

# SEASONAL CONDITIONS UPDATE

October 2004



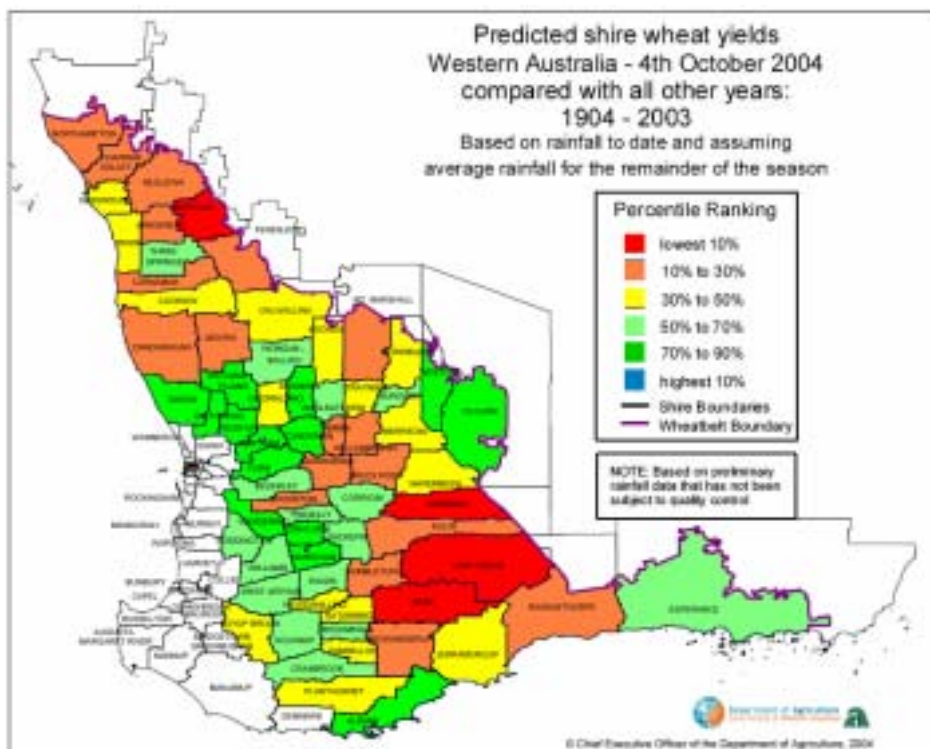
This report provides an update on broadacre crop estimates, impacts on production such as rainfall, temperatures, frost, disease and pests, Government assistance schemes, including a district update.

## Overview

### Grain Production

**Production:** The Department of Agriculture estimates that the State's grain production for 2004 will be below average - made up of above average yields in the inner wheatbelt and below average yields in the north-east and south-east. The Department estimates the total of all broadacre grains production from the 2004 growing season crop has now fallen to 10.4 Mt as at 1 October, *based on an average finish to the season*. CBH estimates that 1 Mt bypasses their delivery system (seed, farmer to farmer, on farm feed). Therefore, 10.4 Mt of production equates to 9.4 Mt delivered through CBH. [See Dept of Agric Estimate of All Grains Production as at 1 October 2004.](#)

The estimate of 10.4 Mt is a fall of 1.8 Mt on the Department's estimate of 1 September 2004. This is due to the impact of the below average September rainfall during maximum plant growth and grain fill, stripe rust, and a significant frost over a wide area on 11 September 2004.



**Yield:** The [4 October 2004 Predicted Shire Wheat Yields map](#) above now indicates that there are 22 shires predicted to have wheat yields in the bottom 30 per cent ranking (up from 9 Shires as at 1 September and 7 Shires as at 1 July 2004). With decile 1-3 rainfall across most of the wheatbelt in the critical four weeks leading into, and around, flowering, yield rankings have dropped considerably for most shires.

Unfortunately, the heavy rain in the far northern wheatbelt late in September may have come too late to improve yield potentials as most yield components (number of heads, grainset) were

already established by this time. A combination of low subsoil moisture reserves and low finishing rains has contributed to the following shires been classified in the lowest 10 per cent on rainfall considerations alone (Morawa decile 8, Kondinin decile 10, Lake Grace decile 10, and Kent decile 10). Severe frosts in the Lakes Districts further confirms that yields are in the lowest 10-30 per cent of years in these regions (note: yield rankings on the Predicted Yield map do not take this into account).

## Climate

**Rainfall – September 2004:** During September, rainfall has been well below average (ranked in the lowest third) for virtually all of the agricultural region and eastern parts of the Southern Rangelands. Totals have been in the lowest 10 per cent, or decile 1, over the South West - [see Rainfall Decile Rankings Map for September 2004](#). On and around 23 September, a wide area of the Northern Wheatbelt, especially in the Shires of Mullewa, Morawa, Perenjori, and Mingenew experienced a well above average rainfall event with falls of 20 mm to 56 mm being recorded. For some farmers, this was the highest single rainfall event they have experienced since 1999. The rain will benefit most crops in these areas; however, for crops in the most drought affected areas of Morawa, Mullewa, and Perenjori, it was too late to have a positive impact on production.

Above average rain (although still small totals) has occurred over most of the Pilbara and western parts of the Gascoyne-Murchison. The Kimberley Region has been seasonally dry as normal.

**Rainfall – May to September 2004:** Rainfall for the growing season period 1 May to 30 September is closer to average across much of the Central and North Western Wheatbelt, with drier areas showing up in the area south of Dandaragan to Esperance, and the Northampton to northern Perenjori areas - [see Rainfall Decile Ranking Map for 1 May to 30 September 2004](#).

**Rainfall – Outlook:** The Department's Crop Group Growing Season Outlook is that "with the average SOI<sup>1</sup> for September being -4 with the August value of -8, and is now showing a small rising trend on the pattern of negative SOI values that has persisted since June. Computer projections of El Nino Southern Oscillation (ENSO) development have 8 out of 11 models predicting neutral conditions persisting to February 2005, with the remainder expecting warm conditions. The current situation remains delicately poised".

**Temperatures:** September has been generally cooler than average. Daily maximum temperatures have been up to 2 degrees below average over most of northern Western Australia, with near average maximums over the south. Minimum temperatures have been up to 3 degrees below average over both the Kimberley and the agricultural regions. There have been a series of low temperature events in early (1-2 September), mid (10-14 September) and late September (23 and 27-28). The event of 10-11 September has been identified a major frost event of much of the Southern, Central and Eastern Agricultural Regions.

**Frost:** As mentioned above, Eastern, Southern and some Central Agricultural Regions experienced a series of frosts from September 10 to 14, 2004. The Region most affected is approximately bounded by Lake Grace, Corrigin, Hyden, Narembeen, Southern Cross, Salmon Gums, Ravensthorpe and Jerramungup. The "epicentre of event" appears to be in the Lake Magenta through to Lake King, Mount Madden, North Jerramungup, North Ravensthorpe area. There is uncertainty in the assessment of the impact on yields, but commonly ranges from 30 to 50 per cent reduction in yield potential – [see Lowest Minimum Temperatures for September 2004](#).

The estimates of economic loss are preliminary at present. For the Lake Grace Advisory District the potential yield loss is estimated at 200,000 to 400,000 tonne, which given a farm gate price of \$170/tonne translates to a loss of \$34 million to \$68 million. For the Jerramungup and Ravensthorpe District, the potential yield loss is estimated at 12,000 tonnes worth \$2 million.

---

<sup>1</sup> SOI - Southern Oscillation Index

Potential yields for this year's crop are less than in 1998 in southern areas where seasonal conditions have been generally dry (rainfall ranked in the lowest third of years).

## **Stripe Rust**

Initial stripe rust infections became evident in late July in wheat belt areas east of Merredin and in the Esperance region. Infection has intensified in these Regions, particularly in highly susceptible varieties that some growers retained after the low impact of the disease in 2003. Following build up of the disease in these areas, infection spread through spore movement on wind to areas of the central and western wheat belt and west along the south coast, becoming evident in early September.

Disease impacts in northern areas have been negligible with most crops advanced to grain filling prior to arrival of the disease in these districts. In the Central areas, a high proportion of crops have been sprayed with fungicide and crops in eastern areas will be receiving more than one spray treatment. Crops in the worst affected areas are showing head infection which can have some impacts on grain quality. Crop infection is becoming evident in Southern District crops with the detection of the disease into the Great Southern for example west of Katanning.

There have been some shortages of fungicides but generally growers have had access to chemical as required or with some delays. Many of the frost affected areas are also stripe rust affected and since the frost some growers have been waiting to observe the impacts of frost before further decisions are taken regarding disease control. Growers wanting to cut frosted crops for hay are advised to check the withholding period of the fungicide used, prior to hay cutting.

## **Pasture - Water**

Pasture growth across the State in general has been low this year given the late start to season, below average winter rainfall, and cold conditions during July and August. Warmer weather in September, since the late August rains, has resulted in a near average spring flush. Water runoff remains low across much of the wheatbelt.

## **Plague Locusts**

The Department has completed a survey of 30 wheatbelt shires. Eggbed monitoring indicates that the predicted outbreak will be in the middle to lower range of forecasts with coordinated control requirements being estimated at between 30,000 hectares and 45,000 hectares.

The survey data indicates that the outbreak will occur in two Regions: the Eastern Wheatbelt in shires to the north of Merredin and the Southern Coast in shires east of Albany. The largest production of locusts will be in the Mukinbudin, Westonia, Jerramungup and Ravensthorpe Shires and in the western part of the Esperance Shire. The locust infestation in the South Coast has the potential to be almost twice that of the Eastern Wheatbelt.

Locust eggs are likely to hatch from early September through to October 2004. Locusts will probably reach the adult stage and begin flying in early November 2004.

The Department is continuing preparations for a moderate outbreak of locusts with some more severe localised outbreaks that will require coordinated control to prevent off-site damage from large flying swarms.

## Agricultural & Pastoral Regions Update

**Esperance District:** Yield estimates have been revised down to reflect the impact of frost on both wheat and barley crops in the district. Indications are for an average to above average season on the Sandplain however Stripe Rust is prevalent and control measures are expected to restrict yield losses. A combination of frost, a dry September and low soil moisture levels is expected to have a significant impact on yields in the Mallee.

**Jerramungup and Ravensthorpe Districts:** Stem frost reduced yields by about 50 per cent over 10,000 ha, three more head frosts at Jerramungup but not many crops flowering as yet so damage is unknown, dry September has reduced yields by about 10 per cent, stripe rust only at moderate levels, no stem rest as yet. Mice damage to crops has been reported and zinc phosphide treated wheat has been applied to a number of canola crops.

**Katanning District:** Crops are developing well across the District with barley now mostly at full head emergence and wheat still at early emergence stage. Good rainfall over the coming weeks is needed to provide a sound finish to the season.

**Albany Region:** Crop yield estimates have been lowered due to the dry spring. Pasture growth rates have been low and prospects for good meadow hay yields are poor. Cattle and lamb weaning weights will be down. Even with heavy rain in October there will be a poor spring flush and dry pasture ground cover will be short - presenting a soil erosion risk.

**Geraldton Region:** A mixed bag with strong crops to the west but (relatively small) droughted areas in the east. The east edge of the District has experienced a drier than average season with yields below average. The area affected is a strip 8 kilometre wide heading north from Mullewa to towards Ajana. Yields expected of this area will be in the order of 400 kg/ha. The other area extends from south of Canna to just north of Perenjori extending east from the railway line to the pastoral area. Yields in this area will be in the order of nil to 200 kg/ha. Crops improve dramatically moving west from these areas with most expected to yield average in the medium rainfall area to above average in the west (high rainfall area). The Geraldton Office District overall grain production will be above the long-term average.

The western side of the Three Springs District Office area is looking very comfortable since the 45 mm of rain in the last week of September. Some frost damage has been reported in all districts after some very cold clear nights. Some 35-40 mm of rain in the last week of September will help many crops finish but for some too little too late.

**Moora District** - Winter rainfall has been below average in most areas and soil moisture has been minimal. Most centres in the district require decile 9 or 10 rainfall during Oct to reach average rainfall for the year. Wongan Hills is exception requiring only average rainfall to reach the average for the year and this will result in an above average grain yield this year. The Badgingarra Research Station rainfall is 34 per cent down on average. Grain yields are expected to be above average.

**Lake Grace District** – September rainfall for all centres was approximately 70 per cent of the expected average of 31 mm. Most of this rain came on 5-6 September and there have been only traces of rain for the last 25 days. Subsoil moisture is now at critical levels. The impact of three weeks of dry conditions and the severity and extent of the stem and head frosts on 10-12 September has impacted strongly on forward grain estimates. The frost events, 11 September in particular, is estimated to have caused a 20 -40 per cent loss in grain volume at harvest. The drying conditions, if they prevail, could impact another 20-30 per cent if no substantial rains fall over the next 2-3 weeks. Yield potentials have probably fallen to the range of 1.2-1.6 t/ha average which is below the 1.8 t/ha District average of the last six years.

**Central Region (Northam):** Moisture levels are low and more rainfall is needed this week. It is too early to predict crop losses due to frost, though generally yields will be slightly lower. Some reports of 60 per cent losses in the Beverley Shire. In most shires yields are down by 0.5 t/ha due to the drier conditions and frost impact.

**Narrogin District:** September has again been a very dry month for the Narrogin Advisory District. All areas need rain quite badly if average crop yields are to be obtained this year. With the dry weather and clear skies, September has also been a month of frosts. These frosts, especially one later in September, are more likely to have an effect on crop yields than the earlier ones, as earlier planted cereals are now coming into head. The frost about the 13 September has caused considerable yield losses in individual paddocks in the Corrigin to Harrismith area. Although there has been little rain, there have been reasonable dews most mornings, and these, along with the generally cool conditions, have favoured the spread of Stripe Rust in wheat crops through out the area east of the Great Southern Highway.

**Merredin District:** Crops and pastures have had good growing conditions to the end of August. Generally crop and pasture production is best in the north/north east of the District grading to the poorest in the south/south west. Dry conditions during July and August were moderated south of the Great Eastern Highway by rain in the last week of August in order of 20 mm. However rainfall in September has been negligible (Merredin 8.8 mm). Given the low rainfall and the declining soil moisture content as the daytime temperatures are increasing, it is expected that grain fill and therefore yield will be reduced.

### **South West Agricultural Region (area based on Bunbury)**

Growing conditions have been good through winter and early spring, with adequate soil moisture from the break of season and very little waterlogging. Above average August rainfall produced good spring growth, which continued through September. But low rainfall in September has caused some heavy land pastures to show signs of moisture stress by early October. Good rainfall is needed in October to ensure pasture growth continues and regrowth from hay and silage is satisfactory. Silage cutting has just commenced on some farms in the South West.

South West irrigation storage dams are at 67 per cent of capacity – an increase of about 8 per cent above storage at the same time last year.

### **Rangelands**

**Pilbara Region:** Seasonal conditions in the Pilbara were typical for the month of September. No rainfall was recorded and conditions were milder than average. Mustering continues in throughout the district. Stock condition is generally declining.

**Kununurra Region:** Usual seasonal conditions for this time of the year, conditions starting to warm up towards the end of the month. Irrigation frequency increasing for sugar cane in line with the change in seasonal conditions and increasing daily crop water use

**Carnarvon Region:** No additional rain has been received from the last report, however the country is still good although feed is starting to dry off again.

**Murchison Region:** Hot dry and windy, with the burst of wild flowers through the district drying off and blowing away very quickly. There has been very little precipitation during September with only two properties recording light showers. Despite effective winter rain in some parts, across the District conditions are still dry and many pastoralists are delaying the decision to bring stock back from adjustment.

## Farm Business Development

The Farm Business Development Unit of the Department of Agriculture administers schemes of financial assistance to farmers mostly on behalf of the Rural Business Development Corporation (RBDC). [See summary of Government assistance approved to 5 October 2004.](#)

### **Disclaimer**

*The Chief Executive Officer of the Department of Agriculture and the State of Western Australia accept no liability whatsoever by reason of negligence or otherwise arising from the use or release of this information or any part of it.*