

Summary

The GIWA November forecast for total grain production in Western Australia for the 2015-2016 harvest, on the back of the dry spring September, is reduced by almost 450,000 tonnes, or 3%, from that forecast at the beginning of October.

Dry and warm spring weather has reduced the potential of the 2015 grain harvest in most zones of the Western Australian grainbelt. Very little rain has fallen since early September in the Kwinana and Albany zones, with the northern Geraldton zone failing to receive a substantial rain event since the 12th August.

Whilst the timing and quantity of rain through the winter growing months has enabled the production of above average growth in most parts of the Geraldton, Kwinana and Albany zones, the yield potential has fallen away with the lack of spring rain.

Crops in the Esperance zone are the exception with high yields likely to produce very good quality grain. The final total harvest tonnage in Esperance is expected to be a record for the zone.

Early harvest reports in the Geraldton, Kwinana and Albany zones show a high level of screenings in wheat and barley, and low test weights in oats. Frost has also caused grain losses and quality defects. Protein levels in barley and wheat are not showing the expected higher protein normally associated with a dry spring. This is most probably due to lower nitrogen inputs applied to match the average growth due to the extended dry periods during winter. When higher yield potential became apparent in August, the time had passed for further nitrogen applications which could give an economic return.

Of all commodities, canola is looking to be the most resilient crop for this season. The very early sowing opportunity saw a large percentage of the canola crop sown before May. This enabled canola plants to be well advanced in maturity before the end of August and be able to produce good yields despite rapidly drying conditions.

Lupin crops are yielding at average to above average levels, with harvesting efficiency the limiting factor in the Geraldton zone where many crops are short.

The impact of frost in the Albany zone, and even as far north as the Yuna district in the Geraldton zone, is unknown. The additional impact of the October storms, resulting in widespread damage from hail, in the Kwinana East and east Albany zones is also yet to be established, and whilst devastating to affected crops, it is likely to be restricted to a loss of less than 200,000 tonnes of grain but with impacts on lower grain quality in affected areas.

November 2015 WA Crop Production Estimates (tonnes)

Port zone	Wheat	Barley	Canola	Oats	Lupins	Field Pea	State Total
Kwinana	3,914,000	889,000	458,000	252,000	139,000	7,000	5,659,000
Albany	1,646,000	1,105,000	400,000	233,000	52,000	6,000	3,442,000
Esperance	1,552,000	956,000	447,000	17,000	20,000	21,000	3,013,000
Geraldton	1,790,000	55,000	173,000	19,000	272,000	1,000	2,310,000
Totals	8,902,000	3,005,000	1,478,000	521,000	483,000	35,000	14,424,000

GIWA production estimates include grain retained on farm and direct sales to exporters and domestic end users, and therefore differ from CBH delivery estimates.

Kwinana Zone

The Midlands

Harvest has been progressing on a stop-start basis since late October with rain causing delays but little damage at this stage. Frost damage in crops is apparent in most districts of the Midlands and has potentially taken off a small amount of yield potential of around 5%. Overall, crops in the Midlands districts will record around average yields. Inland to Dalwallinu could be above average, while crop yields in the Miling to Pithara districts will be just average to below average.

Harvesting of canola is halfway complete and harvesting of barley has commenced.

Canola crops are yielding about 100 to 200 kg/ha better than forecast with good quality to date. Canola crops in the Badgingarra district are reportedly yielding 1.6 t/ha, and canola crops in the Moora district are averaging 1.4-1.5 t/ha. Canola crops were planted early and consequently were well advanced before the dry spring had a major effect.

Very little wheat has been harvested so far but screenings look to be an issue with early reports of around 4 to 7% screenings.

Oat crops look to have very poor quality grain. Hay yields have been good at 6 to 7 t/ha. This indicates the high biomass and yield potential for the 2015 season, but with grain yield and quality reduced by the very dry spring.

Barley crops are showing very high screenings in all varieties with the Bass variety showing the least percentage of screenings. Deliveries of barley in the Moora to Dandaragan districts are going mostly Malt 2 quality with a little Malt 1 quality grade. Other than Bass, all other varieties are being delivered as Feed grade with high screenings. To date, colour in barley has been good with no effect from the recent rain. Barley yields look to be above average running at; Moora 4 t/ha average with best at 5 t/ha; Miling 2.8 to 3; Yerecoin to Calingiri, 3 to 4 t/ha; Victoria Plains, 3.5 to 4 t/ha. Poorer sand soil types are returning low yields at 1.5 to 1.8 t/ha.

Lupin crops are yielding above average in all districts.

Kwinana East

Generally rainfall has been light during October and November with around 5 to 10 mm of rain in the north eastern districts, with 27 mm at Kununoppin and 10mm at Nungarin. Southern Cross recorded 42 mm in a large storm but Bullfinch only received 5 mm.

The large storm caused damage north of Mukinbudin and south east towards Southern Cross. Damage to some farms and crops was very significant.

Some frost damage is apparent but appears to be generally light and is not expected to impact much on average yields across the Kwinana East districts.

Current wheat yields are slightly above average, with no quality concerns. Early barley results are around 3 t/ha with very high (50%) screenings, and with limited potential to achieve Malt grade.

Kwinana West

Very little harvesting activity has been occurring to date with the recent rains maintaining high moisture.

Barley yields are expected to be average but with low protein and high screenings. This may be due to the high biomass produced on minimal nitrogen inputs and the subsequent very dry spring. When conditions looked good for yield it was already too late and risky to apply more nitrogen to the crop.

Lupin crops are yielding well at 2 t/ha at Buntine, but only 1 t/ha at Cunderdin and east Brookton. The variety PBA Gunyidi is yielding well at 2 t/ha in better soil types in the Dalwallinu district.

Canola yields will be at breakeven point for most. In the north east districts, canola yields at south Kalannie are poor at typically 500 kg/ha. Further south yields rise to 1.2-1.4 t/ha, with canola yields in the Northam district at around 2 t/ha. In districts south to York and Brookton, canola yields are below average with around 75 mm less rain for the growing season than was recorded in Northam.

Albany Zone

South West

Harvest commenced very early in the lower Albany zone due to the very dry spring and is now underway in earnest. Harvest activity north and east of Kojonup has commenced, with the harvest in western and southern districts expected to start in the next two weeks. Overall, the harvest is about 10 days earlier than would be normally expected.

Canola crops at Gnowangerup have returned 1.3 t/ha, with the district average likely to be closer to 1.2 t/ha. Current predictions for other crops in the south west districts of the Albany zone are: Boyup Brook wheat to 3.5 t/ha, oats and barley to 4 t/ha; East Kojonup, cereals at 2.5 t/ha; Kojonup cereals at 3 t/ha; Arthur River yields will be poor with just 900 kg/ha for canola; Frankland/Kendenup should return very good yields at 3.5 t/ha for cereals; Cranbrook district should record average cereal yields of around 2.5 t/ha.

Frost is apparent in barley, and in wheat. Overall, frost could result in a 10% yield loss across the south west districts. Individual losses range from 10 to 100%.

Rainfall events of around 30 mm in the past two weeks will result in staining in barley and could increase the risk of sprouting in wheat.

Oat crops have hayed off early and grain quality is likely to be low.

Lupins crops should yield well at 2 t/ha, though the spring drought has reduced yields. Yields will be lower where sclerotinia is present at around 1.5 t/ha.

Lakes Region

Heavy rains in October were extensive in the Lakes region. The south east Newdegate district recorded 70 to 80 mm in damaging storms with hail. Lake Grace recorded 20 to 30 mm, Kulin/Kondinin just 8 to 10 mm.

Storms and hail were severe south east Newdegate to Dunn Rock, north east Newdegate and Karlgarin. Damage was extensive and could have affected around 25,000 ha with grain losses to 45,000t.

Barley crops are returning very high screenings and all deliveries to date are only making the Feed grade.

Oats have suffered in the dry spring and harvested crops are returning light weight grain. This is apparent in the newer varieties such as Williams with high yield potential and less so in the lower yielding older varieties.

Overall, yields will be slightly above average. Barley yields will range from 3 t/ha to 1.5 t/ha. Canola harvested crops should average 1.3 t/ha, with the better crops at 1.5 t/ha, and low yielding canola at 0.9 t/ha.

Most growers have started harvest but are now waiting for grain moisture levels to drop. With fine dry weather in November, an early finish to harvest by the end of November/ early December is expected.

Esperance Zone

The total harvest volume in the Esperance is expected to be a record for the zone.

October rainfall was generally light across the Esperance region at 6 to 8 mm, with 15 to 30mm in areas east to Condinup. Hopetoun and Ravensthorpe recorded 8 to 12mm.

To date there have been no effects on grain quality due to rain damage at this stage.

Canola yields are well above average at 1.5 to 2 t/ha, with very good oil content at and above 48%.

Barley crops are excellent 4 t/ha from Cascades to Scaddan, with a report of 4.5 t/ha at Grass Patch.

Lupins have suffered losses from sclerotinia with an estimated 10% lost at Hopetoun and 15% at Cascades, off 3 t/ha potential yields.

Some grain end staining is apparent in barley but this is somewhat normal for crops in the zone. Later sown barley is returning high screenings at 30%.

Geraldton Zone

Harvest is around halfway complete north and east of Geraldton.

Recent rains in the Geraldton zone are delaying harvest but not in itself causing quality issues at this stage. Swathed canola is being harvested but standing canola is too damp.

Canola yields are reported at 1.5 to 2 to 2.1t/ha in the Coorow, Carnamah and Three Springs districts. Roundup Ready canola is reportedly yielding 2 to 3% better oil content than TT canola. In the Morawa to Mingenew districts canola yields are low at 1 t/ha. Whilst in the Eradu, Binu and Mullewa districts canola yields are very good at close to 2 t/ha.

Frost damaged grain is apparent in wheat, however, not all damage may be frost related with damaged grain consistent with high levels of Powdery Mildew on wheat ears in September. Damage seems worse where fungicide application was delayed. Frost damage has reduced potential 3t/ha wheat crops to just 0.8 t/ha in the valleys, while the timing of rainfall events during the season has increased wheat crop yields for crops in the rest of the zone a standard 1.5 t/ha to 3 t/ha.

Grain production yields are better than expected considering the last substantial rain was on 12th August.

Wheat crops are yielding well but with 5 to 8% screenings.

Wheat may have low protein in most districts due to low Nitrogen inputs, despite the dry spring which usually increases protein levels. For example, wheat crops in the Morawa district are returning 2.5 t/ha but with only at 9% protein levels due to low nitrogen inputs applied during the growing season. Wheat crops in the Pindar district are yielding 2 to 2.5 t/ha.

Lupin crops are yielding at over 2 t/ha in areas north and east of Geraldton, though far less than that around Mingenew and out to the coast.

Seasonal Outlook

Bureau of Meteorology Forecast: Average Rainfall and Warm Days for Western Australia

The November 2015 outlook shows a drier than average month is likely in the lead up to summer across parts of southeast Australia, with much of northern Australia likely to experience a drier than normal start to the northern wet season.

Much of WA is likely to have a wetter month, though it should be noted that southern areas are climatologically dry at this time of year.

Wetter than average conditions are favoured across the central and southwestern parts of the country in the three month period from November to January. However, it should be noted for much of this wetter-than-average area, accuracy is low at this time of year. Caution should be exercised when using the outlook in areas of low accuracy.

El Nino Outlook: Dr David Stephens Australian Grains Export Innovation Centre



- Strong El Niño conditions were recorded in September with a further strengthening of ocean and atmosphere coupling for a seventh consecutive month. Sea surface temperatures, sub-surface heat, trade winds, clouds and pressure show a strong El Niño pattern. Sea surface temperatures in the Nino3 region are the second warmest in September behind 1997, while the Mean SOI recorded its lowest September value. The combination of these oceanic and atmospheric variables resulted in a record low Coupled ENSO Index (CEI*) for September.
- A classic El Niño pattern of precipitation anomalies has emerged with droughts continuing in Papua New Guinea (and frost in highlands) and droughts and bushfires in Indonesia contrasting with wet conditions in the southern United States and many areas of South America. Similar to 1997, Australia has only had extended dry conditions in southern areas which include Victoria and south-west Western Australia. Dry and very warm conditions in early October in Australia have contributed to crop damage and bush fires.

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- The three top ranked analogue years selected by AEGIC's El Niño — Southern Oscillation (ENSO) Sequence System are the three previous strongest El Niño events and these have high similarity scores. In these events the mean warming peaked in December close to that recorded in the 1982–1983 El Niño. The majority of models from other organizations are predicting strong El Niño conditions through the following six months. Source: [AEGIC October 2015 ENSO Summary](#)

Additional information can be sourced from:

- **[AEGIC: Yield and Seasonal Forecasting](#)**
- **[AEGIC: ENSO Summary webpage](#)**
- **[DAFWA: Statistical Seasonal forecast](#)**
- **[BoM: WA Seasonal Rainfall Outlook, next 3 months](#)**
- **[BoM: Month to date rainfall for WA](#)**
- **[16 day rainfall outlook \(WX maps\)](#)**
- **[BoM: Decile rainfall for August to October 2015](#)**