In Focus: Australian wheat production outlook

June 2016

Photo: Carl Davies CSIRO
This report presents our initial estimates for Australian wheat production for the 2016-17 season. Overall, we have a generally positive outlook for production, based on good to excellent planting rainfall combined with the Bureau of Meteorology’s outlook for above average winter rainfall in major cropping areas.

Our central case estimate for the 2016-17 Australian wheat crop is 26.1 million tonnes, based on rainfall to date and average rainfall in major cropping areas for the rest of the season. This would represent a 10.7% increase in production on last season. Our high case estimate, based on 20% above average winter rainfall, points to a national harvest of 27.1 million tonnes.

The Bureau of Meteorology currently puts the chance of a La Niña event this year at 50%. La Niña is generally associated with above average rainfall in eastern and northern Australia and often higher Australian wheat production. Our estimate of production in a La Niña event is 26.8 million tonnes, based on rainfall levels during La Niña events going back to 1900. This result is lower than our high case as typical La Niña rainfall levels tend to be between average and 20% above average rainfall.

The outlook is not without risks. If rainfall disappoints there is likely to be some downside to these forecasts. Conversely very high winter rainfall levels could lead to waterlogging in some areas. If we see a strong La Niña, there is likely to be above average spring rain. This could cause crop downgrades if there are large downpours late in the season (as occurred during the last La Niña event).

This report does not consider wheat prices. For more information on our wheat price outlook, see the NAB Rural Commodities Wrap.
Eastern Australia saw a generally very dry start to the year, remaining very dry until soaking rains were seen across most areas in May. There was considerable nervousness early in the season, but the May rain has boosted expectations for a decent season in the east.

Root zone soil moisture is currently average to above average across most wheat regions of Victoria and New South Wales, although conditions are less favourable in northern New South Wales and Queensland. South Australia presents a somewhat mixed picture, with below average moisture in the south east but closer to average soil moisture on the Eyre Peninsula.

Western Australia has enjoyed one of the best starts to the season in many years. Current estimates of root zone soil moisture across the wheatbelt are average to very much above average.

Further information on rainfall patterns is available in Appendix II.
Seasonal weather outlook

Three month rainfall outlook
June to August 2016

The Bureau of Meteorology (BoM) three month rainfall outlook to August forecasts generally above average to well above average rainfall over winter, although parts of Tasmania could see below average falls.

This outlook points to good growing conditions over winter, although the very strong rainfall outlook across New South Wales, southern Queensland and the upper Eyre Peninsula in South Australia presents the risk of waterlogging.

Source: Bureau of Meteorology
Appendix I: NAB wheat yield methodology

Major cropping areas and rainfall districts included in rainfall analysis

Our outlook for wheat production is based on analysis of district level seasonal rainfall (from April to September each year) and state level wheat yields from 1900-01 to 2015-16.

We present three scenarios for the coming season based on varying rainfall estimates for the remainder of the season, combined with actual rainfall to date. Our central case is based on average rainfall for the remainder of the season, while our high case is based on 20% above average rainfall over the winter. We also include a La Niña scenario, based on rainfall during La Niña events since Federation.

The forecasts are based on an OLS regression of rainfall and yields with a time trend to account for technological changes and improved crop management over time. Our forecasts are adjusted to address some underestimation of yields in the fitted results since the millennium drought, particularly for Western Australia.

Source: Bureau of Meteorology, Geoscience Australia and NAB Group Economics.
Note: rainfall district 51 not shown on map but included in NAB analysis
Appendix I: NAB wheat yield methodology – state wheat yields

Source: Bureau of Meteorology, ABARES, Australian Bureau of Statistics and NAB Group Economics
Appendix II: Monthly rainfall patterns in wheat growing regions (mm monthly)

New South Wales

Victoria

Queensland

Western Australia

South Australia

Tasmania

Source: Bureau of Meteorology and NAB Group Economics
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