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Summary - The 2017 Season

The 2017 season has been a frustrating start for growers, most of the state has had good subsoil moisture where there has not been enough rain to get a germination. Growers have relied on isolated storms to get crop into moisture and up out of the ground. The trend of promising rain fronts fizzing out has continued for the last month and looks to continue in the short term. Thunderstorms in the eastern areas around Southern Cross on 8th May means growers that did get rain will get crop in but the storms were isolated and most missed out.

The Department of Agriculture and Food WA reports that whilst most climate prediction models are indicating below average rainfall from May to July 2017, climate models indicate an El Niño event is likely to develop in the Pacific Ocean, as well as an Indian Ocean Dipole-positive event in the tropical Indian Ocean in 2017. The latest update shows fewer models indicating the development of these events, yet a clear majority still remains.

Most of the intended canola is now sown, and due to the lack of rain, there is a slight reduction overall in plantings from what was projected in April 2017. The result from the chance of rain over the weekend 13th and 14th May determines the final area. Canola crops that are up are generally patchy with split germinations within individual paddocks. The canola yield potential is still good for the southern half of the state but if rain does not fall in the north, yield potential will drop off.

Lupin plantings look to be slightly lower than April 2017 estimates. The intended barley area looks to have increased from last month being substituted for the reduction in canola plantings. Milling oats for grain are clearly going to be down on 2016 at this stage, however, this could change in the next month as the total cereal plantings in the medium to high rainfall areas still have a long way to go. Hence it is too early to predict changes in wheat also.

2017 WA Crop Area Estimates (hectares)

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Port zone	Wheat	Barley	Canola	Oats	Lupins	Field pea	State total
Kwinana	2,645,000	480,000	440,000	140,000	124,000	9,000	3,838,000
Albany	796,000	460,000	330,000	63,000	39,000	6,000	1,694,000
Esperance	539,000	290,000	280,000	6,000	9,000	15,000	1,139,000
Geraldton	917,000	50,000	150,000	8,000	180,000	1,000	1,306,000
Totals	4,897,000	1,280,000	1,200,000	217,000	352,000	31,000	7,977,000
% change from April 2017	10.1%	0.9%	-1%	-16.6%	-1.5%	0.6%	5.3%

Please note, the change in wheat crop area estimates from April 2017 is due to internal reviews at the beginning of each season. These estimates will continue to be adjusted in coming months.

GIWA gratefully acknowledges the support of DAFWA and contributions from independent agricultural consultants and agronomists in the production of this report.

Geraldton Zone

Conditions throughout the Geraldton Zone are dry and dusty. Growers in the Yuna and Mullewa areas are nearly finished sowing with most being two thirds the way in to their programs. Growers in the Canna, Gutha, Tardun and Pindar areas are well into their programs and have crop out of the ground. Growers in the Carnamah, Coorow and Perenjori areas are dry sowing with some crop going into moisture from storms late April / early May and some crops up from earlier plantings. The areas around Three Springs and Mingenew are yet to sow the majority of their crops.

Some areas have scaled back intended plantings of canola and lupins in the north east of the zone and other regions that are dry sowing are switching over to wheat and barley. There is still some canola going in near the coast and further south near Badgingarra. The fallow area will increase in the eastern areas as yield potential drops off and the longer the area goes without rain.

There is about 60 to 70% of the total crop program sown in the Geraldton port zone. Overall there will probably be a slight decrease in the canola and lupin areas from predictions in April 2017 and a slight increase in the barley area. The sub-soil moisture is good in areas where the crop is up and they are not under moisture stress.

The crop has gone in well to date with the dry sowing conditions on the surface allowing airseeders to get through the heavy stubbles from 2016 more easily than if it was wet.

There are large locust swarms moving north looking for green feed from the Moora area as those paddocks are being sprayed out. Germinated crops around Carnamah, Coorow and Latham are at risk from advancing locusts. There are mice in enough numbers to warrant baiting in the Carnamah and Walkaway areas.

Kwinana Zone

The Midlands

Conditions are very dry and dusty in the region with growers finishing off sowing canola and lupins dry before moving on to barley and wheat. The moisture is too deep to get a germination but most of the region still has a good store of sub-soil moisture. There will need to be a rainfall event of around 15mm to germinate the dry sown crops and for the moisture to join up. Rain in late April / early May has mostly been non-existent with a few isolated thunderstorms around the Wongan Hills area, the crop that has gone in on these rainfall events is insignificant as a total for the region.

Canola that has been planted is patchy with germination. Only about 30% has come up and of that most paddocks have parts that have not germinated. The projected canola area has increased slightly from estimates in April 2017.

Most intended lupin plantings are in the ground, some is up but most is yet to germinate. There are a few lupin crops up around the Miling area and west of Miling where growers sowed deep chasing moisture. This would only be around 10 to 15% of the total area and crops are patchy. The intended lupin area has dropped off as the start to season has become later. There are no significant insect problems with the emerged lupin and canola crops at this stage.

The slight drop off in canola and lupin areas will be taken up mostly by barley and to a lesser extent wheat. Very little wheat has been planted at this stage.

The oat area at this stage will not change as most of the oats in the region are grown for export hay, rather than oat grain.



Kwinana West

About 10 to 15% of the total crop area for the central wheatbelt was sown into moisture from the summer rains, with about 70% of this looking good at present. About 10% of the canola crop area is looking good, 40% hit and miss with 50% not out of the ground as yet. There was also a small percentage of the total crop area sown following the patchy rain in early May which has germinated well and is emerging. Most of the cereals that were sown early were put in deep on to moisture and are coming up well. There was some backing off with the cereal sowing following last year's frost events, and some early sowing opportunities were lost as little follow up rain eventuated.

The areas of canola sown into a drying moisture profile came up patchy and are causing problems for growers as there are areas in paddocks that are steaming away with the warm weather and good subsoil moisture. Other parts of the paddocks are yet to germinate and growers are faced with difficult decisions as to what to do with these paddocks.

Growers have limited options for alternative crop types if they want to re-sow depending on the pre-emergent herbicides used. They are also faced with limited weed control options if they do opt to leave crops as canola when it does rain, as large areas of paddocks will be at vastly different growth stages.

Growers in the central regions will continue to dry sow until they get to about 90% of their intended plantings in the western edges and around 70 to 80% in the eastern areas. Then depending on the rain outlook, they may drop off poorer potential performing paddocks to keep for sheep feed.

The only change in planted areas from April 2017 will be a small drop in canola areas due to some paddocks not sown and some being sprayed out to fallow or sown to lupins. The projected oat and barley areas have not changed significantly from last month.

Kwinana East

Conditions are very dry in the eastern areas of the Kwinana Zone. The exception to this are some areas around Tammin, Kellerberrin, Quairading, Bruce Rock and Muntadgin that received storms in late April. Rainfall varied between 30 and 170ml in a short period of time but was very patchy. There was some damage to property and paddocks where the heavy falls occurred. Where the rain fell, growers will be able to get the remainder of their program into good moisture.

Some small areas of crops have germinated well in the northern areas of the zone however germination in the north east is very patchy.

Most growers are sowing dry and will continue to until they get to about 50 to 70% into their program and then reassess depending on whether it has rained. If it does not rain until the 25th May growers will probably drop off the last 20% of their intended plantings and leave to fallow. Experience has shown that if crops are not out of the ground by the 6th June the yield potential is too low to make a profit. This is especially the case at current low wheat prices.

The outlook is not grim yet but the region will need germinating rains mid-May, or yield potential will start to drop off and will make decisions on what to do difficult.

Albany Zone

Western Albany

Moisture is down at about 10cm with the topsoil dry for most of the cropping paddocks in the area. Canola is currently being sown dry with growers trying to finish in time for a chance of rain forecast for most parts of the Great Southern region. If rain does not fall as predicted, some of



the intended plantings may not go ahead and this could result in a slight decrease in projected plantings for 2017.

About 60 to 70% of canola has been sown to date and of that, about 60% has come up, particularly in the earlier sown paddocks around Easter time. The germination in these paddocks is a bit variable and patchy but yield potential for those crops that are up is good.

Very few if any barley or wheat has been sown and the decrease in the oat area projected from 2016 plantings looks to be on track. This drop in oat area has been taken up by canola with the remainder most likely barley at this stage.

There have been some isolated reports of fertiliser toxicity in canola affecting germination from sowing into moisture in a drying profile under the unusually warm conditions. The impact on the total canola crop for the region is likely to be insignificant.

Southern Albany

Apart from heavy storms that dropped around 80 to 180mm of rain in Many Peaks and Gardiner, and coastal areas where there is still good moisture down 50 to 100mm, the rest of the region is drying out rapidly.

Growers are continuing to sow cereals deep into moisture where they can, and will continue to if they can get a germination. There is only around 5% of wheat sown at this stage, barley around 30% and canola 80 to 90%. Most has or will germinate, although 10 to 20% of canola has come up with poorer plant numbers. As areas dry out most growers will wait rather than dry sow as it is still early days for the region. If it gets to 20th May without significant rainfall, growers will start picking and choosing paddocks to dry sow. Most are happy to spread out the sowing time for frost mitigation.

Emerging canola crops have vegetable beetles and desiantha weevils in numbers requiring spraying and there are pockets of conical snails, earwigs and slugs. Slaters that can cause problems in the Borden / Ongerup area seem to be behaving themselves for the moment.

Paddocks that were left green up until April are now sprayed out, with green volunteers confined to pasture paddocks. Barley volunteers are hosting net type net blotch and some barley leaf rust has been detected.

There have been some reports of compaction on the heavy soils following the storms in the Ravensthorpe area and difficult sowing conditions on paddocks that were clayed.

Canola plantings may drop off a little if rain does not fall by 20th May and the cereal area is still as planned.

Eastern Albany (Lakes Region)

The majority of the Lakes Region is dry sowing with growers going in shallow to avoid a split germination. Most growers will tick away with dry sowing wheat and barley for the next week or so then reassess if it does not rain. There has been a shift to shorter season varieties of wheat due to the unfavourable outlook for rain in the short term.

About 30 to 40% of the total crop has been planted, most of the canola and lupins are in with small areas of cereal at this stage. The area around Hyden had good falls of up to 30mm of rain early May and growers that were lucky to get the rain will get the most out of their program on that event. The Kulin / Kondinin area received a few storms but most growers missed out as did those around Lake Grace.

Canola has come up patchy making it difficult for weed control later in the season. The canola area could be down slightly or equal to last year as growers dropped off paddocks with the continued dry weather.

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There has been a lot of uncertain talk among growers, but the soil moisture situation is better than it has been for many years, there just needs to be enough rainfall to get crops up and the outlook will still be for a reasonable season.

Esperance Zone

The topsoil has now dried out in most of the Esperance zone and growers have slowed down or stopped seeding for the meantime. About 60 to 70% of the crop has been sown with most going into moisture. Germination has been reasonable, with crops somewhat patchy but they still have good yield potential at this stage of the season. Most of the region has had no rain and only very isolated storms since February.

It is a mixed bag for the region as some growers have finished and some still have a fair way to go depending on soil type mixes and how much of the summer rain was received. Growers are picking the more loamy soils to continue dry sowing and avoiding the non-wetting soils until it rains. Growers closer to the coast are in no rush as it is still early for them.

Canola has started wilting during the warm days and is starting to show signs of moisture stress, although not in danger of dying yet. Some of the intended canola plantings have been dropped off and will be sown to wheat.

Some growers in the more coastal areas have purchased sheep and are dropping off a few cereal paddocks for sheep feed, this will have little effect on the cereal area for the region.

There have been some problems with vegetable beetles and false wireworm in emerging canola crops. Along roadsides, barley volunteers are hosting net type net blotch and wheat volunteers some powdery mildew, but pasture paddocks are eaten down and dried out so the risk of severe leaf disease outbreaks is low at this stage.







Season Outlook

Ian Foster, Grains Industry Directorate, DAFWA

The past month has seen a notable turnaround in rainfall from the generally well above average conditions over summer. Despite patchy thunderstorms, most agricultural areas received well below average rainfall in April. Stores of soil water, as indicated by modelling and soil water probes, have declined especially in upper parts of the profile. The spatial pattern is very similar to last month, still indicating substantial water storage over large parts of the central and southern agricultural regions. Areas of low storage have expanded over the northern agricultural region and the far southwest.

The seasonal rainfall outlook for May to July 2017 continues a high level of agreement among models for developments in the Pacific and Indian Oceans, as well as for rainfall outlooks. Please see the overview as follows:

- Most climate models indicate an El Niño event is likely to develop in the Pacific Ocean, as well as an Indian Ocean Dipole-positive event in the tropical Indian Ocean in 2017. Latest updates show fewer models are indicating the development of these events, yet a clear majority remains.
- Historical records indicate that below average rainfall during winter and spring is likely over southern WA if these two events occur together.
- Current conditions in the Pacific and Indian Oceans are a mix of neutral and developing indicators.
- Seasonal climate outlooks for rainfall over WA from Australian and international climate models are indicating below average seasonal rainfall for WA being likely for May to July, and further into winter.
- Assuming the outlook for below average seasonal rainfall unfolds as indicated, crop and
 pasture performance is likely to be determined by timing of key rainfall events and access
 to stored soil water.

Bureau of Meteorology: Seasonal rainfall outlook May to July 2017

Summary

- May to July rainfall is likely to be below average over the southern two-thirds of mainland Australia.
- May is likely to be drier than average over most of Australia, except far northern Australia and Tasmania.
- Daytime temperatures for May to July are likely to be warmer than average for most of Australia, but cooler than average for the far north.
- Night-time temperatures for May to July are likely to be warmer in southwest, central and the far southeast of Australia.
- Outlooks are influenced by warming in tropical Pacific sea surface temperatures and a cooler eastern Indian Ocean.



Additional information can be sourced from:

- DAFWA: Seasonal Climate Information
- DAFWA: Soil Water Tool
- BoM: WA Seasonal Rainfall Outlook, next 3 months
- BoM: Decile rainfall for January to March 2017
- BoM: Landscape soil water balance

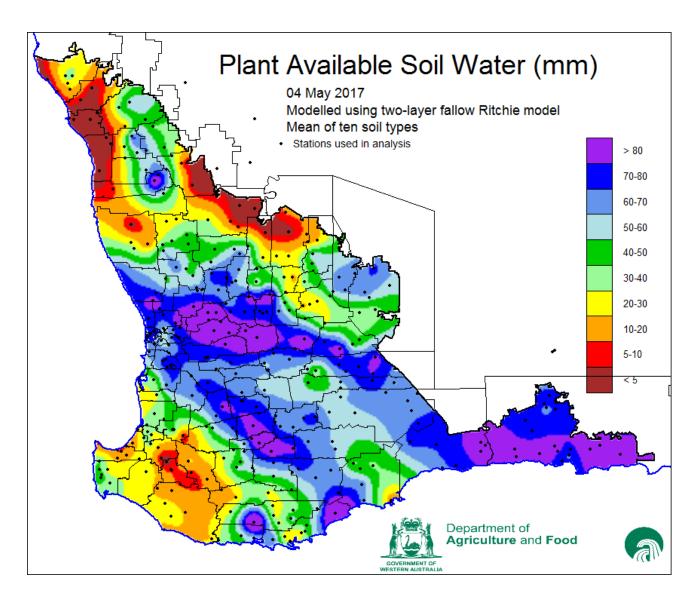


Figure 1. Plant available soil water at 4 May 2017 estimated using a simple two-layer model and assuming fallow conditions. The model uses daily rain from BoM and DAFWA stations since November 2016.

