

Coarse grains

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↑3%
to US\$228/t^b
in 2019–20



^b France feed barley, fob Rouen.

Coarse grains

Barley prices to rise due to falling global coarse grain stocks.

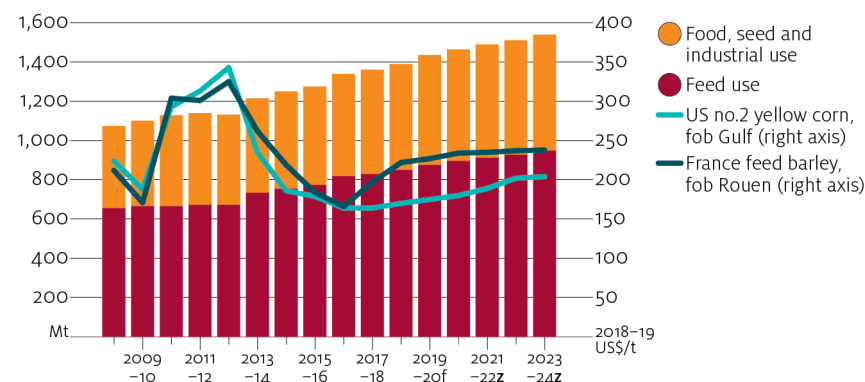
Demand for feed and industrial use to increase prices

The world indicator price for barley (France feed barley, fob Rouen) is forecast to average higher in 2019–20 and continue to increase over the medium term to 2023–24. This is because growth in world supply is expected to be lower than growth in demand for feed and industrial use. The world corn indicator price (US no. 2 yellow corn, fob Gulf) is also forecast to rise over the medium term, underpinned by strong demand growth in China.

Feed and industrial use to drive corn consumption

World coarse grain consumption is forecast to increase to a record high in 2019–20 and to continue to increase over the medium term. Growing populations and rising per capita incomes in emerging and developing economies are driving an [increase in global meat consumption](#). Ongoing strong demand from livestock industries will increase the use of coarse grains for feed. Demand for coarse grains is also being bolstered by biofuel policies that continue to encourage substitution of ethanol for fossil fuels.

World coarse grain consumption and prices, 2008–09 to 2023–24



^f ABARES forecast. ^z ABARES projection.

The demand for ethanol in China is expected to rise following the September 2017 announcement of a nationwide ethanol blending mandate. This is estimated to require 40 million tonnes of corn per year, drawn from Chinese reserves. Over the medium term, the effect of this policy on world prices will be marginal because China is not a major importer of corn. It is unclear if the blending mandate will change as China's corn stocks fall. If Chinese corn stocks are depleted, the policy would oblige China to import significant volumes of corn or ethanol, and put upward pressure on global corn prices.

In 2018–19, global barley consumption is expected to fall due to lower production from major exporters and higher global prices. Barley consumption is forecast to recover in 2019–20 to 147 million tonnes, as availability improves with an assumed return to average seasonal conditions in major exporters. Consumption growth over the medium term will be driven by increasing demand for beer in Asia.

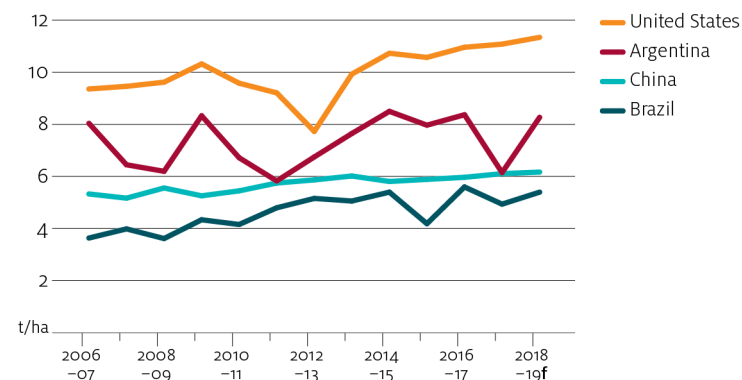
Production to partially meet growing demand

World production of coarse grains is forecast to remain largely unchanged in 2019–20. Falling Chinese corn production will be offset by increases in barley production in Australia, the European Union and the Russian Federation. In the short term, Chinese farmers are expected to shift towards producing soybeans rather than corn in response to higher Chinese import tariffs on US soybeans. Barley yields in Australia, the European Union and the Russian Federation are expected to recover as seasonal conditions improve after a poor 2018–19 season.

Over the medium term, world coarse grain production is projected to increase by under 2% per year to around 1.5 billion tonnes by 2023–24. This is well below the 4% annual growth rate in the 10 years to 2016–17. Higher barley production is expected in Australia, Canada, the Russian Federation and Ukraine in response to projected higher prices.

World corn production is projected to increase over the medium term because of an expansion in area planted, particularly in Argentina, Brazil, China and the United States. This area expansion is subject to some uncertainty and will be affected by the relative profitability of cropping alternatives—particularly soybeans. Global yields are expected to increase only slightly, with minimal increases in Argentina, Brazil and China. In the United States, yields are projected to follow trend growth.

Average corn yields in major producing countries, 2006–07 to 2018–19



f ABARES forecast.

Australian outlook

The drought affecting eastern Australia has reduced coarse grain production substantially and increased livestock feed use. In 2018–19 Australian production is forecast to fall by 9% and exports of coarse grains by 5%. Barley production is estimated to have fallen by 7% to 8.3 million tonnes. Low soil moisture levels in New South Wales and Queensland resulting from an unfavourable growing season reduced grain sorghum production to 1.3 million tonnes.

In 2019–20 Australian coarse grain production is forecast to rise by 15% to around 13 million tonnes, driven by an expansion in grain sorghum planting. Assuming improved seasonal conditions, barley production is forecast to increase by 6% to 8.8 million tonnes and grain sorghum by 50% to 2.0 million tonnes.

Over the medium term, Australian coarse grain production is projected to increase by 1.7% per year to reach 13.4 million tonnes by

2023–24. Barley production is projected to reach 9.4 million tonnes and grain sorghum 2 million tonnes by 2023–24. Exports of barley and grain sorghum are expected to increase, in line with production.

Challenges and opportunities

Climate variability and yields

Projected production growth over the outlook period assumes average seasonal conditions will prevail in the world's major coarse grain-producing countries. Most of the world's coarse grains are rain fed and production varies with seasonal conditions. Increased climate variability adds additional uncertainty to the production outlook.

Australian GM policies and export competitiveness

The Office of the Gene Technology Regulator has not issued any licences to grow GM coarse grain varieties in Australia, and some states and territories ban cultivation of all GM crops. As a result, Australia is less competitive with nations that have adopted the more productive GM varieties. A 2018 study found that [GM biotechnology was responsible for additional global production](#) of 405 million tonnes of corn in the 21 years to 2017. This was largely from yield improvements in Argentina, Brazil and the United States.

A 2017 Productivity Commission [inquiry into the regulation of agriculture](#) recommended that state and territory governments end these moratoriums. This recommendation [was supported by the Australian Government](#) in January 2019. Consistent Australia-wide policies on GM crops and permission to cultivate GM coarse grains would increase domestic productivity. This would improve Australia's competitiveness in price-sensitive export markets.

US–China trade dispute and coarse grain markets

Ongoing trade tensions between China and the United States present a significant downside risk to per capita incomes and consumer confidence in China (see the [Economic overview](#)). This could lead to a dampening of Chinese demand for meat, which is otherwise projected to increase over the medium term. Chinese consumption accounts for around 30% of global meat consumption. Any softening in demand could affect global demand for coarse grains for feed use.

Chinese anti-dumping investigation into Australian barley

An adverse finding in the Chinese Ministry of Commerce anti-dumping or countervailing duty investigations could result in duties being imposed on imports of Australian barley. This would reduce the competitiveness of Australia's barley in the Chinese market over the medium term.



Outlook for coarse grains

	unit	2016–17	2017–18 s	2018–19 f	2019–20 f	2020–21 z	2021–22 z	2022–23 z	2023–24 z
World									
Area	million ha	337	326	325	334	338	342	343	345
Yield	t/ha	4.2	4.2	4.2	4.1	4.2	4.3	4.3	4.3
Production	Mt	1,414	1,357	1,373	1,381	1,417	1,457	1,472	1,497
corn	Mt	1,122	1,076	1,099	1,092	1,123	1,157	1,165	1,184
barley	Mt	147	144	143	144	146	148	154	156
Consumption	Mt	1,353	1,374	1,400	1,436	1,467	1,494	1,510	1,541
corn	Mt	1,059	1,088	1,118	1,144	1,169	1,193	1,206	1,228
barley	Mt	149	148	141	147	152	154	156	159
Closing stocks	Mt	384	370	356	306	260	228	196	154
Trade	Mt	199	186	201	211	215	219	223	226
Stocks-to-use ratio	%	28.4	26.9	25.4	21.3	17.7	15.3	13.0	10.0
Corn price a									
nominal	US\$/t	157	160	170	179	188	202	221	227
real b	US\$/t	164	164	170	175	180	189	202	204
Barley price c									
nominal	US\$/t	158	192	222	228	240	247	254	260
real b	US\$/t	166	197	222	223	229	231	233	234
Australia									
Area									
barley	'000 ha	4,834	3,878	4,019	3,987	4,027	4,067	4,132	4,158
grain sorghum	'000 ha	368	531	537	620	625	627	629	630
total	'000 ha	6,359	5,285	5,300	5,582	5,632	5,679	5,750	5,780
Production									
barley	kt	13,506	8,928	8,310	8,786	8,962	9,143	9,349	9,441
grain sorghum	kt	994	1,439	1,303	1,953	1,981	2,000	2,019	2,035
total	kt	17,352	11,991	10,921	12,522	12,760	12,992	13,249	13,390
Export volume	kt	10,760	8,824	8,402	8,908	9,132	9,328	9,611	9,835
Export value									
nominal	A\$m	2,821	2,577	2,981	3,201	3,406	3,553	3,783	3,554
real b	A\$m	2,936	2,631	2,981	3,130	3,249	3,307	3,436	3,149
Price – nominal									
feed barley e	A\$/t	174	253	291	300	315	324	334	395
malting barley g	A\$/t	188	262	354	370	377	382	389	400
grain sorghum h	A\$/t	238	323	361	348	351	349	335	330
Price – real d									
feed barley e	A\$/t	181	258	291	293	300	302	303	350
malting barley g	A\$/t	196	268	354	362	360	356	353	354
grain sorghum h	A\$/t	248	329	361	340	335	325	304	292

a US no. 2 yellow corn, fob Gulf, July–June. b In 2018–19 US dollars. c France feed barley, fob Rouen, July–June. d In 2018–19 Australian dollars. e Feed 1, delivered Geelong. f ABARES forecast. g Gairdner Malt 1, delivered Geelong. h Gross unit value of production. s ABARES forecast. z ABARES projection.

Sources: ABARES; Australian Bureau of Statistics; FranceAgriMer; UN Commodity Trade Statistics Database (UN Comtrade); US Department of Agriculture