





AgTrends update

April 2020

At a glance

Total value of Queensland's primary industries

In April 2020, the total value of Queensland's primary industry commodities for 2019–20, comprising gross value of production (GVP) at the farm gate and first-stage processing, was forecast to be \$16.99 billion. This forecast is 5% less than the October 2019 estimate of the Department of Agriculture and Fisheries (DAF), and 11% less than the average for the past 5 years.

This decline takes into account the impact of the coronavirus (COVID-19) on the sector, estimated to be a 2% reduction in forecast GVP.

GVP at the farm gate

In April 2020, the 2019–20 GVP of Queensland's primary industry commodities at the farm gate was forecast to be nearly \$13.23 billion. This forecast is 6% less than DAF's initial estimate for 2019–20 and 12% less than the average for the past 5 years.

Forecasts that have been revised **up** from previous forecasts for 2019–20 are those for:

- chickpeas (60%)
- sheep and lambs (56%)
- wheat (20%)
- pigs (17%)
- pineapples (17%)
- sugarcane (4%).



Forecasts that have been revised down from previous forecasts for 2019–20 are those for:

- grain sorghum (72%)
- cotton (57%)
- maize (40%)
- turf (38%)
- apples (36%)
- mandarins (29%)
- mung beans (25%)
- lettuce (24%)
- cut flowers (20%)
- mangoes (20%)
- watermelons (17%)
- macadamias (15%)
- tomatoes (15%)
- rockmelons (15%)
- capsicums and chillies (14%)
- wool (14%)
- forestry (10%)
- barley (7%)
- eggs (6%)
- carrots (6%)
- beans (6%)
- peanuts (6%)
- avocados (5%)
- sweetpotatoes (5%)
- sweet corn (5%)
- total fisheries (3%)
- production nurseries (2%).

First-stage processing

The value of first-stage processing (or value-added production) for 2019-20 is forecast to be \$3.76 billion.

Climate outlook for June to August 2020

The Bureau of Meteorology considers that the probability of exceeding median winter (June to August) rainfall is currently higher than normal for much of Queensland (see Figure 1).

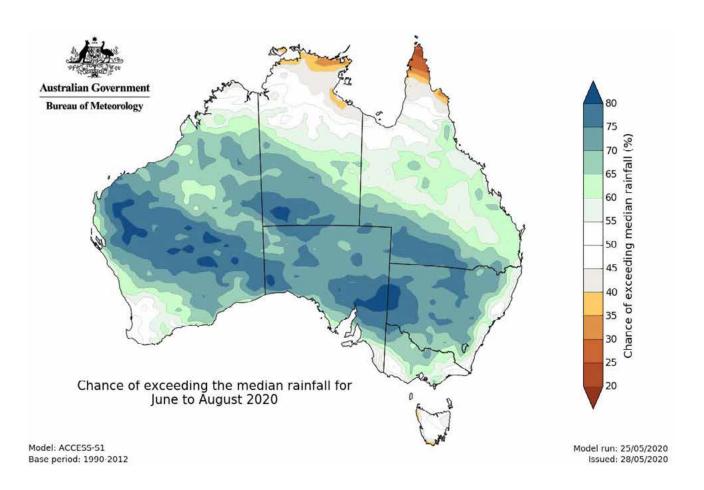


Figure 1 The chance of exceeding median rainfall, June to August 2020 Source: Australian Government, Bureau of Meteorology.

Primary industries estimates and forecasts

The GVP, first-stage processing and total primary industries estimates and forecasts are provided in Table 1.

Table 1 GVP, first-stage processing and total primary industries estimates and forecasts 2016–17 to 2019–20

	2016–17 estimate ^b (\$m)	2017-18 estimate ^c (\$m)	2018–19 estimate ^c (\$m)	2019–20 forecast, April 2020 ^d (\$m)	Change in forecast from October 2019 to April 2020 (%)	Last 5 years average (\$m)	Change from 5-year average to current forecast (%)
Commodity GVP ^a							
Livestock							
Livestock disposals							
Cattle and calves	5 483	5 248	5 447	5 137	0	5 383	-5
Poultry	650	561	570	573	0	592	-3
Pigs	293	248	289	282	17	284	-1
Otherlivestock	46	41	40	42	0	43	-2
Sheep and lambs	10	12	23	27	56	34	-20
Total livestock disposals	6 482	6 110	6 369	6 061	1	6 335	-4
Livestock products							
Eggs	234	225	228	226	-6	220	3
Milk (all purpose)	251	230	201	170	0	231	-26
Wool	76	98	85	73	-14	76	-4
Total livestock products ^e	561	553	514	469	-5	527	-11
Total livestock	7 043	6 663	6 883	6 530	0	6 862	-5
Horticulture							
Fruit and nuts							
Bananas	572	580	574	576	0	569	1
Other fruit and nuts	264	285	285	267	-8	261	2
Avocados	225	211	267	251	-5	200	25
Strawberries	144	193	137	145	0	171	-15
Macadamias	140	153	141	125	-15	126	-1
Mandarins	107	143	143	112	-29	115	-2
Mangoes	96	113	113	90	-20	91	-1
Table grapes	53	65	84	84	0	61	37
Table grapes Pineapples	53 70	65 64	84 65	84 77	0 17	61 65	37 19
Pineapples Apples							
Pineapples	70	64	65	77	17	65	19
Pineapples Apples	70 90	64 93	6 ₅ 93	77 54	17 -36	65 83	19 -35
Pineapples Apples Total fruit and nuts Vegetables Tomatoes	70 90	64 93	6 ₅ 93	77 54	17 -36	65 83	19 -35
Pineapples Apples Total fruit and nuts Vegetables	70 90 1761	93 1900	65 93 1902	77 54 1781	17 -36 -8	65 83 1743	19 -35 2
Pineapples Apples Total fruit and nuts Vegetables Tomatoes	70 90 1761	64 93 1900 298	65 93 1902 280	77 54 1781 238	17 -36 -8	65 83 1743 279	19 -35 2 -15

Table 1 continued

	2016–17 estimate ^b (\$m)	2017–18 estimate ^c (\$m)	2018–19 estimate ^c (\$m)	2019–20 forecast, April 2020 ^d (\$m)	Change in forecast from October 2019 to April 2020 (%)	Last 5 years average (\$m)	Change from 5-year average to current forecast (%)
Commodity GVP ^a							
Vegetables continued							
Sweet corn	41	82	55	74	-5	52	41
Mushrooms	70	70	63	63	0	69	-8
Sweetpotatoes	64	64	64	59	-5	61	-4
Melons (rock and cantaloupe)	50	59	66	56	-15	54	3
Zucchini and button squash	39	41	47	47	0	43	10
Pumpkin	30	40	40	28	0	34	-19
Lettuce	56	82	50	25	-24	59	-58
Potatoes	52	52	40	24	0	52	-54
Melons (watermelon)	31	37	32	24	-17	34	-29
Carrots	27	44	24	15	-6	29	-48
Onions	26	30	23	15	0	27	-44
Total vegetables	1 160	1 401	1 278	1 098	-10	1 253	-12
Total fruit and nuts and vegetables	2 921	3 301	3 180	2 879	-9	2 996	-4
Lifestyle horticulture pr	oduction						
Nurseries ^k	902	907	921	921	-2	902	2
Turf ^k	180	327	327	204	-38	234	-13
Cut flowers ^k	161	161	161	129	-20	157	-18
Total lifestyle horticulture production	1 243	1 395	1 409	1 254	-12	1 292	-3
Total horticulture	4 164	4 696	4 589	4 133	-10	4 288	-4
Other field crops							
Sugarcane ^f	1 527	1 234	1 087	1060	4	1 259	-16
Other crops ^c	81	134	52	106	-29	78	35
Cotton (raw) ^g	622	882	564	102	-57	583	-83
Total other crops	2 230	2 250	1 703	1 268	-10	1 921	-34
Cereal grains							
Wheat	361	246	187	246	20	301	-18
Chickpeas	744	377	136	133	60	369	-64
Grain sorghum	139	302	334	101	-72	315	-68
Other cereal grains	247	181	135	97	-26	186	-48
Maize	45	39	71	43	-40	54	-20
Barley	102	58	35	26	-7	75	-65
Total cereal grains	1 638	1 203	898	646	-26	1 265	-49
Total crops	8 032	8 149	7 191	6 047	-12	7 474	-19
Total agriculture	15 075	14 812	14 074	12 577	-6	14 336	-12

Table 1 continued

	2016–17 estimate ^b (\$m)	2017–18 estimate ^c (\$m)	2018–19 estimate ^c (\$m)	2019–20 forecast, April 2020 ^d (\$m)	Change in forecast from October 2019 to April 2020 (%)	Last 5 years average (\$m)	Change from 5-year average to current forecast (%)
Commodity GVP ^a							
Fisheries ^{c, h}							
Commercial fishing							
Crustaceans	80	107	112	100	-11	104	-4
Finfish	64	67	63	63	0	64	-2
Molluscs	3.6	4	6.1	6	0	4	37
Total commercial fishing	148	178	181	169	-7	172	-2
Recreational fishing	94	94	94	94	0	94	0
Aquaculture	92	105	120	130	0	106	22
Total fisheries	334	377	395	393	-3	373	6
Forestry and logging ^{c, i}	260	270	279	255	-10	248	3
Total primary industries (farm gate)	15 669	15 459	14 748	13 225	-6	14 956	-12
First-stage processing val	lue added ^j						
Meat processing ^c	2 486	2 344	2 443	2 325	1	2 430	-4
Sugar processing ^c	860	635	553	550	-2	647	-15
Log sawmilling, timber dressing, and plywood and veneer manufacturing ^c	423	435	472	437	-10	426	3
Fruit and vegetables processing ^c	246	277	267	242	-9	252	-4
Milk and cream processing ^c	132	121	106	90	0	122	-26
Seafood processing ^c	50	57	59	59	-3	56	6
Flour mill and feed processing ^c	127	93	70	50	-26	98	-49
Cotton ginning ^c	71	100	64	12	-57	66	-83
Total primary industries (first-stage processing)	4 395	4 063	4 035	3 764	-2	4 097	-8
(III3t-stage processing)							

a GVP (gross value of production) is defined as the gross value of commodities produced. It is a measure of economic output. In this publication, GVP relates to the output of primary industry commercial operations only. The GVP is the value of recorded production at wholesale prices realised in the marketplace (e.g. cattle sold at saleyards, sugarcane at the mill door, fruit and vegetables at the wholesale market). It is derived by multiplying the output from each primary industry by the average wholesale price paid to producers.

b Australian Bureau of Statistics (ABS) final estimates for 2016–17 unless otherwise indicated.

c ABS final estimates for 2017–18 unless otherwise indicated.

d DAF forecasts.

e Excludes minor commodities such as honey, beeswax and mohair.

f Gross value of sugarcane at the mill door.

g Includes value of cottonseed and lint.

h Includes catches from state-managed fisheries.

j See page 22 for the definition of value added. The forecasts for the value of first-stage processing in 2009–10 and beyond should not be compared with the previous years due to the change in value-added ratios.

k The value of the lifestyle horticulture sector has been calculated on a gross-turnover basis rather than a value-added basis and therefore will contain some double counting.

The impact of COVID-19 on primary industries forecasts

As a result of the COVID-19 pandemic, the forecast GVP for Queensland's primary industries at the farm gate has declined by \$275 million (about 2%). Fruit and vegetables, cut flowers, forestry and fisheries commodities were the most affected. Drought and seasonal conditions will, however, continue to have the greatest overall impact on Queensland's primary production.

At present, there is significant uncertainty surrounding the spread of and global recovery from COVID-19, with the impacts on Australia's agriculture, forestry and fisheries sectors increasing with the length of the pandemic. COVID-19 has the potential to affect many parts of the supply chains for agricultural commodities, including international trade and on-farm labour supply.

The International Monetary Fund is projecting a 3% contraction in global economic activity in 2020, on the assumption that restrictions ease from the start of the 2020–21 financial year. The agriculture sector is likely to be shielded from some of these impacts, as food is an essential commodity. The key impact on global agricultural markets is likely to be softer prices rather than significantly reduced consumption. Nevertheless, by reducing economic activity and hence incomes, the pandemic is expected to reduce overall demand for food, with greater reductions expected in high-value, luxury food commodities. Export-oriented commodities and those with a high reliance on sectors that are in shutdown (such as food services) are also likely to experience greater levels of disruption.

When the virus first started spreading in China, Queensland's beef, horticulture, wool and timber commodities were the most exposed. Restaurant and cafe closures as the Chinese were asked to isolate at home led to our beef exports being postponed in the short term. Also, our wood and wool products were affected by the temporary halting of manufacturing. The export of fruit and vegetable produce that was normally bound for Chinese dinner tables was also suddenly stalled. However, the impacts have been limited, as economic activity and trade have recommenced.

The spread of the virus globally, especially into other export destinations, has brought additional uncertainty to our exporters of agricultural, forestry and fisheries products. In Queensland, key sectoral concerns are supply chain and logistics disruptions, workforce availability and workplace health and safety. According to ABARES, supply chain and logistics disruptions are expected to be the most significant risk to the sector and hence to producers' incomes. Those disruptions may affect the supply of imported inputs and the performance of export supply chains. For sectors such as forestry and wool that rely on manufacturing in other countries, the potential for further disruption to production and logistics outside Australia could constrain demand for Australian products.

Domestic measures to limit the spread of COVID-19 could affect labour availability in some industries and could disrupt exports because of impacts on logistics networks. Horticultural and intensive production enterprises are particularly concerned about access to migrant labour needed to get products from the farm to consumers. The Australian Government has taken steps to reduce these risks through recent changes to visa arrangements for seasonal workers. However, labour availability will continue to be a concern in the medium term as we move into recovery.

There is uncertainty for the agricultural, forestry and fisheries sectors arising from the spread of COVID-19; however, according to ABARES, the medium-term prospects for the sector remain strong. Through exports, regional employment and supporting domestic consumption, agriculture has the potential to lead Queensland's economic recovery, along with other key rural and regional industries.

Primary industry forecasts revised since October 2019

Note: The following forecasts include estimates of the impact of COVID-19.

Livestock

According to ABARES, some beef exports to China were disrupted as a result of the COVID-19 outbreak in early 2020. Demand from the food service industry was affected by urban populations being required or encouraged to stay home. However, beef sales in supermarkets are expected to remain relatively unaffected.

Therefore, in the short term it is expected to be business as usual with no change to the GVP forecasts. However, in the medium term it will be more uncertain. Economic downturns on a global scale can have some significant impacts on the demand for beef, but huge expenditures and borrowings by major economies to overcome the impacts of COVID-19 will put us into a 'new world' over the next 2–5 years.

Livestock disposals

Pigs

Forecast

The GVP for pigs for 2019–20 is forecast to be \$282 million, 17% higher than DAF's initial forecast for 2019–20 and 1% lower than the average for the past 5 years.

Discussion

According to Australian Pork Limited, pig slaughterings in Queensland are likely to be more than 1.149 million in 2019–20, giving a GVP of more than \$282 million based on an average price of \$3.50 per kilogram at a pig weight of 70 kilograms.

Pig prices are currently under extreme downward pressure due to lack of demand. The food service industry has seriously contracted due to COVID-19, resulting in excess pig supply, especially of traditional food service cuts such as ribs and bellies.

Sheep and lambs

Forecast

The GVP for sheep and lambs for 2019–20 is forecast to be \$27 million, 56% higher than DAF's initial forecast for 2019–20 but 20% lower than the average for the past 5 years.

Discussion

At the end of January, Queensland sheep and lamb slaughterings stood, respectively, at 63% and 60% of the previous 2019–20 forecasts, suggesting accelerated disposals due to ongoing drought. With prices at near-record levels, overall sheep and lamb sales are expected to exceed the earlier forecast. However, the risk of decelerating global trade due to COVID-19 weighs over the forecast.

Livestock products

Eggs

Forecast

The GVP for eggs for 2019–20 is forecast to be \$226 million, 6% lower than DAF's initial forecast for 2019–20 and 3% higher than the average for the past 5 years.

Discussion

The egg production forecast has been revised downward, reflecting the challenging period for egg farmers in Queensland and nationally, primarily as a result of the ongoing drought.

According to Australian Eggs Limited, national egg production is forecast to be 514.2 million dozen for 2019–20. Egg supply has remained slightly short of demand, and this has allowed some passing on of high feed costs to customers. However, price increases have been generally inadequate, with farmers absorbing a significant proportion of input cost increases.

The industry has also faced ongoing regulatory and market uncertainty in relation to production systems. As regulatory processes move slowly, retailers have indicated phase-out timelines for cage eggs without providing the pricing and specification certainty to drive investment. This has impacted confidence in replacing capacity in all production systems.

Supply has been steady despite the disruption of COVID-19 and production is relatively inflexible in the short term, so there is unlikely to be a substantial change from previous figures. There has been an increase in retail demand for eggs, which has been met by shifting eggs from the food service sector during its temporary shutdown to retail—before the pandemic, up to 30% of eggs were used in food service.

Milk

The forecast GVP for milk for 2019–20 remains unchanged. COVID-19 is not expected to impact prices, as they were locked in for the financial year. However, there is considerable price uncertainty for 2020–21 due to changes in world markets.

Wool

Forecast

The GVP for wool for 2019–20 is forecast to be \$73 million, 14% lower than DAF's initial forecast for 2019–20 and 4% lower than the average for the past 5 years.

Discussion

Ongoing drought conditions led Australian Wool Innovation Limited to drop the Queensland clip forecast for the financial year to 6730 tonnes, while the March commodities report from ABARES lowered the forecast Eastern Market Indicator value to 1580. Overall, these changes result in reducing the GVP forecast for the Queensland industry from the earlier \$85 million to \$73 million. There has been limited impact from COVID-19, as China (the main importer of our wool) has reopened markets.

Crops

Horticulture crops

At present there is no significant disruption from COVID-19 to the provision of horticulture goods and services in Queensland. The forecast GVP has, however, been revised down for some commodities, as the sector faces challenges due to changes in demand and supply conditions and freight availability resulting from COVID-19 restrictions.

There have been declines in demand for some fruits and vegetables in response to closures in the food services sector in Australia and in export destinations. High-value, perishable and export-oriented commodities have been more exposed to adverse impacts. Domestic fresh produce sales have been driven by demand for staple vegetables (potatoes, carrots and onions) because they can be stored for longer periods.

Due to COVID-19 restrictions on movement, freight volumes have declined significantly, with some freight costs increasing by 500–600% for horticulture commodities. This is due to the significant reduction of airfreight capacity with the grounding of many passenger flights (on which the belly of the plane is used for transporting horticulture products).

Avocados

Forecast

The GVP for avocados for 2019–20 is forecast to be \$251 million, 5% lower than DAF's initial forecast and 25% higher than the average for the past 5 years.

Discussion

Queensland avocados are in high season from March to July. However, demand from the food services sector—which includes restaurants and cafes—has decreased significantly due to the impact of COVID-19 restrictions. The high supply and lower demand has reduced avocado prices, which are forecast to be lower throughout the June quarter. As a result, the GVP forecast has been revised lower.

Macadamias

Forecast

The GVP for macadamias for 2019–20 is forecast to be \$125 million, 15% lower than DAF's initial forecast for 2019–20 and 1% lower than the average for the past 5 years.

Discussion

Very hot and dry conditions in the Bundaberg region resulted in a smaller crop than forecast this season. Good rainfall recently has improved soil moisture and tree heath, but overall production will be lower this financial year.

Mandarins

Forecast

The GVP for mandarins for 2019–20 is forecast to be \$112 million, 29% lower than DAF's initial forecast for 2019–20 and 2% lower than the average for the past 5 years.

Discussion

The Queensland mandarin crop is down significantly from the heavy crop last year. The dry and hot conditions have reduced the amount of fruit on the trees although fruit quality and size are still good. The reduced supply has moderately increased prices, offsetting the impact of reduced volume on GVP.

Mangoes

Forecast

The GVP for mangoes for 2019–20 is forecast to be \$90 million, 20% lower than DAF's initial forecast for 2019–20 and 1% lower than the average for the past 5 years.

Discussion

Mango volumes were lower in the Mareeba-Dimbulah region due to cold weather affecting flowering. Also, frost and hail had some impact on production. Volumes were greater in the Burdekin-Bowen region; however, lower than expected farmgate prices combined with the reduced production in Mareeba-Dimbulah resulted in a lower GVP forecast. Mango exports are currently around 12% of total production and the industry is aiming to increase exports over the next few years.

Pineapples

Forecast

The GVP for pineapples for 2019–20 is forecast to be \$77 million, 17% higher than DAF's initial forecast for 2019–20 and 19% higher than the average for the past 5 years.

Discussion

Higher than expected farmgate prices for fresh fruit led to a higher revised GVP forecast despite lower volumes in fresh and processed fruit. The fresh pineapple crop in North Queensland was lower because of flooding and the subsequent heat and dry conditions, while dry conditions in the Wide Bay region resulted in lower tonnage of fresh fruit. Processing fruit production was also lower in all regions.

Apples

Forecast

The GVP for apples for 2019–20 is forecast to be \$54 million, 36% lower than DAF's initial forecast for 2019–20 and 35% lower than the average for the past 5 years.

Discussion

The Queensland apple crop is down significantly this year due to the ongoing dry and hot conditions on the Granite Belt. The crop set was satisfactory in October, but growers responded to the dry conditions by thinning trees more than usual, reducing water on blocks with lower yield, and in some cases removing trees. The quality of some fruit has also been impacted, especially the Galas (medium-sized apples), which ripened during the worst hot and dry period. The reduced supply increased apple prices, in line with the October forecast. There has been some good rainfall recently; however, follow-up rain is essential.

Vegetables

Forecast

The GVP for total vegetables for 2019–20 is forecast to be \$1098 million, 10% lower than DAF's initial forecast for 2019–20 and 12% lower than the average for the past 5 years.

Discussion

DAF experts are predicting falls in forecast GVP of 24% for lettuce, 17% for watermelons, 15% for tomatoes and rockmelons, 14% for capsicums and chillies, 6% for carrots and beans, and 5% for sweet corn and sweetpotatoes over the final quarter of 2019–20 because of the impacts of COVID-19. These falls bring the revised GVP for total vegetables for 2019–20 down by \$124 million to \$1098 million, a fall of 10%.

Lifestyle horticulture

Production nurseries

Forecast

The GVP for production nurseries for 2019–20 is forecast to be \$921 million, 2% lower than DAF's initial forecast of \$939 million but 2% greater than the average for the past 5 years.

Discussion

The initial forecast for GVP was based on an expected 2% growth in the production nursery sector. This increase was conservative and factored in some impact from water restrictions in Sydney. While these water restrictions were implemented, they have since been revoked without significantly impacting sales of nursery product. Potential water restrictions for nursery businesses in the Gold Coast region, which would have had a significant impact on local businesses, were avoided because of timely rain in south-eastern Queensland.

The COVID-19 pandemic is expected to have a net zero impact on the sector as a whole. Within the sector, impacts have been patchy with increasing sales of some products and drops for others. Supplies related to home gardening and commercial vegetable seedlings have seen recent increases while other sectors, such as melon production, have seen significant contraction.

Turf

Forecast

The GVP for turf for 2019–20 is forecast to be \$204 million, 38% lower than DAF's initial forecast for 2019–20 and 13% lower than the average for the past 5 years.

Discussion

Drought conditions in southern Queensland's growing regions and a reduction in the number of operational turf businesses has resulted in a significant downward revision in the GVP for the turf sector. A move to national-level data collection for this sector from the previous state-based data collection (which relied on face-to-face interviews) is likely to provide a more conservative estimate of GVP in the future.

Cut flowers

Forecast

The GVP for cut flowers and foliage for 2019–20 is forecast to be \$129 million, 20% less than DAF's initial forecast and 18% less than the average for the past 5 years.

Discussion

The cut flowers sector has been significantly impacted by the COVID-19 pandemic. An important factor in the drop in forecast GVP has been the cancellation of weddings and other events due to social restrictions. This has been partly balanced by stronger demand from florists and online sales, as the increased cost and reduced availability of international airfreight has lowered competition from imported products.

The low availability of (or lack of) imported products is expected to remain an important influence on the strength of the domestic production sector. Until recently, many of the flowers sold through popular supermarket chains were imported directly through preferred suppliers.

Although some Lockyer Valley growers needed to truck in water to continue irrigating their crops, the majority of growers in south-eastern Queensland rely on reticulated water supplies and were not impacted by a lack of water during the drought over 2019–20.

Other field crops

Sugarcane

Forecast

The GVP for sugar for 2019–20 is forecast to be \$1.060 billion, 4% higher than DAF's initial forecast for 2019–20 and 16% lower than the average for the past 5 years.

Discussion

A raw sugar value of \$401 per tonne international polarity scale was used to calculate the final estimate for sugarcane GVP (Queensland Sugar Limited harvest pool, 31 January 2020). The result is \$9 (2.3%) per tonne higher than forecast in September. This return is conservative compared with that realised by growers who have forward-priced on a rising market.

The main reasons for the increase in forecast GVP are the slight increase in price and a higher than forecast sugar content in Queensland's cane. As with all GVP estimates since the advent of forward-pricing and different pricing pool options, the percentage increase in forecast (rather than the dollar increase) better reflects the change in returns to growers.

The increase is in spite of a lower than forecast sugarcane harvest. At the end of the 2019 crush, 1.2 million tonnes less sugarcane had been harvested than was forecast in September 2019. This was 2.09 million tonnes lower than the total for 2018.

Overcast conditions in northern Queensland and drought in the southern growing regions were expected to lead to a smaller crop in 2019 than in 2018. However, in addition to this, the relatively low international sugar prices during the planting period and much of the growing season may have influenced growers' decisions to plant and invest in inputs such as irrigation water and fertilisers.

As a result, the area harvested in 2019 was 12 000 hectares smaller than that for 2018 and yields per hectare were below the 8-year average across all of Queensland's growing regions.

The GVP forecast assumes that the COVID-19 pandemic will have no net impact on the sector for 2019–20. This is because Queensland's 2019 crush was completed before Christmas and sugar is not a perishable product.

Cotton

Forecast

The GVP for cotton for 2019–20 is forecast to be \$102 million, 57% less than DAF's initial forecast for 2019–20 and 83% less than the average for the past 5 years.

Discussion

The continuation of the drought has led to the failure of many dryland cotton crops across the state. Only about 17 000 hectares of mainly irrigated crop was possible, because of the lack of water supply. Production this season has been significantly reduced due to ongoing drought conditions and, according to ABARES, Australia is likely to record its smallest cotton crop since 2006–07.

Producers have the ability to store cotton, and with China—our largest export market—showing initial signs of recovery in its manufacturing sectors, there is potential for demand to pick up post-harvest. These factors should limit the risk of COVID-19 disrupting producers' incomes.

Other major field crops

At this stage, COVID-19 is not expected to affect any of the major field crops before the end of the financial year. There is, however, some concern about container availability for mung bean exports. Export demand is still strong, but there could be some delays.

Peanuts

Forecast

The GVP for peanuts for 2019–20 is forecast to be \$11 million, 16% lower than DAF's initial forecast for 2019–20 and 46% lower than the average for the past 5 years.

Discussion

The area sown is estimated to be 2675 hectares, 33% smaller than the 4000 hectares forecast in September. This is because there were no plantings in central Queensland, which had extremely dry conditions over the spring to early summer period. However, 465 hectares were planted in northern Queensland, 1210 hectares in the Burdekin region, and 1000 hectares in South Burnett. These plantings received good rainfall in January–February 2020, which has increased average yields by 14%. Despite this, production is forecast to fall by about 25%, from 13 000 tonnes to around 11 000 tonnes. This is because the impact of the smaller area sown more than offset increased yields. The price is estimated to have increased 10% (from \$1000 to \$1100 per tonne), but overall, peanut GVP is forecast to fall.

Mung beans

Forecast

The GVP for mung beans for 2019–20 is forecast to be \$95 million, 25% lower than DAF's initial forecast for 2019–20 and 122% higher than the average for the past 5 years.

Discussion

The area sown to mung beans is forecast to be 70 000 hectares, 30% below the 100 000 hectares initially estimated, because of poor subsoil moisture over the traditional planting window of early to middle February. The very dry spring and early summer conditions reduced the average yield forecast by 13%, to 1 tonne per hectare. The smaller area sown coupled with lower than expected yields is estimated to reduce production by 40%, to 70 000 tonnes.

The price is estimated to have increased 23% to \$1350 per tonne because of increasing export demand for high-protein plant-based foods, particularly in Asian countries.

Overall, the forecast fall in production is expected to more than offset the increase in price, taking the GVP lower.

Summer cereal grains

Grain sorghum

Forecast

The GVP for sorghum for 2019–20 is forecast to be \$101 million, 72% lower than DAF's initial forecast for 2019–20 and 68% lower than the average for the past 5 years.

Discussion

The area sown has decreased about 70% from the initial forecast, to 130 000 hectares, due to below-average rainfall during planting. This is 67% below the 10-year average (to 2018–19) of about 400 000 hectares, and is the smallest area on record over this period. Very dry and warmer than average conditions during the crop-growing phase (November to January) suppressed yields, but the yield estimate remains unchanged at about 2.5 tonnes per hectare. Total production is estimated to fall approximately 70%, to 325 000 tonnes. This is 75% below the 10-year average (to 2018–19) of 1.26 million tonnes, and is the lowest on record for this period.

The price estimate has fallen 7% from \$335 to \$311 per tonne. Very low production, coupled with a lower price, is driving the reduction in GVP for sorghum.

None of the 2019–20 Queensland crop is likely to be exported in 2020, because of below-average production and associated short supplies. Most grain will go to domestic feedlots. The tight supplies will provide some domestic price support, preventing any further price decline.

Maize

Forecast

The GVP for maize for 2019–20 is forecast to be \$43 million, 40% lower than DAF's initial forecast for 2018–19 and 20% lower than the average for the past 5 years.

Discussion

The area sown to maize is estimated to be about 17 000 hectares, 52% below the initial forecast of 35 440 hectares. Because of very depleted subsoil moisture and dry planting conditions in spring and early summer, much of the expected southern and central Queensland crop was not planted. However, yields are forecast to be 24% higher than expected, due to late summer rainfall in central Queensland, patchy but good rainfall in southern Queensland in February and high rainfall in northern Queensland. The smaller area sown is expected to more than offset the higher yields, taking the forecast production 41% lower, to 88 000 tonnes.

There is some uncertainty within the industry on how much maize was planted in southern and central Queensland, so caution should be used in referencing the total area sown.

The price is estimated to have remained the same at \$480 per tonne. The lower forecast production is expected to take the GVP lower, to \$43 million.

Winter cereal grains

Wheat

Forecast

The GVP for wheat for 2019–20 is forecast to be \$246 million, 20% higher than DAF's initial forecast for 2019–20 but 18% lower than the average for the past 5 years.

Discussion

The area sown to wheat is estimated to be 384 ooo hectares, 29% less than the 543 750 hectares forecast previously. Central Queensland received some good spring rainfall, which boosted yields to above average; however, dry planting conditions in autumn to early winter hampered planting opportunities. Southern Queensland suffered very dry conditions at planting time and below-average yields. This led to overall below-average area sown and yields, and tight domestic supplies.

Higher than expected yields in central Queensland have raised the estimate for average Queensland yields to 1.5 tonnes per hectare, 44% above the original forecast. Overall, increased yields are expected to only just offset the smaller area sown, leading to a marginal increase in forecast production (2%) to about 580 000 tonnes. The current production estimate is approximately 56% below the 10-year average of 1.33 million tonnes, highlighting the impact of drought conditions on winter crops in 2019.

Tight domestic supplies have provided domestic price support, boosting prices by 15% from \$369 per tonne to \$424 per tonne. Domestic prices have been driven entirely by domestic supply conditions, and not by wheat supply variations in northern wheat-producing countries such as in the Black Sea region and North America. A marginal increase in domestic production coupled with an increase in price has led to the increase in the wheat GVP estimate.

Chickpeas

Forecast

The GVP for chickpeas for 2019-20 is forecast to be \$133 million, 60% higher than DAF's initial forecast for 2019-20 and 64% lower than the average for the past 5 years.

Discussion

The area sown to chickpeas is estimated to be about 154 000 hectares, up 9%. About 75–80% of the crop was planted in central Queensland, with the remainder in southern Queensland. Central Queensland received ample subsoil moisture levels in autumn and winter 2019, allowing for good planting opportunities and yields. Conversely, southern Queensland had very dry planting conditions.

Consequently, the area sown was bigger in central Queensland than in southern Queensland. Yield outcomes were mixed between regions. Central Queensland experienced average to above-average yields, while yields in southern Queensland were below average. Overall, average yields for Queensland are estimated to be 21% higher than the previous forecast, although the current yield estimate lies 20% below the 10-year average (to 2018–19) for Queensland. A larger area sown coupled with higher than expected yields is expected to take Queensland chickpea production to around 173 000 tonnes, up 32% from the 131 000 tonnes in the previous forecast.

India is currently not purchasing new chickpea imports, including from Queensland, suppressing our chickpea export demand and price. While Bangladesh is compensating for some of the shortfall in chickpea export demand, its market for pulses is limited. Pakistan, a minor importer of Queensland chickpeas, is currently buying much of its pulse from India and Africa. Despite suppressed export chickpea demand, global demand for high-protein grain remains on average high. Consequently, the average chickpea price has increased to \$765 per tonne, up 20% from the previous estimate.

Barley

Forecast

The GVP for barley for 2019–20 is forecast to be \$26 million, 7% lower than DAF's initial forecast for 2019–20 and 65% lower than the average for the past 5 years.

Discussion

The area sown to barley is estimated to be 47 000 hectares, 14% below the previous forecast, as very dry autumn and winter conditions hampered plantings. Yields are estimated to be 1% lower than previously forecast, at 1.34 tonnes per hectare. The smaller area sown and lower yields are expected to take barley production to 63 000 tonnes, down 15% from the initial forecast of 74 000 tonnes. The current production estimate is 66% below the 10-year average (to 2018–19) of 185 930 tonnes. This, like the forecasts for other winter grains, reflects the impact of extreme drought conditions in parts of Queensland over 2019.

All of the state's 2019 barley is expected to be sold to the livestock feed market—this is because of the low barley production level. Any shortfalls in supply will be met via imports from other states. The barley protein levels are expected to be too high for the grain to be used for malting processes.

The current barley price is estimated to be \$404 per tonne, up 8%. However, the barley production shortfall is expected to more than offset the increase in price, taking the barley GVP lower. The current barley GVP estimate lies 46% below the 10-year average of \$47 million, and even further below the \$92 million achieved with the bumper crop of 2015–16.

Fisheries

Forecast

The GVP for fisheries for 2019–20 is forecast to be \$393 million, 3% lower than DAF's initial forecast for 2019–20 but 6% higher than the average for the past 5 years.

Discussion

ABARES estimates that the value of Australian fisheries and aquaculture production will decline by 12% in 2019–20, to \$2.81 billion. A fall in the production value of rock lobster, driven largely by reduced export demand from China following the outbreak of COVID-19, is expected to account for the majority of this decline. The outbreak is expected to impact markets for the second half of the 2019–20 financial year but should be followed by a resumption of typical market conditions by the end of the financial year. Queensland produces only 3% of Australia's rock lobster, as the vast majority is produced in Western Australia. This translates to an impact of approximately \$12 million for Queensland producers.

Forestry

Forecast

The GVP for forestry for 2019–20 is forecast to be \$255 million, 10% lower than DAF's initial forecast for 2019–20 but 3% higher than the average for the past 5 years.

Discussion

Timber Queensland anticipates a downturn in building and construction as current committed pipeline projects are completed, with impacts expected in 1–2 months. Also, Timber Queensland is advocating for policies to encourage a lift in new building activity to avoid significant adverse impacts.

There is expected to be a 10% reduction in forest growing and primary production. This is based on anecdotal information received from various sectors within the industry, who have reported either reduction in sales or slowing of demand. The full impact to the forest and timber industry is not expected for a few months yet, as suppliers are currently working through existing projects. When new projects slow right down, greater impact will be experienced.

Appendix: The economic contribution of agriculture and the food supply chain, Queensland, 2017–18

Queensland's primary industries play a vital role in the state's economy. However, the role of this sector extends beyond primary production of agricultural commodities.

Primary industry commodities are used in a range of manufacturing, retail and service industries. By investigating the value of agriculture and the food supply chain, we can better understand the role of primary industries in the state's economy. Queensland's food supply chain extends from primary production of agricultural products to food services and a range of manufactured goods that are delivered to consumers.

In this analysis, we estimate the economic contribution (gross value added) and the number of employees in agriculture and the food supply chain. To do this, we define three stages in agriculture and the food supply chain:

- primary production
- · manufacturing of food and beverages
- food-related retail and services.

The industry subdivisions are detailed in Table 2.

Table 2 Industry subdivisions in agriculture and the food supply chain

Stage	Industry subdivision (ANZSIC code)
Primary production	Agriculture (Ao1) Aquaculture (Ao2) Forestry and logging (Ao3) Fishing, hunting and trapping (Ao4) Agriculture, forestry and fishing support services (Ao5)
Manufacturing of food and beverages	Food product manufacturing (C11) Beverage and tobacco product manufacturing (C12)
Food-related retail and services	Grocery, liquor and tobacco product wholesaling (C36) Food retailing (C41) Cafes, restaurants and takeaway food services (C451)

 $Source: \ ABS, \textit{Australian and New Zealand Standard Industrial Classifications (ANZSIC) 2006, cat.\ no.\ 1292.o.}$

Agriculture product wholesaling (ANZSIC331) has been excluded from estimates of the food supply chain because we have assumed that the majority of value for this group comes from wool wholesaling (ANZSIC3311).

Gross value added

To calculate the economic contribution of agriculture and the food supply chain, we use 'value added'. This avoids double counting, as intermediate products are excluded. The sum of the value of production inputs and the gross value added in each stage of production and distribution equals the total value of agriculture and the food supply chain:

Value of production inputs + gross value added = total value of output

That is:

Gross value added = value of output - value of production inputs

So gross value added is the value of output at basic prices (i.e. without commodity taxes or subsidies) minus the value of production inputs. The concept of value added is used to describe the economic contribution by an industry or sector.

Estimate of the economic contribution of agriculture and the food supply chain, Queensland

The estimates are determined by the availability of data; therefore, the estimates in Table 3, Figure 2 and Figure 3 are for the year 2017–18.

 Table 3
 Value added and employment in agriculture and the food supply chain

	Primary production	Manufacturing	Retail and services	Total
2017–18 estimates				
Value added (\$b)	10.0	4.7	10.9	25.7
Employment ('ooos)	63.0	46.4	224.1	333.6
2016-17 estimates				
Value added (\$b)	10.6	4.6	9.5	24.7
Employment ('ooos)	51.6	45.6	206.3	303.6
Percentage change 2016-17 to 2	017-18			
Value added (%)	-5	3	15	4
Employment (%)	22	2	9	10

Source: DAF estimates based on ABS data from Labour force, Australia, detailed, quarterly, November 2019 (cat. no. 6291.0.55.003), Australian industry, 2017–18 (cat. no. 8155.0) and Australian national accounts: state accounts, 2017–18 (cat. no. 5220.0).

Gross value added for agriculture and the food supply chain in Queensland for 2017–18 is estimated to be \$25.7 billion. This makes up about 7% of the state's economic output. Just over 333 600 people were employed in agriculture and the food supply chain in 2017–18, accounting for 13% of all working Queenslanders.

The value of food processing and distribution in Queensland (incorporating manufacturing and retail and services) is estimated to be almost \$15.6 billion for 2017–18. This sector employs around 270 500 people.

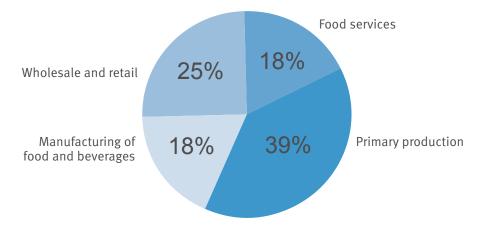


Figure 2 Value added in agriculture and the food supply chain, 2017–18

Source: DAF estimates based on ABS data from Australian industry, 2017–18 (cat. no. 8155.0) and Australian national accounts: state accounts, 2017–18 (cat. no. 5220.0).

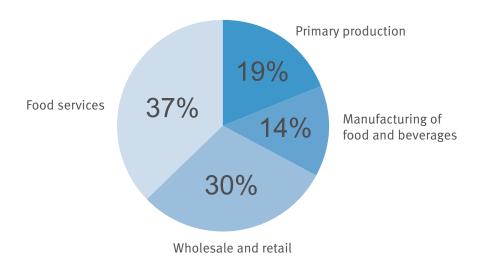


Figure 3 Employment in agriculture and the food supply chain, 2017–18 Source: DAF estimates based on ABS data from *Labour force, Australia, detailed, quarterly, November 2019* (cat. no. 6291.0.55.003).

Estimate of the GVP of Queensland's primary industries and the food supply chain

GVP is used in *AgTrends* to measure the output for each primary industry commodity. GVP of agricultural commodities is calculated by multiplying the output for each primary industry activity by the average wholesale market price paid to producers:

GVP = output × price

This measure describes the production output of a farm, industry or sector.

The estimate for the 2017–18 GVP at the farm gate is \$15.5 billion.

GVP as a percentage contribution to the state's economic output is not reported because measures of economic output such as gross state product (GSP) are based on value added. Gross value added is preferred when presenting the contribution of an industry or sector to economic output.

The 2017–18 estimates for Queensland's primary industry (GVP) and the food supply chain (value added) total \$31.2 billion.

Estimates derived with the new method **should not** be directly compared with the estimates derived from the old method (used in *Prospects for Queensland's primary industries* before 2011). The new method has several advantages:

- Publications recently released by the ABS allow data to be updated annually. Previously data was sourced from numerous publications, four of which have not been updated since 2006–07 and are now discontinued.
- The new method does not require the use of price deflators.
- Updating the data is simple and transparent.
- The presentation of results has been simplified with continued emphasis on the difference between industry value added and GVP.

Table 3 shows industry value added and employee estimates for 2017–18 and 2016–17 based on the new method.

Key assumptions

When calculating these forecasts, DAF follows the convention used by all government forecasting agencies that 'normal' seasonal conditions will occur across Queensland throughout the forecast year (2019–20) or that part of the forecast year yet to be completed. DAF's updates take into account the seasonal conditions that have occurred to date. This sets a benchmark for measuring variations from 'normal' as the season unfolds.

The prices of all internationally traded commodities are responsive to changes in the exchange rate of the Australian dollar, relative to the currencies of our trading partners. Prices to primary producers (and therefore gross unit values) decline when the Australian dollar exchange rate increases and vice versa.

Notes

Gross value of commodities produced (gross value of production or GVP) is a measure of economic output. In this publication, GVP relates to the output of primary industry commercial operations only. The GVP is the value of recorded production at wholesale prices realised in the marketplace (e.g. cattle sold at saleyards, sugarcane at the mill door, fruit and vegetables at the wholesale market). It is derived by multiplying the output from each primary industry by the average wholesale price paid to producers. Note that gross values of production are not the measures used to represent sectoral contributions to the gross domestic (or state) product.

Value added is the value of the output produced minus the costs of the intermediate inputs.

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