

## The 2015 season in summary

The 2015 season started early with extensive rains across virtually the entire Western Australian Grainbelt in late March and early April. Not only did the stored soil moisture provide a buffer against a dry winter, it provided an early sowing opportunity for canola and lupins, particularly in the Geraldton and Esperance port zones.

Winter was then characterised by long dry spells between rainfall events, finishing finally with one of the driest springs on record. Crops in districts along the west coast, and in the Kwinana and Albany zones suffered a large loss of yield potential and grain quality. But for below average September rain, the WA grain crop could have rivalled the record harvests of 2011 and 2013.

Harvest was a stop start affair with numerous thunderstorms causing rain delays and lightning strikes causing fires, including a large and tragic event in the Esperance zone.

The Esperance zone was the pick of the zones in 2015 with record receivals and grain yields across the entire zone, from Ravensthorpe to Salmon Gums to Esperance. Spring rainfall was adequate to achieve good grain quality along with the high yields. The disastrous fire in November caused an estimated 100,000 tonnes in lost grain and a further 200,000 tonnes to the extreme winds that accompanied it. A further large quantity of grain was smoke damaged, rendering it unsuitable for human food markets.

Grain quality was mixed. Canola crops produced very good oil content of 46% to 48% with over 50% of the State's canola crops with above average yields. Cereal grain quality was below average. Wheat had slightly above average protein and screenings. Protein levels were however lower than would normally be expected in the dry finish to the season. Barley grain quality was mostly poor with high screenings and higher protein levels than normal which saw the majority of production being relegated to Feed grade. Malt grade receivals were low. Oats grain quality suffered in the exceptionally dry winter in the Williams to Kojonup districts. Groat content was low and the quantity qualifying for No1 grade was very low.

Despite the low grain quality, grain crops in most regions were profitable. The notable exceptions were the sandy soils of the west coast and the Great Southern districts of the Albany zone where yields and quality were very much below average.

The 2015 year, as in previous seasons, showed the ability of WA grain growers to be able achieve profitable grain yields in the face of uncertain and dry seasonal conditions. Early sowing, fast crop sowing and soil amelioration, allowing roots to penetrate to access deep soil moisture, are the key ingredients were seen as the key ingredients to this success

## 2015 WA Production estimates (tonnes)

Port zone	Wheat	Barley	Canola	Oats	Lupins	Field pea	State total
<b>Kwinana</b>	4,084,000	967,000	488,000	252,000	140,000	7,000	5,938,000
<b>Albany</b>	1,626,000	1,127,000	400,000	232,000	52,000	6,000	3,443,000
<b>Esperance</b>	1,475,000	893,000	437,000	17,000	20,000	21,000	2,863,000
<b>Geraldton</b>	2,015,000	86,000	218,000	12,000	240,000	1,000	2,572,000
<b>Totals</b>	<b>9,200,000</b>	<b>3,073,000</b>	<b>1,543,000</b>	<b>513,000</b>	<b>452,000</b>	<b>35,000</b>	<b>14,816,000</b>

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

## **Kwinana Zone**

### **The Midlands**

The highlight of 2015 was the rewards to growers who have worked hard on their soil management with amelioration programs paying dividends in a difficult season. A lot of grain was grown on deep moisture in a very dry season. Returns were far better than for growers with little change in soil management. Additionally, timely weed control strategies paid off handsomely as well.

The disappointing part was the dry spring where a small amount of rain in mid-September would have increased yields and grain quality enormously. Ultimately yields were around average but grain quality suffered.

Frost damage in terms of yield and quality was significant but heat shock, particularly in eastern districts, caused more damage. Despite this, the Dalwallinu and the further out eastern districts had a good season.

Wheat- The dominant Mace variety performed well with acceptable quality but Corack suffered in quality terms due to the dry spring.

Bass was the best of the barley varieties, but still had high screenings and most went to feed grades. Barley crop profitability was still acceptable though.

Roundup Ready and TT hybrid canola varieties performed best, although all canola crops performed well, especially where they were sown early. It is very likely that any early sowing opportunity for canola in April will be taken up enthusiastically.

The area of crop sown to oats is expected to rise in 2016 on the back of strong pricing. Hay buyers are also offering higher prices to try and attract supply. The expected area cut for hay will remain steady with any increased planned sowings of oats for grain production.

The poor performance of crops sown after May 22 last year, especially wheat, will see the seeding program conducted faster in future with the aim of finishing a week or so earlier to avoid the spring drought risk.

To date there has been 40 to 80mm of summer rain across much of the Midlands region, down to 20 to 40mm in coastal districts. Summer weed control is underway. Grower optimism for the coming season is high.

### **Kwinana east**

2015 saw most growers having to contend with difficult seasonal conditions. Budget management was important along with good summer weed control. Use of deep seeding tillage bars showed value to allow plants to establish deep root systems and access deeper water.

Wheat generally yielded around average with just acceptable quality. Corack wheat showed to have poor rust tolerance, though its grain quality was also a concern.

For growers with financial constraints, the lack of adequate summer weed control and subsequent lack of moisture conservation contributed to a poor result.

2016 will see a similar program adopted across the eastern Kwinana zone. There will be a few more pulse paddocks (mainly chickpea), and more oats on wodgil soil types, with the current strong market for both being the major factor.

### **Kwinana west**

Good summer weed control and low winter weed burdens delivered benefits for early sown crops in 2015 in the Kwinana west zone.

Canola was the standout performer, benefiting from the early sowing in April and escaping the worst of the spring drought. Yields were above average and oil content was in the range of 46 to 50%. Canola sown after a fallow in low rainfall districts is delivering strong yields and providing two years of good weed control in paddocks that have had high weed burdens.

Grain quality in cereals was disappointing with high screenings in wheat and barley. Yields were average to below average, due to the dry spring.

2016 will see more canola crops planted if there is a very early sowing opportunity in April. Barley is producing better gross margins than wheat in many districts, and more barley is expected to be sown in 2016 at the expense of wheat. The area sown to oats will rise, especially in eastern districts with Bannister and Williams popular varieties, replacing some canola and lupins crops.

### Albany Zone

The 2015 season showed the value of early sowing when the opportunity arises, especially in the southern districts of the Albany zone. All crops are likely to be sown earlier in 2016 than has been the usual practice.

While frost risk is important the yield loss to heart shock/dry spring was far more important. Sowing early will lessen that risk. Interestingly, long season varieties, sown early were reportedly hit more by frost than mid-season maturity varieties.

For 2016, there will be more oats planted with forward pricing very attractive and the advantage of earlier sowing and some frost resistance. The area sown to wheat is expected to decline in favour of increased plantings of oats. There will be less canola planted with the input costs getting high and the sclerotinia risk rising. Lupin yields were disappointing but the area grown in 2016 should remain similar. Barley cropped area will be similar as gross margin potential remains good. La Trobe, with higher disease tolerance will become the dominant variety grown accounting for as much as 70% of the barley crops sown.

With lots of frosted grain last year, seed quality is a concern and good conditions at sowing are required to minimise the risk of reduced crop establishment.

With a lot of summer rain in the south west (Albany highway districts), only 10 to 20mm in early April is needed to provide an early sowing opportunity.

The Lakes region of the Albany zone, grain yields and quality were mostly around average. Given the dry spring, the result was satisfactory for most growers.

### Esperance Zone

Very strong winds accompanying the fires in November soured a very good season for Esperance. Approximately 300,000 tonnes of grain was lost in the bad weather with 200,000 tonnes lost to wind damage rather than fire.

Despite that the Esperance port zone recorded a record grain harvest of around 3,000,000 tonnes with 2,600,000 tonnes delivered to CBH.

Self-sown cereals from the November winds are being sprayed. Soil moisture levels are generally high after 100mm of rain in January across the zone. With a reasonable germinating rain in early April, there is likely to be another early start to cropping programs in 2016.

### Geraldton Zone

The wet summer combined with good summer weed control in eastern districts was the key ingredient to an above average result in 2015 for the northern and eastern districts of the Geraldton zone. Ameliorated soils allowing deep root depth were critical to accessing deep moisture and good early crop growth.

High yields were experienced in spite of a generally dry growing season. Some growers had yields to rival 2011 and 2013, with 2015 being in the top 10% of financial results.

Frost had a larger impact on grain quality and yield than first anticipated. Lots of frost affected and distorted grain was delivered. Screenings in wheat averaged around 7%. However, heat shock combined with dry soil caused more yield loss than frost, particularly in coastal and near coastal districts.

Across the zone, canola was the standout performer. Planted early, it was mature enough to withstand the dry spring, and avoid the worst of the frost.

All crops on poor sands were very poor, especially coastal districts with very low rainfall and no summer rain.

Fallow paddocks in 2014, sown to wheat and canola performed best.

Lupins continue to impress with better gross margin returns for lupins than for the other crops achieved by most growers. Additionally the weed control strategy for lupins is now working well and growers have confidence in growing them. As a result the area sown to lupins is expected to rise again in 2016, mainly at the expense of areas sown to barley and to a lesser extent canola. The canola area will decline slightly, mainly from paddocks with lower yield potential being sown to other crops.

Mace wheat performed well in the dry spring but Corack did not and this variety is likely to be replaced in 2016. Sceptre is being bulked up to replace Mace in the coming years. Bremer looks to have strong potential in longer season and high yield potential districts.

Optimism is high for 2016. Wheat is being forward sold at above \$300/t. Lime spreading, weed spraying and deep ripping is currently being underway. Summer rainfall to date has been confined to eastern districts with about 50 to 100mm. Nothing of significance has fallen on the coast and inland to the Midlands road.

## Season Outlook

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Warm sea surface temperatures around much of the Western Australian coast and to the West of Perth has contributed to above average summer rainfall. Most seasonal outlooks are indicating this to continue with average to above average rainfall predicted for the next three months.

However, there are still strong El Niño conditions in the central Equatorial Pacific which have been linked to stronger than normal high pressures over Australia, hotter temperatures and bushfires. As the El Niño weakens the high pressures gradually weaken as well, so there is some uncertainty about the timing of opening rains to the season. Sometimes the stronger highs can linger and can delay seeding, but good soil moisture reserves in most areas mean we are less reliant on a major rainfall event to start the 2016 season.

Overall, the post-El Niño analogue years selected by the AEGIC ENSO Sequence are neutral years and have shown good May to October rainfall prospects.

### Bureau of Meteorology

The February outlook indicates rainfall is more likely to be above average in parts of eastern Australia, but below average in WA's Pilbara and northwest coastline.

- For February to April, rainfall is more likely to be above average across much of the southern half of Australia with the strongest probabilities in the southeast. The tropical north however is favoured to have a drier than average period.
- The current outlook reflects a combination of influences - a strong El Niño now in decline, record-warm Indian Ocean temperatures and warm localised sea surface temperatures, particularly around Tasmania.
- Historical outlook accuracy for February to April rainfall is somewhat patchy with moderate skill over most of the country, but low skill in inland parts of the NT extending along the WA border, as well as in small patches in Queensland, western NSW, and along the border of NSW and Victoria.

Although the El Niño event is now abating, most indicators remain well above El Niño thresholds. Models forecast a return to a neutral ENSO pattern in late autumn to early winter.

In addition, warming during December and January across much of the Indian Ocean basin, as well as over a number of local waters (Tasman Sea, Bass Strait), is also likely to be influencing Australian climate patterns. The Indian

Ocean basin remains at record-warm temperatures while recent weekly analyses of sea surface temperatures near Tasmania show areas exceeding three degrees above average. These localised warm waters are likely to drive warmer than average temperatures in nearby regions, as well as acting as a source of moisture to enhance rainfall systems.

Bureau climatologists continually monitor the climate for any significant developments, with information on El Niño/La Niña and IOD events available fortnightly via the ENSO Wrap-Up. For a summary of Pacific and Indian Ocean outlooks, please see the Climate Model Summary.

