feed, despite most producers having very low stock numbers.
- Vetch pastures have grown well and are starting to flower. Most are being grazed but some will be cut for hay or brown manured.
- Following several dry seasons stock numbers are well below average and there will be adequate pasture feed in most areas to support these lower numbers.

Mid North

Weather

- Rainfall for July was very much below average with a pocket around Clare and Manoora recording their lowest rainfall on record. August rainfall was generally average except for above average in the far eastern part of the district.
- Mean maximum temperatures were above average for July and average for August.
- Mean minimum temperatures were very much below average for July and average for August. Numerous frosts were recorded during July.

Crops

- Some crops became moisture stressed in late July, particularly those on the Condowie Plain and some late sown barley crops in other areas of the district. Barley crops have generally been more affected than wheat crops.
- Crop growth was impacted by numerous heavy frosts during July in higher areas of the district.
- The rainfall in August has enabled most crops to recover, however those on the Condowie Plain have not recovered and are likely to yield 30 to 40% below average.
- In the better rainfall areas of the district crops did not suffer significant moisture stress and most crops have average yield potential.
- Most cereal crops are at the flag leaf emergence to booting (head emergence) stage.
- Many farmers reduced their nitrogen fertiliser applications, due to minimal application opportunities in July and lower yield potential predicted in early to mid-August.
- Where nitrogen fertiliser applications were delayed, some crops have suffered nitrogen deficiency with reduced yield potential.
- Pulse crops were not affected by the dry conditions in July and most crops have average to above average yield potential.
- Field pea crops have grown well, have low disease levels, and are starting to flower.
- Growth of lentil crops was slowed with the dry conditions but have recovered and most crops are starting to flower and are at close to canopy closure.
- Bean crops have been flowering for several weeks and are now starting to pod as the weather starts to get warmer.
- Chickpea crops have low levels of ascochyta with fungicide applications reducing the spread of the disease.
- Canola crops were moisture stressed in late July but have recovered with average to above average yield potential. Blackleg is at low levels with an increasing number of producers applying fungicide to reduce damage.
- Cow pea aphids have been present in most legume crops with many being sprayed to reduce damage.
- Russian wheat aphid is widespread across the district at low to moderate levels and a large number of paddocks not treated with an insecticide seed treatment have been sprayed.

Pastures

- Vetch pastures have grown well and are beginning to flower, with most either being brown manured or cut for hay.
- Cold, dry July conditions slowed pasture growth and many producers supplementary fed stock with hay. Some producers grazed cereals to fill the feed gap, reducing their yield.
- Pastures have grown rapidly during August and there is now ample feed for livestock.
- Pastures in permanent hill country had minimal growth in late July but now have adequate growth.
- There will be a large area of hay cut with a lot not contracted, making it available for the local market.

Lower North

Weather

- July rainfall was very much below average across the district. Rainfall for August was average in most of the district with a small pocket of above average rainfall in the north-east of the district.
- Mean maximum temperatures were above average for July and average for August.
- Mean minimum temperatures were very much below average for July and average for August.

Crops

- Most soils contain 20 to 30% stored soil moisture, but crops are rapidly using this available moisture.
- Following the rain in early August, all crops have grown rapidly. Most cereal crops are at flag leaf emergence and early sown crops are at head emergence.
- The cold, dry conditions in July slowed growth and most cereal crops are relatively short.
- Crops in the lower rainfall parts of the district were moisture stressed in late July and have lost some potential and are likely to yield slightly below average. In the better rainfall parts of the district, crops did not suffer moisture stress and have average yield potential.
- Growth of pulse crops was slowed by the cold, dry conditions but they have grown rapidly since the rain with average to above average yield potential.
- Pea crops are starting to flower and have low levels of disease.
- The area sown to chickpeas has been reduced from those sown in 2019 but crops have grown well with minimal disease.
- Lentil crops were moisture stressed, reducing crop height, but are at canopy closure and starting to flower. Some crops have been affected by rhizoctonia root rot.
- Bean crops are relatively short, due to the cold winter but have been flowering for several weeks, with the first pods starting to set. Disease levels are very low due to most farmers applying preventative fungicides.
- Canola crops are relatively short but are flowering with average yield potential.
- Cereal diseases are at low levels with minimal septoria leaf blotch and low levels of stripe rust. Crops will need to be monitored in the next few weeks and fungicides applied if required.
- Russian wheat aphids are widespread but at low numbers with only some paddocks needing to be sprayed to reduce damage. The worst affect crops were sown early without an insecticide seed treatment.
- There have been isolated outbreaks of a wide range of other pests, including cutworm, armyworm and pasture webworm.

Pastures

- Pastures were moisture stressed in July but have grown rapidly in August with excellent biomass.
- There is now more than adequate feed available for livestock across the district.
- Livestock are in excellent condition with above average lambing percentages being reported.
- There has been a reduced area sown to hay, due to reduced demand, with several large hay producers still having stocks on-hand from last season.

Yorke Peninsula

Weather

- Rainfall for July was very much below average, with an area from Wallaroo to Ardrossan recording their lowest rainfall on record. August rainfall was average across the district.
- Mean maximum temperatures were above average for July and average for August.
- Mean minimum temperatures were very much below average for July and average for August.

Crops

- Soil moisture levels are below average, although slightly better than last year.
- Crops south of Minlaton are in excellent condition with above average yield potential.
- Crops are in good condition throughout the middle region of the Yorke Peninsula in a north/south direction, despite the below average rainfall in July.
- The coastal areas of the Yorke Peninsula, particularly on the eastern side, have suffered severe moisture stress during July and cereal crops have gone into reproductive phase early, severely reducing yield potential. Cereal heads are emerging with half the head aborted, due to moisture stress.
- In the northern half of the district crops vary from poor to good, depending on rainfall and soil type. Average to above average September rainfall will be required to maintain yield potential as soil moisture is limited.
- Early sown wheat is now flowering, while the majority of wheat is at flag leaf to early head emergence.
- Canola crops are at mid to full flower with excellent growth and yield potential. Crops grown close to last year's canola stubble have required protection against upper blackleg canopy infection.
- Most barley crops are at flag leaf emergence to flowering. Barley crops have had high levels of net blotch leaf disease through winter and leaf rust has started to develop near end of August.
- Septoria leaf blotch was common in most wheat crops early in the season, however the dry July has limited the infection further up the plant. Powdery mildew has also been present in many wheat crops.
- Early sown lentil crops reached canopy closure in late August, with most varieties still in vegetative growth or early flowering. The dry July has had less impact on lentil yield potential compared with cereals. Preventative fungicides have been applied to reduce ascochyta infection.
- Chickpea crops have low ascochyta leaf disease infection, due to the dry winter. Preventative fungicides are being applied prior to rainfall events to reduce infection. At this stage yield is unlikely to have been affected.
- Faba bean crops are generally shorter than normal due to the moisture stress during July, however they are now flowering well and have good yield potential.
- Most nitrogen was applied by the end of August, later than ideal due to the dry conditions. Later application has resulted in reduced yield potential in a large number of paddocks.
- Russian wheat aphids have been present in most cereal crops, but control has only been required on the north eastern coast of the Yorke Peninsula.
- Cowpea aphids have been in high numbers in bean, lentil and vetch crops and were controlled.
- Residual herbicides are starting to affect wheat crops, limiting yield potential in conventional wheat crops sown into paddocks with imidazolinone (IMI) herbicides applied last year.

Pastures

- Medic pastures were severely moisture stressed during July, reducing growth. These pastures have recovered during August however pasture feed levels have still been affected.
- There will be a reduced number of medic pastures cut for hay, due to the reduced biomass.
- Early pasture feed had been exhausted in early August and producers began reducing livestock numbers.

Adelaide Hills, Fleurieu & Kangaroo Island

Weather

- July rainfall was the lowest on record for KI and very much below average for the Hills and Fleurieu. Rainfall for August was average for majority of the district.
- Mean maximum temperatures were above average for July and average for August in all areas.
- Mean minimum temperatures for July were below average to very much below average. August temperatures were average for the Hills, Fleurieu and eastern KI and below average for central and western KI.

Crops

Central Hills/Fleurieu Peninsula

- The dry July conditions have had some yield impact on crops growing on sandy soil types, but there will be no significant impact to yields on other soil types across the region.
- Rainfall in August has greatly improved crop yields and soil moisture.
- Cereal crops are at stem elongation and pulse crops are at pre or early flowering.
- Yield potential will be average for most crops.
- Dry conditions in July delayed nitrogen fertiliser applications until rains were received in August.
- Red legged earth mite have been in higher numbers than normal in most crops and many have been treated with an insecticide to reduce damage. Other pests have been at low levels.
- Farmers have been applying preventative fungicides, which has kept diseases at low levels.

Kangaroo Island

- Soil moisture levels are high and crops with good nutritional status are growing well.
- Crops with poor nutritional status have grown slowly with lower yield potential.
- Cereal crops are between stem elongation and flag leaf emergence with average yield potential.
- Canola crops are at early to mid-flowering with average to well above average yield potential.
- Bean crops are at early flowering and average yield potential.
- Dry July conditions delayed nitrogen fertiliser application, reducing yield potential.
- Diseases have increased with the milder weather in July, particularly net blotch in barley, powdery mildew in wheat and chocolate spot in beans. Fungicide has been applied.
- Aphids (including Russian wheat aphid), lucerne flea, cutworm and armyworm damaged crops earlier in the season than normal, due to the mild weather in July.
- Several farmers who were burnt out by the fires have sown significant areas of crop. Most have used contractors, due to their limited experience and knowledge in growing crops.

Pastures

Central Hills/Fleurieu Peninsula

- Pasture growth and feed availability has improved this season, and most areas are back to average pasture production in paddocks that have maintained good seed reserves. Paddocks with low seed reserves have poor pasture growth.
- Red legged earth mite have been at moderate levels but other pests have been relatively low.
- The condition of livestock has improved as pasture growth has increased.
- There has been adequate pasture feed supply, due to lower than average stock numbers.

Kangaroo Island

- Low soil moisture and heavy grazing slowed pasture growth in July. The August rain has improved soil moisture and mineralised soil nitrogen which has boosted pasture growth.
- There have been limited pest and disease issues apart from some Cutworm damage.
- Livestock are in average condition and this will improve with spring pasture growth. Lambing percentages were average to above, due to the milder winter weather.
- Across the southern portions of KI producers have had limited run-off to fill dams for stock water.

Lower Murray

Weather

- July rainfall was below average to very much below average across the district. Rainfall for August was above average north of Sedan and average in the remainder of the district.
- Mean maximum temperatures were above average to very much above average for July and average for August.
- Mean minimum temperatures for July were very much below average in the north and below average further south. Temperatures for August were below average across the district.
- Several frosts were recorded in late July.

Crops

- Dry conditions during July caused many crops in the northern part of the district to become moisture stressed.
- Average to above average rainfall in August has enabled these crops to recover, however yields are still likely to be below average.
- The southern areas of the district were also very dry in July, but crops were less affected due to higher levels of stored soil moisture from early rains.
- August rainfall has helped to maintain above average yield potential in the southern part of the district.
- Widespread frosts in late July slowed crop growth but should not impact significantly on yields.
- Most cereal crops are at head emergence with crops in areas experiencing moisture stress maturing more quickly.
- Canola and pulse crops in the southern part of the district are flowering with low levels of disease and above average yield potential.
- Farmers have applied nitrogen fertiliser, trace elements, herbicides, and fungicides to crops during July and August.
- Good spring rainfall and mild temperatures will be required to maintain above average potential in the south and to ensure the northern areas can achieve average yield potential.

Pastures

- Sown pastures have tolerated the dry and cold conditions much better than regenerating pastures and have grown rapidly following rain and warmer temperatures in August.
- The growth of regenerating pastures was severely affected by frosts and the dry conditions in July, and despite August rainfall, growth has been slow.
- Livestock are in good condition.

Northern Murray Mallee

Weather

- Rainfall in July was very much below average. August rainfall was average to above average.
- Mean maximum temperatures were above average to very much above average for July to below average for August.
- Mean minimum temperatures were very much below average for July and average for August. There were numerous frosts recorded during July.

Crops

- Crops on heavy and shallow soil types were beginning to suffer moisture stress due the very dry June/July period, but have recovered quickly following the mid-August rainfall.
- There is good subsoil moisture across the district and most crops now have above average yield potential, given average spring rainfall.
- The warmer weather, combined with good soil moisture, has resulted in rapid crop growth.
- Most cereal crops are at stem elongation to booting with some early sown crops at head emergence.
- Canola crops are close to full flower and pulse crops are at early to mid-flower.
- There has only been a moderate amount of nitrogen fertiliser applied, as the extended dry period limited the opportunities for urea application.
- Russian wheat aphid has been present in some cereal crops, particularly where insecticide seed treatment was not applied (such as early sown feed paddocks). These crops are being monitored and aphids have been controlled as required.
- There has been very little leaf disease present, but crops will be carefully monitored through September.

Pastures

- Despite dry conditions in June and July, soil moisture from autumn rains enabled good early growth of pastures providing more than adequate feed for the lower number of livestock.
- Following three years of below average rainfall most producers have significantly reduced their livestock numbers.
- Livestock are generally in good condition and lambs are being weaned.

Southern Murray Mallee

Weather

- May rainfall was average. Rainfall for June was below average in the west and average in the remainder of the district.
- Mean maximum temperatures were average to above average for July and average to below average for August.
- Mean minimum temperatures were below average to very much below average for July and average for August. Numerous severe frosts were recorded in July.

Crops

- Several severe frost events in late July stressed crops and slowed growth, however there has been minimal long term damage.
- Dry conditions combined with cold nights in July slowed crop growth, however good August rainfall helped lift crops towards the end of the month.
- Most cereals were at booting stage at the end of August.
- Pulse and canola crops are beginning to flower.
- Most crops have above average yield potential but will still require good spring rainfall and the absence of frost events during flowering to achieve this potential.
- Farmers have applied nitrogen fertiliser, herbicides, and fungicides to crops to maximise yield potential.
- There have been some reports of Russian wheat aphid infesting cereal crops but only crops with above threshold levels have been treated.
- Most farmers have applied preventative fungicides to ensure leaf diseases are kept at low levels.

Pastures

- Pasture growth slowed with the dry conditions and frosts in July.
- Annual grasses were severely affected by dry conditions and frosts and many have not recovered following the August rains.
- Sown cereal and vetch pastures have recovered well from dry conditions and frosts and are growing rapidly.
- Livestock are in very good condition.
- Early drop lambs have grown well with early lambs starting to be sold.

Upper South East

Weather

- July rainfall was below average to very much below average. Rainfall for August was average in the west and below average in the east of the district.
- Mean maximum temperatures for July were above average in the northwest and average in the rest of the district. Temperatures for August were average across the district.
- Mean minimum temperatures were below average to very much below average for July and below average for August. Many parts of the district received numerous severe frosts during July and August.

Crops

- The soil surface has remained wet as a result of numerous smaller rainfall events, however subsoil moisture levels vary from average to below average across the district.
- The dry conditions during July enabled farmers on the heavier soil types to apply pesticides with boom sprays rather than aircraft, which are often required due to wet conditions.
- Crop growth was slowed following numerous frosts in late July and early August but have recovered with warmer weather in mid to late August.
- Yield potentials are forecast to be average to above average for all crops, with up to 70 to 80% of crops expected to yield 20% above average.
- Most wheat and barley crops are at early to mid-stem elongation. Canola crops are at early stem elongation to early flowering. Bean crops are at early flowering.
- With above average rain for April, May and June, the dry conditions in July stopped soils becoming waterlogged, resulting in improved crop growth.
- Nitrogen fertiliser was applied earlier than normal and at higher rates for early crop development and to target increased yield potential.
- The early opening rains have resulted in slightly higher pest and disease levels, with red legged earth mite present in a large number of crops.
- The small, frequent rainfall events have kept crop canopies wet for longer, increasing infection of a range of leaf diseases. These have included chocolate spot in beans, blackleg in canola, with stripe rust and septoria starting to develop in wheat crops. Barley scald and net blotch are also starting to develop in barley crops. These are being proactively managed with fungicides.
- Diseases are being proactively managed and are not expected to significantly reduce yields.
- Most crops have low levels of weeds with effective control being achieved with both pre-emergent and post-emergent herbicides.

Pastures

- Pasture dry matter production slowed with the cold, dry conditions in July. Rain in mid-August has increased pasture growth significantly.
- Producers have been able to graze livestock on paddocks that would normally be under water, increasing the number of grazing paddocks available. Producers have also applied more Gibberellic acid than normal, resulting in excellent pasture growth through August.
- Pests and diseases in pastures have been relatively low, with red legged earth mite, conical snails and pasture looper caterpillar causing damage in some areas.
- Good early growth of sown pastures enabled producers to graze these and stop supplementary feeding earlier than normal.
- Pasture feed supply will be abundant in spring and some producers are considering buying in more stock.

Lower South East

Weather

- July rainfall was below average to very much below average. Rainfall for August was generally below average with an area around Naracoorte receiving average rainfall.
- Mean maximum temperatures for July and August were average.
- Mean minimum temperatures were very much below average for July and below average for August. Numerous severe frosts were recorded in July and August.

Crops

- Despite below average rainfall in July there was adequate rainfall in August to fill most soil moisture profiles across the district.
- With high levels of stored soil moisture, the well below average rainfall in July actually benefited crop growth, with plants able to establish a better root system due to absence of waterlogging. This has resulted in excellent crop growth.
- Yield potential for all crop types is expected to be above average, assuming average spring rainfall.
- Fungicides and nitrogen fertilisers were applied in late August.
- Canola crops are starting to flower. Wheat crops are at early stem elongation and beans are at the pre-flowering or pre-canopy closure stage with some early sown crops starting to flower.
- With limited rainfall events during July, farmers delayed the application of nitrogen fertiliser and have applied high rates of nitrogen prior to rainfall in August.
- There are low levels of septoria leaf disease present in wheat crops but this is being managed with proactive fungicide applications.
- Leaf diseases ascochyta and cercospora are present at normal to low levels in faba bean crops.
- Red legged earth mite is present in many crops, with the cold conditions slowing crop growth and increasing damage.
- Armyworm are present in low numbers in some cereal crops and farmers are spraying to minimise any potential losses.

Pastures

- Pasture growth during winter has been average, however frosts have limited growth on lighter soil types.
- Most pastures are actively growing following adequate August rain and warmer temperatures.
- Producers have removed livestock from some paddocks to enable good growth for hay and silage production.
- Cutworm has caused small localised damage to some pastures and were controlled with insecticide.
- Red legged earth mite have been in high numbers causing damage to pastures, requiring treatment.
- Sheep and cattle have maintained good condition, throughout winter.
- Some cattle have been impacted by lice with infestations increasing and some producers have treated animals several times to achieve effective control.

Government
of South Australia

Primary Industries
and Regions SA