

CROP REPORT

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The 2022 Grain Season- Slow harvest for all the right reasons

It is a year to remember across all Western Australian grain growing regions, mostly for the yields achieved, but also for those in the southern regions with the unseasonal weather leading up to and during harvest. Grain yields are in some cases “the best ever”, and in most cases, growers average paddock yields are higher than in 2021, which produced a record tonnage for the state by a fair margin.

With all regions set to equal or exceed last year’s tonnage, it is clear that this year will be another record, although the question is “by how much?”. With harvest running several weeks later than normal, the final result will not be known until mid-January 2023 and with so much harvesting to go, there is still some uncertainty around what that final figure will be. The very wet southern Albany and Esperance port zones may not come in with all the tonnes expected due to the likely impact of lodged crops and head loss on final harvested yields.

Apart from the lower protein due to the dilution from the very high yields, wheat grain quality has been very good with very low screenings and very high grain weight. Falling numbers and sprouting have not been too bad, although much of the area of suspect varieties in the rain impacted southern regions is still to be harvested. Wheat tonnes will exceed 13 million with more of a contribution from the low rainfall regions than there has been for a long time.

Both canola and lupins have been exceptional, and in most regions, are yielding whole-paddock averages not seen before.

Barley grain yields and quality have been good in all areas other than the southern regions where leaf diseases took hold in the warm wet conditions and yield has been lost due to weather events.

2022 Season GIWA December Western Australia Crop Production Estimates (tonnes)

Port zone	Wheat	Barley	Canola	Oats	Lupins	Pulses	State total
Kwinana	7,200,000	2,300,000	1,900,000	290,000	160,000	10,000	11,860,000
Albany	1,300,000	2,500,000	1,000,000	250,000	60,000	20,000	5,130,000
Esperance	1,600,000	1,200,000	770,000	20,000	60,000	40,000	3,690,000
Geraldton	2,900,000	250,000	570,000	5,000	340,000	2,000	4,067,000
Totals	13,000,000	6,250,000	4,240,000	565,000	620,000	72,000	24,747,000

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.

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Geraldton Zone

Growers in the Geraldton Port zone still have a bit to go to finish off the wheat. With bins filling rapidly, they are racing against neighbours to get the crop off. It was a later than normal start for growers to get stuck into it, however the region has only lost two days due to harvest bans. Grain yields for all crops are up on the 2021 season, which saw just over 4 million tonnes produced in the region. It will certainly be another record for the zone; it's just a matter of by how much.

Wheat grain yields for about two thirds of the wheat area are up to 50 per cent more than average for individual paddocks. The early sown paddocks that suffered from the dry start have ended up yielding in the 2.5 to 3.0 tonne range which is about average.

Wheat paddock yields of 4, 5 and 6 tonnes per hectare are not often achieved in the region and for most growers, these are the best crops they have ever harvested. Grain protein is down of course, exacerbated by the dry conditions at the key nitrogen decision timings. The dry start and uncertainty around the rainfall for the remainder of the growing season resulted in many growers pulling back on nitrogen applications.

The wheat grain protein has held up on the lupin stubbles and well managed fallows. Wheat on lupins has returned up to 2 per cent higher protein and a tonne more yield this year over the non-legume stubbles, with less bagged nitrogen applied. The dilemma for many growers will be what to do next year. The massive grain yields for lupins across the state this year has added to the already large stocks on hand. So with continued low prices for lupins likely, the question for growers in 2023 will be, do you take the hit on profit for the lupin paddocks for the sake of the following crop, or do you pull the area of lupins back and commit to higher fertiliser use?

Kwinana Zone

Kwinana North Midlands

Harvesting in the region is about 60 to 70 per cent completed with canola and barley done and just wheat to go, with some growers leaving a few lupin paddocks for the end of their programs. Grain yields for canola, lupins, barley and wheat are all exceptional. The canola grain yields in the medium to high rainfall regions ended up around the same as 2021, and the lower rainfall portions of the zone are higher than 2021. The lack of pods on the main stems of many crops kept a bit of a lid on yields in the medium to high rainfall regions. This was evident across the state and many agronomists suspect this may have contributed to variable grain oil percentages.

Wheat and barley grain protein has been at the lower end of the scale, although grain weight has been at the upper end of the scale, screenings are non-existent and there has been no real issues with falling numbers, whereas there has been further south in the state.

The very high grain yields across the state are a function of the good start and very mild finish. The incredible thing is how the crops have yielded even when a little underdone for nitrogen. This situation is repeated across the whole state and can only be attributed to the extra mineralised nitrogen that was there at the start from the prolonged warm moist soil prior to seeding and then a "kick" at the end from late rains in a warming profile. The value of this "free" nitrogen has been substantial this year even in cereals following cereals. The available nitrate at the start of the growing season was about twice as much as normal and allowed crops to race through their growth stages early in the season which helped set up the very high potential that we are now seeing delivered to the bins.

Kwinana South

The whole medium to higher rainfall regions of the Kwinana zone are having a very good year and will probably end up better than 2021.

The region had a later start than the rest of the state, although the very warm temperatures in the winter pushed crops along and mostly caught up with the other regions by spring. There is still canola to come off as many growers increased the percentage of canola in the rotation to close to 50 per cent of their cropped area. The yields have been very good and are mostly going in the range of 2.5 to 3.0 t/ha, with some paddock yields of 4 t/ha. Barley yields have been very good with paddock averages of greater than 5 t/ha. There is still quite of wheat to be harvested and the few paddocks that are in have been yielding close to the barley.

Kwinana North East

There have been some exceptional wheat and barley grain yields north of Merredin through to Mukinbudin, Beacon, Warralakin, Wyalkie and Bonnie Rock. Many growers through those areas have had a tough run over the past few years and won't be too concerned if they do not finish harvest until Christmas. Further east, the yields have been more above average rather than exceptional. Grain protein on pasture and fallow on the stronger country has been going H1 and H2 at 3 tonnes per hectare, whilst grain off the continuous cereal for the "croppers" has been down as low as 6 per cent.

The dedicated croppers have mostly been going 2.0 to 2.5 t/ha for the wheat and a bit more for the barley away from the very good northern rim of the zone. This is still a good result and will add a lot of tonnes to the state's total. The dry July and a little bit of frost has taken the top off some areas, as did the pulling back of nitrogen top-ups.

The southern areas of the region have also been very good with plenty of wheat crops yielding more than 3 t/ha.

Canola right across the zone has been very good with growers averaging 2 tonnes plus across whole programs.

Albany Zone

Albany West

Growers in the West Albany zone are getting close to wrapping up the canola harvest with 3.0 t/ha averages across whole programs for many. Canola oil percentages have been in the high 40's, adding a bit of cream to the margins. The absence of the very wet areas experienced in 2021 has had an impact of pushing whole paddock averages up this year to a point that will exceed last year. This is likely going to be the case when the cereal paddocks are harvested as well.

Whilst there is still a lot of harvesting to go in the region, total grain production for the region will probably be greater than 2021, which was a very good year for growers.

Albany South

Canola grain yields have been "all over the place". The variable yields seem to be due to a few factors such as the lack of podding on the main stem and the wet areas quickly switching to being too dry for the crops to adjust to in the spring. The impact of frost is evident as well, with white pods now obvious in low lying sections of paddocks.

There is still a fair bit of canola to be harvested with whole paddock averages of 2.5 t/ha common and some as high as 4.0 t/ha.

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Some areas to the east of the zone have had between 100 to 200mm of rain since the end of October which has caused havoc for growers with bogged machinery, crop head loss and lodging. Growers are still having to go around the wet areas or head to higher ground until the low areas dry out.

Barley germ end stain is now common, and some pink grain is also showing up. Barley grain yields so far are also all over the place, with yields ranging from around 4 t/ha for the leaf disease impacted crops, up to more than 6 t/ha for the clean crops. There is not a lot of barley making malt in the zone, which is to be expected with the amount of rain the region has had during harvest.

The lodged crops are reducing the harvest efficiency and the lost grain will likely fuel another blow-out in mice numbers.

The spray booms are having to follow the headers into the paddocks before the weeds get away. This is adding to the slow pace of harvest with growers having to carry out several operations at the one time. In saying this, it is another very good year for the zone and whilst the rain at harvest is a hindrance, the yields are still comparable to last year, which was one of the better years the region has experienced for tonnes produced.

Albany East (Lakes Region)

Once everyone was able to get started, harvesting has been ticking along nicely. Grain yields have been on par with 2021, which was an extraordinary year for growers in the region. There is some question as to whether there will be more grain produced this year than last year, however in saying that, 2021 was such a good year, it is difficult to imagine a result that will top it.

Barley is still being harvested although large individual growers are averaging 4 t/ha over significant areas which is 1.5 t/ha more than recent averages excluding last year. Barley protein has surprisingly held up enough in a lot of cases to make malt. Little wheat has been harvested to date, but what has been completed is seeing yields well up on averages.

Canola yields have been comparable to last year across the region, averaging around 1.8 t/ha and with excellent oil percentages.

The region is coming off a dream run in 2021, and to have two seasons in a row with such good yields and very little frost impact is amazing.

Esperance Zone

Harvesting in the Esperance Port zone has been a pretty frustrating affair to date, with more rain during harvest than was received during the growing season for some areas. The continuous rain is resulting in a lot of weather damaged grain. Growers have found it difficult to get the moisture down to deliverable standards and are having to go to silo bags for storage and will deal with this high moisture grain later.

The canola grain yields have been variable depending on where the crop is in the zone. The dry period in the middle of winter held back the bulk and has had an impact on final grain yield. There have also been some areas affected by frost, hail and loss from lodging. Overall, the total tonnes of canola produced will be around the same as in 2021.

Most growers are now into the barley and wheat and are finding the wheat in general is matching the grain yields of barley. The barley was hit by both net type net blotch and powdery mildew, and the impact from these leaf diseases has pulled back barley grain yields to varying levels depending on the variety and fungicide program used.

The wheat harvested to date is yielding higher than in 2021, which was one of the best years on record. It is expected there will be quality downgrades once growers get onto the more suspect varieties. Not many growers will finish by Christmas due to the slow-going, high yields and having to spray harvested paddocks for germinating weeds during harvest.

Cereals on last year's legume paddocks are a standout in the region, as they are around the state, pushing yield and protein above the non-legume rotations with significantly less applied nitrogen.

Season Outlook, December 2022

Ian Foster, Department of Primary Industries and Regional Development

Climate summary

November rain was near-average or wetter for much of the agricultural area, and notably wetter for the south coast. Seasonal rain (April to October) was near-average for northern regions and wetter than normal for eastern and southern cropping regions. The south coast was much wetter than normal.

Early December has seen some thunderstorms, with hail across central and southern cropping regions. Root-zone soil moisture remains well above average for the south coast (Figure 1). The remainder of the month should see drier weather, though cool conditions should persist for the south coast.

Temperatures have been well below normal for spring (Figure 2), and the mild finish to the growing is a likely contributor to high yields.

Most climate models show neutral rainfall outlooks for January to March 2023 for the agricultural area of WA.

Bureau of Meteorology seasonal outlook summary, issued 8 December 2022:

- Most of the country has close to equal chances of above or below median rainfall during January to March. Above median rainfall is likely for Cape York Peninsula and parts of the New South Wales and Queensland coast while below median rainfall is likely for southern South Australia and the far south-west of Western Australia.
- January to March maximum temperatures are likely to be warmer than median for much of Australia away from eastern New South Wales and south-eastern Queensland where below median temperatures are likely.
- January to March minimum temperatures are very likely to be warmer than median for almost all of Australia except over north-eastern New South Wales where the forecast is closer to neutral.
- This wet outlook over northern and eastern Australia is consistent with several climate drivers, including La Niña, and record warm waters around Australia.

Additional information is available from:

[DPIRD: Seasonal Climate Information](#)

[DPIRD: Soil Water Tool](#)

[BoM: Decile rainfall for April to November 2022](#)

[BoM: Rainfall outlook for the next week](#)

[BoM: Seasonal Rainfall Outlook](#)

[BoM: Australian Water Outlook](#)

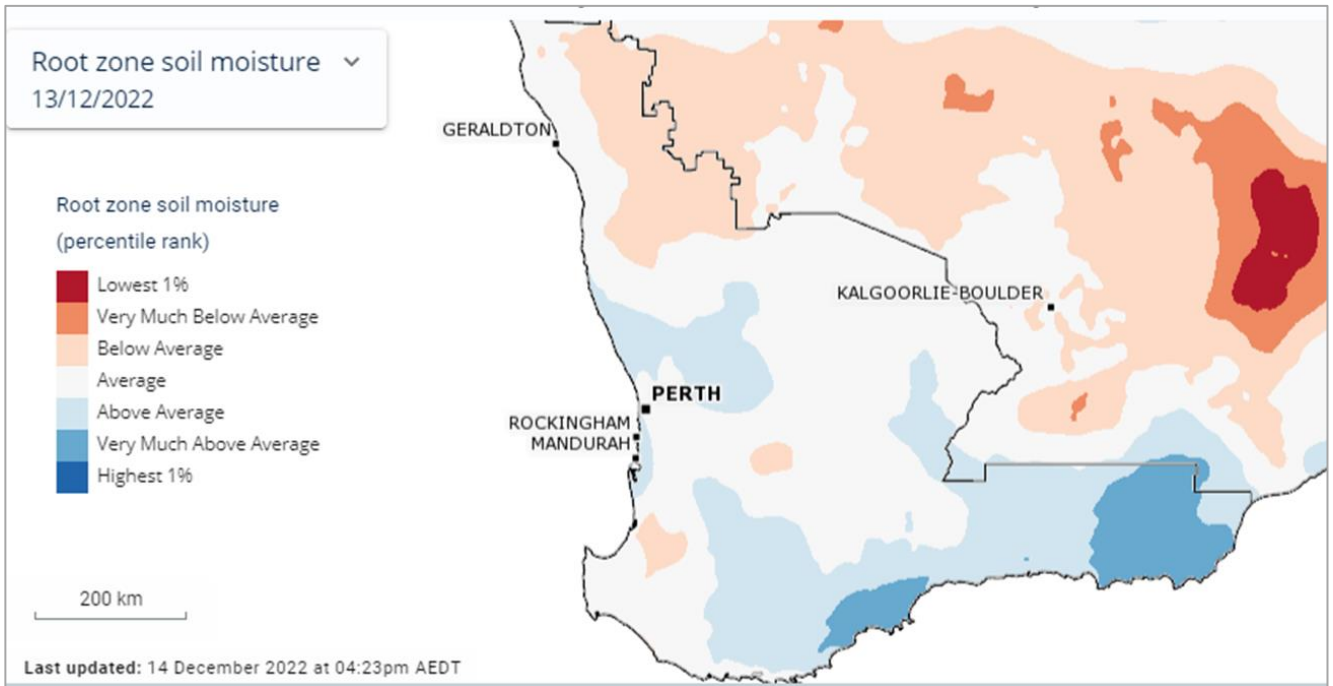


Figure 1. Estimated root-zone soil water rank at 13 December 2022. From Bureau of Meteorology.

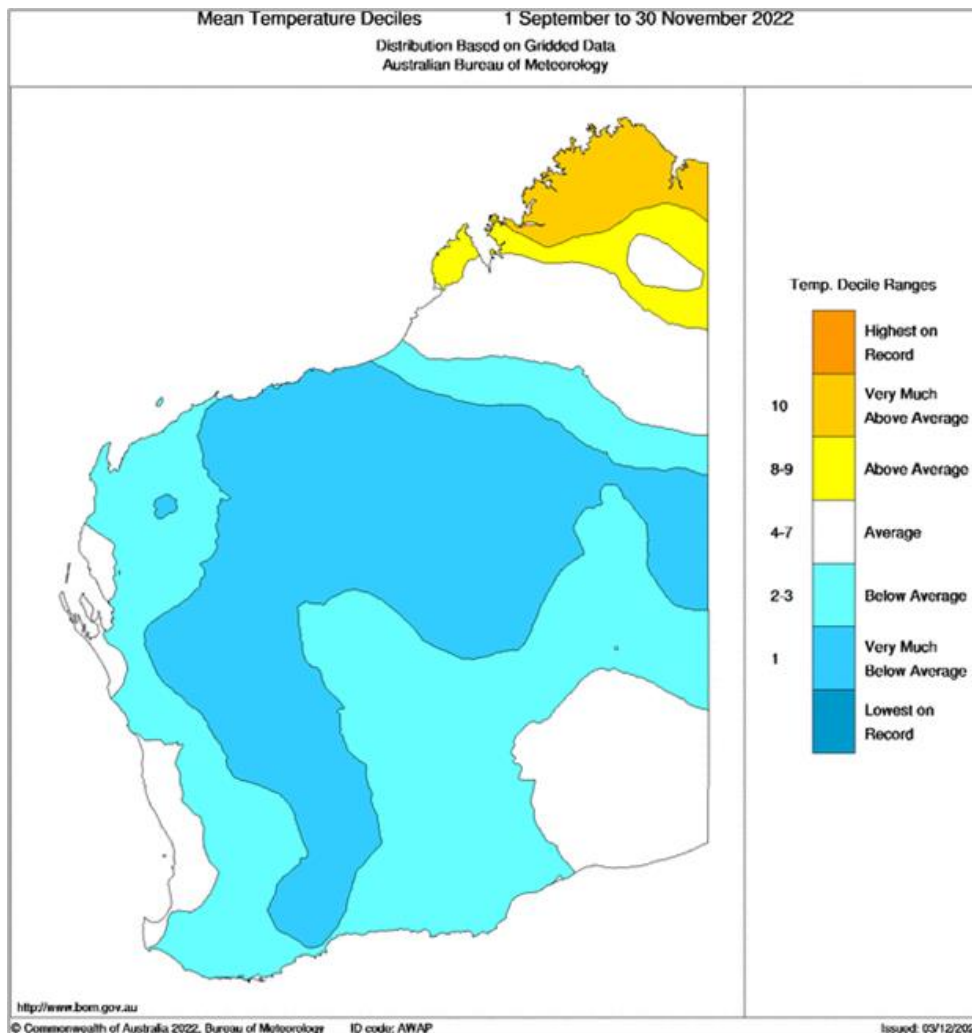


Figure 2. Mean temperature deciles for September to November 2022. From Bureau of Meteorology.

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