

Summary

The GIWA December forecast for total grain production in Western Australia for the 2015-2016 harvest is reduced by 243,000 tonnes, or 1.7%, from that forecast at the beginning of November.

Harvest has progressed at a steady pace throughout November in most of the Western Australian grainbelt, with isolated storms and lingering grain moisture causing some delays. The dreadful fires in Esperance caused at least a weeks' delay to harvest in that region along with a considerable loss of grain from both the fire and the very strong winds that fanned it.

Yields to date have been somewhat as expected. Grain quality has been lower than hoped for with screenings very high in barley, high in wheat, and protein in both lower than usually seen in a season like 2015.

There appears to be much less barley achieving Malt grades than usual. All regions, other than the south east, are reporting very high screenings in barley, making cleaning to achieve Malt grade uneconomical, or even totally impractical. Barley produced along the south coast and in the wider Esperance region is much less affected after a favourable season.

Wheat screenings are higher than seen for many years. For some growers, cleaning wheat to achieve a higher grade is possible. Protein levels are only average, reflecting the level of nitrogen available to the plant and the inability of the plant to draw on nitrogen in spring due to the extremely dry soil.

Canola continues to be the shining light of the season with above average yield and very good quality reported in almost all regions. This is in large part to the very early planting of canola in April, enabling the plant to be far less affected by the dry spring due to being more mature in early September than cereal crops.

Lupins have recorded average to above average yields in better soil types in the Geraldton zone, but along with all other crops, have not performed well in the coastal districts across to Mingenew and Three Springs.

A consequence for 2016 of this season's dry finish is the quality of seed for planting next year's crop. Seed retained of wheat, barley, oats and lupins needs to be tested for germination and vigour. Additionally, sowing rates and seed dressings may need to be reassessed to take into account the smallness of the grain. For lupins, there is a high risk of Manganese deficiency in the seed, which should be assessed through seed testing.

Despite the infrequency of rainfall during 2015, the season at times showed promise of good yields. But for the dry spring, the 2015 season may well have been another high yielding year to rival 2013 and 2014.

December 2015 WA Production Estimates (tonnes)

Port zone	Wheat	Barley	Canola	Oats	Lupins	Field pea	State total
Kwinana	3,934,000	936,000	488,000	252,000	140,000	7,000	5,757,000
Albany	1,626,000	1,105,000	400,000	232,000	52,000	6,000	3,421,000
Esperance	1,286,000	887,000	437,000	17,000	20,000	21,000	2,668,000
Geraldton	1,799,000	80,000	203,000	12,000	240,000	1,000	2,335,000
Totals	8,645,000	3,008,000	1,528,000	513,000	452,000	35,000	14,181,000

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

Most growers will be finishing harvest in the Midlands region next week with everything wrapped up by Christmas. Of all crops, canola is producing yields higher than expected. Roundup Ready and Hybrid OP and Hybrid TT are performing best, while the TT varieties, Benito and Stingray have given variable results. Oil quality is excellent, given the dry finish, at 44 to 48%. Mostly this can be put down to the early sowing in April which provided canola with the best chance of yielding well in this difficult season.

While barley yields have been at least average, and showed promise of much more with some spring rain, grain quality has been poor with very high screenings. The varieties Scope, Buloke, Hindmarsh and La Trobe have delivered only Feed grade, while Bass is delivering some Malt 1 at west Wubin.

Poor sandy soil types are very poor this year and producing only feed quality wheat and barley. Soils at Moora and Walebing are slightly better but barley is only making Feed grade. Yield potential was really high at the end of August and some spring rain would have produced very high yields.

Wheat yields at Pithara/Dalwallinu and east are above average. To the south and west yields are below average, while east Miling down to west Ballidu is poor with more frost damage than hoped for.

Good disease management and soil amelioration are showing strong results: 5% screenings and 1 t/ha improvement in yield compared to a similar soil type without enhanced management producing 10 to 20% screenings.

Lupin yields are mixed; early sown crops in eastern districts are good, producing around 2 t/ha, but down to 1.2 t/ha where establishment was compromised by drying soil.

Overall, grain quality is tending from below average to poor with variable yields, all of which is soil type and rainfall dependent.

Kwinana east

Harvest is about 65% complete after numerous delays to rain, storms and harvest bans. Harvest will be completed before Christmas.

Grain quality is disappointing overall. Barley is of low quality with virtually all making Feed grade for screenings. Wheat also has screenings issues and isolated weather damage from the October storms.

Of the significant wheat varieties, Justica is showing high screenings, Corack is mostly meeting receival standards, while Mace and Calingiri are delivering mixed quality dependent on soils type and location.

Yields in the Nungarin, Mt Marshall and Mukinbudin shires are all averaging around 1.5 t/ha for wheat and 1/6 to 1/7 t/ha for barley. Westonia and Southern Cross shires are lower yielding but with extensive frosts and storm damage the final average is hard to judge at the moment.

Kwinana west

Harvest is about 60% complete across the Kwinana west zone.

Yields generally have been as expected. The western and south western portions of the zone have recorded below average yields, above average around Merredin, and below average in eastern districts.

Virtually all barley is high in screenings and making Feed grade only. Screenings in wheat is also a concern, though cleaning to avoid General Purpose grade is possible. Protein is not following the usual dry spring theory with generally lower protein being recorded than would normally be expected for the very dry 2015 spring.

Retained grain for seed for the 2016 crop will have to be carefully managed to ensure the best quality possible is kept. Where grain size is less than desired, growers should be wary of their seeding rate and sowing depth, in light of the soil moisture conditions at sowing, to avoid compromising establishment. Additionally, judicious use of seed dressings with less effect on coleoptile length should be considered.

Albany Zone

Growers in the Lakes region are having a 'Goldilocks' season. The start to the season was too dry, then it was too wet in late July, then it was too warm in September, but seems to have finished just about right!

In the lower Albany zone, winter has been below average with spring rainfall one of the lowest in years. Yields and grain quality in all commodities, with the exception of canola, reflects this.

Canola has finished well, by comparison to other commodities. Some canola was flowering during the dry spell in July and may have performed worse than those crops flowering in better conditions later in the month. The impact of frost has been locally significant with some paddocks down 500 kg/ha. Longer maturing varieties seemed to have suffered more damage than quicker maturing varieties like Stingray.

Barley is performing well and the area could rise in 2016. Many barley crops have recorded yields around 2.5 t/ha, with average quality. Quality and screenings for malting varieties are an issue with only about 30% achieving the Malt 2 grade. Virtually no barley is of high enough quality to achieve Malt 1 grade.

Frost has had a big impact on wheat. Quality is lower than average, showing high screenings at 5 to 8%, with a few reports of over 10%. Most wheat crops are making AUH2 grade with high screenings sending some loads to GP1.

Oats have held out better than most thought in the dry finish with most deliveries achieving Oat2. Gross margins look to be acceptable, especially compared to wheat. The new variety Williams has delivered acceptable quality and will be retained for 2016 sowing, after early scares of very poor quality.

Overall crops have reduced yield and quality compared to the potential that was apparent in August.

A week of fine weather will see a lot of growers finishing harvest for 2015, with longer to go at Newdegate due to higher yields. Any more rain would be concerning for wheat quality with a hint of sprouted grain to date.

Esperance Zone

The devastating fires of a fortnight ago in the Cascades to Scaddan districts have resulted in a loss of around 160,000 tonnes of standing crop, (assumption is 80% wheat and 20% barley from 40,000 ha). The strong hot wind also caused extensive shedding of grain in standing barley resulting in losses approaching 1 t/ha, while around 250 kg/ha of wheat may have been lost to shedding. Overall this may result in a further 70,000 t of lost grain, giving an estimated total loss of around 230,000 t. This is likely to be a conservative estimate.

Of unknown issue is the quality of standing grain which has been severely affected by smoke and the harvested grain stored in bags. The stored grain has a superficial burnt fraction, but also has wind-blown sand mixed into the stack. CBH is working to determine the impact on quality of smoke and sand, and has segregations for affected grain.

For canola, the impact is negligible with the vast majority already harvested and secured in CBH storage before the fires. Canola grain quality is excellent with high oil content in all districts.

Harvest has resumed across the region with completion expected substantially by Christmas. Grower needs for seed and other supplies for the 2016 season is expected to be filled from within the region.

Geraldton Zone

Harvest for 2015 is finished north of Geraldton and rapidly concluding to the east and south. Results have been mixed with excellent yields in the Binu to Yuna to Mullewa districts, well below average south from Mingenew to Carnamah and west to the coast, then excellent yields in the wider Coorow district. Yields from Dalwallinu to Morawa are above average with good quality being reported.

Frost had a much larger impact on grain quality and yield than first anticipated. Wheat deliveries have a lot of frost affected and distorted grain. This is additional to the screenings fraction which is running at about 7%.

With only 3 rainfall events for the season and nothing after August 12, this result is not totally surprising.

Canola is the standout performer for 2015. Planted early, it was mature enough to withstand the dry spring, and avoid the worst of the frost, especially where it was able to place deep roots into moisture.

All barley is producing low quality with high screenings and only achieving Feed grade. Of all the varieties, Bass seems worst.

Along the west coast, all crops on poor sands are very poor yielding. Lupins on medium loam soils, eg. Chapman Valley, have yielded above average at 2.4 t/ha. Albus lupin, being a late maturing species, finished with lower yields at 1.4 to 1.6 when it could have produced 2.5 t/ha with some spring rain.

High rainfall coastal districts from Horrocks through to south Geraldton may see a decline in canola for 2016, as the production risk is becoming very high. Disease, insects and the salty sea breeze make canola very expensive to produce. A suitable replacement crop may be Australian Sweet Lupin.

Crops on fallow have been the winners this year in low rainfall districts. Yields of wheat from Dalwallinu to Mullewa have been at 2 to 2.5 t/ha with very good quality. Comparable soil types without a 2014 fallow are 800 kg/ha behind with high screenings.

Creating the ability for crops to access deep moisture is critical for better classes of deep sandy soils in the Geraldton zone. Deep ripping to 40 cm is giving 500 kg/ha more yield, while going very deep to 80cm is showing promise with 1 t/ha more wheat, though very expensive to achieve.

Season Outlook



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There are emerging signs of the strong El Niño pattern in the Pacific Ocean starting to break down under strengthening high pressure ridges in the North and South Pacific. It will take several months of this trend continuing before the El Niño event can be confirmed as heading towards neutral territory. A neutral scenario in the year after El Niño is normally a good scenario across Australia, so we can only hope the extended El Niño type conditions seen over the last two years continues to break down.

The Indian Ocean remains warmer than normal, so a wetter summer for all districts from thunderstorms and upper level troughs is likely. However, a cooling in the central Indian Ocean area off the Western Australian coast means the odds of very wet weather are backing off. With higher than normal pressure at Darwin, the outlook for tropical cyclones is for a quiet start to the first half of the season.

Warmer and wetter for Western Australia - Courtesy BoM

- December temperatures are likely to be warmer than average for southern Australia, while rainfall is likely to be above average across southeast Queensland and northeast NSW, parts of the interior and southwestern Australia.
- The summer outlook indicates below-average rainfall is likely across the northwest and Cape York Peninsula, and wetter across parts of the east. The daytime temperature outlook is patchy, with warmer days likely in parts of the west and north, while parts of the southeast are likely to be cooler. Overnight temperatures are likely to be warmer across most of the country except the southeast.
- Current climate influences include a combination of a strong El Niño in the Pacific, a decaying positive Indian Ocean Dipole, and very warm Indian Ocean temperatures. (See the climate influences section for more information.)
- December is likely to be wetter than average across southeast Queensland and northeast NSW, parts of the interior and southwestern Australia.
- Across most of Australia, the chances of a wetter or drier summer are roughly equal. However, summer is likely to be drier than average across northwest Australia and the Cape York Peninsula, while wetter than average conditions are favoured across southeast Queensland and northeast NSW.
- Current climate influences include a combination of a strong El Niño in the Pacific, a decaying positive Indian Ocean Dipole, and very warm Indian Ocean temperatures.
- Historical outlook accuracy for summer rainfall is moderate to high over most of WA, and moderate over the eastern mainland. Elsewhere, accuracy is low to very low.

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 September to November 2015**](#)