

CROP REPORT



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The 2023 Grain Season – Slide in potential grain tonnage from last month

Total grain yield potential has slipped by more than 1.0 million tonnes in the last few weeks due to continued dry conditions in much of the state's grain growing regions. In the central and northern regions away from the coast, grain yield potential has fallen and will continue to fall further if rainfall does not pick up in the next four weeks. Recent light rainfall in the northern portions of the state has given those grain growers a short reprieve from what was shaping up as being a very poor year. Further south, the situation is more mixed with patches of very dry areas amongst those still hanging on, to extremely wet waterlogged areas closer to the coast.

For many growers the potential for a good year is still there, although the "bucket" is very dry and regular rain, or a few good double-digit falls, are needed to keep things ticking along. The recent upturn in day temperatures has highlighted the precarious nature of the crop for large areas of the state where crops are later than in the previous very high production years.

The majority of the state's canola crop is in good shape as the early sowing has assisted in pushing it through its growth stages in front of the cereals, which will result in less exposure to heat shock in spring. Canola grain yield potential is well below last year in most regions, although the second highest planting of more than 1.8 million hectares still sees production of around 2.5 million tonnes possible at this stage of the season.

It is now unlikely wheat production will exceed 10 million tonnes as large areas of the central regions that were holding potential until a week ago, are now sweating off tillers in response to the dry conditions and warm temperatures. The very high potential areas of the state closer to the west coast are still holding, although without good follow-up rain soon, these areas will also lose potential rapidly as they are bulked up and have little moisture below them. Wheat yields in the better areas look like being over 2.5 tonnes per hectare, graduating to 1.0 tonne per hectare or less in the poor areas. Overall, a 2.0 tonnes per hectare average across the state is currently about where it is at.

The state's barley crop has quite a mixed potential with the better areas looking very good but crops in the drier areas are running up due to moisture stress. An average grain yield of 2.5 tonnes per hectare is going to see out most crops.

2023 Season GIWA August Western Australia Crop Production Estimates (tonnes)

Port zone	Wheat	Barley	Canola	Oats	Lupins	Pulses	State total
Kwinana	4,400,000	1,700,000	1,050,000	220,000	170,000	12,000	7,552,000
Albany	1,650,000	1,800,000	720,000	220,000	70,000	30,000	4,490,000
Esperance	1,500,000	740,000	560,000	20,000	35,000	50,000	2,905,000
Geraldton	1,600,000	120,000	180,000	5,000	110,000	2,000	2,017,000
Totals	9,150,000	4,360,000	2,510,000	465,000	385,000	94,000	16,964,000

Note: the grain totals reported are for whole farm production. This includes on-farm seed and feed requirements as well as trade outside of the CBH network.

GIWA gratefully acknowledges the support of DPIRD, CBH, DAS and contributions from independent agricultural consultants and agronomists in the production of this report.

Geraldton Zone

Light rain earlier this week has stalled the slide in grain yield potential in the Geraldton Port Zone for another week or so. The forecast cool weather to follow will also help, although the whole region needs at least two good rains in the next month to halt the reduction in potential that has occurred in the last few weeks.

Crops around the very dry areas of Binnu, Yuna, Mullewa, Canna, Perenjori, Latham, Coorow and Carnamah were in dire straits prior to the recent rain and with mostly single digit falls this week, will drop away again fairly quickly without follow up rain in the next couple of weeks.

Surprisingly, where canola did germinate early, it is holding up OK under the dry conditions and in most cases should return a profit for growers. Yields currently will be in the 1.0 tonne per hectare range or less in the lower rainfall areas, and up to 1.3-1.4 tonnes per hectare closer to the coast.

The wheat has sweated off tillers in the last two weeks and is now likely to be in the 1.0-1.5 tonnes per hectare range, up to 1.8 tonnes per hectare in the better areas. Wheat is now in or close to its critical grain filling period where earlier growth will be irrelevant if no more rain falls, as most crops have no moisture reserves underneath.

Lupin area is way down on previous years and so will final tonnage be, with some crops still sitting in the furrows ungerminated.

The variance in total tonnage out of the Geraldton Port Zone could be quite wide and the current estimated 2 million tonnes of total grain production for the region is likely to be the top end of estimates.

Kwinana Zone

Kwinana North Midlands

Cereals are hanging in there and look remarkably good considering the lack of rain. Crops have been “running on fumes” and this has become apparent in the last week with its few warm days. The less than 10mm rainfall events for most of the winter on an empty bucket has had crops living hand-to-mouth. Crops have not started to sweat off tillers until you get to the medium and low rainfall areas to the east, and while the rain this week will delay a potential drop in grain yield potential, it won't be long until this is the case unless some decent rain falls in the next few weeks.

Wheat has picked up pace in the last few weeks, pushing through its growth stages quickly to now being at ear peep. The barley crops are more advanced with heads out. There has possibly been some frost damage in the advanced crops from the very cold night 10 days ago.

There is some powdery mildew in susceptible wheat varieties where no early fungicide was used. Ameliorated paddocks are holding up well and at the moment, insect pressure is low. All crops are pretty clean for diseases.

Canola crops are not going to beat the last couple of years, as the canopy is pumping water and stripping the lower canopy. Most growers dropped back on planned nitrogen application and top end grain yield will be held back by losing the lower canopy from nitrogen deficiency, or moisture deficiency, or both. Canola area is well down on previous years and at this stage of the season, grain yield potential will also be well down on previous years.

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There is zero waterlogging in the western areas which has resulted in very good nitrogen efficiency, which is a blessing in disguise in these low rainfall intensity years.

The good areas of the zone will start to fall apart over the next few weeks without more rain. The west is still holding together, but east is hand-to-mouth with rainfall of 150mm being behind the long-term average. The worst areas have received 130mm for the year to date. The zone is tracking 35 – 50mm behind 2019, which was a pretty ordinary year.

Lupin area is down, and tonnage will be down with crops being very short, and most will be at the lower end of yield potential in the 1.2 – 1.6 tonnes per hectare range. Canola is well down in area, and on yield potential.

With less rain year to date than in 2019, growth still looks very good and better than in previous years with similar rainfall. Productivity gains from liming, deep ripping and other soil amelioration, variety performance, time of sowing and improved crop emergence have all come a long way in a short period of time. Two more rains in the next month could result in average or above average in cereal tonnages.

This year most growers have thrown the cue back in the rack, whereas at this point in the season in the last few years, growers were still out and about spraying and fertilising.

The western sandplain has held onto the nitrogen resulting in very high N efficiency. These western areas need rain every 7-14 days and without regular rainfall, grain yield potential falls away very quickly.

Kwinana South

The eastern areas of the region suffered from the dry July, and the season is starting to slip away with cereal crops suffering from moisture stress in the eastern lower rainfall areas, and crops have lost potential despite the good early moisture. The lack of follow up rain has soil moisture probes at 40-50 per cent of plant available soil moisture, which is not enough going into spring. The region has struggled to get any substantial falls of rain, and whilst average grain yields are still possible, it is tending towards below average yields for cereals now.

Canola still looks good due to the timing of emergence and has good potential still for an average crop, although the continued dry conditions will put a lid on final grain yield potential. As a crop, canola is expected to be the shining light for growers this year.

In the west, crops have gotten by from recent frequent rainfall events and although it's not particularly wet, there is still excellent crop potential. But with the warmer weather approaching, the big crops will start to use up the moisture that is there and they are going to need a few good rains to realise the current potential.

Agronomically, wheat powdery mildew on the earlier and bigger crops has needed controlling. Cabbage aphids are starting to pop up in the canola right across the region, but generally crops are pretty clean for disease and insects.

Cereals have a lot of growing to do to catch up to where they were this time last year. Most are at Z31 or just starting to elongate. There is also a wide spread in growth stages of between 3-4 weeks. Crops with minimal soil moisture that are sitting at Z31, whilst they have tillered well, still have a way to go and could suffer if conditions are unfavourable in spring. The cereals in the lower rainfall areas of the zone have and are sweating off tillers. The rain this week was a last gasp and provided more time, although the cereals are not out of the woods just yet.

Kwinana North East

Crops over large areas of the Kwinana North East Zone were just starting to slide in grain yield potential in the last week, but thankfully the recent timely rain will reverse this for a while. North of the Great Eastern Highway, most falls of rain were around the 10mm mark whilst south of the highway, totals crept up to 20mm in some cases, which is exactly what was needed.

Current tonnage estimates will hold now for a few weeks following the rain, although most growers will need at least one good fall of 20mm or more to get crops over the line in the better areas. The very dry areas north of Mukinbudin and Bencubbin did jag some good totals, although the dry areas north of Koorda missed most of the heavier falls of rain.

The region could still produce reasonable tonnages, although the late maturity and lack of sub-soil moisture is pushing down the odds of average grain yields.

There is a lot of canola in the region and because it was sown early and is more advanced than the wheat, it still has good grain yield potential. Diamond Back Moth and aphids are showing up in the east and northern areas, and these will need to be controlled for crops to achieve more than 1.0 tonne per hectare, which is not beyond them at this stage.

Wheat on the fallow country is still in good shape, as is the wheat on the double-break paddocks.

Albany Zone

Albany West

The West Albany Zone is still on track for a very good year. Increased areas of waterlogging looms as the major threat to not equalling last year's record tonnage for the area. The recent rain will most likely start to show up as holes in the paddock in the historically wet areas, as the soil profile is at near maximum water holding capacity. The paddocks around Mt Barker and Frankland were already very wet and paddocks in the low-lying areas will now be un-trafficable following the rain in the last week.

The canola crops are a little behind in regions further south and east, and quite short, with less bulk than in recent years, although podding is fine, and growers are expecting grain yields of over 2.0 tonnes per hectare from most crops.

Wheat crops are running up and most are around Z31, the first node growth stage. The wheat has good top growth and good colour from plenty of fertiliser. Many look like "5 tonners" at this stage. Some of the longer season varieties that didn't emerge until June look to be a bit long for this season, although with the amount of moisture in the ground, there is still time to achieve some very good yields. Powdery Mildew is showing up in the bulkier crops that didn't have a fungicide under them at sowing.

Barley is anywhere from first node to flag leaf emerged and cleaner than last year for the fungal "blotch" diseases.

Albany South

The zone goes from ridiculously wet to ridiculously dry within 40km as the crow flies. Rainfall figures range from 135mm to over 300mm in the growing season so far. The coast is wet, whilst north to Ongerup the crops are patchy where the region has just received its first double digit rainfall event since early June.

Powdery mildew is cranking up in the bulked-up wheat crops, although this is a case-by-case situation depending on the variety, with varieties with higher resistance remaining green.

Sclerotinia is just starting to get going in the canola, although with most crops at 80% flower, it has come in too late to be much of a problem. The canola is quite advanced for this time of the year and growers have really gone for it with nitrogen applications with up to 150kg per hectare of nitrogen applied, even on canola following pasture, which has resulted in extra buds forming that will help keep the top end grain yield potential up. In saying that, the top end potential does not look to be up to the last few years as the crops are not as cabbaged up or have not branched as much as in previous years.

The bad barley leaf disease experienced last year has not shown up this year, as growers have mostly moved out of Planet into the more resistant varieties. Across the region there is a huge variation in barley growth stages, depending on where you are in the region. There are some mice getting around, although not at a level that requires baiting. Aphids are starting to build up in canola.

The winter wheats on the coast that are sitting in water are surprisingly still green and appear to have handled the waterlogging better than mainstream varieties, which is something growers are noting for the future.

Albany East (Lakes Region)

The crops that came up on the earlier rains, where the “rain trains” went through in the autumn, still look good. Most crops were running out of moisture until two weeks ago when they received up to 20mm right across the region, and the follow-up rain this week has put the season back on track for potentially close to an average year across the region. In the eastern areas closer to Mt Madden that had been drier, the cereals did run up a bit and have lost potential, as was the case in the other areas that missed out on the earlier rains.

The crop grain yield potential had come off a bit prior to the rains in the last two weeks, although canola is still looking good. There have been some frosty conditions cold enough to cause vegetative frost on vetch, although it is now growing through it. Overall, barley disease levels are low due to the dry conditions, except for paddocks that are barley-on-barley where susceptible varieties have been sown. Few fungicides have gone out to date. There is little disease in other crops except for some powdery mildew in Sceptre wheat and there are few bugs to worry about at the moment.

The recent rain will probably get the canola through and has improved cereal yield potential. Wheat growth stages are mostly at mid-tillering, with very few starting to elongate due to going in later and taking a while to come up. Frost risk for wheat should be less due to its later timing of emergence. Barley is generally more advanced and is getting close to the head emerging, although there is a big spread in growth stages depending on location within the region.

Further west around Narrogin, the crops have had a good run with moisture and have been just jogging along with nothing running up yet. In the western portions of the region, there is more growth in all crops. Overall, growers are expecting lower potential grain yields than in the last few years due to later emergence and slow growth from the very cold winter.

Esperance Zone

The Esperance Zone is an absolute mixed bag, with severe waterlogging through to very dry. The wet areas close to the coast are very wet and grain yield potential will suffer due to the waterlogging. The dry areas west of the Gums, Grass Patch and Cascades have improved, although the crops are going to need a good spring to reach average grain yield potential. The shining light has been around Beaumont where it has been just about perfect.

In the wet areas, the big rain in June topped up the profile. The dry July was helpful and the recent rain, while good for other regions, has made conditions very wet. Yield potential will be down. There is poor tillering in cereals, and canola is thin once you look from above.

In sharp contrast, the wet areas are chasing a dry few weeks and the dry areas up west of the Gums are looking for some rain. The Mallee had less than 20mm of rain in July, and while recent falls have improved the situation, crops have a long way to go to get over the line. Germination in the cereals was mixed with wheat emerging through June north of Scaddan and coming up staggered. These crops are going to continue to need rain to get near average grain yields.

Liquid nitrogen is being applied in wet areas, with most growers fairly bullish with fertiliser applications this year. Planet barley is still causing problems with net blotch infection, particularly in the high rainfall zones. Powdery mildew is showing up in the wheat as it is right across the grain belt in the earlier more bulked up crops.

Canola is mixed and is not amazing like the last few years. There were good germinations in the south, then they became very wet and have failed to bulk up adequately. In the drier areas where they came up more patchily, the unevenness has improved and they have caught up a bit to where you would like them, although most growers are expecting just average yields at this stage of the season.

Season Outlook, August 2023

Ian Foster, Department of Primary Industries and Regional Development

Rainfall

After a dry July, seasonal rain April to July continues to be drier than normal for northern and eastern agricultural areas and parts of the south-west. In contrast, coastal parts of the south coast were wetter than normal.

It is pleasing that August rain to date has been good over southern agricultural areas, although inland parts of the northern agricultural area have received less than 25mm.

This pattern is reflected in the estimated soil water storage graph (Figure 1). Water storage in the south is now likely to be higher than indicated as the graph does not include rainfall received since 14 August.

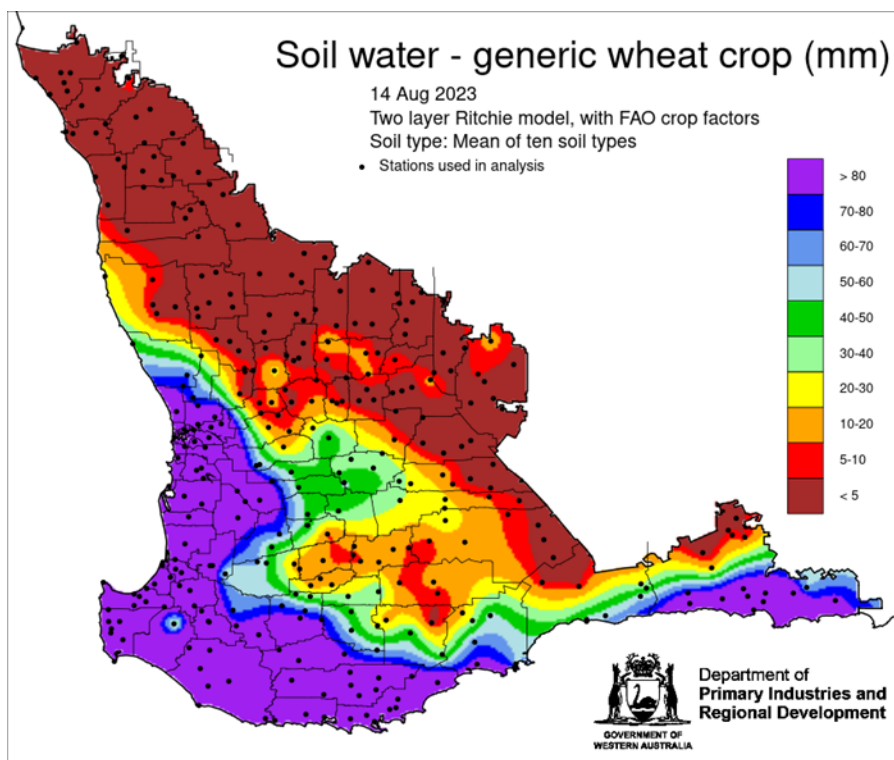


Figure 1. Estimated plant available soil water assuming a generic crop and seasonal rain to 14 August 2023. From DPIRD.

Continuing from last month, while an El Nino event has been declared by US authorities in the Pacific Ocean, it has yet to be announced by the Bureau of Meteorology. There are mixed atmospheric patterns in the Pacific that show the event has not fully coupled with the atmosphere.

Neutral conditions remain in the tropical Indian Ocean, despite model predictions of an Indian Ocean Dipole event. Their combined impact historically suppresses rainfall over much of Australia in winter and spring.

Forecast

Climate models continue to indicate that below normal rain is more likely over coming months for most of Australia. Atmospheric pressure is likely to remain above normal south of Australia, which is associated with lower rainfall over southern WA.

This brings a risk to spring conditions for crops that are currently under water stress, as well as those where development has been slow to date.

Temperature

Crop and pasture development has slowed since April as accumulated thermal time has been well below normal for most of the agricultural area. June was particularly cold, with frosts in July and into August.

In late August, there is an increased risk of unusually warm daytime temperatures for central and northern agricultural areas (see graph Figure 2 below), however. Low temperatures are expected to be near normal for this period.

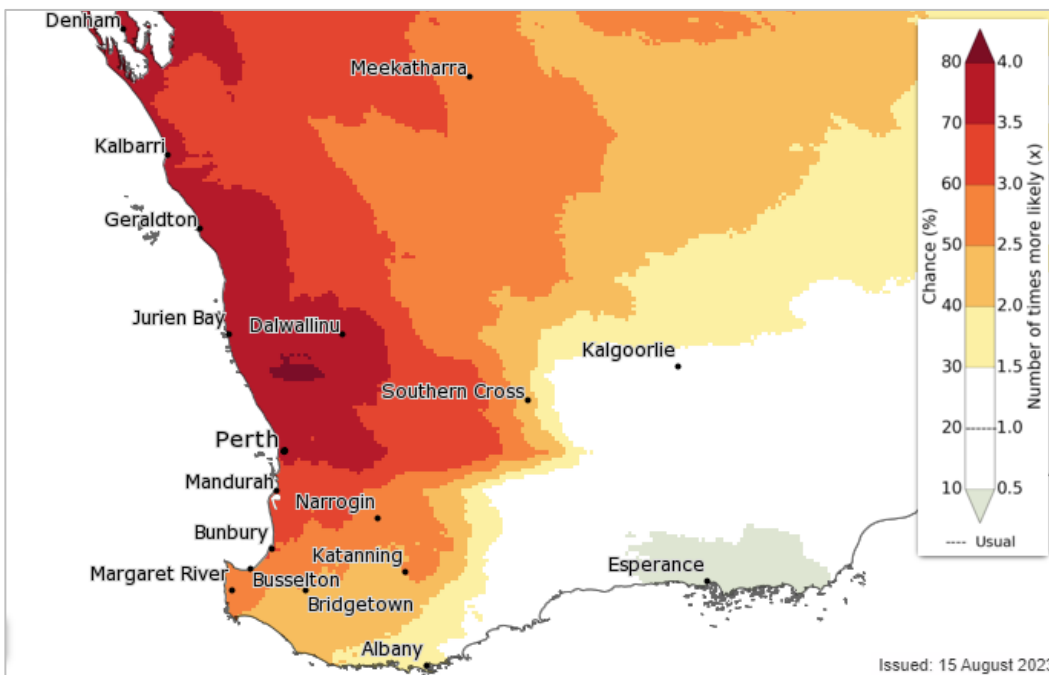


Figure 2. Chances of daytime temperatures being in the top 20% of records for 20 August to 2 September 2023. From Bureau of Meteorology.

Additional information is available from:

- [DPIRD: Weather stations](#)
- [DPIRD: Soil Water Tool](#)
- [DPIRD soil moisture probes](#)
- [BoM: Decile rainfall for April to July 2023](#)
- [BoM: Rainfall outlook for the next week](#)
- [BoM: Seasonal Rainfall Outlook](#)
- [BoM: Australian Water Outlook](#)

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