

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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## **Australia**

### **Oilseeds and Products Annual**

**April 2018**

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**Report Highlights:**

Australia normally produces over 5 million metric tons (MMT) of oilseed crops each year, with canola and cottonseed accounting for over 90 percent of total production. Post forecasts 2018/19 canola production to expand to 4 MMT, up 8 percent from the previous year because of improved climatic conditions. In 2018/19, cottonseed production is forecast at 1.1 MMT, partly due to a lower seed extraction rate for cotton using the Bollgard III cotton variety. In 2018/19 olive oil production is forecast to expand to 22,000 metric tons.

## **Commodities:**

Oilseeds

### **EXECUTIVE SUMMARY**

Australia normally produces around 5 million metric tons (MMT) of oilseed crops each year, with canola and cottonseed accounting for over 90 percent of total production. Canola represents more than 50 percent of oilseed production, cottonseed a third, and smaller quantities of soybeans, safflower, and linseed are also grown. Canola is Australia's third largest broad acre crop after wheat and barley, and it is widely grown across southeast and Western Australia (WA). Cottonseed is a by-product of cotton production and is crushed to produce oil for human consumption and seed for animal feed.

In 2018/19, Australian canola production is forecast at 4 MMT, reflecting an expansion in area and a more favorable outlook for the year. In 2018/19, cottonseed production is forecast at 1.1 MMT, partly due to a lower seed extraction rate for cotton using the Bolgard III cotton variety. Olive oil production is slowly expanding and is expected to reach 22,000 MT in 2018/19. There are few official statistics on other oilseeds, such as soybeans and sunflowers, but the production volume is very small.

Cottonseed, sunflower, and soybean are summer crops grown mostly in northern New South Wales (NSW) and Queensland. Canola, safflower, and linseed are winter crops grown in mid-northern NSW and across southern and eastern Australia. WA is the largest canola producer whereas NSW and Queensland account for almost all cotton production.

### **SEASONAL OUTLOOK**

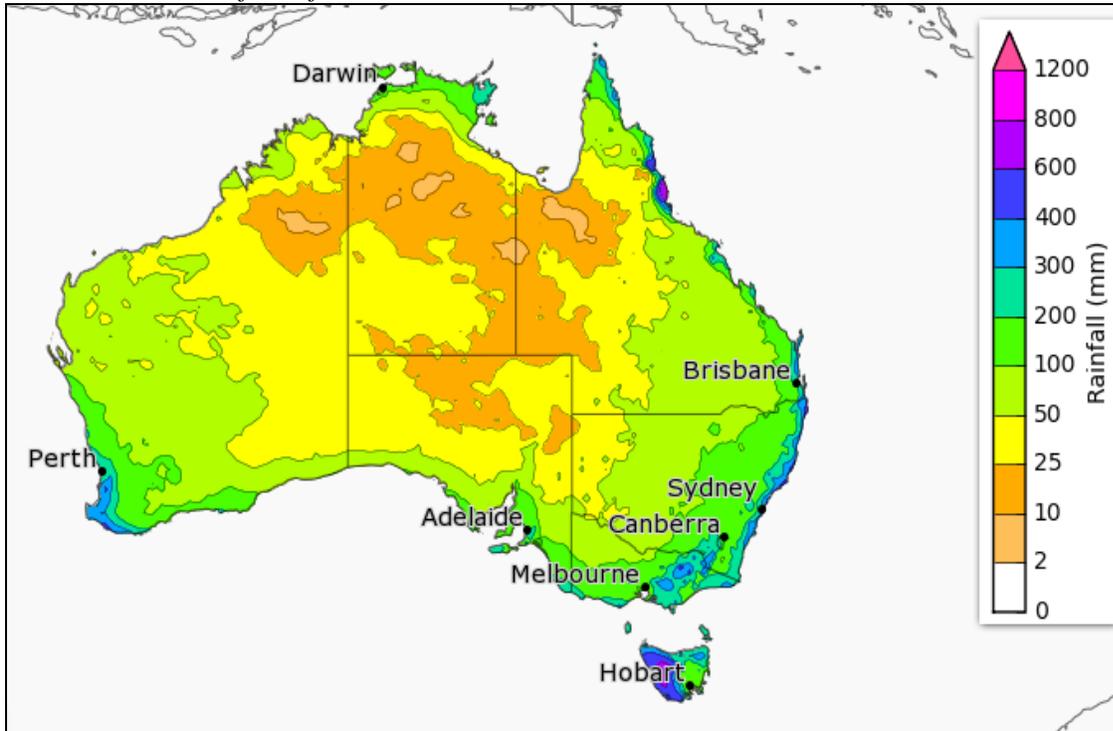
Australia's varied seasonal conditions have a significant impact on the size of harvested crop areas and overall production. After poor climatic conditions in 2017/18, the Bureau of Meteorology (BOM) is forecasting average rainfall for most oilseed growing regions for the three months to June 2018. Good rainfall in various regions during February and March 2018 has improved the outlook for oilseed production, after a sustained period of dry and hot conditions in most growing regions. In addition, average temperatures are forecast to be at average levels for most regions for this period (Chart 1 and 2 below).

The emergence of southern NSW as a major cotton producer has moderated the impact of adverse climatic conditions as water reliability is higher in this region than in northern NSW or Queensland. Production in Lachlan, Murrumbidgee, and the Murray River regions is expected to account for at least 25 percent of the Australian cotton crop in 2018/19 and has been supported by an expansion in dryland cotton plantings and cotton gins.

Usually, most canola production is rain-fed, whereas 80-95 percent of cotton production is irrigated, depending on seasonal conditions. Dam storage levels throughout Queensland and NSW have fallen in late 2017 and early 2018, but it is still expected to be sufficient enough to support crop production. Access to irrigated water is likely to support cotton and cottonseed

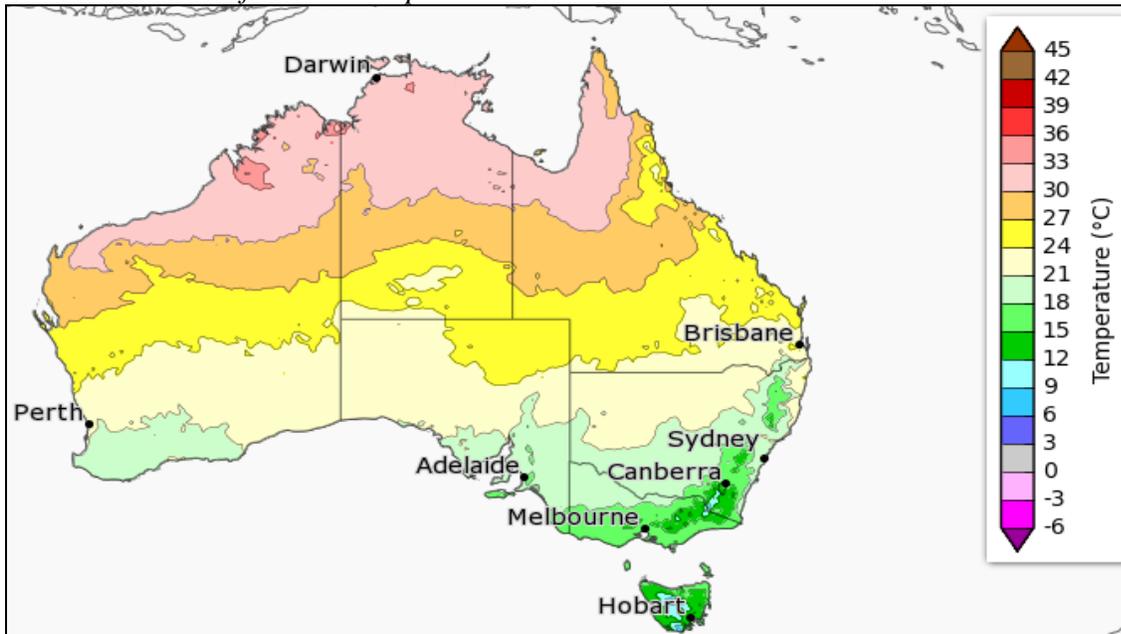
production, while good soil moisture in NSW and Victorian canola growing regions will support production in the 2018/19 season.

*Chart 1: Chance of rainfall in the three months to June 2018*



Source: Bureau of Meteorology (2018)

*Chart 2: Chance of median temperature in the three months to June 2018*



Source: Bureau of Meteorology (2018)

## CANOLA

### Production

Australian canola production is forecast at 4 MMT in 2018/19, up 8 percent on the previous harvest year. An expansion in harvested area to 3 million hectares is expected in 2018/19, up from 2.7 million hectares from the previous year. Soil moisture levels in the western and eastern Australian regions should support crop expansion, assuming that average rainfall occurs over the year.

Canola is grown for edible oil for human consumption and meal for animal feed. It is generally a profitable winter crop and also a break crop for cereal production systems. Canola is Australia's third largest broad acre crop after wheat and barley and is the major oilseed grown across the higher rainfall regions of the grain belt, which stretches from southwest WA to southeastern Australia and into northern NSW.

High prices compared to wheat and barley should encourage more farmers to switch to planting canola, especially as soil moisture and the forecast for seasonal conditions are positive in most growing areas. This contrasts with conditions in 2017/18 in some parts of WA and especially in NSW, where dry conditions led to lower production and depressed yields. Despite smaller production, the oil content in many zones was above average, with WA harvest receivals averaging more than 45 percent in 2017/18. Accordingly, Post has revised 2017/18 production to 3.7 MMT, above the official estimate as seasonal conditions were not as bad as expected in WA, which accounts for 40 percent of Australian canola production.

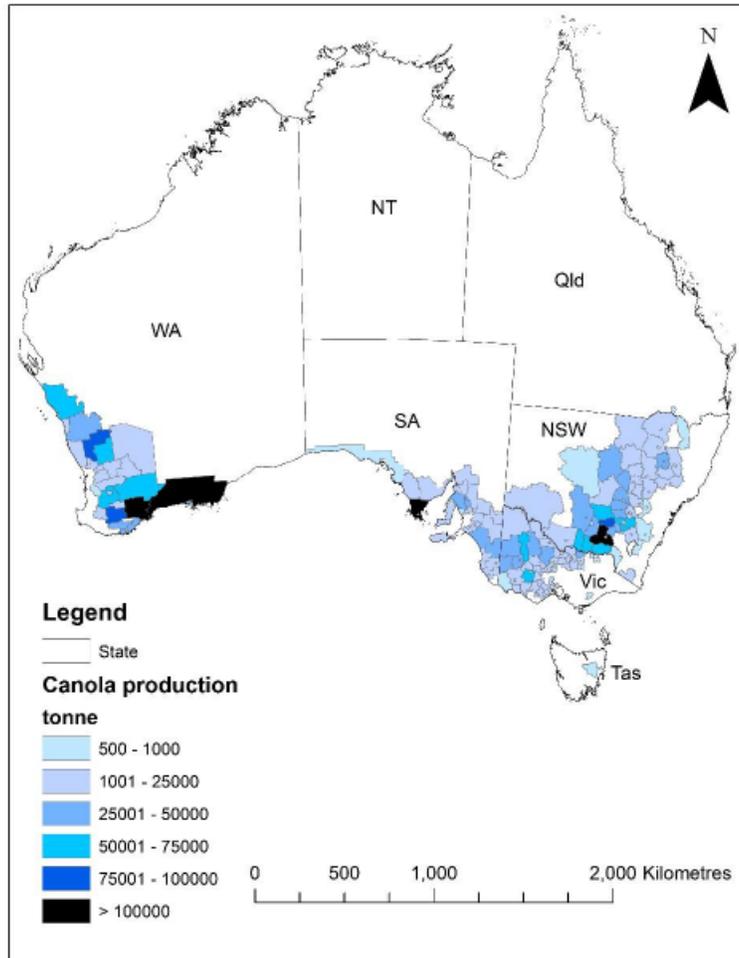
Canola yields are expected to be around 1.3 metric tons per hectare (MT/ha) in 2018/19, which is comparable to the 5-year average, but well below the record of 1.6 MT/ha achieved in 2016/17, when seasonal conditions were very favorable. Overall, Australian canola yields are relatively low compared to other countries as the crop is usually grown in low rainfall dryland conditions. Canola is normally grown in rotation with cereal and legume crops, with a pasture phase of two to three years.

Canola can be grown in most areas where broadacre cropping is possible, particularly in the traditional wheat–sheep belt and mixed farming regions of WA, South Australia, Victoria, NSW, southern Queensland, and Tasmania. Canola grows well in sandy soils through to clay soils across Australia, provided that the soil is well-drained. Generally, soils suitable for wheat crops are also suitable for canola crops, which can be used as a break crop in rotation with wheat in order to break the disease cycle and to eliminate weeds. Industry studies suggest that the root system of the subsequent wheat crop is larger, thus, its better able to use nitrogen and moisture from the soil.

The canola crop is usually sown in late autumn or early winter into moist soil. In the high rainfall zones it can be sown as late as early spring. The crop can be sown into dry soil to germinate after rain. In recent years, changing rainfall patterns, summer fallow management, and improved no-till seeding systems have enabled growers to make use of available soil moisture opportunities and sow canola earlier in the season, such as in early to mid-April. Early

sowing of canola is less likely to be successful in some regions such as South Australia and northern NSW because of recent rainfall patterns. Chart 3 below shows major canola growing areas in Australia.

*Chart 3: Average canola production, 2010-14, Australia*



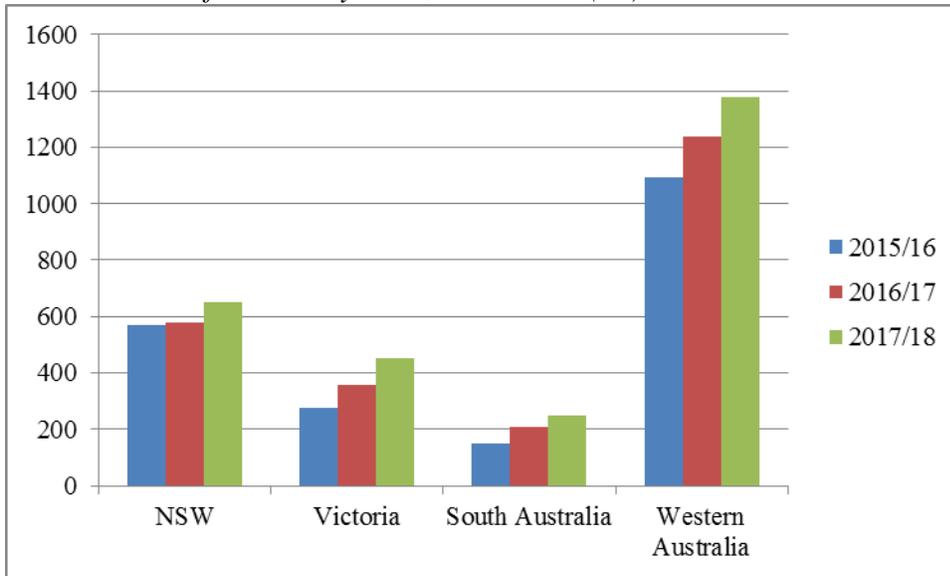
*Source:* CSIRO and Australian Bureau of Statistics

Flowering of the canola plant occurs from August to October, depending on the region, and harvest occurs from late October to December. Soil moisture is vital for both germination and emergence as Canola must absorb a high percentage of its weight in water before germination begins. It will usually germinate when the seed moisture content has risen to approximately 24 percent. Canola is grown in rotation with winter and summer crops (cereals, oilseeds, and grain legumes) depending on climate and water availability.

Canola growers in Australia have access to both conventional and genetically engineered (GE) seeds and each is grown under strict production protocols for different markets. The Gene Technology Regulator approved the use of GE canola varieties in 2003. GE canola varieties currently account for around one fifth of the canola planted in the States that allow it to be grown (Western Australia, Victoria and NSW). Other States (South Australia and Tasmania) maintain a

moratorium on the commercial release of GE food crops. Non-GM Canola is certified as GM free to a maximum presence of 0.9 percent.

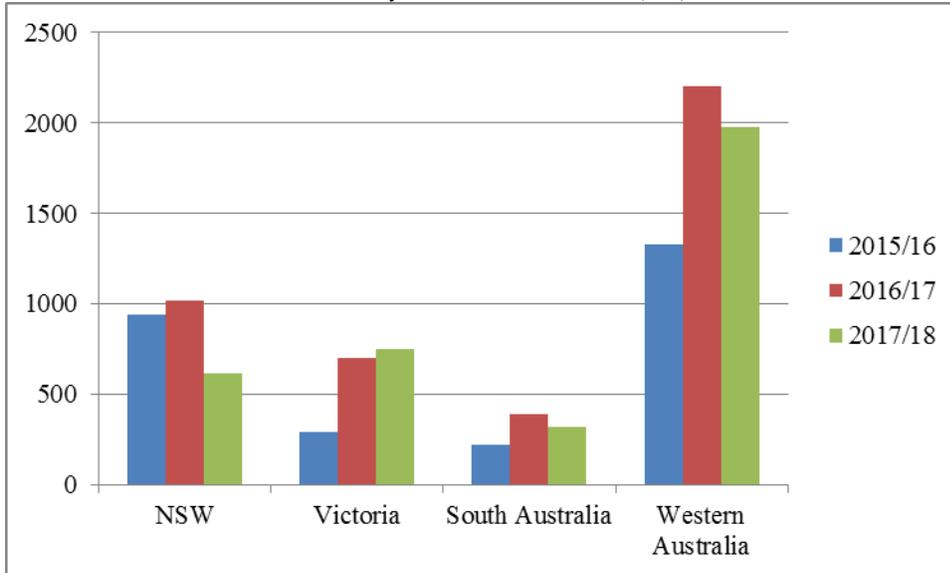
*Chart 4: Area of Canola by State, 2015-2017 (ha)*



*Note:* (a) Financial years from July

*Source:* Australian Department of Agriculture

*Chart 5: Canola Production by State, 2015-2017 (ha)*



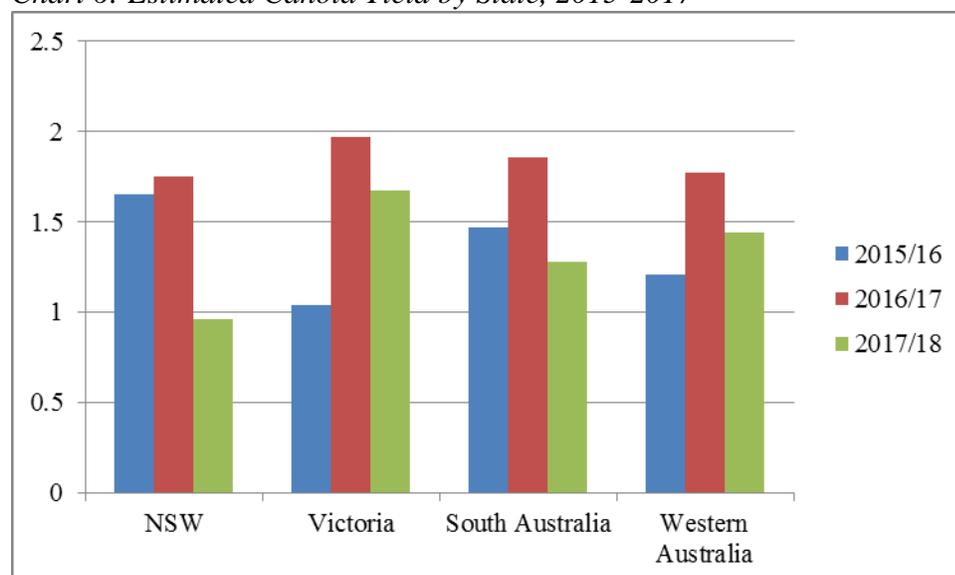
*Note:* (a) Financial years from July

*Source:* Australian Department of Agriculture

Canola was traditionally sown at 15 centimeter row spacing, but the adoption of stubble retention and no-till farming systems has led to wider row spacing and the possibility of inter-row sowing using GPS guidance systems. Frost damage of canola plants can be a major cause of lower production and yields. Canola is more difficult to store than grains, because of its oil content,

which makes it more prone to deterioration in storage. Canola belongs to the botanical family Brassicaceae, which also includes mustard, turnip, wild radish, cauliflower, cabbage, and broccoli.

*Chart 6: Estimated Canola Yield by State, 2015-2017*



*Note:* (a) Financial years from July

*Source:* Australian Department of Agriculture

## Consumption

In 2018/19, Post forecasts canola consumption in Australia to increase to 940,000 MT as a result of higher production. This represents an increase of 6 percent on the previous year. Australian canola consumption is expected to only slightly increase because of the relatively high cost of crushing canola compared to importing soybean meal. Canola is processed into both canola meal and canola oil for domestic use.

## Trade

In 2018/19, Australia's canola exports are forecast to reach 3 MMT, up around 9 percent from the previous year due to an expected higher canola production. Australia is a significant canola exporter with an estimated 15 percent share of the global market.

The European Union (EU) is expected to remain Australia's major export market, accounting for over 60 percent of total canola exports in 2018/19. The EU accounts for 50 percent of Australia's canola exports over the last 5 years. Other export markets include South Korea, Japan and Malaysia. The main end-use for canola exported to the EU is as an input for biodiesel production. In Asian markets, canola is used to produce oil for human consumption.

Australian canola exports to China have fallen significantly as exporters have focused on the EU biodiesel market. In addition, Canadian canola exports have been more price competitive into the Chinese market. Australian canola exports have not been affected by quarantine restrictions

because the Chinese government extended the introduction of new certification procedures for blackleg disease in canola by two years to allow more time for research into this issue.

Australian canola growers sell into the European biofuel market by certifying their canola as sustainable. In January 2018, the EU accepted Australia's justification that its canola production process meets its new greenhouse gas emissions savings requirement of 50 to 60 percent, up from 35 percent.

*Table 1: Australian exports of canola by country, volume and value, 2012-2017 ('000 MT)*

Country	2012	2013	2014	2015	2016	2017
<i>Germany</i>						
('000 MT)	221	296	369	278	884	1,135
(US\$/MT)	(558)	(573)	(472)	(375)	(436)	(456)
<i>Belgium</i>						
('000 MT)	809	784	544	724	648	787
(US\$/MT)	(594)	(583)	(520)	(397)	(428)	(445)
<i>France</i>						
('000 MT)	0	346	355	240	194	393
(US\$/MT)	0	(633)	(497)	(415)	(411)	(429)
<i>Netherlands</i>						
('000 MT)	870	460	60	388	191	82
(US\$/MT)	(611)	(611)	(522)	(413)	(417)	(375)
<i>Japan</i>						
('000 MT)	75	151	168	304	101	123
(US\$/MT)	(655)	(661)	(541)	(445)	(483)	(464)
<i>China</i>						
('000 MT)	0	969	484	409	63	56
(US\$/MT)	0	(610)	(512)	(463)	(432)	(431)
<i>Pakistan</i>						
('000 MT)	491	210	212	146	0	50
(US\$/MT)	(617)	(611)	(579)	(472)	0	(440)
<i>UAE</i>						
('000 MT)	80	473	255	169	0	17
(US\$/MT)	(643)	(604)	(472)	(433)	0	(491)
<i>World</i>						
('000 MT)	2,677	3,795	2,557	2,751	2,182	2,961
(US\$/MT)	603	606	512	423	433	447

*Note:* Calendar years.

*Source:* Global Trade Atlas

Research by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) established that canola grown in Australia had comparatively low greenhouse gas emissions profiles that could produce biofuels to meet the EU's January 2018 emissions savings requirements. As a result, Australian canola exporters can now maintain access to the EU biodiesel market by participating in a voluntary sustainable biomass certification scheme under

the EU Renewable Energy Directive. Canola has a price premium when certified as sustainable and sold into the European Union (EU) biofuel market.

Nearly all canola produced in WA is exported, mainly to Asia for human consumption and to Europe for biofuel production. WA accounts for over half of Australia's canola exports. Australian canola exports tend to be concentrated in the first few months of the new year, partly because of the high storage cost. In addition, the early period of the year can provide the best opportunity for Australian exporters, as it occurs between the North American and South American harvest periods.

*Table 2: Australian canola production, supply and demand data statistics, 2016/17 to 2018/19*

Oilseed, Rapeseed	2016/2017		2017/2018		2018/2019	
Market Begin Year	December 2016		December 2017		December 2018	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	2,540	2,540	2,700	2,700	0	3,000
Area Harvested	2,500	2,500	2,700	2,700	0	3,000
Beginning Stocks	393	393	511	511	0	577
Production	4,100	4,100	3,200	3,700	0	4,000
MY Imports	1	1	1	1	0	1
Total Supply	4,494	393	3,712	4,212	0	4,578
MY Exports	3,102	3,102	2,350	2,750	0	3,000
Crush	800	800	800	800	0	850
Food Use Domestic Consumption.	0	0	0	0	0	0
Feed Waste Domestic Consumption	81	81	85	85	0	90
Total Domestic Consumption	881	881	885	885	0	940
Ending Stocks	511	511	477	577	0	638
Total Distribution	4,494	4,494	3,712	4,212	0	4,578
Yield	1.64	1.64	1.19	1.37	0	1.33

(1000 HA), (1000 MT), (MT/HA)

Notes: (a) 'New Post' assessments are not official data.

## **CANOLA MEAL**

### **Production**

In 2018/19, Post expects canola meal production to be 0.49 MMT, up 6.5 percent from the previous year due to an expected higher canola production. Canola meal is the main by-product after the seed has been crushed and the oil extracted. Canola meal is used as a high-protein feed for intensive livestock, mainly in the pig, poultry, and dairy industries, to supplement other feed grains such as wheat, barley, and sorghum.

Canola seed protein levels are affected by seasonal growing conditions, with drier seasons likely to result in higher protein levels. The protein content of canola meal varies each season and increases as the oil content decreases. Early sowings can maximize the yield potential and oil content if seasonal conditions are favorable.

There are a number of Australian canola processors including GrainCorp, which has plants in Victoria, South Australia, and Western Australia while Riverina Oil and BioEnergy, MSM Milling, and Cootamundra Oilseeds are located in NSW. Canola processing facilities in south-eastern Australia are close to dairy farms in Victoria and NSW. Low transport costs have supported demand for oilseed meal. Expeller and solvent extraction plants are the two oilseed crushing processes used in Australia.

### **Consumption**

Post forecasts domestic canola meal consumption in 2018/19 to increase to 0.49 MMT, due to higher canola production. Over 90 percent of canola meal is consumed domestically.

### **Trade**

Canola meal competes with imported meal manufactured from a range of other oilseeds. Soybean meal has a price advantage over domestically produced canola meal and has higher protein content and is preferred as a feed stock by Australia's poultry and pig producers.

*Table 3: Australian canola meal PS&D statistics, 2016/17 to 2018/19*

Meal, Rapeseed	2016/2017		2017/2018		2018/2019	
Market Begin Year	Dec 2016		Dec 2017		Dec 2018	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	800	800	800	800	0	850
Extraction Rate, 999.9999	0.575	0.575	0.575	0.575	0	0.577
Beginning Stocks	4	4	14	14	0	14
Production	460	460	460	460	0	490
MY Imports	0	0	0	0	0	0
Total Supply	464	483	464	474	0	504
MY Exports	0	0	0	0	0	0
Food Use Domestic Consumption	0	0	0	0	0	0
Feed Waste Domestic Consumption	450	450	460	460	0	485
Total Domestic Consumption	450	450	460	460	0	485
Ending Stocks	14	14	14	14	0	19
Total Distribution	464	464	474	474	0	504

(1000 MT), (PERCENT)

Notes: (a) 'New Post' assessments are not official data.

## **CANOLA OIL**

### **Production**

In 2018/19, Post forecasts canola oil production at 350,000 MT, around 6 percent above the previous year because of an anticipated increase in canola production. Canola oil is extracted by mechanically crushing the seed and the oil is then processed by using heat, chemicals or cold pressing. Canola seeds typically have an oil content of 35 to 45 percent.

### **Consumption**

In 2017/18, Post anticipates canola oil consumption to increase to 190,000 MT reflecting higher production and growing demand for healthier edible oils in Australia. Canola oil is low in saturated fat, high in mono-unsaturated fat, has a high level of omega fatty acid, and is also a source of vitamin E. Recently, new high oleic canola varieties have been developed, which contain higher levels of mono-unsaturated fat, and lower levels of omega 3 fatty acid. These new traits are more suitable for commercial deep frying applications.

Virtually all domestic produced canola oil is used in the food industry, with a third used in spreads and cooking oil, and two-thirds for commercial food-service sector related processing. Several fast food enterprises in Australia have switched to canola from palm oil because of the health benefits. Canola oil is also used to make infant formula products.

### **Trade**

Canola oil exports are forecast to expand to 180,000 MT in 2018/19, up 9 percent on the previous year. More than 50 percent of Australian production of canola oil is exported.

*Table 4: Australian canola oil PS&D statistics, 2016/17 to 2018/19*

Oil, Rapeseed	2016/2017		2017/2018		2018/2019	
Market Begin Year	December 2016		December 2017		December 2018	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	800	800	800	800	0	850
Extraction Rate, 999.9999	0.4125	0.4125	0.4125	0.4125	0	0.4118
Beginning Stocks	41	41	43	43	0	45
Production	330	330	330	330	0	350
MY Imports	19	19	22	22	0	22
Total Supply	390	390	395	395	0	417
MY Exports	162	162	165	165	0	180
Industrial Domestic Consumption	0	0	0	0	0	0
Food Use Domestic Consumption	185	185	185	185	0	190
Feed Waste Domestic Consumption	0	0	0	0	0	0
Total Domestic Consumption	185	185	185	185	0	190
Ending Stocks	43	43	45	45	0	47
Total Distribution	390	390	395	395	0	417

(1000 MT), (PERCENT)

Notes: (a) 'New Post' assessments are not official data.

## **OLIVE OIL**

### **Production**

Australian olive oil production in 2018/19 is forecast at 22,000 MT, 5 percent above the previous year. The harvested area is forecast at 36,000 hectares with around 4.6 million trees. Australia's olive industry produces table olives and olive oil for human consumption. The industry has around 900 growers with twenty farms over 80 hectares in size and sixty farms of 20 to 80 hectares. The largest olive producer in Victoria has over 2.2 million producing trees planted on over 6,000 hectares and is expanding production while smaller farms are exiting the industry. There are no recent official statistics on olive oil production.

Australia's olive and olive oil production season is from mid-March to July, with the peak in May. There is a lag between harvesting and bottling of olive oil and the marketing year for 2018/19 begins in January 2019. The industry is gradually expanding harvest area in Victoria and southern NSW. Crushing and pressing of the fruit is the main method for extracting olive oil.

The most common varieties of olive trees planted are Arbequina, Barnea, Coratina, Frantoio and Picual, which represent around 85 percent of the harvested area. Other varieties include Manzanillo, Koroneiki, Hojiblanca, and Picholine. Most of these varieties have been chosen for their higher productivity and oil quality.

Ninety percent of Australia's olive oil production comes from a few large operations, who market their branded product through supermarkets and overseas. The other 10 percent of production is boutique-style olive oil.

Globally, olive oil is categorized into several grades of olive oil. Extra virgin olive oil is the highest grade and is solely mechanically extracted, whereas refined olive oils and olive pomace oils are produced with the use of added heat, chemicals and/or solvents. Almost all of Australia's commercially produced olive oil is extra virgin olive oil.

Olives for oil production are harvested from April to June. Depending on the size of the grove, olives may be harvested mechanically or manually. Broadly, there are two types of mechanical harvesters. The first type is a tree shaker that shakes individual branches or vibrates the whole trunk, causing olives to fall into a canopy placed around the tree. The second type of harvester is an over-row or straddle harvester that has moving horizontal bars to cause the olives to fall into a catcher at the base of the machine.

### **Consumption**

Olive oil consumption in 2018/19 is forecast to be stable at 50,000 MT. Demand for olive oil is expected to gradually increase in Australia because of a growing preference for healthier oils as they contain high levels of monounsaturated fats.

Australian consumption of olive oil has increased to 1.8 liters per head in the two decades to 2015. Imported olive oil is typically sold in larger units for use in the food industry while domestically produced olive oil is sold in bottles for a higher unit price.

## Trade

Olive oil imports in 2018/19 are forecast to be stable at 30,000 MT, the same as last year. Italy and Spain are major suppliers to the Australian market. Spain is the largest supplier of olive oil to Australia. Olive oil exports are expected to be 3,000 MT in 2018/19, the same as last year.

*Table 5: Australian olive oil PS&D statistics, 2016/17 to 2018/19*

Oil, Olive	2016/2017		2017/2018		2018/2019	
Market Begin Year	January 2017		January 2018		January 2019	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	0	0	0	0	0
Area Harvested	36	36	36	36	0	36
Trees	4,600	4,600	4,600	4,600	0	4,600
Beginning Stocks	5	5	6	6	0	4
Production	21	21	21	22	0	22
MY Imports	29	29	30	30	0	32
Total Supply	55	55	57	58	0	58
MY Exports	3	3	3	4	0	4
Industrial Domestic Consumption	0	0	0	0	0	0
Food Use Domestic Consumption	46	46	50	50	0	52
Feed Waste Domestic Consumption	0	0	0	0	0	0
Total Domestic Consumption	46	46	50	50	0	52
Ending Stocks	6	6	4	4	0	2
Total Distribution	55	55	57	58	0	58

(1000 HA), (1000 TREES), (1000 MT)

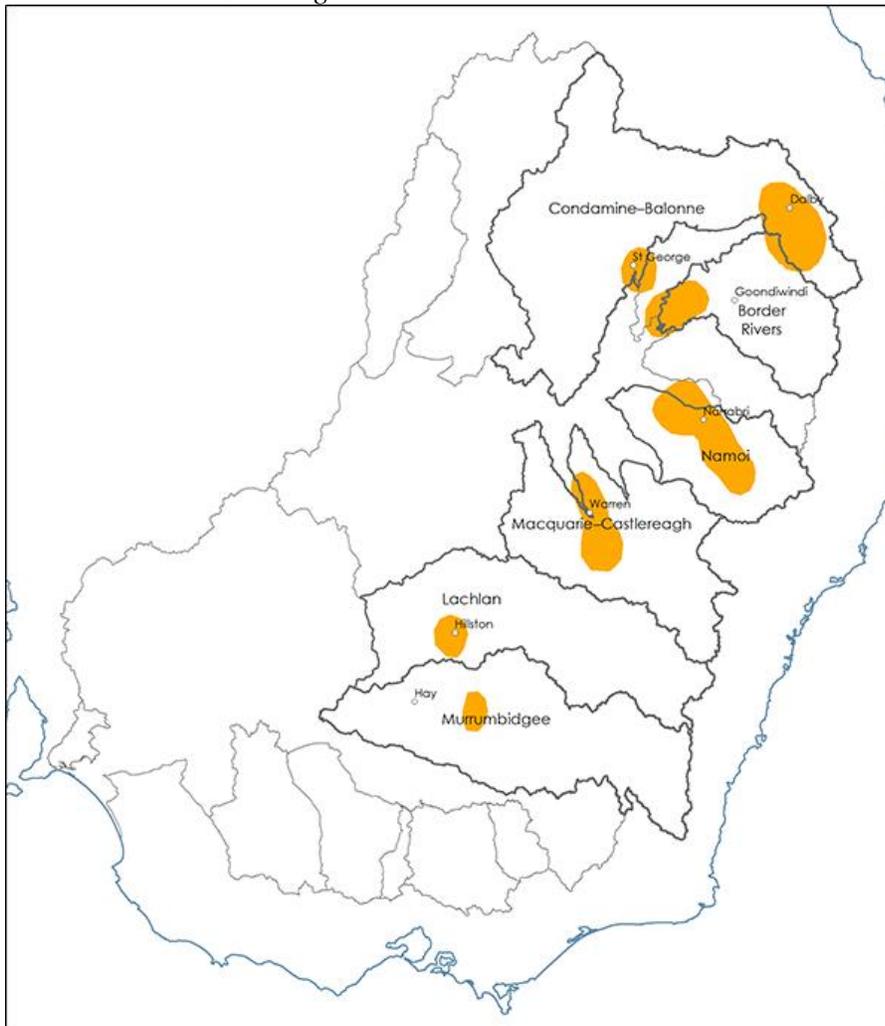
Notes: (a) 'New Post' assessments are not official data.

## COTTONSEED

### Production

Australian cottonseed production in 2018/19 is forecast at 1.10 MMT, partly due to a lower seed extraction rate for cotton using the Bolgard III cotton variety. The harvested area for cotton in 2018/19 has been revised down to 450,000 hectares because of poor seasonal conditions and herbicide spray drift. Cottonseed is a by-product of cotton production and a metric ton of cotton produces an estimated 0.25 kilograms of seed.

*Chart 7: Cotton Growing Areas in Australia*



Source: Australian Department of Agriculture

Traditionally, cotton ginning has been paid for by the cottonseed by-product, which is retained by the gin. In early 2018, the cost of ginning a bale of cotton was around A\$65 while the price for cotton bales was around A\$520.

## Consumption

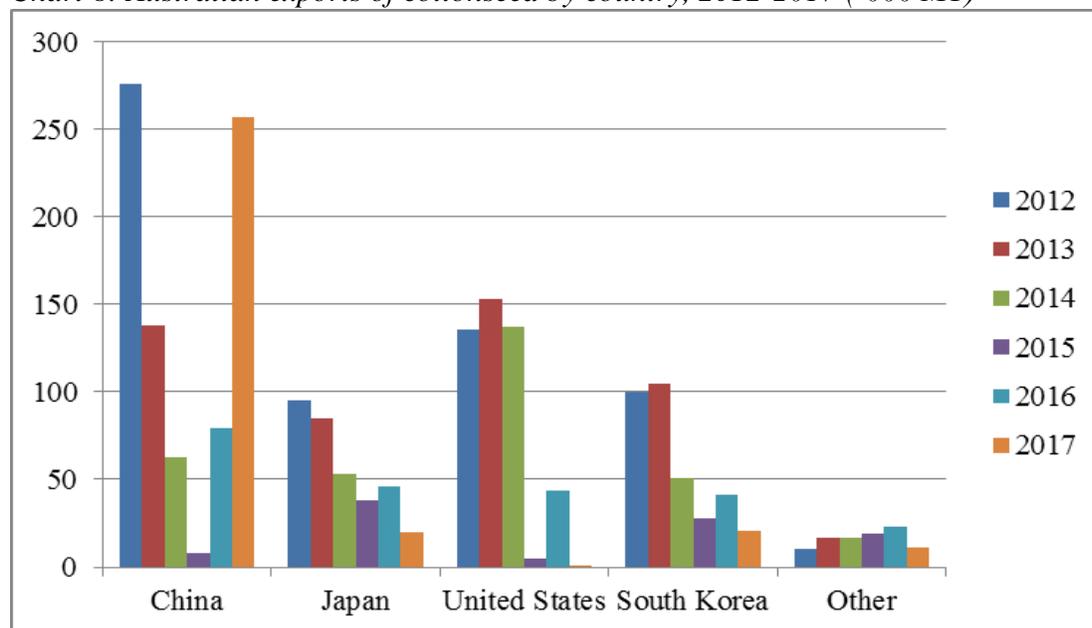
In 2018/19, Post forecasts cottonseed consumption at 0.85 million MT, down 24 percent on the previous year due to dry and hot conditions, as well as loss of production due to pesticide drift. Australia's feedlot sector consumes most of the cottonseed produced by cotton gins in Queensland and NSW, Australia's main cotton producing states. Cottonseed has a high proportion of oil and fiber content compared to some other feed grains and is used as a supplement ration in feedlots. Over the last few years, new gins have been built in southern NSW, which has increased the supply of cottonseed to beef feedlots in that region.

## Trade

In 2018/19, cottonseed exports are expected to fall 10 percent to 300,000 MT because of lower production and an extraction rate of 0.25 percent. Australia normally exports cottonseed to a number of countries, including Japan (crushed and cattle feed), Korea (crushed), China (crushed) and the United States (dairy feed) with the direction of trade varying somewhat according to price parity and the value of the Australian dollar.

In 2017, China was the dominant market for cottonseed for use as livestock feed but the outlook for exports to China is currently unclear as new Chinese cottonseed import certification procedures using the Bollgard 3 variety have not yet been completed. Previously, cottonseed from the Bollgard II cotton variety was approved for export to the Chinese market.

Chart 8: Australian exports of cottonseed by country, 2012-2017 ('000 MT)



Source: Global Trade Atlas

*Table 6: Australian cottonseed PS&D statistics, 2016/17 to 2018/19*

Oilseed, Cottonseed	2016/2017		2017/2018		2018/2019	
Market Begin Year	Apr 2017		Apr 2018		Apr 2019	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted (Cotton)	560	560	590	590	0	600
Area Harvested (Cotton)	580	580	530	530	0	450
Beginning Stocks	37	37	87	87	0	167
Production	1,250	1,250	1,450	1,450	0	1,100
MY Imports	0	0	0	0	0	0
Total Supply	1,287	1,287	1,537	1,537	0	1,267
MY Exports	350	350	330	330	0	300
Crush	700	700	820	820	0	700
Food Use	0	0	0	0	0	0
Domestic Consumption						
Feed Waste	150	150	220	220	0	150
Domestic Consumption						
Total Domestic Consumption	850	850	1,040	1,040	0	850
Ending Stocks	87	87	167	167	0	117
Total Distribution	1,287	1,287	1,537	1,537	0	1,267
Yield	2.16	2.16	2.74	2.74	0	2.44

(1000 HA), (RATIO), (1000 MT), (MT/HA)

Notes: (a) 'New Post' assessments are not official data.

## **COTTONSEED MEAL**

### **Production**

Australian cottonseed meal production is forecast at 338,000 MT from a crush of 700,000 MT. Cottonseed meal is used as animal feed for dairy cattle, beef cattle, poultry, horses, and pigs and is typically processed into feed pellets. Not all cottonseed is crushed for meal as whole seeds are also fed to cattle.

### **Consumption**

In 2018/19, Post forecasts Australian cottonseed meal consumption at 315,000 MT compared to 390,000 MT for the previous year. The decline in production is partly due to a lower seed extraction ratio of 0.25 percent. Demand for cottonseed meal increases in dry seasons when pasture is less available. Post notes that the seasonal outlook for pasture growth in 2018/19 is still uncertain, especially in Queensland because of hot and dry conditions, especially in Queensland and northern NSW.

Traditionally, feedlots have been the largest users of cottonseed meal and the expansion of this industry has increased feed demand. In southern Queensland and northern NSW, the cotton industry and processing facilities are located near beef feedlots. Currently, around one million cattle are in feedlots in Australia, which are closely located to some areas of cotton production, especially in Queensland and northern NSW.

### **Trade**

Only a very small percentage of cottonseed meal is exported. Post forecasts 2018/19 exports of cottonseed meal at 10,000 MT.

Table 7: Australian cottonseed meal PS&D statistics, 2016/17 to 2018/19

Meal, Cottonseed	2016/2017		2017/2018		2018/2019	
Market Begin Year	Apr 2017		Apr 2018		Apr 2019	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	700	700	820	820	0	700
Extraction Rate, 999.9999	0.4829	0.4829	0.4829	0.4829	0	0.4829
Beginning Stocks	14	14	27	27	0	23
Production	338	338	396	396	0	338
MY Imports	0	0	0	0	0	0
Total Supply	352	352	423	423	0	361
MY Exports	10	10	10	10	0	10
Industrial Domestic Consumption	0	0	0	0	0	0
Food Use Domestic Consumption	0	0	0	0	0	0
Feed Waste Domestic Consumption	315	315	390	390	0	315
Total Domestic Consumption	315	315	390	390	0	315
Ending Stocks	27	27	23	23	0	36
Total Distribution	352	352	423	423	0	361

(1000 MT), (PERCENT)

Notes: (a) 'New Post' assessments are not official data.

## **COTTONSEED OIL**

### **Production**

In 2018/19, Post forecasts Australian cottonseed oil production at 117,000 MT, 15 percent below the previous year, due to a lower seed extraction rate for cotton using the Bolgard III cotton variety. Cottonseed oil provides a significant return to growers and processors as it is a higher value product than cottonseed meal.

Cottonseed oil is a pale yellow edible vegetable oil extracted from the seeds of the cotton plant, which is generally used for cooking. In recent years, cottonseed oil yield has been falling as a result of the use of new GE varieties, which are designed to increase the lint ratio. Australia's two major cottonseed crushing facilities are in Hay and Narrabri in NSW.

### **Consumption**

In 2018/19, Post forecasts Australian cottonseed oil consumption at 130,000 MT, down 7 percent on the previous year. Cottonseed oil is an increasingly popular oil used for human consumption. Australia's food service sector uses the oil for deep frying in restaurants and fast food industries, as it has a relatively high smoke point. As cottonseed oil does not require hydrogenation, it is lower in cholesterol than many other oils and has virtually no trans-fats content. In addition, cottonseed oil reportedly contains a higher antioxidant content and can be stored for a comparatively long period.

As cottonseed oil is lower in cholesterol than many other oils, it is preferred for diets that require lowered intakes of saturated fats. The oil is widely used in preparing margarines and salad dressings, and for many commercially fried products. Cottonseed oil is commonly used in manufacturing potato chips and other snack foods for the domestic market.

### **Trade**

There have been no exports of cottonseed oil in recent years. Cottonseed oil imports are estimated at 10,000 MT for 2018/19.

*Table 8: Australian cottonseed oil PS&D statistics, 2016/17 to 2018/19*

Oil, Cottonseed	2016/2017		2017/2018		2018/2019	
Market Begin Year	April 2017		April 2018		April 2019	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Crush	700	700	820	820	0	700
Extraction Rate, 999.9999	0.1671	0.1671	0.1671	0.1671	0	0.1671
Beginning Stocks	29	29	31	31	0	38
Production	117	117	137	137	0	117
MY Imports	15	15	10	10	0	10
Total Supply	161	161	178	178	0	165
MY Exports	0	0	0	0	0	0
Industrial Domestic Consumption	130	130	140	140	0	130
Food Use Domestic Consumption	0	0	0	0	0	0
Feed Waste Domestic Consumption	130	130	140	140	0	130
Total Domestic Consumption	31	31	38	38	0	35
Total Distribution	161	161	178	178	0	165

(1000 MT), (PERCENT)

Notes: (a) 'New Post' assessments are not official data.