Crop and Pasture Report South Australia

2014-15 WINTER CROP PERFORMANCE

SEPTEMBER 2014

PREMIUM FOOD AND WINE FROM OUR CLEAN ENVIRONMENT

SOUTH AUSTRALIA

Government of South Australia
Primary Industries and Regions SA

Crop and Pasture Report - South Australia
This is a bimonthly report prepared by Rural Solutions SA, for the Agriculture, Food and Wine Division of Primary Industries and Regions SA (PIRSA).

Information current as of 3rd Sept, 2014.

ALL ENQUIRIES

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State Summary

WEATHER

- Rainfall for July ranged from below average in the Upper North and Murray Mallee areas to above average in the Lower Murray, Far West and Central Eyre Peninsula.
- August rainfall was below to very much below average across the State with some areas on Eyre Peninsula receiving their lowest August rainfall totals on record.
- Mean maximum temperatures were near average in the cropping areas of the State during July and above average during August.
- Mean minimum temperatures were below to very much below average (1°C to 4°C) during August. Areas on Upper Eyre Peninsula, Upper and Mid North and the Northern Mallee observed their lowest minimum mean August temperatures on record.
- Growing season rainfall to date (April to August) is average to above average in most of the State. Areas of eastern Kangaroo Island and the Upper South East have had below average growing season rainfall.

CROPS

- The cold, frosty conditions during August have slowed crop growth but most crops are still more advanced than normal for this time of the year.
- Widespread, severe frosts have caused significant damage to crops from Penong in the west to Pinnaroo in the east.
- The crop production estimate of 7.6 million tonnes has a higher degree of uncertainty than normal due to a greater dependence on weather conditions in the coming month, as determined by how much frosted crops are able to recover of damaged of the lost potential.
- The Northern Mallee appears to be the worst affected by frost with estimated losses of 30 to 40%, while in other districts including Upper Eyre Peninsula, Upper and Mid North, Northern Yorke Peninsula and the Southern Mallee losses are estimated at 5 to 10%.
- Early-sown crops (sown before 20 April) have been the worst affected, with yield losses of 80% or more.
- In the Upper and Mid North and Northern Mallee where frost was very severe, wheat crops have been damaged from early stem elongation to head emergence growth stages. Early-sown oaten hay, pea and lupin crops have also been severely damaged.
- Canola and later-sown pea crops have lost some flowers and pods but have continued to flower, lessening yield losses.
- Barley crops have suffered some frost damage but yield losses are likely to be relatively low.
- Only a small area of frosted crop has been cut for hay with some growers turning livestock onto severely damaged crops. Most frosted crops will be kept for grain harvest due to the patchy nature of the frost damage.
- Some crops on shallow, heavy soils on Upper Eyre Peninsula, Upper North and the Mallee were beginning to show signs of moisture stress towards the end of August.
- Canola crops affected by Beet Western Yellows virus early in the season have only partially recovered and the yield and grain quality of these crops will be poor. Fortunately the damage has been limited to only a small number of crops in most districts and the spread of the virus to other crops has been limited.
- Peach green aphid numbers have been dramatically reduced by the cold weather and have not yet built up again in most districts. Aphid numbers in crops are being closely monitored.

- The dry August has slowed the development of foliar diseases with only low levels of stripe rust and net form of net blotch being reported. Most growers have been applying fungicide sprays on susceptible varieties.
- The level of disease in pulse crops is also relatively low as a result of the dry conditions.
- Diamond back moth larvae are beginning to build up in canola crops in a number of districts and these will need to be managed to avoid significant damage.
- Native budworm numbers increased in the last few weeks of August and growers have begun controlling this pest in pulse crops.
- There have been reports of mice damage on Upper Eyre Peninsula and Yorke Peninsula with some baiting occurring in late July and early August.

PASTURES

- Pasture growth has slowed with the cold weather and frost during August.
- In most areas of the State there is still a high amount of quality pasture feed. In the South East pasture growth has been slow and pasture availability is limited.
- Insect damage and fungal diseases have slowed the growth of pastures in some districts.
- Some early-sown crops and medic were cut for hay in late August.
- Some frosted crops are already being grazed or will be used for feed in the next few weeks.

KEY LINKS TO OTHER INFORMATION

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

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 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*	503,000	142,000	405,000	168,000	263,000	250,000	53,500	4,600
	t	654,000	426,000	607,000	574,000	420,000	650,000	160,000	11,500
Durum	*ha*	0	0	0	24,000	12,000	12,000	5,300	0
	t	0	0	0	74,000	22,000	32,000	15,000	0
Barley	*ha*	75,000	70,000	76,000	146,000	87,000	84,000	27,000	2,700
	t	105,000	210,000	122,000	496,000	155,000	228,000	84,000	7,000
Oats	*ha*	13,500	3,200	5,000	5,000	10,000	8,000	2,000	3,300
	t	13,500	7,000	6,000	11,000	12,000	17,000	5,000	8,200
Rye	*ha*	0	0	0	0	0	0	0	0
	t	0	0	0	0	0	0	0	0
Triticale	*ha*	1,500	500	4,000	2,000	2,500	3,000	500	300
	t	1,800	1,500	6,000	5,500	4,200	8,000	1,500	900
Peas	*ha*	5,000	5,500	5,500	20,000	28,000	24,000	7,300	400
	t	4,500	7,700	4,400	32,000	30,500	34,000	14,500	600
Lupins	*ha*	1,200	23,000	5,000	1,500	3,000	3,000	900	1,500
	t	750	28,000	4,000	2,000	3,300	4,000	1,600	2,700
Beans	*ha*	0	6,000	200	12,500	6,500	14,200	6,000	600
	t	0	10,000	200	25,000	8,500	28,000	12,000	1,200
Chickpeas	*ha*	0	200	200	9,500	3,200	5,000	1,000	0
	t	0	250	100	13,300	3,800	7,000	1,500	0
Lentils	*ha*	0	2,000	0	78,000	4,000	12,000	6,000	0
	t	0	3,300	0	133,000	5,200	19,000	8,500	0
Vetch	*ha*	800	1,800	800	2,000	5,500	5,000	300	0
	t	400	1,500	500	2,400	2,800	6,200	350	0
Canola	*ha*	5,400	63,000	8,500	32,000	29,000	55,600	10,500	4,100
	t	4,300	88,000	6,800	55,000	37,000	80,000	17,000	7,400
Hay	*ha*	6,200	4,500	6,000	19,000	21,000	27,000	7,000	6,500
(not in total)	*t*	15,500	18,000	17,000	95,000	72,000	138,000	35,000	34,000
Total	*ha*	605,400	317,200	510,200	500,500	453,700	475,800	120,300	17,500
	t	784,250	783,250	757,000	1,423,200	704,300	1,113,200	320,950	39,500

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*	5,500	69,000	245,000	120,000	69,000	25,000	2,322,600
	t	13,000	110,000	294,000	180,000	165,000	80,000	4,344,500
Durum	*ha*	300	800	500	0	11,800	0	66,700
	t	550	1,000	500	0	27,000	0	172,050
Barley	*ha*	9,000	50,000	45,000	73,000	75,000	16,000	835,700
	t	21,000	80,000	62,000	110,000	172,000	48,000	1,900,000
Oats	*ha*	1,800	3,000	2,000	3,000	19,500	5,000	84,300
	t	4,500	3,600	2,400	4,800	37,000	12,000	144,000
Rye	*ha*	0	1,500	2,000	2,500	1,000	0	7,000
	t	0	1,400	1,800	3,000	1,000	0	7,200
Triticale	*ha*	1,500	6,500	3,000	15,000	7,000	1,000	48,300
	t	4,200	9,500	3,600	22,000	13,000	3,200	84,900
Peas	*ha*	1,500	1,500	600	3,000	3,000	400	105,700
	t	2,800	1,400	250	3,600	4,500	900	141,650
Lupins	*ha*	1,300	1,000	1,200	10,000	14,000	3,000	69,600
	t	2,500	900	600	9,000	20,000	5,000	84,350
Beans	*ha*	400	100	0	1,000	12,000	9,000	68,500
	t	800	100	0	1,000	20,000	20,000	126,800
Chickpeas	*ha*	0	0	400	500	200	200	20,400
	t	0	0	300	500	200	300	27,250
Lentils	*ha*	0	0	0	200	3,000	200	105,400
	t	0	0	0	200	3,600		172,800
Vetch	*ha*	0	600	1,000	4,200	400	0	22,400
	t	0	200	800	3,300	400	0	18,850
Canola	*ha*	1,400	4,000	22,000	9,000	36,000	18,000	298,500
	t	2,500	2,400	8,800	7,200	47,000	36,000	399,400
Hay	*ha*	24,000	4,800	3,600	12,500	48,000	25,000	215,100
(not in total)	*t*	120,000	17,000	6,000	40,000	180,000	110,000	897,500
Total	*ha*	22,700	138,000	322,700	241,400	251,900	77,800	4,055,100
	t	51,850	210,500	375,050	344,600	510,700	205,400	7,623,750

TABLE 2 CROP ESTIMATES AGAINST FIVE YEAR AVERAGE

		2009/10	2010/11	2011/12	2012/13	2013/14	5 year ave	2014/15
Wheat	*ha*	2,111,100	2,237,100	2,226,100	2,176,300	2,295,900	2,209,300	2,322,600
	t	4,032,500	5,818,500	4,444,800	3,556,500	4,976,000	4,565,700	4,344,500
Durum	*ha*	60,000	69,800	74,600	77,200	68,300	70,000	66,700
	t	157,200	240,600	223,950	181,240	194,930	199,600	172,050
Barley	*ha*	1,152,300	965,200	987,700	907,100	854,900	973,400	835,700
	t	2,544,100	2,839,100	2,031,800	1,912,900	2,093,500	2,284,300	1,900,000
Oats	*ha*	79,700	75,300	75,800	85,800	85,000	80,300	84,300
	t	136,600	152,300	117,400	128,740	159,700	138,900	144,000
Rye	*ha*	9,400	9,500	9,500	9,500	7,100	9,000	7,000
	t	8,200	11,600	7,900	7,500	6,350	8,300	7,200
Triticale	*ha*	85,900	85,700	80,200	69,200	49,300	74,100	48,300
	t	117,700	167,100	117,500	95,920	86,500	116,900	84,900
Peas	*ha*	127,700	126,300	109,900	103,700	106,100	114,700	105,700
	t	181,150	238,500	144,400	116,100	143,250	164,700	141,650
Lupins	*ha*	66,500	64,900	64,900	63,200	69,300	65,800	69,600
	t	97,200	120,100	78,900	75,110	105,500	95,400	84,350
Beans	*ha*	71,200	71,500	72,200	69,400	69,000	70,700	68,500
	t	144,350	168,600	121,220	105,510	139,400	135,800	126,800
Chickpeas	*ha*	13,200	10,700	12,200	19,700	20,700	15,300	20,400
	t	17,150	16,000	19,550	21,810	29,280	20,800	27,250
Lentils	*ha*	52,100	97,700	106,100	88,800	94,800	87,900	105,400
	t	89,450	174,350	181,600	97,720	163,350	141,300	172,800
Vetch	*ha*	12,900	12,800	13,100	13,100	17,000	13,800	22,400
	t	10,650	12,900	11,120	6,800	14,320	11,200	18,850
Canola	*ha*	182,700	196,500	269,500	302,700	301,000	250,500	298,500
	t	297,100	381,700	435,700	398,700	434,400	389,500	399,400
Hay	*ha*	274,100	244,200	201,500	204,500	227,300	230,300	215,100
(not in total)	*t*	1,004,000	1,066,000	774,400	769,000	1,018,100	926,300	897,500
Total	*ha*	4,024,700	4,023,000	4,101,800	3,985,700	4,038,400	4,034,700	4,055,100
	t	7,833,350	10,341,350	7,935,840	6,704,550	8,546,480	8,272,300	7,623,800

District Reports

Western Eyre Peninsula

WEATHER

- July rainfall was above average.
- A very dry August (very much below average) resulted in winter rainfall totals that were below average (Decile 3). Part of the district received its lowest August rainfall on record.
- Cool to mild days and cold nights were experienced throughout July and August with a number of light frosts reported in the Penong, Wirrulla and Mudamuckla districts.
- Mean minimum temperatures were very much below average for August. The eastern part of the district recorded the lowest mean minimum temperatures on record.

CROPS

- Good growing conditions during early winter have resulted in dense crops with high yield potential.
- Early-sown cereal crops are at head emergence stage while later-sown crops are at booting stage.
- Pulses and canola are at late flowering stage with pods setting on early-sown crops.
- Good rains in June and July prompted growers to apply nitrogen to cereals. A rate of between 50 to 70 kg of urea was applied in most districts with higher applications used in more reliable districts such as Mt Cooper.
- Crops on heavy-textured and shallow soils around Wudinna, Wirrulla and Poochera are beginning to show signs of moisture stress.
- Good rains will be required during grain fill for crops to fulfil their yield potential.
- Frost has damaged wheat crops in the Penong and Wirrulla area but in other parts of the district cereal crops appear to have escaped significant damage. Frost damage has been more severe and widespread on early-sown pea crops.
- Leaf and stripe rust has been observed on crops near Mt Cooper and Wudinna. Most growers have applied preventive fungicides to protect crops.
- High numbers of aphids have been reported in most districts. Many growers have sprayed pulse and canola crops to reduce damage.
- Some growers have applied mouse bait in the Streaky Bay area to reduce crop damage.

PASTURES

- Paddocks contain high amounts of quality feed.
- Production of medic pastures has been checked due to damage from fungal disease and aphids.
- Drier conditions in August enabled growers to cut some early-sown cereal paddocks and medic pastures for hay.
- Livestock are in excellent condition.

Lower Eyre Peninsula

WEATHER

- June and July rainfall was above average (Decile 9), resulting in widespread water logging across the district.
- August rainfall was very much below average (Decile 1).
- Mean minimum temperatures were very much below average during August.
- A number of frosts were experienced throughout August.

CROPS

- Cool and wet conditions in early winter slowed growth of crops and pastures.
- Dry conditions during August helped reduce waterlogging and encourage crop growth.
- Pulse and canola crops are at flowering to early pod set growth stages.
- Cereal crops have responded to warmer conditions in late August and are at early booting stage.
- Waterlogging has caused problems for crop growth and paddock trafficability with as much as 25% of some paddocks saturated. Canola and late-sown barley crops seem to be the worst affected.
- Wet conditions in early winter resulted in widespread nitrogen deficiency of crops across the region.
- Most growers applied at least one application of urea (70-150 kg) to cereal and canola crops with many growers applying a second application as wet conditions continued.
- Some crops are exhibiting symptoms of frost damage.
- Some plant wilting is evident in crops near Ungarra however it is unclear whether this is due to frost damage, aphids or waterlogging.
- Wet conditions made it difficult for growers to apply herbicides, fungicides and fertilisers until soils dried out in August.
- Fungal diseases including leaf and stripe rust, net blotch and powdery mildew have been reported in cereal crops. Growers are applying fungicides to slow disease progression.
- High numbers of aphids have been reported in all crops this season. Many growers are using insecticides in conjunction with fungicide sprays to reduce numbers.
- Diamond backed moths were detected in canola crops in early winter. Numbers are currently well below thresholds levels warranting treatment but could increase under favorable conditions.

PASTURES

- Winter conditions have been ideal for growth of annual clover and medic pastures with paddocks containing a high amount of quality feed.
- Waterlogging, insects and fungal disease have hampered the growth of vetch paddocks sown for feed.
- Livestock are in excellent condition.

Eastern Eyre Peninsula

WEATHER

- July rainfall was average to below average and August rainfall very much below average.
- A number of severe frosts were reported in the Kyancutta, Buckleboo, Darke Peak, Heggaton and Mangalo districts.
- Mean minimum temperatures were very much below average (1 to 3^{o}C) for August with the northern part of the district recording the lowest mean minimum temperature on record.

CROPS

- Good growing conditions have resulted in dense healthy crops with a high yield potential in most districts.
- Encouraged by good conditions in early winter, most growers applied nitrogen fertiliser to cereals after sowing.
- Early-sown cereal crops are at head emergence growth stage while later- sown ones are at booting stage.
- Pulse and canola crops are at late flowering to early pod set stages.
- Frost caused significant damage to some flowering legume and canola crops around Buckleboo and Mangalo. A number of crops were reported to have died completely in the flats of affected paddocks.
- There have also been reports of frost damage to cereal crops, particularly wheat, with severe damage occurring in isolated pockets. The full extent of the damage is yet to be determined.
- Warm daytime temperatures and a number of days of hot northerlies in mid to late August dried out moisture reserves and stressed later-sown crops on heavier soil types.
- High numbers of aphids are present in all crops. Most growers have sprayed canola crops to reduce numbers of green peach aphid and minimise the risk of damage from Beet Western Yellows virus.
- Leaf and stripe rust has been reported in wheat crops that were not treated with a preventative fungicide application.
- Powdery mildew damage has been reported in the thickest parts of vetch crops.
- There were reports of Diamond Back Moths in canola paddocks in early winter. Numbers could increase given the right conditions and reduce crop yields.
- Crops will require good rains at the grain fill stage to fulfil their yield potential.
- Mice are continuing to cause some damage to crops.

PASTURES

- Medic and vetch pastures have produced a large amount of high quality feed.
- Some cereals sown for early stock feed were cut for hay when dry conditions in August began to stress crops.
- Livestock are in excellent condition.

Upper North

WEATHER

- Rainfall for July was average in the south of the district to below average in the western and northern parts of the district.
- August rainfall was very much below average across the whole district.
- Mean minimum temperatures were very much below average (lowest on record) during August. Seven severe and widespread frosts were recorded in early August with several other isolated lighter frosts.

CROPS

- Yield potential has been significantly reduced due to frost damage and dry conditions, particularly in the lower rainfall parts of the district.
- Frost damage has been widespread, with early-sown crops in lower-lying areas the worst affected. The frost has been so severe in some areas that it has caused damage to crops ranging in growth stage from early stem elongation through to heading.
- Between 10 and 20% of the total crop area has been affected with yield losses of approximately 10%.
- Only a relatively small area of frosted crops has been cut for hay.
- Most crops not affected by frost still have above average yield potential.
- The amount of damage in wheat crops ranges from over 90% in early-sown crops down to 30% in later-sown crops. Wheat crops sown into thick cereal stubbles were more severely damaged, due to the greater reflection of heat from stubbles.
- Early-sown oaten hay crops have been severely damaged with stem frost causing plants to lodge and stems to rot. Some of these crops have been cut early to salvage what is there but the worst affected will be grazed.
- Lupin plants have been severely damaged by frost causing stems to collapse. Crops have recovered to some extent but yield losses of 30 to 50% are likely.
- Early-sown pea crops which were at the end of flowering have been severely damaged by frost. Later-sown pea crops lost some early pods but have continued to flower with only minimal yield loss.
- Frosted bean and pea crops appear to have higher levels of disease than those not affected by frost.
- Some canola crops have suffered minor damage from the frost with 3 to 4 cm of pods frosted. Crops are continuing to flower and should compensate for this damage with minimal yield loss.
- Early sown crops in the western and northern parts of the district are showing signs of moisture stress.
- Only a small number of canola crops have been severely damaged by Beet Western Yellows virus and although they have recovered, yield and grain quality will be affected. Most crops appear to have escaped damage and are podding well.
- Foliar diseases are generally at low levels as protective fungicides were applied earlier in the season.
- The dry weather provided few opportunities for nitrogen fertiliser application during August.
- There have been reports of herbicide damage to canola crops as crops appear to be more sensitive due to the good growing conditions.

PASTURES

- Sown pastures have grown exceptionally well with ample, good quality feed.
- Some growers have purchased additional cattle and sheep to take advantage of good feed supplies.
- Some frosted crops are being, or will be, grazed.

Mid North

WEATHER

- Rainfall was average for July and well below average during August.
- Mean minimum temperatures were very much below average during August with numerous severe frosts early in the month.
- Most of the district recorded the lowest mean minimum August temperatures on record.

CROPS

- The cold dry conditions during August have slowed crop growth although yield potential in most part of the district is still above average.
- Frost has caused widespread damage across the district and is likely to reduce yields by almost 10%.
- Early sown oaten hay crops have been severely damaged by frost. Frosted stems have caused plants to lodge and stems to rot.
- In many frost-affected wheat crops the first two or three tillers have been killed with the remainder undamaged. New shoots are emerging from the base but the heads of these tillers are only likely to be small.
- Most affected crops are likely to have a 40 to 50% yield loss (up to 80% in some cases) Frost damage has been worse in paddocks with heavy stubble loads as the stubble reflects heat.
- Lupin crops have been severely damaged by frost, with significant yield losses of 30% to most crops.
- Many pea crops have been frosted but most are re-flowering. Only the early sown pea crops are severely damaged.
- Damage to bean crops has been sporadic with some yield loss expected. Stems of frosted bean crops have been severely bent but most crops have recovered to some degree. They could to be more prone to wind damage later in the season.
- Barley is more tolerant to frost than many other crops and generally sown later. There has been damage in some patches of crop with part heads frosted resulting in estimated yield losses of around 2% across the district.
- Canola crops have excellent yield potential.
- Only a few early sown crops have been severely affected by Beet Western Yellows virus, with lower yield and grain quality expected from these crops.
- Canola crops generally have escaped significant frost damage with only 3 to 4 cm of pods frosted. Early pods escaped damage and crops are continuing to flower and set later pods.
- Numerous canola crops have suffered herbicide damage at recommended application rates, due to crops being more sensitive with the good growing conditions in early winter.
- Some aphids are present in crops but numbers are low in canola crops and most growers have not needed to apply insecticides.
- Native budworm numbers are increasing and most pulse crops will require spraying to reduce damage.
- There have been some reports of stripe rust but most growers have applied preventative fungicides to keep levels low.
- Disease development has slowed with the dry conditions but could spread if wet, windy conditions occur in September.

PASTURES

- Pasture growth is excellent with high quantities of pasture feed for livestock.

Lower North

WEATHER

- Rainfall was average to above average during July but very much below average across the district during August.
- Mean minimum temperatures were very much below average in August while mean maximum temperatures were above average.

CROPS

- Despite the dry August there are still reasonable levels of stored soil moisture across the district, with prospects of average to above average yields in most crops.
- Cereal crops are at flag leaf emergence stage and canola crops are at full to late flowering stage.
- There has been minimal frost damage in the district with only isolated pockets reported in the Riverton area.
- There are low levels of disease in wheat crops, due to proactive control programs using fungicide on fertiliser at seeding and either one or two fungicide applications later.
- Barley crops have grown well and have excellent yield potential. Levels of disease such as net form of net blotch are low.
- Nitrogen fertiliser was applied to many crops in late August in anticipation of rain in early September.
- Most canola crops have good yield potential. Most crops affected by Beet Western Yellows virus were sprayed out and re-sown but the few that were left have low yield potential.
- Beet Western Yellows virus has not caused significant damage to slightly later-sown canola crops.
- Very early-sown bean crops have grown extremely well but have not podded, while slightly later-sown crops have less growth and more pods. Disease levels are relatively low and are being controlled with fungicide.
- Pea crops have grown extremely well, favoured by the cool, dry August weather. Crops have just started to flower and growers are applying fungicide and insecticide to manage diseases and pea weevil.
- Lentil crops are at canopy closure stage with most crops receiving a fungicide application at the end of August.
- Oaten hay has grown well and high yields of good quality hay are expected. Some stem rust and red leather leaf disease is evident in susceptible varieties.

PASTURES

- A small area of medic hay was cut in late August.
- There is excellent pasture feed for the low number of livestock in the district.

Yorke Peninsula

WEATHER

- Rainfall was average during July and very much below average during August.
- The mean maximum daily temperature was above average across most of the area during August. The mean minimum temperature was below average on southern Yorke Peninsula to lowest on record in the northern part.
- A number of frosts of long duration occurred in August across the district.

CROPS

- Frosts have damaged growth of peas, lentils and barley, and some canola crops on northern Yorke Peninsula.
- Frost damage was worst in wheat, with damage to the lower parts of the stem. It is estimated that 10-20% of wheat might have been affected on northern YP.
- Frost damage has generally only occurred in early-sown paddocks that were close to or at head emergence during the first week of August.
- Some wheat crops north of Port Broughton have been cut for hay because they were frosted.
- Late-sown paddocks have had minimal yield loss from these frost events.
- The majority of crops across the YP are in excellent condition at present with potential for above average yields.
- If dry conditions persist through September, the yield potential will drop quickly.
- Most crops are one to two weeks ahead of normal growth due to above average temperatures throughout the growing season and good sowing conditions.
- Early-sown wheat is now flowering with some already at early grain fill, while the majority of wheat is at flag leaf to early head emergence stage.
- Canola is in full flower throughout the Peninsula, with early sown crops already forming pods.
- The dry August limited the opportunity to apply nitrogen to crops, reducing the yield potential in those with low nitrogen levels. If future rainfall is adequate, nitrogen applications will resume.
- Stripe and leaf rust was confirmed in a number of paddocks early in August and growers have started applying preventative fungicides.
- Barley crops have low levels of leaf rust. Net blotch levels have increased in the past month with the favourable conditions. Untreated paddocks are at risk of losing yield.
- Snail baiting is taking place again as the final application date permissible before harvest approaches.
- Areas in lentil paddocks have suffered waterlogging, restricting growth and yield prospects.
- Aphids have been present in cereals for a while and some paddocks have been sprayed with insecticide to control them.
- Isolated instances of mice eating grain heads inside the stems of crops occurred in early August.
- Beet Western Yellows Virus symptoms are evident in the majority of canola paddocks. Early-infected crops have suffered severe yield losses but the majority of paddocks appear to have only minor damage.

PASTURES

- Frosted wheat crops might provide a grazing opportunity for livestock producers.
- Medic growth has been above average for the region and insects are being controlled to maintain good pastures. A small number of medic paddocks have already been cut for hay.

Adelaide Hills, Fleurieu Peninsula & Kangaroo Island

WEATHER

- Rainfall during July was average.
- Rainfall for August was well below average across the region, with most areas receiving less than half the average rainfall.
- Minimum daily temperatures were average to slightly below average during August.

CROPS

Central Hills/Fleurieu

- Frost damage has been minimal.
- Foliar diseases have been reported and fungicides have been applied to reduce further damage.
- Application of herbicides has been delayed due to cold weather causing plant stress.
- Numbers of insect pests are low.
- Nitrogen fertiliser has been applied to most cereal crops.

Kangaroo Island

- Some canola crops on the north coast have been affected by Beet Western Yellows virus with symptoms becoming apparent in the last three weeks.
- Nitrogen has been applied to most cereal crops.
- Insect pests (Red Legged Earth Mite, Lucerne Flea and Cut Worm) are evident and have caused some yield decline.
- Green peach aphid is present in most canola crops.
- Successive ryegrass germinations have occurred in some crops.

PASTURES

- Warm weather has increased pasture growth.
- A lack of spring rainfall could reduce pasture production.
- There are some poor quality pastures on Kangaroo Island due to the dominance of grass and broadleaf weeds, and poor nitrogen fertility.
- Livestock are in good condition.

Lower Murray

WEATHER

- This region received average to below average rains in July, and very much below August rainfall.
- Numerous frosts were recorded in early August across this region.
- Mean minimum temperatures were very much below average for August.

CROPS

- Crops are generally at the flag leaf growth stage. Yield potential has diminished from a promising start to around average and will require good spring rains to achieve this.
- Low rainfall in August rainfall caused moisture stress for many crops on heavy or shallow soils.
- There have been some unconfirmed reports of stripe rust, and depending on September rainfall, protective fungicides will begin to be sprayed on susceptible wheat crops.
- Spot form of net blotch in barley has been stalled by the dry conditions.
- Canola crops are generally not performing as well as expected, which could be due to a combination of Western Beet Yellows virus and frost. Some paddocks have been sprayed for diamond back moth.
- Peas and lupins were performing well but have lost flowers and pods due to frost. It is unclear how well they will recover.
- Across the district, the overall yield reduction due to frost is currently estimated at around 5%.

PASTURES

- Livestock feed continues to be excellent across the district.

Northern Murray Mallee

WEATHER

- The Northern Mallee generally had below to very much below average rainfall for July and August.
- Seven consecutive frosts occurred in early August during which minus temperatures were recorded over 6 to 8hrs for 3 to 4 days in a row.
- Mean minimum temperatures were very much below average for August.

CROPS

- Crops are generally at growth stages ranging from flag leaf to early head emergence.
- Frost damage is becoming more evident with early varieties being the worst affected.
- Stem frost appears to have been widespread, based on the high numbers of late tillers reshooting.
- Barley generally appears to be less affected by the frost than wheat.
- Despite the low rainfall in August, crops have been generally growing well due to early season subsoil moisture.
- Nitrogen was applied in response to significant crop yellowing through this period.
- Many farmers have begun spraying fungicide to protect against possible rust infection in susceptible wheat varieties.
- Many canola crops have been severely affected by the Western Beet Yellows virus and frost has also caused damage to the majority of early pods, significantly reducing yield potential.
- There has been a high incidence of diamond backed moth in canola and crops that still have yield potential have been sprayed with insecticide to control this pest.
- While peas and other pulses have been growing well, frost has damaged flowering and pod formation.
- Hay baling, grazing and chemically fallowing of crops has affected by frost has occurred across the district.
- While it is still too early to make an accurate assessment, frost damage across all crops could be as high as 30-40%.
- This level of frost damage varies greatly between farms and paddocks, and occurred at a time when the district yield potential was possibly 30% above average.

PASTURES

- While pasture growth was greatly slowed with the frost, stock feed has remained in adequate supply.
- With grasses coming out in head, spray-topping will soon begin.

Southern Murray Mallee

WEATHER

- Rainfall in the Southern Mallee was average in July, but well below average in August.
- Mean minimum temperatures were very much below average for August.
- Frosts were experience in early August.

CROPS

- The district generally received good rains through July but well below average rainfall in August.
- Early sown crops are generally moving toward flag leaf and head emergence stages.
- The heavy textured soils on the plains north of Pinnaroo and shallow stony ground at Sherlock have been suffering moisture stress.
- While there have been small pockets of stem frost affecting earlier sown cereal crops, the damage appears less severe than other areas of the Mallee (less than 10%) in crops at this stage.
- Stripe rust has been reported in one Mace wheat crop near Pinnaroo.
- Farmers are expected to apply protective fungicide for stripe rust susceptible varieties (depending on September rainfall).
- Post sowing nitrogen fertiliser application appears to have been around the average level across the district this season.
- While there is great variation in soil type and rainfall distribution across the district, the potential for average to above average yields still remains, particularly if good spring rains are received.
- Beet Western Yellows virus has affected some canola crops to varying degrees but not to the devastating extent of other districts. High numbers of Diamond Back moth have been sprayed.
- Lupins were looking very good early on but lost flowers due to frosts. It is unclear at this stage how well they will recover.

PASTURES

- While frosts did slow growth in pastures there is generally plenty of stock feed available at present.

Upper South East

WEATHER

- Rainfall was close to the long term average for July but has been significantly below average and in many areas half the long term average for August.
- The daily minimum temperature was average for July but well below average for August.
- A high number of severe frosts were reported in most areas of the district.

CROPS

- Crop growth has slowed due to cooler temperatures.
- No significant frost damage has been reported in crops at this stage.
- Most crops will be entering the reproductive phase in the next two weeks with many early sown crops entering the booting phase.
- No significant disease issues are present.
- Yellow leaf spot has been severe in isolated wheat crops where susceptible varieties have been sown into wheat stubble.
- Many growers are waiting for the next significant rainfall event to apply nitrogen fertiliser. Many crops are showing some early signs of nitrogen deficiency.
- There are no significant pest issues with some Red Legged Earth Mite and Lucerne Flea present, but not in numbers out of the ordinary.
- Green Peach aphids are being monitored in many areas using yellow sticky aphid traps but are not an issue to date.
- Cereal aphids are present but not in numbers to be of any concern at this stage.
- There are no weed issues to date due to a good knock down of weeds at the start of the season.
- Some moisture stress is visible in crop plants that are located near trees but generally the soil moisture profile is full.
- At this stage there is potential for an above average crop yield but this will be very dependent on follow up rain in the next week or two and later in the season.

PASTURES

- Pasture growth is very slow due to cooler temperatures. Farmers running high stocking rates have very little pasture available.
- Livestock are in moderate body condition.
- Reports of higher than normal dag levels in sheep.

Lower South East

WEATHER

- Rainfall was around the long term average for July and very much below the long term average for August.
- Minimum daily temperatures were average for July but significantly below average for August.
- Very few frosts have occurred with one medium frost and two or three light frosts in total to date.

CROPS

- Crop growth has slowed due to cooler temperatures.
- Stored soil moisture is at field capacity with some water logging present.
- Overall it is not as wet as last year.
- Most of the waterlogged areas have only been cropped in recent years because historically they were prone to waterlogging and regarded as too wet for cropping.
- Disease pressure is low overall but there has been an abnormally high prevalence of *Cercospora* spot in bean crops.
- Insect levels are low.
- Lucerne flea is present but in no higher levels than normal.
- Slugs and snails are in present in high numbers and have caused significant damage in some instances.
- There are high levels of weeds in some crops due to soils being too wet to enable applications of pre-emergent and post emergent herbicides.
- Bedstraw is thicker than normal across many paddocks.
- Crops are showing signs of nitrogen deficiency.
- Trace element and nitrogen fertilisers were applied at the end of August given the rains forecast for early September.
- Shallow black cracking soils in some areas are starting to crack indicating that the top level of the soil profile is beginning to dry.
- Crops are on target for average yields at this stage. The yield potential has been reduced due to the areas that have been severely damaged by waterlogging.

PASTURES

- Pasture growth is extremely slow due to cooler temperatures.
- Many producers are on tight pasture rotations with very little available pasture on offer for livestock, particularly dairy cattle.
- Lice are present in numerous cattle herds.
- Lambing percentages at marking time were variable.
- Pastures are showing some signs of nitrogen deficiency.
- Many producers are considering supplementary feeding their livestock.