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International Crops Baseline Briefing Book

Prepared by the University Center for Economic Development (UCED)

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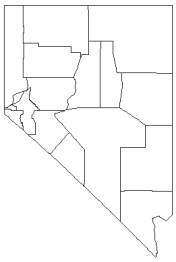

UNIVERSITY OF NEVADA, RENO

International Crops Baseline Briefing Book

Report Prepared by

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in cooperation with

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This report provides the 10-year International Crops Baseline of the University Center for Economic Development at the University of Nevada, Reno. This baseline incorporates information as of January 2021 for agricultural supply, demand, trade, and prices, as well as new information on global economic activity that impacts agricultural markets. The objective of the baseline is to provide a basis for the best comparisons while performing scenario analyses.

Because the International Crops Baseline covers several crops in a wide geographic distribution, and varying crop years, particularly among Northern and Southern Hemisphere countries, several rules regarding comparisons to USDA Foreign Agricultural Service's January 2020 Production, Supply, and Distribution (PS&D) database are adopted.

1. For Northern Hemisphere countries, the baseline is aligned with the PS&D supply data for 2020/21. Because the 2020/21 marketing years for crops were not complete at the time of producing the baseline, utilization and trade estimates were not exactly aligned to the latest data available from PS&D.
2. For Southern Hemisphere countries, the baseline is aligned to 2019/20 production data. Because the 2019/20 marketing years runs into early 2021 for several crops, 2019/20 utilization estimates were not absolutely aligned to PS&D data, but that data were used as guidelines. Also, many 2020/21 crops in the Southern Hemisphere had not been harvested at the time these baseline projections were produced, and only preliminary observations are available on which to base area and yield estimates. Therefore, these estimates are subject to revision.
3. The baseline incorporates the effects from African Swine Fever (ASF) that began to significantly impact the swine markets in China beginning in 2019.
4. The baseline does incorporate some aspects of the Phase 1 trade agreement between the U.S. and China signed on January 15, 2020. Retaliatory tariffs prior to the signed agreement on corn, wheat, and soybeans are removed, as are out-of-quota tariffs on corn that had been in place prior to 2016.
5. Macroeconomic effects related to COVID-19 are based on projections generated in January 2021. No explicit model modifications have been implemented beyond macroeconomic influences to reflect COVID-19 impacts.

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Macroeconomic Assumptions

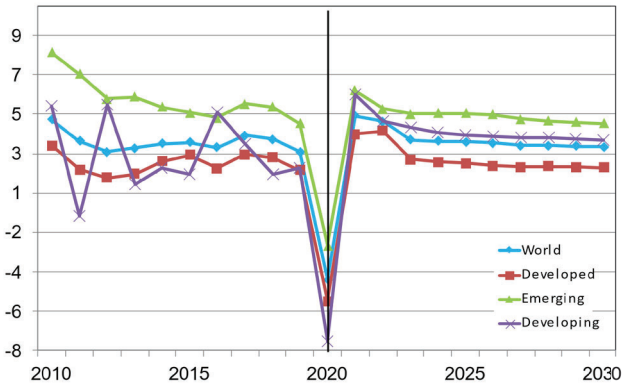
- Severe global recession in 2020 resulting from the COVID-19 pandemic is expected to rebound in 2021 and 2022. Developed nations will return to GDP growth just above pre-pandemic levels, average annual growth for developing nations is expected to exceed pre-pandemic levels by about 50%, and emerging nations will continue to see growth but at slightly lower rates than prior to 2020.
- U.S. GDP growth rate fell to -3.6% in 2020, but is projected to recover to 4.0% in 2021, then average 2.4% annually through 2030. Canada and Mexico GDP 2020 growth rate fell to -5.7% and -9.0% respectively. Similar to the U.S., both will rebound in 2021, with Canada averaging 1.9% annually 2023 through 2030 and Mexico will average 2.5% annual growth over the same period.
- More than a third of Western Europe countries, including the UK, experienced GDP growth contractions of 9% or greater. However, and despite Brexit ratification 12/30/2020, GDP growth in most European countries will rebound to at or above pre-pandemic levels throughout the projection period.
- China was one of the only countries that reported a positive annual GDP growth rate in 2020 at 2.1%. Though leading the group of emerging countries, both China and India will moderate growth throughout the projection period as their economies mature.

- The slowing in population growth rates will persist in all global regions in the long term. Annual global population expansion will fall below 1% beginning in 2022, although individual nations' growth rates will vary considerably.
- Developing and emerging economies are projected to exhibit significant slowing in population growth. Even with economic and geo-political issues, developing nations will still have the highest overall growth rates. The extent to which COVID-19 impacts population growth, especially in developing countries, by increases in extreme poverty, falling life expectancy, and other factors is still uncertain.

- Emerging nations will experience slower than average population growth. With high overall income growth, this group of nations will enjoy meaningful per capita income increases, substantially increasing purchasing power.
- The rate of growth in both real GDP and population decline in developing countries throughout the projection period. COVID-19 is expected to increase the number of people living in extreme poverty by approximately 100 million. Food and feed demand will increase primarily as a result of population growth in many of the poorest nations until income thresholds are reached that enable improved diets and increased demand for consumer goods.
- Some of the poorest nations have incomes below the developing nation average of $2,100, and those populations often live on subsistence agriculture, without much ability to purchase additional food.

Economic Recovery Related to COVID-19 Projected for 2021

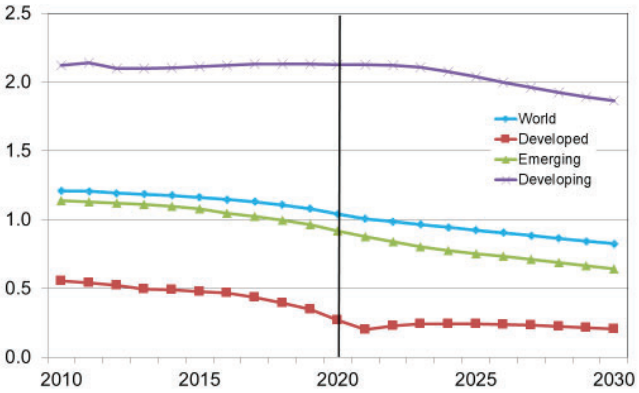
Real GDP, % change



Sources: IFS, IHS Markit

Population Growth Slowing in All Regions

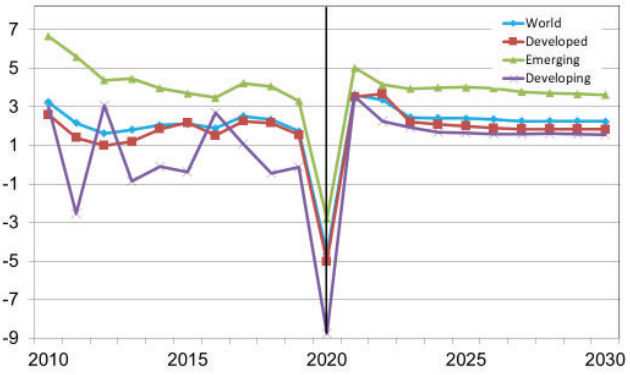
Population, % change



Sources: IFS, IHS Markit

Per Person, COVID-19 Further Challenges Developing Regions

Real per capita GDP, % change



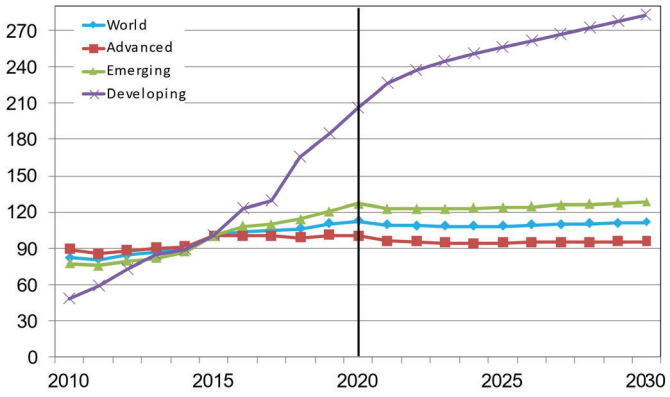
Sources: IFS, IHS Markit

- Economic impacts related to the COVID-19 pandemic and the associated fiscal response resulted in the value of the U.S. dollar weakening relative to a global basket of currencies in 2020. The dollar is expected to weaken slightly against advanced economies through 2024, then reverse trend. Against emerging markets, the dollar maintains strength but at lower levels starting in 2021 and trends upward. Strength is maintained against developing countries throughout the projection period.
- The weakening of the dollar contributes to increased U.S. exports as U.S. goods become more affordable abroad.
- The Japanese yen gains strength against the dollar throughout the projection period, as does the Chinese yuan. The euro gained on the dollar in 2020, as did the pound. Both are projected to continue the trend. The Russian ruble weakened slightly against the dollar in 2020, and is projected to gain slightly through 2030.
- Overall, developing country currencies will weaken the most relative to the dollar. Depreciation of local currencies is expected to occur widely in Africa and Latin America. In particular, the Argentine peso again realized severe devaluation due to their internal financial crisis. This trend is expected to continue through 2030.

- Steep and rapid weakening of currencies causes reduced ability to purchase goods in the short and medium term, yet longer-term effects are often mitigated by adjustment in the relative price levels of the importing vis-à-vis the exporting country. As such, longer-term real purchasing power of many of our trading partners is expected to increase.
- Emerging countries real exchange rates are expected to appreciate in the next few years, led by the stabilization of the Chinese yuan. Developed currencies are expected to strengthen in 2021 then stabilize toward the end of the projection period. Developing nations' currencies are expected to depreciate across the decade, though at a slower rate in 2025 and after.
- The overall long-term picture is for one of increasing purchasing power relative to the dollar. As such, U.S. goods should increase competitiveness on world markets.

Depreciation for Developing Nominal Currencies, but…

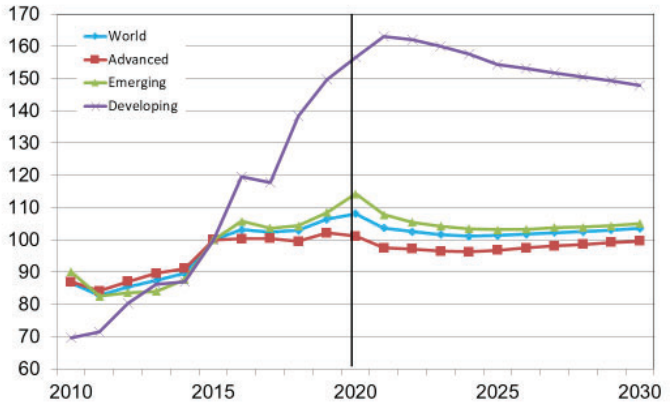
Exchange rate index, 2015=100



Sources: IFS, IHS Markit

…Purchasing Power Improves

Real exchange rate index, 2015=100

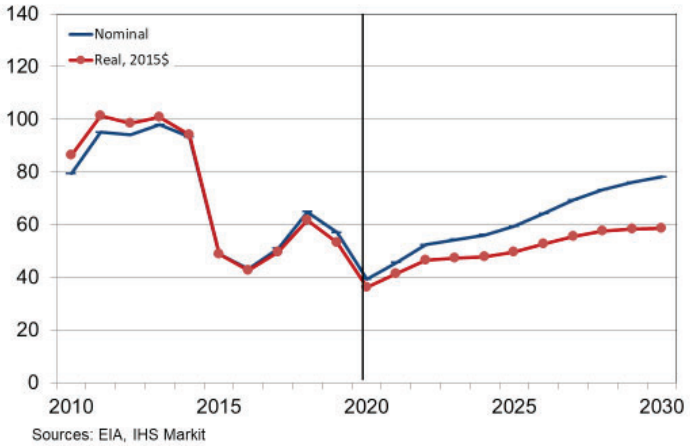


Sources: IFS, IHS Markit

- Large decreases in travel and transportation related to COVID-19 resulted in average West Texas Intermediate spot prices in 2020 below $40 barrel. Moderate price gains are projected through 2030, but remain below $60 per barrel throughout.
- Oil price outlooks always have substantial risk around them, and while the prices are expected to grow modestly, uncertainty persists especially in the outer years. The current crude oil glut related to COVID-19 will not only hold prices down, but it will also dampen exploration and biofuels production.
- Many countries that historically supply a significant portion of world demand have seen GDP drop with low prices linked to increased supply. For developing and emerging oil producing nations, these GDP drops often further exacerbate existing political unrest.
- Agriculture will benefit from moderate fuel prices in terms of keeping a lid on production and transportation costs. Low fuel costs not only make it less expensive to operate machinery, but will also contain costs for purchased inputs.

COVID-19 Drives Excess Supply and Decades Low Price

WTI price, $/bbl



Sources: EIA, IHS Markit

Macroeconomic Indicators

Real GDP

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
						(Percent change)					
World	-1.7	4.2	3.1	2.6	2.8	3.0	3.1	2.8	3.4	3.2	2.6
Algeria	1.6	3.6	2.9	3.4	2.8	3.8	3.7	3.2	1.3	1.4	0.8
Argentina	-5.9	10.1	6.0	-1.0	2.4	-2.5	2.7	-2.1	2.8	-2.6	-2.1
Australia	1.9	2.4	2.8	3.8	2.1	2.6	2.3	2.7	2.4	2.8	1.9
Bangladesh	5.0	5.6	6.5	6.5	6.0	6.1	6.6	7.1	7.3	7.9	8.2
Brazil	0.2	7.6	4.1	1.6	3.2	0.5	-3.5	-3.5	1.6	1.7	1.4
Burma (Myanmar)	10.6	9.6	5.6	7.3	8.4	8.0	7.0	5.9	5.8	6.4	6.8
Canada	-2.9	3.1	3.1	1.8	2.3	2.9	0.7	1.0	3.0	2.4	1.9
Chile	-1.6	5.9	6.0	5.5	4.1	1.7	2.3	1.6	1.4	4.0	1.0
China	9.4	10.6	9.6	7.8	7.8	7.4	7.0	6.8	6.9	6.7	6.1
Colombia	1.1	4.5	6.9	3.9	5.1	4.5	3.0	2.1	1.4	2.5	3.3
Egypt	4.7	5.1	1.8	2.2	2.2	2.9	4.4	4.3	4.2	5.3	5.6
Ethiopia	8.8	12.6	13.2	8.6	10.6	10.3	10.4	7.6	9.5	6.9	8.3
EU-28	-4.3	2.2	1.9	-0.6	0.0	1.6	2.2	2.0	2.9	2.1	1.6
India	7.7	8.5	5.3	5.5	6.4	7.4	8.0	8.2	7.0	6.1	4.2
Indonesia	4.7	6.4	6.2	6.0	5.6	5.0	4.9	5.0	5.1	5.2	5.0
Iran	0.9	5.8	2.7	-7.4	-0.2	4.6	-1.4	13.4	3.7	-6.1	-6.7
Japan	-5.7	4.1	0.0	1.4	2.0	0.2	1.6	0.7	1.7	0.6	0.3
Kazakhstan	1.2	7.3	7.4	4.8	6.0	4.2	1.2	1.1	4.1	4.1	4.5
Malaysia	-1.6	7.7	5.3	5.5	4.7	6.0	5.2	4.4	5.8	4.7	4.3
Mexico	-5.1	5.1	3.7	3.4	1.6	2.9	3.3	2.4	2.3	2.2	0.0
Morocco	4.2	3.8	5.2	3.0	4.5	2.7	4.5	1.1	4.2	3.1	2.5
Nigeria	8.0	10.2	4.8	4.1	5.2	6.2	2.7	-1.6	0.8	1.9	2.2
Pakistan	2.8	1.6	2.7	3.5	4.4	4.7	4.7	5.5	5.6	5.8	1.0
Paraguay	-0.3	11.1	4.3	-0.7	8.3	5.3	3.0	4.3	4.8	3.2	-0.4
Peru	1.1	8.4	6.5	5.9	5.8	2.5	3.3	4.0	2.4	3.9	2.2
Philippines	1.5	7.3	3.8	6.9	6.8	6.3	6.3	7.1	6.9	6.3	6.1
Russia	-7.9	4.5	1.1	4.1	1.7	0.7	-1.9	0.2	1.8	2.5	1.3
Saudi Arabia	-2.1	5.0	10.0	5.4	2.7	3.7	4.1	1.7	-0.7	2.4	0.3
South Korea	0.8	6.8	3.7	2.4	3.2	3.2	2.8	2.9	3.2	2.9	2.0
Sudan	3.2	-0.3	3.8	-1.4	4.4	2.7	1.9	3.5	0.7	-2.3	-2.6
Taiwan	-1.6	10.2	3.7	2.2	2.5	4.7	1.5	2.2	3.3	2.8	3.0
Thailand	-0.7	7.5	0.8	7.2	2.6	1.0	3.2	3.4	4.1	4.1	2.4
Turkey	-4.8	8.6	11.0	4.8	8.7	4.9	6.0	3.3	7.5	3.1	1.0
Ukraine	-15.1	0.3	5.5	0.2	0.0	-6.6	-9.8	2.2	2.5	3.4	3.2
Uzbekistan	8.1	7.6	7.8	7.4	7.6	7.2	7.4	6.1	4.5	5.4	5.6
Vietnam	5.4	4.5	6.2	5.2	5.4	6.0	6.7	6.2	6.8	7.1	7.0
United States	-2.5	2.6	1.6	2.2	1.8	2.5	3.1	1.7	2.3	3.0	2.2
Rest of world											
Wheat	-3.8	3.1	2.5	3.0	2.8	2.5	2.1	2.8	2.6	2.6	2.2
Rice	-3.7	3.3	3.0	2.8	2.9	2.5	1.7	2.7	2.8	2.4	2.0
Corn	-3.9	2.7	2.8	2.5	2.9	2.6	2.2	3.2	2.9	2.2	1.7
Barley	-2.2	4.5	3.0	2.6	3.0	2.5	1.8	2.4	2.9	2.4	2.0
Sorghum	-3.1	3.9	3.1	2.9	3.0	2.7	2.0	2.9	3.1	2.7	2.2
Soybeans	-2.9	3.6	3.0	3.2	3.1	2.7	2.1	2.9	2.9	2.7	2.1
Rapeseed	-2.5	4.5	3.3	2.9	3.0	2.5	1.8	2.3	2.8	2.5	1.9
Sunflowerseed	-2.6	4.1	2.5	2.5	2.7	2.3	1.8	2.1	2.6	2.3	1.8
Palm oil	-3.6	4.2	2.7	2.3	2.7	1.9	1.4	1.8	2.5	1.9	1.4
Cotton	-3.7	3.9	2.2	2.5	2.5	2.2	1.7	2.2	2.4	2.1	1.6

Sources: International Financial Statistics through 2019, IHS Markit projections after 2019

Macroeconomic Indicators

Real GDP

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						(Percent change)					
World	-3.9	4.4	4.1	3.2	3.1	3.1	3.0	2.9	2.9	2.9	2.8
Algeria	-9.7	6.1	2.5	2.9	2.4	2.6	2.3	2.5	2.4	2.4	2.3
Argentina	-11.1	2.1	2.3	2.2	3.1	2.2	2.3	2.1	2.5	2.8	3.0
Australia	-3.1	1.6	2.4	3.4	3.6	3.5	3.2	2.8	2.6	2.4	2.3
Bangladesh	1.0	-2.9	5.7	6.0	6.5	5.9	6.0	5.7	5.6	5.4	5.3
Brazil	-4.6	3.4	2.7	1.8	2.3	2.6	3.1	3.0	2.8	2.8	2.9
Burma (Myanmar)	1.3	5.7	6.3	6.4	6.4	6.4	6.3	6.1	6.0	5.9	5.8
Canada	-5.7	4.0	3.9	2.2	2.5	2.2	1.8	1.6	1.6	1.6	1.7
Chile	-5.8	6.1	3.1	3.2	3.2	3.5	3.8	3.9	3.9	3.9	3.8
China	2.1	7.6	5.6	5.4	5.3	5.2	5.0	4.7	4.6	4.5	4.4
Colombia	-7.7	4.6	3.0	3.1	2.8	2.9	3.0	3.1	3.1	3.2	3.1
Egypt	3.1	1.4	3.8	4.9	5.2	5.8	4.5	3.9	3.9	3.9	3.9
Ethiopia	1.9	2.0	5.9	7.0	6.9	6.7	6.2	5.6	5.6	5.5	5.4
EU-28	-6.7	3.3	4.0	1.9	1.7	1.5	1.4	1.4	1.4	1.4	1.4
India	-8.9	8.9	5.7	5.8	7.0	7.2	7.0	6.6	6.3	6.0	5.8
Indonesia	-2.4	2.9	5.6	6.2	5.6	5.4	5.3	5.2	4.9	4.6	4.8
Iran	-12.0	11.8	4.1	4.2	2.5	2.5	2.2	1.9	1.9	1.8	1.5
Japan	-5.4	2.3	1.6	1.1	1.0	0.9	0.9	0.9	1.0	1.0	0.9
Kazakhstan	-3.1	3.7	2.4	3.6	3.9	4.0	4.0	4.7	4.0	3.9	3.4
Malaysia	-5.7	5.1	5.3	5.7	4.8	4.6	4.5	4.4	4.4	4.4	4.3
Mexico	-9.0	3.7	2.6	2.7	2.1	2.3	2.6	2.5	2.5	2.7	2.7
Morocco	-7.0	4.2	2.9	4.1	3.9	3.5	3.6	3.5	3.5	3.4	3.3
Nigeria	-2.9	1.2	1.8	1.2	1.9	1.7	1.7	2.0	2.3	3.1	3.3
Pakistan	-1.5	2.0	3.7	4.3	4.7	4.9	5.1	5.2	5.1	5.0	4.4
Paraguay	-1.0	3.4	3.8	4.0	4.1	4.2	3.9	4.1	4.1	4.1	4.1
Peru	-11.9	9.4	4.1	3.8	3.8	3.5	3.4	3.5	3.5	3.5	3.7
Philippines	-8.9	7.7	7.0	6.0	5.8	5.5	5.2	4.8	4.7	4.5	4.4
Russia	-4.1	2.1	2.4	2.1	2.2	2.2	2.3	2.0	1.9	1.8	1.7
Saudi Arabia	-4.0	2.5	4.7	4.5	4.0	2.8	2.9	3.0	2.9	3.1	2.9
South Korea	-1.1	2.2	2.6	2.1	2.0	1.9	1.9	1.8	1.7	1.5	1.4
Sudan	-8.4	6.4	3.3	2.4	2.4	2.3	2.3	2.2	2.1	2.0	1.9
Taiwan	2.5	3.5	2.4	2.3	2.1	2.0	2.0	2.0	2.0	2.0	1.9
Thailand	-6.1	3.5	3.6	3.6	3.4	3.4	3.3	3.2	3.0	2.9	2.8
Turkey	0.2	3.8	4.4	2.9	2.7	2.8	2.6	2.8	2.8	2.9	2.9
Ukraine	-6.5	2.6	3.1	3.0	3.2	3.0	5.7	3.6	3.6	3.4	3.2
Uzbekistan	0.8	3.1	3.8	4.2	4.0	3.6	4.0	3.6	3.3	3.1	2.9
Vietnam	2.9	6.0	6.8	6.4	6.3	5.9	6.4	5.9	6.0	5.9	5.7
United States	-3.6	4.0	3.9	2.5	2.5	2.5	2.4	2.3	2.3	2.3	2.3
Rest of world											
Wheat	-6.0	3.9	4.3	3.3	3.1	2.8	2.9	2.8	2.8	2.8	2.8
Rice	-5.4	3.7	4.1	3.3	3.0	2.9	2.9	2.8	2.7	2.7	2.7
Corn	-5.7	3.8	4.4	3.3	3.0	2.8	2.8	2.8	2.7	2.7	2.7
Barley	-5.4	3.7	3.9	3.2	3.0	3.0	3.0	2.9	2.9	2.9	2.9
Sorghum	-4.8	3.7	4.1	3.3	3.1	2.9	2.9	2.8	2.8	2.8	2.8
Soybeans	-5.2	3.5	4.1	3.4	3.2	3.1	3.1	3.0	2.9	2.9	2.9
Rapeseed	-5.0	3.4	3.7	3.2	3.0	2.9	3.0	2.9	2.8	2.8	2.8
Sunflowerseed	-5.2	3.4	3.5	2.9	2.7	2.6	2.7	2.6	2.5	2.5	2.6
Palm oil	-5.4	3.4	3.3	2.6	2.5	2.4	2.4	2.3	2.3	2.3	2.3
Cotton	-5.5	3.5	3.4	2.7	2.5	2.4	2.4	2.3	2.3	2.3	2.3

Sources: International Financial Statistics through 2019, IHS Markit projections after 2019

GDP Deflator

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
						(Percent change)					
Algeria	-11.2	16.1	18.2	7.5	-0.1	-0.3	-6.5	1.5	4.7	7.6	-0.7
Argentina	15.5	20.9	23.7	22.4	23.9	40.2	26.6	41.0	26.0	40.0	50.6
Australia	0.4	5.4	4.7	-0.5	1.3	0.4	-0.7	1.0	3.6	2.3	3.3
Bangladesh	6.8	7.1	7.9	8.2	7.2	5.7	5.9	6.7	6.3	5.6	4.5
Brazil	7.0	8.4	8.2	8.3	7.3	7.8	7.5	8.3	3.4	4.6	4.3
Burma (Myanmar)	4.9	7.0	10.3	3.1	4.4	4.2	4.1	-3.6	5.4	5.4	6.3
Canada	-2.3	2.8	3.2	1.2	1.7	1.9	-0.9	0.8	2.6	1.8	1.7
Chile	4.6	9.0	3.2	1.0	2.0	5.9	5.0	4.5	4.6	2.3	2.8
China	-0.3	6.9	8.1	2.3	2.2	1.1	0.0	1.4	4.3	3.5	1.6
Colombia	4.1	3.8	6.4	3.6	1.9	2.2	2.4	5.1	5.1	4.5	4.3
Egypt	11.2	10.1	11.7	19.5	8.7	11.2	9.9	6.2	22.9	21.4	13.6
Ethiopia	24.1	1.4	20.1	33.5	4.9	11.0	10.8	12.3	6.7	12.3	13.2
EU-28	1.1	0.8	1.2	1.4	1.2	1.0	1.4	1.0	1.2	1.5	1.9
India	6.6	10.8	8.8	7.9	6.2	3.4	2.3	3.3	3.8	4.6	2.9
Indonesia	6.1	7.3	7.5	3.8	5.0	5.4	4.0	2.4	4.3	3.8	1.6
Iran	4.9	16.1	23.6	24.3	35.2	10.7	0.5	1.7	12.4	33.1	31.3
Japan	-0.6	-1.9	-1.6	-0.8	-0.4	1.7	2.1	0.4	-0.1	0.0	0.6
Kazakhstan	4.7	19.5	20.5	4.8	9.5	5.8	1.8	13.6	11.2	9.2	7.6
Malaysia	-6.0	7.1	5.4	1.0	0.1	2.5	1.1	1.6	3.8	0.7	0.1
Mexico	3.9	4.6	5.8	4.2	1.4	4.4	2.8	5.7	6.6	4.9	4.0
Morocco	0.1	1.0	-0.7	0.4	1.3	0.4	2.1	1.5	0.6	1.1	1.3
Nigeria	4.7	13.6	9.6	9.5	6.0	4.7	2.9	9.4	11.4	10.2	10.4
Pakistan	20.7	10.9	19.6	6.0	7.0	7.4	4.1	0.4	4.0	2.5	8.6
Paraguay	3.6	4.7	5.1	4.8	4.3	2.9	1.6	4.1	2.2	2.0	3.0
Peru	1.5	6.1	5.2	2.0	1.5	2.7	2.7	3.5	3.9	2.0	1.7
Philippines	2.7	4.4	3.9	2.0	2.0	3.1	-0.7	1.2	2.3	3.7	0.9
Russia	2.0	14.2	19.5	8.9	5.4	7.5	7.3	2.8	5.4	11.1	3.9
Saudi Arabia	-15.7	17.2	15.5	4.0	-1.2	-2.3	-16.9	-3.0	7.6	11.5	0.3
South Africa	7.5	6.4	6.5	5.3	6.2	5.5	5.2	7.2	5.3	3.9	4.0
South Korea	3.6	2.7	1.3	1.3	1.0	0.9	3.2	2.0	2.2	0.5	-0.9
Sudan	4.0	31.8	9.2	35.6	34.9	33.9	21.4	-1.6	37.6	23.9	17.8
Taiwan	0.0	-1.3	-2.2	0.6	1.5	1.7	3.4	0.7	-0.9	-0.6	0.1
Thailand	0.2	4.0	3.7	1.9	1.8	1.4	0.7	2.7	2.0	1.5	0.8
Turkey	5.3	6.8	8.5	7.5	6.1	7.5	7.8	8.2	10.9	16.5	13.9
Ukraine	13.0	13.8	14.2	7.8	4.3	15.9	38.9	17.3	22.1	15.4	8.1
Uzbekistan	17.3	39.4	21.5	15.5	11.7	14.3	10.4	8.7	19.4	27.5	19.2
Vietnam	6.5	24.5	21.3	10.9	4.8	3.7	-0.2	1.1	4.1	3.4	1.8
United States	0.8	1.2	2.1	1.9	1.8	1.9	1.0	1.0	1.9	2.4	1.8

Sources: International Financial Statistics through 2019, IHS Markit projections after 2019

GDP Deflator

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
					(Percent change)						
Algeria	-11.0	0.8	7.0	6.0	5.9	5.1	4.8	4.6	4.2	4.5	4.1
Argentina	32.5	16.8	25.6	22.0	18.3	14.3	11.4	11.5	10.5	9.7	9.1
Australia	0.9	1.9	2.8	3.2	2.8	2.8	2.6	2.3	2.3	2.3	2.2
Bangladesh	3.1	1.6	4.9	6.3	6.0	5.6	5.5	5.7	5.4	5.4	5.3
Brazil	5.1	2.7	2.9	3.6	3.5	3.7	3.5	3.5	3.4	3.4	3.4
Burma (Myanmar)	5.2	4.8	4.8	4.9	4.9	4.9	4.8	4.7	4.6	4.4	4.2
Canada	1.0	2.7	1.6	2.0	2.3	2.2	1.8	1.8	1.8	1.7	1.6
Chile	5.3	-1.7	2.7	2.8	3.3	3.5	3.3	3.3	3.3	3.3	2.9
China	-0.3	2.4	2.9	2.4	2.4	1.3	1.3	1.2	1.3	1.3	1.2
Colombia	1.8	3.7	3.2	3.4	3.7	3.4	3.2	3.3	3.4	3.5	3.6
Egypt	4.6	4.7	3.5	3.1	4.0	3.6	3.7	3.3	3.2	3.3	3.3
Ethiopia	17.8	16.3	14.8	13.8	14.3	14.8	6.6	11.4	9.2	10.2	9.7
EU-28	1.6	1.4	1.2	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6
India	4.8	6.2	5.9	5.9	5.3	5.5	5.4	5.0	4.8	4.6	4.5
Indonesia	0.3	4.4	5.2	5.1	5.6	6.5	5.8	5.4	4.9	4.9	5.1
Iran	66.4	16.0	15.5	15.0	15.3	15.2	15.4	16.0	16.2	16.2	16.0
Japan	1.1	-0.1	0.1	0.8	1.2	1.3	1.3	1.3	1.3	1.3	1.3
Kazakhstan	4.1	5.2	5.0	6.0	5.1	4.4	3.9	4.3	4.4	4.3	4.3
Malaysia	-0.7	2.2	0.4	2.2	2.5	2.6	2.6	2.6	2.7	2.8	2.8
Mexico	4.0	7.7	4.1	4.3	4.5	3.8	3.4	3.7	3.5	3.4	3.2
Morocco	0.1	2.4	3.6	2.6	2.7	2.7	2.5	2.4	2.2	2.2	2.2
Nigeria	7.3	11.9	15.0	9.5	8.6	10.6	11.5	6.5	9.3	7.7	6.0
Pakistan	7.4	2.0	5.7	5.1	5.1	4.9	5.2	5.3	5.3	5.0	4.7
Paraguay	3.2	0.5	3.4	3.5	3.2	3.1	3.0	2.8	2.7	2.6	2.6
Peru	2.3	-1.6	2.7	2.2	1.5	1.6	0.9	1.9	2.9	2.4	2.5
Philippines	1.8	3.6	2.2	2.0	1.9	1.8	1.8	1.5	1.4	1.5	1.6
Russia	0.2	6.5	4.6	2.8	3.5	2.7	2.9	2.8	2.9	2.8	2.8
Saudi Arabia	-6.4	16.0	6.7	2.8	1.1	3.4	3.1	2.5	2.6	2.3	2.3
South Africa	3.5	3.8	4.4	5.3	4.9	5.1	4.7	4.7	4.7	4.7	4.5
South Korea	1.5	0.8	0.0	1.2	1.4	1.9	1.9	1.9	1.8	1.8	1.8
Sudan	65.8	69.6	50.5	28.2	20.3	17.0	16.8	15.6	14.0	12.4	11.4
Taiwan	1.3	1.2	1.2	1.3	1.7	2.0	2.1	2.1	2.2	2.2	2.3
Thailand	-0.2	3.1	-1.2	0.8	0.9	2.2	1.7	1.5	1.2	1.2	1.3
Turkey	9.6	7.8	8.9	7.3	5.5	4.7	5.0	5.1	5.1	4.7	5.2
Ukraine	7.5	8.9	6.6	5.1	4.0	3.8	5.7	3.9	3.9	3.8	3.8
Uzbekistan	15.1	10.8	9.1	8.6	8.4	7.9	7.4	6.7	6.1	5.4	4.7
Vietnam	1.3	5.2	7.8	6.0	4.5	5.0	5.0	5.2	5.0	4.9	5.3
United States	1.2	1.6	1.9	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2

Sources: International Financial Statistics through 2019, IHS Markit projections after 2019

Exchange Rate

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
						(Percent change)					
Algeria	12.5	2.4	-1.9	6.3	2.4	1.5	25.0	8.7	1.4	5.1	2.4
Argentina	18.0	5.0	5.5	10.4	20.3	47.9	14.3	59.8	12.2	69.6	71.8
Australia	7.6	-15.0	-11.1	-0.4	7.3	7.1	20.0	1.1	-3.0	2.6	7.5
Bangladesh	0.6	0.9	6.5	10.4	-4.6	-0.6	0.4	0.7	2.5	3.8	1.2
Brazil	9.0	-12.0	-4.9	16.8	10.4	9.1	41.4	4.9	-8.6	14.5	8.0
Burma (Myanmar)	-8.9	-6.7	-16.6	5.1	11.1	5.4	18.1	6.2	10.2	5.1	6.5
Canada	7.0	-9.8	-4.0	1.0	3.1	7.2	15.8	3.7	-2.1	-0.1	2.4
Chile	7.3	-9.0	-5.2	0.6	1.8	15.2	14.7	3.5	-4.2	-1.2	9.6
China	-1.7	-0.9	-4.5	-2.4	-2.5	0.2	2.0	5.7	1.7	-2.1	4.4
Colombia	9.7	-12.0	-2.7	-2.8	4.0	7.1	37.0	11.4	-3.4	0.1	11.0
Egypt	2.1	1.4	5.5	2.1	13.4	3.0	8.7	30.3	77.4	-0.1	-5.3
Ethiopia	22.7	22.3	17.3	4.8	5.2	5.1	5.1	5.6	9.8	14.9	5.9
EU-28	5.3	4.9	-4.8	8.2	-3.2	0.1	19.6	0.3	-1.9	-4.5	5.4
India	11.3	-5.5	2.1	14.5	9.7	4.1	5.1	4.7	-3.1	5.0	3.0
Indonesia	7.1	-12.5	-3.5	7.0	11.4	13.4	12.8	-0.6	0.5	6.4	-0.6
Iran	4.4	3.9	3.5	54.2	67.3	7.0	9.6	5.1	7.9	73.5	52.9
Japan	-9.5	-6.2	-9.1	0.0	22.3	8.4	14.3	-10.1	3.1	-1.6	-1.2
Kazakhstan	22.6	-0.1	-0.5	1.7	2.0	17.8	24.3	53.5	-4.6	5.7	11.0
Malaysia	5.7	-8.6	-5.0	0.9	2.0	3.9	19.3	6.2	3.7	-6.2	2.7
Mexico	21.4	-6.5	-1.6	5.8	-3.0	4.2	19.3	17.8	1.2	1.7	0.1
Morocco	4.0	4.5	-3.9	6.7	-2.6	0.0	16.2	0.5	-1.2	-3.1	2.4
Nigeria	25.6	0.9	2.4	2.4	-0.1	0.8	21.4	31.7	20.6	0.1	0.1
Pakistan	16.1	4.3	1.3	8.2	8.8	-0.5	1.7	1.9	0.7	15.5	23.0
Paraguay	13.8	-4.6	-11.5	5.6	-2.4	3.3	16.6	8.9	-0.9	2.0	8.9
Peru	3.0	-6.2	-2.5	-4.2	2.4	5.1	12.2	6.0	-3.4	0.8	1.5
Philippines	7.6	-5.4	-4.0	-2.5	0.5	4.6	2.5	4.4	6.1	4.5	-1.6
Russia	27.7	-4.4	-3.2	5.7	2.5	20.8	58.9	9.7	-13.0	7.6	3.2
Saudi Arabia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Africa	2.6	-13.6	-0.8	13.1	17.6	12.4	17.6	15.3	-9.4	-0.7	9.2
South Korea	15.9	-9.5	-4.1	1.6	-2.8	-3.8	7.4	2.6	-2.6	-2.6	5.9
Sudan	10.1	0.2	15.6	34.0	33.1	20.6	5.0	3.1	7.6	261.5	89.9
Taiwan	1.5	-9.2	-6.5	0.9	2.0	5.9	6.1	-3.1	-6.5	1.0	-0.8
Thailand	2.9	-7.6	-3.8	1.9	-1.1	5.7	5.5	3.0	-3.8	-4.8	-3.9
Turkey	19.1	-3.0	11.5	7.2	6.0	15.0	24.3	11.0	20.8	32.4	17.6
Ukraine	47.9	1.9	0.4	0.3	0.0	48.7	83.8	17.0	4.1	2.3	-5.0
Uzbekistan	11.3	8.0	7.4	10.2	10.8	10.3	11.1	15.5	72.5	57.8	9.5
Vietnam	4.7	9.1	10.2	1.6	0.5	1.0	2.6	1.1	2.0	1.0	2.0
United States, trd wtd	4.6	-1.1	-3.1	3.7	2.5	3.1	10.6	5.0	1.5	1.7	0.2

Sources: International Financial Statistics through 2019, IHS Markit projections after 2019

Exchange Rate

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
					(Percent change)						
Algeria	6.2	8.3	1.5	0.6	0.9	1.3	1.3	1.3	1.3	1.3	1.3
Argentina	46.4	59.1	20.4	20.5	8.0	6.5	5.6	5.3	6.8	5.3	5.8
Australia	1.0	-10.1	3.1	-0.8	-2.1	3.8	7.2	0.0	-0.9	-1.3	0.0
Bangladesh	0.5	1.1	5.5	5.9	4.1	4.0	6.7	4.8	4.2	3.9	3.8
Brazil	30.7	1.2	-7.8	-0.1	0.9	1.4	1.3	1.2	1.2	1.3	1.3
Burma (Myanmar)	-12.0	5.4	5.3	5.1	4.9	4.6	4.3	4.0	3.7	3.4	3.1
Canada	1.1	-4.0	-4.1	-1.6	0.2	0.8	0.9	0.6	0.8	0.9	-0.4
Chile	12.7	-6.1	-0.7	-3.1	-0.9	0.2	0.8	0.9	0.9	1.0	1.1
China	-0.1	-7.4	-0.7	-0.5	-0.2	-0.4	0.3	1.3	1.3	1.3	1.3
Colombia	12.6	-4.0	0.3	-0.6	-0.3	-0.3	0.0	0.4	0.4	0.6	0.7
Egypt	-6.0	0.6	3.8	2.0	0.8	0.5	0.7	0.8	0.9	1.0	1.0
Ethiopia	20.1	19.9	16.6	14.9	20.1	15.8	8.2	6.5	7.3	6.9	7.1
EU-28	-1.8	-8.5	-1.8	-1.7	-0.5	1.0	1.1	1.1	1.2	1.0	0.8
India	5.2	-0.3	3.0	0.6	0.5	1.3	0.8	-0.9	-2.2	-1.5	0.0
Indonesia	3.1	-3.9	1.7	-0.1	-0.6	2.6	3.9	-0.3	-4.2	-0.7	0.8
Iran	48.9	32.9	10.9	12.5	6.6	1.8	5.7	5.8	5.4	5.0	5.1
Japan	-2.1	-3.4	-1.9	-4.1	-2.6	-1.2	-0.8	-0.6	-0.1	0.0	0.3
Kazakhstan	8.0	3.0	0.1	0.0	0.4	0.3	-0.3	-0.4	0.0	0.3	0.4
Malaysia	1.5	-3.8	0.2	-2.3	-0.6	-0.3	-0.2	-0.3	-0.3	-0.3	-0.2
Mexico	11.6	-6.2	-0.7	1.7	2.2	2.2	1.8	1.6	1.5	1.4	1.4
Morocco	-1.3	-4.9	1.0	0.7	-0.2	0.9	1.2	1.4	1.7	1.7	1.5
Nigeria	16.3	7.6	6.9	5.2	1.6	1.5	1.5	1.5	1.5	1.5	1.5
Pakistan	8.0	0.9	6.2	3.2	2.9	3.0	2.5	2.4	2.3	2.2	2.1
Paraguay	8.5	-1.5	-3.3	-2.6	-1.7	0.4	0.5	0.5	0.5	0.5	0.5
Peru	4.7	2.7	-1.7	-1.2	-0.4	-0.3	-0.9	-1.2	-1.6	-1.7	-1.9
Philippines	-4.2	-2.5	1.6	0.4	-0.7	-0.8	-0.7	-0.7	-0.7	-0.6	-0.5
Russia	11.6	-1.8	-7.3	-1.1	1.1	0.3	0.5	0.5	0.5	0.4	-0.1
Saudi Arabia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Africa	13.8	-5.2	0.8	4.1	1.9	1.6	2.7	3.5	3.6	3.2	2.9
South Korea	1.3	-5.0	4.0	0.5	0.0	0.0	-0.1	-0.2	-0.3	-0.3	-0.3
Sudan	18.0	112.5	115.1	29.9	4.2	5.6	3.3	2.4	2.1	1.8	1.6
Taiwan	-4.3	-3.6	0.9	-0.1	-1.4	-1.3	-0.8	-0.6	-0.5	-0.3	-0.2
Thailand	0.8	-2.9	-0.6	-0.1	0.2	0.4	0.3	0.4	0.3	0.3	0.2
Turkey	23.6	5.0	7.1	5.3	3.3	3.1	3.0	2.9	2.8	2.6	2.5
Ukraine	4.3	4.8	-1.6	-1.6	-1.8	-0.6	-5.0	-2.0	-2.0	-2.0	-2.0
Uzbekistan	13.7	6.6	5.9	5.8	5.2	4.7	4.2	3.7	3.4	3.0	2.5
Vietnam	0.7	0.5	1.0	1.3	1.3	1.4	1.6	1.3	1.2	1.1	1.1
United States, trd wtd	-1.1	-0.9	-0.6	-0.3	-0.2	0.0	0.1	0.1	0.3	0.3	0.3

Sources: International Financial Statistics through 2019, IHS Markit projections after 2019

Population

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
					(Percent change)						
World	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1
Algeria	1.7	1.8	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0
Argentina	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	0.9
Australia	2.0	1.9	1.7	1.6	1.5	1.5	1.4	1.4	1.3	1.3	1.2
Bangladesh	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.0
Brazil	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8
Burma (Myanmar)	0.6	0.7	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.6	0.6
Canada	1.1	1.1	1.0	1.1	1.1	1.0	0.8	1.0	1.2	1.4	1.4
Chile	1.1	1.0	1.0	1.0	1.0	1.1	1.2	1.3	1.4	1.4	1.2
China	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4
Colombia	1.1	1.1	1.0	0.9	0.9	1.0	1.2	1.4	1.5	1.5	1.4
Egypt	0.6	0.7	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.6	0.6
Ethiopia	2.7	2.7	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.4	2.4
EU-28	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
India	1.4	1.4	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0
Indonesia	1.3	1.3	1.4	1.4	1.3	1.3	1.3	1.2	1.2	1.1	1.1
Iran	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.4
Japan	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3
Kazakhstan	1.1	1.3	1.5	1.6	1.6	1.6	1.6	1.5	1.4	1.3	1.3
Malaysia	1.8	1.7	1.6	1.5	1.4	1.3	1.4	1.4	1.4	1.4	1.3
Mexico	1.5	1.4	1.4	1.4	1.3	1.3	1.2	1.2	1.2	1.1	1.1
Morocco	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.2
Nigeria	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6
Pakistan	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0
Paraguay	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3
Peru	0.8	0.8	0.8	0.8	0.9	1.1	1.3	1.5	1.7	1.7	1.6
Philippines	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.5	1.5	1.4	1.4
Russia	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
Saudi Arabia	2.9	3.0	3.1	3.1	3.1	2.9	2.6	2.3	2.0	1.8	1.7
South Africa	1.4	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.4	1.4	1.3
South Korea	0.3	0.4	0.5	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.1
Sudan	2.6	2.5	-19.3	2.3	2.4	2.4	2.4	2.4	2.4	2.3	2.2
Taiwan	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Thailand	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3
Turkey	1.3	1.4	1.5	1.6	1.7	1.7	1.7	1.7	1.6	1.5	1.3
Ukraine	-0.4	-0.4	-0.4	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5	-0.6
Uzbekistan	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.6	1.6
Vietnam	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.0	1.0	1.0	1.0
United States	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.4
Rest of world											
Wheat	1.9	1.9	1.4	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8
Rice	1.7	1.7	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6
Corn	2.0	2.0	1.5	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9
Barley	1.8	1.7	1.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6
Sorghum	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5
Soybeans	1.8	1.8	1.4	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Rapeseed	1.7	1.7	1.4	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.5
Sunflowerseed	1.7	1.7	1.4	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6
Palm oil	1.5	1.5	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4
Cotton	1.6	1.7	1.3	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6

Sources: International Financial Statistics through 2019, IHS Markit projections after 2019

Population

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
					(Percent change)						
World	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8
Algeria	1.9	1.7	1.6	1.6	1.5	1.4	1.3	1.3	1.2	1.2	1.1
Argentina	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7
Australia	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Bangladesh	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7
Brazil	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4
Burma (Myanmar)	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6
Canada	1.2	1.0	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	0.9
Chile	0.9	0.5	0.2	0.0	-0.1	0.0	0.1	0.2	0.2	0.3	0.3
China	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0
Colombia	1.1	0.8	0.5	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.5
Egypt	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6
Ethiopia	2.4	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.0	2.0	1.9
EU-28	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
India	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7
Indonesia	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8
Iran	1.3	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.9	0.8	0.8
Japan	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6
Kazakhstan	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.9	0.8	0.8	0.8
Malaysia	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.0	0.9
Mexico	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Morocco	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9
Nigeria	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4
Pakistan	2.0	2.0	1.9	1.9	1.8	1.8	1.7	1.7	1.7	1.6	1.6
Paraguay	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0
Peru	1.4	1.2	1.0	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8
Philippines	1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.1
Russia	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3
Saudi Arabia	1.6	1.5	1.4	1.4	1.3	1.2	1.2	1.1	1.1	1.0	1.0
South Africa	1.3	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9
South Korea	0.1	0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Sudan	2.2	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9
Taiwan	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0
Thailand	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Turkey	1.1	0.8	0.6	0.5	0.4	0.5	0.5	0.5	0.6	0.6	0.6
Ukraine	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7
Uzbekistan	1.5	1.4	1.3	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.9
Vietnam	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.5
United States	0.3	0.2	0.4	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5
Rest of world											
Wheat	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.5	1.5
Rice	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3
Corn	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6
Barley	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4
Sorghum	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.2
Soybeans	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4
Rapeseed	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3
Sunflowerseed	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.3
Palm oil	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2
Cotton	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3	1.3

Sources: International Financial Statistics through 2019, IHS Markit projections after 2019

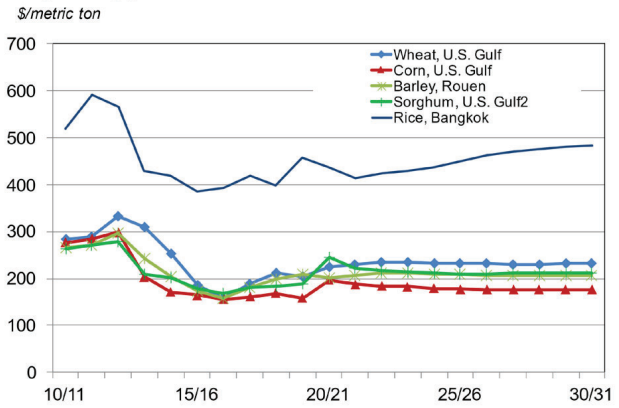
International Crops Summary

- Wheat prices are increasing in 2020/21, due primarily to increases in both feed use, driven by China, and food use, driven by India. Longer term, wheat prices are projected to climb slightly until 2022/23, then remain relatively flat through 2030 as production meets global demands.
- Corn prices are rising this year on increased demand for feedstocks, most evident in large imports by China. Continued increases in demand this year will combine with moderate supply and result in a reduction in ending stocks.
- Increased imports from China drove sorghum prices higher in 2020/21. Rice prices are down slightly through 2022, then rise on strong consumption through 2030.
- Longer term, our assumption of normal weather leads to projections devoid of supply shocks. As a result, prices are expected to be stable, with little or no increases needed to reconcile supply and demand. Of course, departures from normal weather will occur, and somewhere in the next decade fluctuations in grain supplies will occur, leading to temporary destabilization in prices.

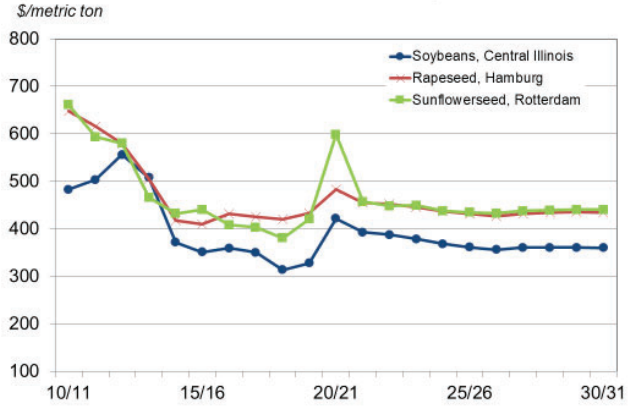
- Substitution between different meals and vegetable oils creates a long-term relationship between oilseed prices. Several years ago short term movements in various oilseed prices stemming from production disruptions resulted in prices moving away from long-term relations. However, those issues have diminished and prices between oilseeds are returning to long-term patterns.
- Soybean and products production trended upward after a dip in 2019/20. This was met with record demand to hold prices up, especially as China made purchases to meet Phase 1 agreements. Poor weather in Ukraine and additional export taxes in Russia spiked sunflowerseed prices in the short term. As production stabilizes, prices of oilseeds will moderate below previous peak levels.
- Low grain prices allow oilseeds to compete for area and expanding South American crops will also keep downward pressure on soybean prices over the projection period.
- In major producing regions, rapeseed competes with wheat and barley. But on the demand side, rapeseed products compete with those of other oilseeds. Rapeseed prices will generally mirror those of soybeans in the long term.

- Soybean, rapeseed, and sunflowerseed meal prices reflect the substantial substitution between them, but also are influenced by prices of other major livestock feed components. With the outlook for relatively low grain prices, meal prices are expected to show little upward movement in the long term, even with expanding livestock production.
- Additionally, the stability in soybean, rapeseed, and sunflowerseed prices will be reflected in meal prices. Because oilseeds are the largest cost categories for protein meal and vegetable oil production, the steady oilseed prices will allow adequate crushers' margins to be maintained even with little movement in product output prices.

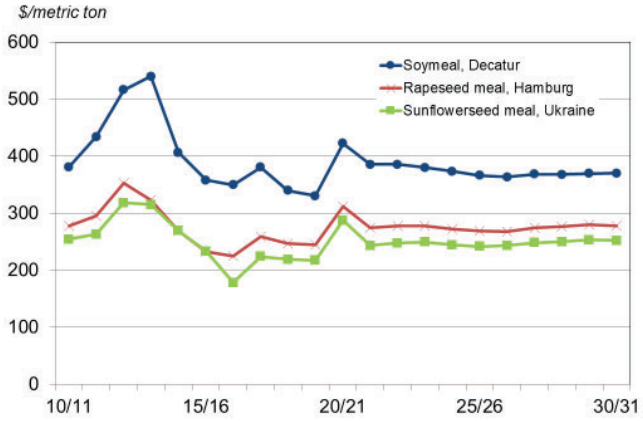
Ample Supplies Mean Stable Prices



Short-term Demand Spikes Give Way to Price Trends



Meal Prices Reflect Low Prices of Other Feeds



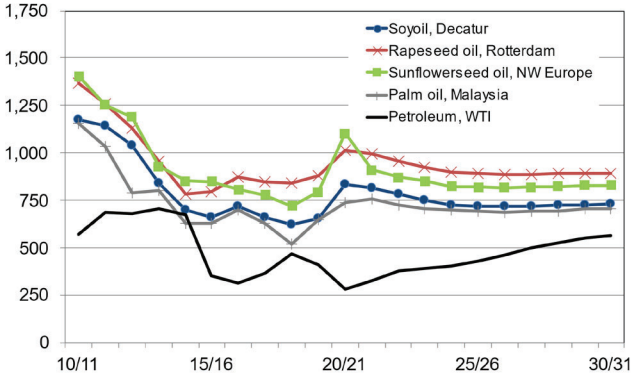
- Vegetable oil prices are higher in 2020/21 across the board. Moderate spikes in vegetable oil prices are expected in conjunction with increased demand and supply shortages in palm oil and sunflowerseed markets. Vegetable oil prices are the most volatile of the oilseed complex and relatively small decreases in supplies or increases in demand can sharply alter oil prices in the short term.
- Biodiesel is a growing demand category for vegetable oils. However, the petroleum prices tanked in 2020 as COVID-driven quarantines limited travel around the globe and resulted in a supply glut. Such low fuel prices limit switching to biofuels beyond mandates for increased biofuel use in various countries. Prices of all oils are expected to gradually decline in the medium term before stabilizing.

- Global cotton area declined by 2.4 million hectares in 2020/21 in response to last year's deflated prices and increased stocks. Along with global average yields decreasing for the third year in a row, cotton production decreased by approximately nine million bales.
- China's stock drawdown of the last five years is expected to continue through 2030. Imports are increasing over the baseline under the Phase 1 agreement and as they capitalize on excess manufacturing capacity to meet COVID-related demand increases – specifically personal protective equipment and generally pent-up demand for textiles as economies recover.
- Competition from other fibers, including man-made fibers will help keep cotton demand from rising rapidly, and dampen upward pressure on prices.

- The increase in global cropped area will slow somewhat with the expected moderate, stable price environment that will provide less incentive to expand plantings, especially if it requires new ground to be broken.
- South American soybean and grain producing countries such as Argentina and Brazil have area available for crop expansion. Argentina's higher export tax rates will limit area expansion but this will be partially offset by a higher real exchange rate that boosts domestic crop prices.
- Area expansion will occur primarily in corn and oilseeds, especially soybeans. These are largely used to feed livestock. Even with yield growth at or slightly exceeding global population growth, current area will be inadequate to meet demand for income-driven livestock and dairy products.
- Wheat and rice, crops that are primarily utilized for human consumption, are traditional staples that are driven more by population growth than increases in income. Per capita consumption for these grains is nearly flat, and future demand will be met mainly through yield growth. As a result, area of these grains is not expected to increase greatly through the baseline period.

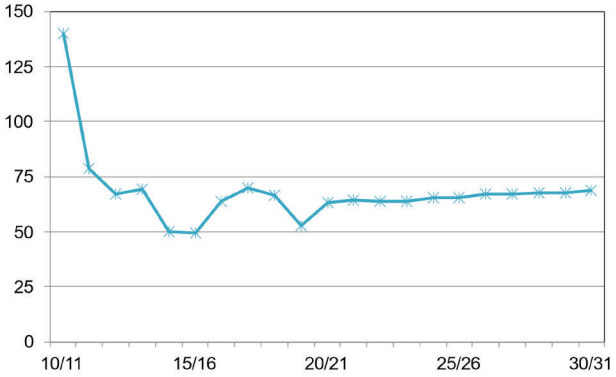
Petroleum Does Not Compete With Vegetable Oils

$/metric ton



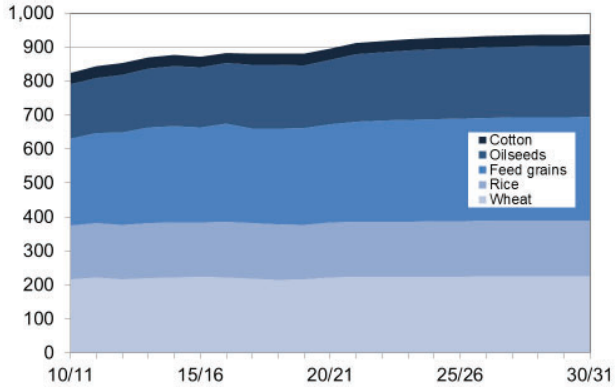
Post-COVID, Prices Return to Stable Levels

Cotton adjusted world price, cents/ lb



Increasing Area Required Only for Feed Crops

World crop area, million hectares



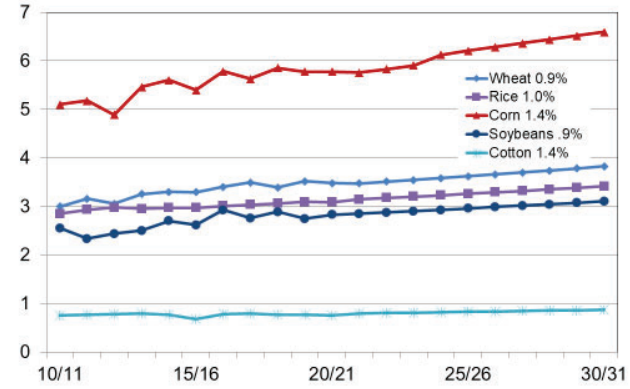
- Yields of major grains, oilseeds, and fiber crops are expected to continue growing at long-term trend rates. This means productivity will expand around one percent per year, slightly more than the global population growth rate, which is projected to dip below 1% per year in 2022.
- One percent yield growth will be sufficient for crops where demand is largely driven by population. As global per capita consumption of wheat, rice, and cotton are projected to increase little in the coming ten years, little area increase over the baseline period is expected.
- For crops that are driven by both population and income growth, increased production required to meet global demand will come from a combination of yield and area growth. Yield growth alone will be insufficient for oilseeds and feedgrains such as corn.

- As staples, global wheat and rice consumption and trade will increase primarily as a result of population growth, regardless of rising incomes in most regions. The only regions that will see a positive income effect will be in the least developed nations that are currently moving out of subsistence diets to being able to purchase additional amounts on local markets. One category of demand that will be impacted by income growth is livestock feed.
- Because wheat consumption is distributed well beyond major global production areas, it is the most widely traded grain. In the past decade 16% to 21% of global demand has been met by redistributing wheat from surplus nations to deficit areas. That proportion is expected to be maintained around 22% throughout the baseline, indicating no improvement expected in global self-sufficiency.
- While consumption and trade occur around the world, Asia is by far the primary region for both supply and demand of rice. As a result, rice consuming nations are more self-sufficient, on average than wheat consumers. Around 7% to 8% of global rice consumption is expected to be met by trade.

- Corn is used for food, feed, and fuel production, but primarily in livestock feed rations. Feed demand is growing rapidly as meat and dairy product consumption are driven by per capita income growth and population. Production is more concentrated geographically than consumption, and trade is expanding. On average, 15.5% of global demand is expected to be met by trade through 2030.
- China nearly doubled their sorghum imports nearing the record levels of 2014/15 and 2015/16 to meet feed demand. They are projected to maintain current import levels through 2030. The majority of demand increases will come from food consumption, primarily in subsistence farming countries, which do not generally contribute greatly to sorghum trade. Egypt, the EU, Japan, South Korea, Mexico, and Vietnam will continue as the largest corn importers. Under the Phase 1 agreement, China imported a record high 17.5 MMT in 2020/21, exceeding its tariff rate quota (TRQ) which is projected to continue through 2030.
- Barley trade is to be flat. There is expected to be little increase in demand for livestock feeding in producing countries of Eastern Europe and the former Soviet Union, and this will limit demand growth. Global food use is expected to be stable.

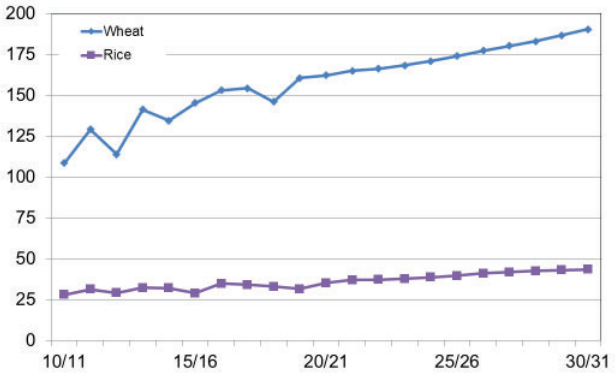
Yield Gains Push Supply Growth

Global average yield, metric tons/hectare



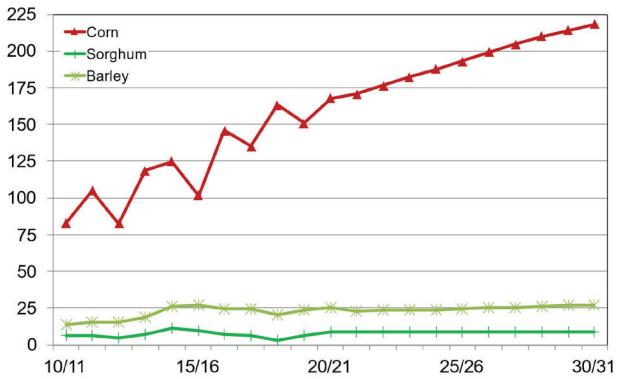
Wheat Trade Is More Global Than Rice

Net exports by exporting countries, mmt



Corn Is Preferred Grain for Livestock Feed, Ethanol

Net exports by exporting countries, mmt



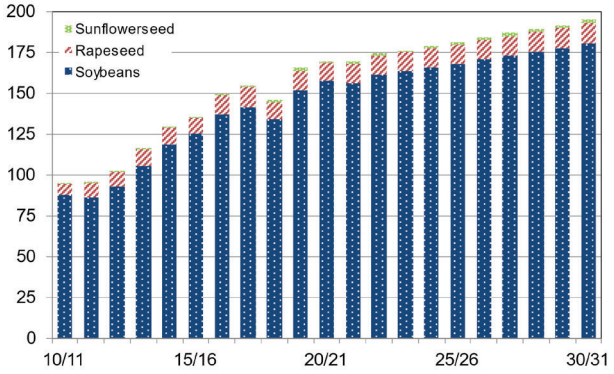
- Soybeans account for the largest share of global oilseed utilization and the U.S. and Brazil are the largest producers and exporters. China is by far the largest importer and under the Phase 1 agreement, is expected to import a record high 99.9 MMT of soybeans in 2020/21. This follows a record high the previous year of 98.4 MMT. Over the next ten years, more than one-third of global soybean consumption is expected to be supplied by the U.S. and Brazil alone.
- Rapeseed and products are much less dependent on global markets as processing occurs more in producing regions; however, trade is slowly expanding. In the next ten years, trade will reach 16.8% of global rapeseed demand. Canada accounts for nearly all rapeseed and rapeseed meal exports.
- Turkey is by far the world's largest importer of sunflowerseed. However, trade is not as important in the sunflowerseed market, with only about 2.8% being sold on the world market in the coming decade. Major producers process most of the oilseed domestically, then export the meal and oil.

- Increases in livestock, especially poultry, hogs, and milk production, particularly in commercial operations, will encourage demand for protein meals to continue to rise rapidly.
- Many countries crush both domestically produced and imported oilseeds domestically, meeting much of their meal and oil needs, and supporting a value-added industry. Nevertheless, trade in oilseed products is also increasing at a rapid pace as income growth pushes meal and oil demand faster than processing capacity expansion in many countries. More than one-quarter of soymeal and 15% of rapeseed meal will be traded on the world market over the next ten years.
- While sunflowerseed is very thinly traded, sunflowerseed meal consumption around the world is more dependent on trade, with one-third of global consumption coming from the world market. Russia dominated the market this year and last and along with Ukraine and Kazakhstan accounts for a majority of exports, while Turkey absorbs the overwhelming majority global sales through 2030.

- Palm oil accounts for the largest share of vegetable oil trade. Unlike soybean, rapeseed, or sunflowerseed oils, palm oil is not a co-product with protein meals. The trees are fast growing in low-cost areas of the Pacific Rim and Asia. The proportion of palm oil production that is traded is declining slightly – from 60.6% in 2020/21 to 56.6% in 2030. A significant proportion of palm oil demand and trade is attributable to biofuel markets.
- Argentina generally exports more than 60% of its soyoil production. However, the equalizing of the permanent export taxes at 30% for soybeans as well as meal and oil will shift exports slightly toward soybeans. Approximately 15% of global soyoil production is traded.
- Rapeseed crushers cannot absorb the competition from palm oil prices in the baseline as readily as soybean processors, as rapeseed has a nearly 40% oil content, double that of soybeans. As a result, rapeseed crush will be somewhat constrained and rapeseed oil trade will increase relatively slowly.

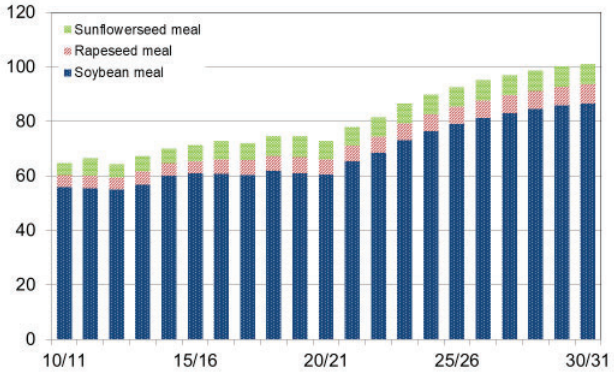
Soybeans Are Most Widely Traded Oilseed

Net exports by exporting countries, mmt



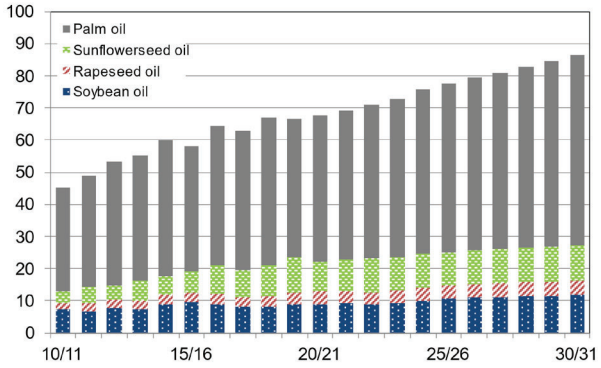
Soybean Meal Supplies Most Livestock Feed Needs

Net exports by exporting countries, mmt



Cheaper Palm Oil Dominates World Trade

Net exports by exporting countries, mmt

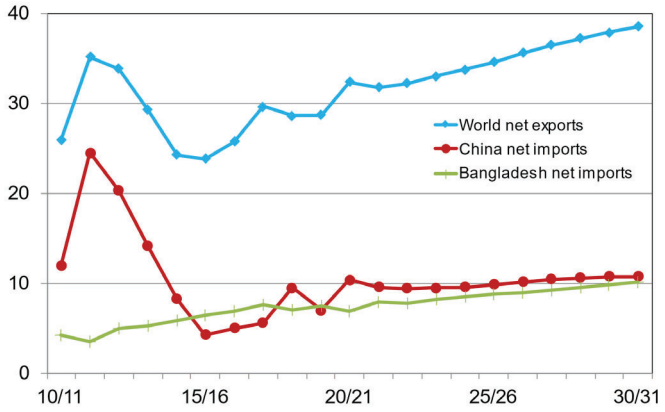


- In 2014/15, China ended its massive cotton stocks buildup, also bringing to an end its outright domination of the global cotton trade. China's imports are increasing over the baseline under the Phase 1 agreement and as they capitalize on excess manufacturing capacity to meet COVID-related demand increases. Given recent increased use, stocks continue to be drawn down through the projection period on expectations of rising domestic prices.
- With the exception of Australia, all major cotton trading countries increased stocks in 2019/20 in response to COVID. Since 2015/16 China has been holding a decreasing portion of global inventories, which is expected through the remainder of the projection period. In contrast, India will hold a larger proportion of global stocks, surpassing China in 2029/30.
- More than one-quarter of global cotton production is expected to be sold on the world market over the next ten years, similar to the proportion traded prior to the past run-up in Chinese imports. The U.S. will remain the largest exporter over the projection period, but Brazil, India, and Australia will increase their presence on the global market.

- The outlook is for inventories of the commodities considered here to be at or above inventories prior to 2010. In the years since then, there have been a series of events, including hoarding of cotton, soybeans, sorghum, and corn by China. There have also been significant fluctuations in production from year to year that have also impacted stocks.
- The outlook for normal weather that results in adequate production, moderate price projections, and stable inventories is a major feature of this outlook. While there will certainly be production shortfalls and surpluses that will impact prices and ending stocks, overall, stability is expected, reducing the expectations of volatility and risk on commodity markets.
- While corn ending stocks in China have been drawn down below the peak in 2016 they still hold a significant portion of global levels. However, this inventory is not available to the world market, but the remaining global stocks should be more than adequate to absorb short-term supply shocks.

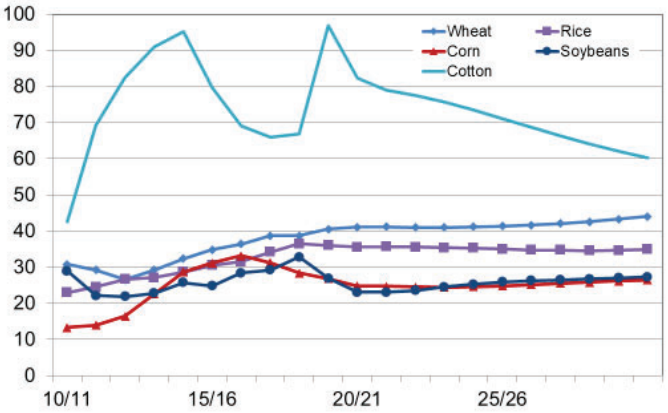
Manufacturing Use in China Increasing Post -COVID

Cotton net trade, mil. bales



China Corn Drawdown in Short-term is Minimal

Global stocks-to-use, percent



Agricultural Commodity Prices

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Dollars per metric ton)						
Wheat											
SRW, U.S. Gulf	187	282	261	309	268	223	196	170	186	209	221
HRW, U.S. Gulf	205	284	290	332	309	252	187	157	188	212	205
Standard grade, Rouen	179	322	276	329	273	216	180	185	196	220	232
No. 2, Argentina	227	302	271	330	327	270	209	191	198	235	232
Soft white, Australia	209	273	249	324	281	253	218	195	227	275	238
No. 1 CWS, Canada	280	394	416	359	331	285	232	216	260	254	242
Corn											
No. 2 yellow, U.S. Gulf	163	277	284	298	203	171	165	155	160	169	158
Sorghum											
No. 2 yellow, U.S. Gulf	171	263	272	279	210	201	178	167	182	184	187
Barley											
Barley Unit Value, Alberta	156	149	193	236	233	149	160	149	143	182	184
Feed barley, Rouen	146	265	270	296	242	204	173	158	181	200	210
Soybeans											
No. 1 yellow, Central Illinois	357	482	505	537	487	356	346	351	337	307	325
fob Rio Grande, Brazil	390	508	549	538	514	388	382	385	396	360	367
fob Buenos Aires, Argentina	395	511	533	543	517	401	375	376	386	347	354
cif Rotterdam	429	549	562	592	542	407	396	404	403	370	380
Soybean Meal											
Decatur, IL, 48%	343	381	434	516	540	406	358	349	380	340	330
fob Rio Grande, Brazil	327	383	442	489	500	376	335	322	368	325	328
fob Buenos Aires, Argentina	311	386	442	506	509	386	349	326	375	321	331
cif Rotterdam	391	418	461	538	533	403	351	336	382	329	338
Soybean Oil											
Decatur, IL	793	1,173	1,144	1,039	843	697	658	718	662	606	654
fob Rio Grande, Brazil	848	1,210	1,162	1,012	871	706	704	765	722	651	705
fob Buenos Aires, Argentina	829	1,211	1,164	1,014	870	705	698	763	722	649	698
Dutch fob	924	1,306	1,241	1,098	950	778	774	848	822	745	785
Rapeseed (canola)											
cif Hamburg	419	647	616	579	505	417	409	432	425	420	433
Export, West Coast, Canada	432	424	561	578	616	452	412	410	427	430	407
Rapeseed Meal											
fob Hamburg	221	278	295	353	323	269	232	225	259	247	244
Rapeseed Oil											
cif Rotterdam	927	1,367	1,258	1,127	954	782	798	871	844	840	879
Sunflowerseed											
cif Rotterdam	452	661	593	580	466	432	440	408	403	380	420
Sunflowerseed Meal											
cif Rotterdam	228	254	263	318	315	269	233	178	224	219	217
Sunflowerseed Oil											
fob NW Europe	956	1,404	1,254	1,189	929	850	849	807	776	719	795
Palm Oil											
Malaysia	793	1,154	1,032	791	803	626	628	699	626	521	645
Cotton											
Adjusted World Price	1351	3089	1739	1482	1522	1096	1083	1408	1537	1463	1168

Agricultural Commodity Prices

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Dollars per metric ton)						
Wheat											
SRW, U.S. Gulf	209	215	219	219	217	216	215	215	215	215	216
HRW, U.S. Gulf	224	231	235	235	233	232	231	231	231	231	232
Standard grade, Rouen	220	226	230	230	229	228	227	226	226	227	228
No. 2, Argentina	240	247	251	251	249	249	249	249	249	249	249
Soft white, Australia	261	265	268	264	267	281	284	282	279	279	280
No. 1 CWS, Canada	247	245	243	241	241	242	242	244	246	247	247
Corn											
No. 2 yellow, U.S. Gulf	197	188	184	182	179	177	176	176	177	176	176
Sorghum											
No. 2 yellow, U.S. Gulf	246	221	217	214	212	210	210	210	211	211	211
Barley											
Barley Unit Value, Alberta	182	187	188	186	184	182	181	181	180	180	180
Feed barley, Rouen	200	207	211	211	210	209	207	207	207	207	207
Soybeans											
No. 1 yellow, Central Illinois	421	393	387	378	368	361	356	360	360	360	360
fob Rio Grande, Brazil	458	423	417	407	396	388	383	387	387	387	387
fob Buenos Aires, Argentina	450	419	413	404	393	385	379	384	384	384	384
cif Rotterdam	485	453	447	437	426	419	413	417	417	418	417
Soybean Meal											
Decatur, IL, 48%	422	386	385	380	373	366	364	368	368	369	370
fob Rio Grande, Brazil	413	377	377	372	366	358	356	360	360	362	362
fob Buenos Aires, Argentina	422	384	384	378	371	363	361	365	365	367	368
cif Rotterdam	431	392	392	386	380	372	369	374	373	375	376
Soybean Oil											
Decatur, IL	834	815	779	752	725	720	715	716	722	726	732
fob Rio Grande, Brazil	885	865	828	800	773	768	763	763	770	774	780
fob Buenos Aires, Argentina	890	869	832	803	775	769	764	764	772	776	781
Dutch fob	994	972	931	899	868	862	857	857	865	870	876
Rapeseed (canola)											
cif Hamburg	483	455	452	446	437	432	427	432	434	435	433
Export, West Coast, Canada	461	439	438	433	425	420	416	420	421	422	421
Rapeseed Meal											
fob Hamburg, $/mt	311	274	278	277	272	269	268	275	276	279	278
Rapeseed Oil											
cif Rotterdam	1,013	993	956	924	899	892	884	885	891	893	894
Sunflowerseed											
cif Rotterdam	599	457	448	449	438	434	432	438	439	440	440
Sunflowerseed Meal											
cif Rotterdam	287	243	248	249	244	241	243	248	250	253	252
Sunflowerseed Oil											
fob NW Europe	1,102	911	869	851	824	820	816	819	823	828	829
Palm Oil											
Malaysia	735	754	726	705	696	693	688	690	693	704	703
Cotton											
Adjusted World Price	1388	1420	1401	1406	1440	1447	1477	1479	1486	1494	1510

Global Area Harvested

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
						(Million hectares)					
Grains											
Wheat	225.8	217.1	221.2	216.2	220.0	221.3	224.0	222.4	218.5	215.5	216.9
Rice	155.9	158.5	160.2	160.0	162.9	162.4	160.5	163.5	162.9	162.5	160.4
Corn	158.8	166.5	175.9	183.7	188.1	188.8	188.1	195.0	191.5	192.1	193.3
Sorghum	40.2	41.0	41.3	38.9	42.6	44.0	40.4	44.4	40.5	40.7	39.8
Barley	54.2	47.0	49.1	50.2	50.6	50.6	50.8	49.3	47.4	48.8	51.8
Total grains modeled	635.0	630.1	647.7	649.0	664.2	667.1	663.8	674.5	660.8	659.6	662.2
Oilseeds											
Soybeans	102.8	103.6	103.1	110.3	112.9	118.7	120.4	119.6	124.3	125.0	122.4
Rapeseed	30.7	33.6	33.3	35.8	35.7	35.0	33.3	33.4	36.5	36.8	34.9
Sunflowerseed	23.0	23.1	24.6	23.6	24.0	23.1	23.5	25.9	25.9	25.8	26.3
Total oilseeds modeled	156.4	160.3	161.1	169.7	172.6	176.9	177.2	178.9	186.7	187.5	183.7
Cotton	30.2	33.8	36.1	34.3	32.9	33.9	30.8	29.8	33.8	33.4	34.8
Total crops modeled	821.5	824.2	844.8	853.0	869.7	877.8	871.8	883.1	881.2	880.5	880.7

Global Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
						(Million metric tons)					
Grains	**246.2**	**239.0**	**286.6**	**245.4**	**318.0**	**329.0**	**312.2**	**365.5**	**353.8**	**365.8**	**372.2**
Wheat	113.0	108.5	129.0	113.8	141.2	134.4	145.3	152.9	154.2	146.0	160.4
Rice	25.3	28.0	31.2	29.1	32.1	31.9	28.7	34.7	33.9	32.8	31.4
Corn	86.6	82.8	104.8	82.7	118.7	124.8	101.5	146.0	135.2	163.3	150.6
Sorghum	5.9	6.4	6.1	4.8	7.2	11.6	10.0	7.1	6.0	3.0	6.0
Barley	15.4	13.4	15.4	15.0	18.8	26.3	26.7	24.7	24.5	20.7	23.9
Oilseeds	**95.5**	**91.3**	**95.6**	**102.1**	**116.3**	**128.9**	**135.2**	**149.5**	**154.6**	**145.5**	**165.4**
Soybeans	88.4	87.5	86.1	92.6	104.9	118.4	124.9	137.0	141.4	133.7	151.4
Rapeseed	6.8	3.4	8.8	9.2	11.0	10.2	9.7	11.3	12.4	10.4	11.8
Sunflowerseed	0.3	0.5	0.6	0.3	0.5	0.2	0.6	1.1	0.9	1.5	2.1
Protein meals	**60.1**	**64.7**	**66.4**	**64.2**	**67.3**	**70.0**	**71.2**	**72.9**	**72.0**	**74.5**	**74.7**
Soybean meal	53.4	55.9	55.5	55.0	56.7	60.0	61.0	60.7	60.2	61.8	61.0
Rapeseed meal	2.9	4.4	4.5	4.4	4.8	4.7	4.4	5.3	5.6	5.4	5.8
Sunflowerseed meal	3.8	4.3	6.4	4.8	5.8	5.3	5.8	6.9	6.2	7.3	7.9
Vegetable oils	**44.5**	**45.3**	**49.0**	**53.3**	**55.0**	**59.9**	**58.1**	**64.4**	**62.9**	**66.9**	**66.5**
Soybean oil	7.4	7.4	6.8	7.6	7.4	8.9	9.5	9.0	8.0	8.2	8.7
Rapeseed oil	1.4	1.9	2.3	2.7	2.5	2.8	2.9	3.1	3.2	3.4	3.9
Sunflowerseed oil	3.7	3.7	5.5	4.6	6.3	5.8	6.6	8.8	8.4	9.6	11.1
Palm oil	32.0	32.3	34.4	38.5	38.9	42.3	39.0	43.6	43.2	45.8	42.9
Cotton	25.9	25.8	35.1	33.8	29.3	24.2	23.8	25.7	29.6	28.6	28.7

Figures are the sums of net exports by exporting countries.

Global Area Harvested

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
						(Million hectares)					
Grains											
Wheat	222.0	223.0	223.2	223.8	224.2	224.5	224.9	225.0	225.0	225.1	225.2
Rice	162.8	162.7	162.2	162.6	163.1	163.5	163.9	164.1	164.4	164.3	164.4
Corn	196.4	198.6	200.6	201.6	202.5	203.4	204.4	205.1	205.5	205.8	206.1
Sorghum	41.0	44.1	45.2	45.7	45.6	45.6	45.5	45.4	45.4	45.4	45.4
Barley	51.5	51.8	52.2	52.3	52.4	52.5	52.7	52.9	53.1	53.3	53.5
Total grains modeled	673.7	680.1	683.3	686.0	687.8	689.5	691.3	692.6	693.3	693.9	694.6
Oilseeds											
Soybeans	127.4	135.5	138.0	140.4	142.1	143.2	143.9	144.6	145.5	146.2	146.8
Rapeseed	34.7	36.1	36.2	36.2	36.3	36.3	36.2	36.3	36.4	36.6	36.7
Sunflowerseed	26.9	28.0	27.9	27.6	27.6	27.5	27.4	27.3	27.3	27.3	27.3
Total oilseeds modeled	189.0	199.6	202.1	204.2	206.0	206.9	207.5	208.2	209.3	210.1	210.8
Cotton	32.4	32.7	32.9	32.7	32.7	32.8	32.8	32.9	32.9	32.9	32.9
Total crops modeled	895.1	912.3	918.2	923.0	926.5	929.2	931.7	933.8	935.5	936.9	938.3

Global Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
						(Million metric tons)					
Grains	**399.3**	**404.4**	**412.2**	**420.6**	**429.6**	**439.9**	**451.4**	**461.0**	**470.4**	**479.2**	**487.7**
Wheat	162.1	164.8	166.1	168.2	170.7	173.9	177.3	180.2	182.9	186.5	190.2
Rice	35.0	36.9	37.2	37.7	38.6	39.6	41.0	41.7	42.4	43.0	43.3
Corn	168.0	170.8	176.6	182.3	187.5	193.1	199.3	204.7	209.9	213.9	218.1
Sorghum	8.9	9.0	9.0	8.7	8.7	8.8	8.9	8.9	8.9	9.0	9.0
Barley	25.3	22.9	23.3	23.6	24.0	24.5	25.0	25.5	26.2	26.7	27.1
Oilseeds	**169.5**	**169.0**	**174.1**	**176.2**	**178.4**	**181.2**	**184.0**	**186.6**	**189.1**	**191.4**	**194.8**
Soybeans	157.2	156.2	161.1	163.1	165.4	167.9	170.6	172.9	175.1	177.2	180.2
Rapeseed	11.0	11.4	11.5	11.6	11.5	11.7	11.8	12.1	12.3	12.5	12.8
Sunflowerseed	1.4	1.4	1.5	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.7
Protein meals	**72.8**	**77.9**	**81.5**	**86.4**	**89.8**	**92.6**	**95.0**	**96.8**	**98.6**	**100.2**	**101.1**
Soybean meal	60.4	65.4	68.5	73.1	76.3	78.9	81.2	82.9	84.4	85.7	86.5
Rapeseed meal	5.6	5.6	5.9	6.1	6.2	6.4	6.5	6.6	6.7	6.9	7.1
Sunflowerseed meal	6.8	6.9	7.1	7.2	7.2	7.2	7.3	7.3	7.4	7.5	7.5
Vegetable oils	**67.7**	**69.1**	**70.8**	**72.9**	**75.7**	**77.7**	**79.6**	**81.0**	**82.6**	**84.6**	**86.3**
Soybean oil	9.0	9.2	8.9	9.4	10.0	10.5	11.0	11.2	11.4	11.6	11.7
Rapeseed oil	3.8	3.7	3.8	3.8	4.0	4.2	4.2	4.3	4.3	4.4	4.4
Sunflowerseed oil	9.2	10.1	10.4	10.4	10.5	10.4	10.5	10.6	10.8	10.9	11.0
Palm oil	45.8	46.1	47.7	49.3	51.2	52.5	53.8	54.9	56.1	57.6	59.1
Cotton	32.3	31.7	32.2	33.0	33.7	34.5	35.5	36.4	37.2	37.8	38.5

Figures are the sums of net exports by exporting countries.

Global Stocks-To-Use

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
						World					
						(Percent)					
Grains											
Wheat	31.5	30.7	29.2	26.5	29.2	32.3	34.8	36.4	38.7	38.7	40.5
Rice	22.2	22.9	24.6	26.6	27.1	28.6	30.5	31.5	34.2	36.5	36.1
Corn	15.8	13.3	13.9	16.4	22.6	28.7	31.2	33.1	31.2	28.4	26.8
Sorghum	7.9	9.1	7.4	7.5	9.4	8.6	8.0	8.8	8.0	9.5	6.7
Barley	25.3	17.8	16.2	16.2	17.3	16.6	17.7	15.0	13.2	12.7	12.8
Oilseeds											
Soybeans	26.2	28.9	22.2	21.9	22.8	25.7	24.8	28.4	29.2	32.8	26.9
Rapeseed	14.6	14.5	10.8	8.5	11.3	10.4	9.0	7.3	11.4	13.5	9.9
Sunflowerseed	7.9	6.9	6.6	8.1	8.0	7.4	6.9	7.2	5.6	4.8	4.7
Protein meals											
Soybean meal	4.3	5.5	6.0	5.5	5.9	7.0	6.4	6.2	6.2	5.6	4.4
Rapeseed meal	3.8	3.2	3.2	2.7	2.4	2.6	2.9	2.7	2.7	2.7	2.8
Sunflowerseed meal	7.8	8.4	11.6	5.3	8.8	9.5	8.7	6.6	7.0	6.2	5.5
Vegetable oils											
Soybean oil	9.7	11.0	10.1	10.0	8.7	9.4	7.5	7.4	7.2	7.4	8.5
Rapeseed oil	9.4	9.8	13.9	20.8	24.4	24.6	20.0	14.5	10.8	9.4	8.7
Sunflowerseed oil	16.7	16.3	24.4	17.3	20.9	18.0	12.6	13.8	12.9	9.9	10.3
Palm oil	14.2	17.6	18.7	17.0	16.7	18.5	15.0	15.8	16.6	15.6	16.0
Cotton	38.6	42.7	69.2	82.5	91.0	95.1	79.7	69.1	66.0	66.8	96.8
						World, excluding China					
						(Percent)					
Grains											
Wheat	27.6	26.1	25.6	22.6	23.4	25.3	25.4	24.7	25.1	23.6	24.1
Rice	18.1	18.6	19.5	20.1	18.7	17.9	16.7	15.5	16.3	18.1	17.7
Corn	13.6	10.7	9.9	9.5	12.3	13.9	13.0	16.0	14.3	12.9	12.0
Sorghum	8.1	9.2	7.6	7.6	10.2	10.4	9.4	9.7	8.9	10.1	7.5
Barley	25.9	18.3	16.4	16.5	17.9	17.8	18.6	15.8	14.0	13.2	13.3
Oilseeds											
Soybeans	27.6	31.3	22.1	24.2	25.1	28.3	28.0	32.5	32.7	38.6	28.0
Rapeseed	13.3	14.9	11.6	8.9	13.0	11.8	10.0	7.5	12.6	15.5	10.4
Sunflowerseed	8.4	6.7	6.1	8.2	8.3	7.5	6.5	6.8	5.5	4.8	4.7
Protein meals											
Soybean meal	5.6	7.3	8.2	7.7	8.3	9.8	9.1	9.0	8.9	7.8	6.3
Rapeseed meal	5.4	4.4	4.4	3.8	3.4	3.6	4.0	3.7	3.8	3.8	3.9
Sunflowerseed meal	8.1	8.8	12.0	5.6	9.2	10.0	9.2	6.9	7.4	6.9	6.4
Vegetable oils											
Soybean oil	10.8	13.9	11.8	10.4	8.9	10.6	8.8	8.8	8.8	9.2	10.5
Rapeseed oil	5.7	5.8	7.1	6.2	8.0	10.0	9.3	8.1	6.8	7.0	6.8
Sunflowerseed oil	17.5	16.9	25.4	18.5	22.5	19.4	13.9	15.0	14.1	10.8	11.7
Palm oil	15.5	19.5	20.7	18.3	17.9	20.0	15.9	16.6	17.1	16.9	16.8
Cotton	46.0	55.7	62.0	54.0	49.4	51.9	43.5	44.2	52.7	55.3	89.6

Global Stocks-To-Use

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
						World					
						(Percent)					
Grains											
Wheat	41.1	41.1	41.0	41.0	41.2	41.3	41.6	42.1	42.6	43.2	44.1
Rice	35.6	35.6	35.6	35.3	35.3	35.0	34.8	34.7	34.6	34.6	35.0
Corn	24.8	24.7	24.5	24.4	24.6	24.8	25.2	25.5	25.8	26.2	26.4
Sorghum	6.5	6.6	6.7	6.7	7.0	7.1	7.3	7.5	7.6	7.8	7.9
Barley	13.2	13.1	13.0	13.1	13.3	13.5	13.7	13.8	13.9	13.9	14.1
Oilseeds											
Soybeans	23.0	23.0	23.6	24.5	25.3	25.9	26.3	26.5	26.7	27.0	27.3
Rapeseed	6.9	6.1	6.8	7.4	8.1	8.5	8.5	8.7	8.9	8.9	9.0
Sunflowerseed	3.7	4.7	5.2	5.4	5.6	5.8	5.9	6.0	6.1	6.1	6.2
Protein meals											
Soybean meal	4.0	3.8	3.9	4.0	4.2	4.3	4.4	4.4	4.5	4.5	4.5
Rapeseed meal	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.3
Sunflowerseed meal	2.9	4.0	4.4	4.6	4.8	4.8	4.8	4.8	4.7	4.7	4.8
Vegetable oils											
Soybean oil	8.3	7.3	7.6	7.5	7.7	7.7	7.8	7.8	7.8	7.8	7.8
Rapeseed oil	7.8	7.5	7.5	7.5	7.6	7.8	7.8	7.9	8.0	8.1	8.1
Sunflowerseed oil	7.7	9.9	10.4	11.0	11.3	11.5	11.7	11.7	11.7	11.7	11.9
Palm oil	14.0	14.4	14.6	14.9	15.0	15.3	15.7	16.0	16.2	16.3	16.4
Cotton	82.3	78.9	77.5	75.6	73.5	71.1	68.6	66.4	64.1	62.0	60.2
						World, excluding China					
						(Percent)					
Grains											
Wheat	24.5	24.4	24.4	24.7	25.0	25.2	25.5	25.7	26.0	26.2	26.4
Rice	17.5	17.3	17.4	17.3	17.4	17.3	16.9	16.6	16.2	15.9	15.6
Corn	10.8	11.1	11.4	11.6	11.9	12.1	12.3	12.5	12.6	12.7	12.9
Sorghum	7.5	7.8	7.8	7.9	8.2	8.4	8.6	8.8	9.0	9.2	9.3
Barley	13.8	13.6	13.5	13.7	13.9	14.1	14.2	14.3	14.4	14.5	14.6
Oilseeds											
Soybeans	22.5	23.1	24.0	25.3	26.3	27.1	27.6	27.9	28.2	28.6	28.9
Rapeseed	6.7	5.7	6.6	7.3	8.2	8.8	8.8	9.0	9.3	9.4	9.5
Sunflowerseed	3.7	4.7	5.2	5.5	5.7	5.9	6.0	6.1	6.2	6.2	6.3
Protein meals											
Soybean meal	5.9	5.6	5.6	5.8	5.9	6.1	6.1	6.2	6.3	6.3	6.3
Rapeseed meal	3.2	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.4	3.4
Sunflowerseed meal	3.3	4.5	5.0	5.2	5.3	5.4	5.3	5.3	5.3	5.2	5.3
Vegetable oils											
Soybean oil	10.6	9.0	9.4	9.3	9.5	9.6	9.6	9.7	9.6	9.6	9.6
Rapeseed oil	5.8	5.4	5.3	5.3	5.4	5.6	5.6	5.8	5.8	5.9	6.0
Sunflowerseed oil	8.7	11.1	11.8	12.4	12.8	13.1	13.3	13.3	13.3	13.3	13.4
Palm oil	14.8	15.2	15.3	15.6	15.7	16.0	16.4	16.7	16.9	17.0	17.1
Cotton	76.4	75.3	75.5	74.7	73.7	72.6	71.2	69.8	68.1	66.3	64.5

Wheat

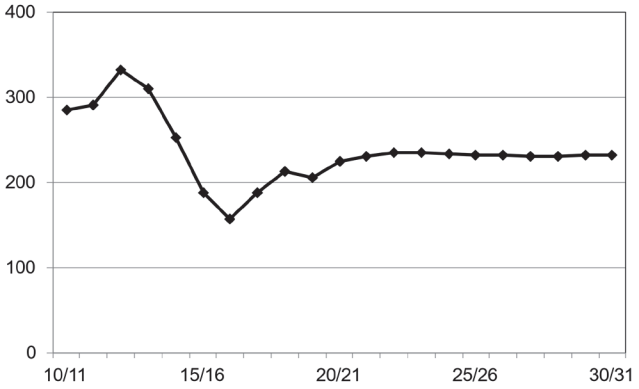
- Global production increased slightly on area gains despite poor weather in some major wheat producing regions. Global prices are forecast to remain constant near current levels through 2030. It is anticipated that prices going forward will maintain the normal price relationship between wheat and other grains.
- With projection period assumptions of normal weather and average yields increasing by about 10%, production is expected to maintain levels that will balance global supply and demand at normal, stable prices. Comparatively higher prices than in recent years will ensure that wheat successfully competes for land against other crops.
- COVID-19 impacted demand for wheat, given its status as the top food staple. India included wheat in their food assistance programs established in response to COVID. Russia instituted export quotas and export tax on wheat in an attempt to tamp down internal prices in Russia.

- Worldwide wheat area grew by approximately five million hectares in 2020/21. Australia and Brazil realized the largest area compared to 2019/2020. Global area will continue gains of approximately 1 MMT per year through 2026, then level out through 2030.
- This relatively modest area growth combined with better-than-expected global yields to reached record high global production of 772.6 MMT in 2020/21. The combination of more harvested area and higher yields relative to the previous year led to an estimated 8.7 MMT increase in production. Prices are expected to remain level through 2030 as production output meets global demand.
- By the end of the baseline period, wheat area is projected to be around 225 million hectares and production will increase primarily through the expected 1% annual yield growth.

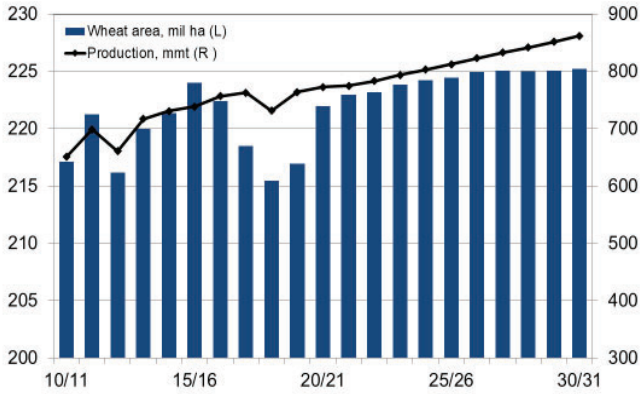
- Total wheat consumption will increase primarily from population growth, whereas per capita wheat food consumption will be nearly stable throughout the projection period. Income impacts on wheat vary across regions and income levels. Per capita consumption is declining in high-income countries where diets are less based on grains and more on meats and other foods. In many emerging countries, per capita consumption is already high and income growth will contribute little to demand.
- Health and weight issues also contribute to declining per capita consumption in developed countries. Whole grains and “primitive” grains are making dietary inroads, in higher-income countries as consumers search for healthier choices. A growing number of societies are faced with obesity issues.
- For developing countries, wheat per capita consumption is increasing as incomes above subsistence levels allow the population to diversify diets beyond traditional staples. Globalization also plays a role in changing diets in some nations as foods from other countries become available.

Wheat Prices Remain Flat After 2020/21

Wheat price, HRW, U.S. Gulf, $/mt

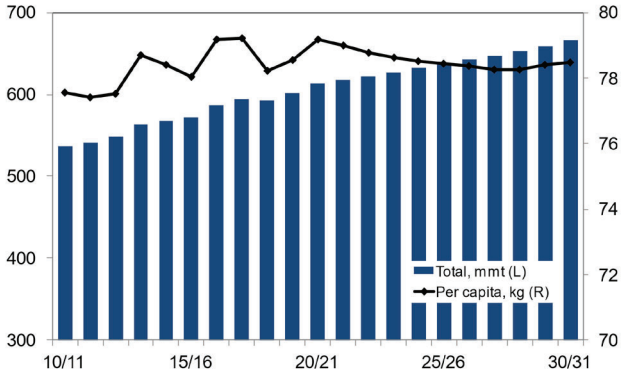


Yield Gains, More than Area, Will Boost Wheat Production



Wheat Food Demand Driven by Population Growth

Global wheat food and industrial use



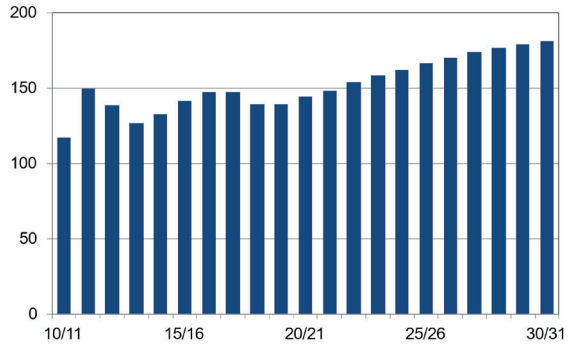
- Wheat feed use is increasing globally following two years of decline. Much of the rising feed use is attributed to China as domestic wheat prices became more competitive with domestic corn prices in 2020/21. This trend is projected to continue through 2027. In the future, feeding is expected to continue to expand in China as well as in traditional wheat feeding regions such as the former Soviet Union, Europe, and Canada.
- Cattle inventory declines will reverse in Canada and Russia after 2023, and Chinese cattle inventories will continue to expand through 2030. Beginning in 2021 hog inventories in China increase through 2030 with increased commercialization in response to ASF. Hog inventories in the EU remain mostly flat, while Russian hog inventories continue to expand through 2030.
- Wheat feed use tends to increase or decrease in a given year depending on local wheat and competing feedgrains production and prices. When producers enjoy large wheat crops, wheat feeding generally increases in those countries, especially if some of that wheat is of lower quality.

- Wheat trade is expected to be similar to 2019/20 levels as increased production met rising demand, especially for feed. While world net exports remained relatively flat, both Australia and the EU realized significant changes in trade patterns. The former more than doubled net exports to 19.5 MMT in 2020/21 from 8.2 MMT in the year prior. In contrast, net exports from the EU dropped by 40% in 2020/21 to 20.5 MMT from 33.6 in 2019/2020.
- Some major importers are expected to purchase less on the world market in 2020/21, most notably Algeria for the second year in a row and Brazil. Egypt remains the single largest export market throughout the baseline. China nearly doubled imports for the second year in a row. Morocco records the second largest percentage gain in imports at 30% greater than 2019/20.
- Rising global excess demand over the projection period will be met primarily by traditional major exporting nations. Trade will cover 21% to 22% of worldwide consumption. Most major import destinations are expected to increase dependency on the world market in coming years.

- Globally, inventories are expected to increase by the end of 2020/21 by approximately eleven MMT. EU stocks decline for the third year in a row and U.S. stocks decline for a fourth year in a row. Russia, India, and China lead in proportional stock growth. China's 2020/21 stock growth of 4.7% declines to as low as .3% in 2023/2024, yet their stocks reflect approximately 50% of global stocks.
- Because China's grain markets are still relatively insulated from world markets, the inventories held by that country are not available to buffer production shortfalls in other parts of the world. As a result, that country's higher proportion of stocks does not reduce world market volatility.
- Stock levels in Russia grew by about 74% in 2020/21 in response to rapidly rising domestic food prices. Stock holding along with export quotas and taxes implemented early in calendar year 2021 are tactics intended to stabilize prices.

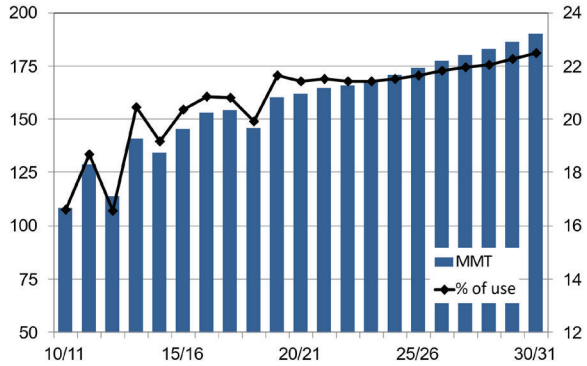
Competitive Prices and Inventory Growth Drives Feed Use

Global wheat feed use, mmt



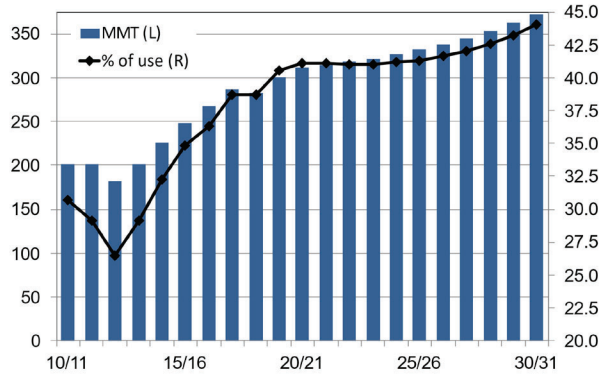
Trade Redistributes Global Wheat Supplies

Wheat net trade



Wheat Stock Building Influenced by China

Global wheat ending stocks



World Wheat Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Area Harvested	225.8	217.1	221.2	216.2	220.0	221.3	224.0	222.4	218.5	215.5	216.9
					(Metric tons per hectare)						
Yield	3.05	3.00	3.16	3.06	3.26	3.30	3.30	3.40	3.49	3.39	3.52
					(Million metric tons)						
Supply	968.0	962.7	1,021.5	983.0	1,032.7	1,061.4	1,107.0	1,154.2	1,182.5	1,161.3	1,201.2
Production	688.2	650.7	698.7	660.6	716.6	730.4	738.2	756.5	762.8	730.9	763.9
Beginning stocks	170.0	204.7	200.8	201.6	182.1	201.4	226.4	248.5	267.0	287.0	283.2
Net imports	109.8	107.3	121.9	120.9	134.0	129.6	142.4	149.2	152.7	143.5	154.2
Utilization	855.0	854.2	892.4	869.3	891.5	927.0	961.7	1,001.3	1,028.3	1,015.4	1,040.9
Feed and residual	122.7	116.6	149.4	138.5	126.4	132.4	141.3	147.3	147.5	139.2	139.0
Food, seed & industrial	527.7	536.7	541.4	548.6	563.7	568.2	572.0	587.0	593.9	593.0	601.8
Ending stocks	204.7	200.8	201.6	182.1	201.4	226.4	248.5	267.0	287.0	283.2	300.1
Net exports	113.0	108.5	129.0	113.8	141.2	134.4	145.3	152.9	154.2	146.0	160.4
Total Demand	968.0	962.7	1,021.5	983.0	1,032.7	1,061.4	1,107.0	1,154.2	1,182.5	1,161.3	1,201.2

Wheat Area Harvested

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Algeria	1.9	2.0	2.0	2.0	2.0	1.7	2.1	1.3	1.6	2.1	2.1
Argentina	4.0	4.8	5.2	3.6	3.5	5.0	3.9	5.6	5.8	6.1	6.7
Australia	13.9	13.5	13.9	13.0	12.6	12.4	11.3	12.2	10.9	10.4	10.2
Brazil	2.4	2.2	2.2	1.9	2.2	2.7	2.5	2.1	1.9	2.0	2.0
Canada	9.7	8.3	8.6	9.5	10.4	9.6	9.6	9.0	9.0	9.9	9.7
China	24.4	24.5	24.5	24.6	24.5	24.5	24.6	24.7	24.5	24.3	23.7
Egypt	1.3	1.3	1.3	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.4
EU-28	26.0	26.0	25.8	26.0	25.9	26.7	26.8	27.2	26.2	25.5	26.1
India	27.8	28.5	29.1	29.9	30.0	30.5	31.5	30.2	30.8	29.7	29.3
Iran	6.6	7.0	6.4	6.4	6.4	6.1	6.7	6.7	6.7	6.7	6.7
Japan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Kazakhstan	14.3	13.1	13.7	12.4	13.0	11.9	11.6	12.4	11.9	11.4	11.3
Mexico	0.8	0.7	0.7	0.6	0.6	0.7	0.8	0.7	0.7	0.5	0.6
Morocco	3.0	2.9	3.1	3.1	3.2	3.0	3.3	2.4	3.3	2.9	2.8
Nigeria	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Pakistan	9.0	9.1	8.9	8.7	8.7	9.2	9.2	9.2	9.1	8.8	8.8
Russia	26.7	21.8	24.8	21.3	23.4	23.6	25.6	27.0	27.4	26.3	27.3
South Korea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turkey	7.8	8.0	7.7	7.8	7.7	7.7	7.9	7.8	7.8	7.6	7.0
Ukraine	6.8	6.3	6.7	5.6	6.6	6.3	7.1	6.5	6.6	6.7	7.0
United States	20.2	19.0	18.5	19.7	18.3	18.8	19.1	17.7	15.2	16.0	15.1
Uzbekistan	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4
Vietnam	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest of world	17.5	16.6	16.6	17.1	18.0	18.0	17.5	16.6	16.1	15.6	17.4
World total	225.8	217.1	221.2	216.2	220.0	221.3	224.0	222.4	218.5	215.5	216.9

World Wheat Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Area Harvested	222.0	223.0	223.2	223.8	224.2	224.5	224.9	225.0	225.0	225.1	225.2
					(Metric tons per hectare)						
Yield	3.48	3.47	3.51	3.54	3.58	3.62	3.66	3.70	3.74	3.78	3.83
					(Million metric tons)						
Supply	1,230.3	1,246.0	1,259.9	1,275.2	1,291.3	1,308.8	1,327.6	1,346.2	1,365.2	1,386.6	1,409.6
Production	772.6	774.6	783.2	793.4	803.1	812.5	822.9	832.4	841.5	851.4	861.6
Beginning stocks	300.1	311.1	315.1	318.0	322.0	327.0	331.9	338.1	345.3	353.1	362.3
Net imports	157.6	160.3	161.6	163.7	166.2	169.4	172.8	175.7	178.4	182.0	185.7
Utilization	1,068.2	1,081.2	1,093.7	1,106.9	1,120.7	1,135.1	1,150.5	1,166.1	1,182.5	1,200.2	1,219.5
Feed and residual	144.2	148.2	153.6	158.0	161.8	166.0	170.0	173.5	176.4	178.5	180.9
Food, seed & industrial	612.9	617.9	622.1	627.0	631.9	637.2	642.4	647.3	652.9	659.5	665.7
Ending stocks	311.1	315.1	318.0	322.0	327.0	331.9	338.1	345.3	353.1	362.3	372.9
Net exports	162.1	164.8	166.1	168.2	170.7	173.9	177.3	180.2	182.9	186.5	190.2
Total Demand	1,230.3	1,246.0	1,259.9	1,275.2	1,291.4	1,308.9	1,327.8	1,346.3	1,365.4	1,386.8	1,409.8

Wheat Area Harvested

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Algeria	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Argentina	6.3	6.4	6.3	6.4	6.4	6.4	6.4	6.3	6.2	6.2	6.2
Australia	13.0	12.1	12.1	12.0	12.0	12.0	12.1	12.2	12.2	12.3	12.3
Brazil	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.4
Canada	10.0	10.3	10.4	10.5	10.5	10.5	10.6	10.6	10.6	10.6	10.7
China	23.4	23.3	22.8	22.5	22.4	22.3	22.3	22.3	22.4	22.6	22.7
Egypt	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
EU-28	24.6	25.7	26.0	26.2	26.2	26.2	26.3	26.3	26.3	26.3	26.3
India	31.5	30.3	30.0	30.2	30.3	30.3	30.4	30.5	30.5	30.5	30.5
Iran	6.7	6.7	6.9	6.9	7.0	7.0	6.9	6.8	6.8	6.7	6.6
Japan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Kazakhstan	11.8	12.0	12.3	12.5	12.6	12.6	12.6	12.6	12.6	12.6	12.5
Mexico	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Morocco	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Nigeria	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Pakistan	9.1	9.1	9.1	9.1	9.0	9.0	9.1	9.1	9.1	9.1	9.1
Russia	28.6	28.8	28.9	28.9	29.0	29.0	29.1	29.1	29.1	29.2	29.2
South Korea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turkey	7.1	7.4	7.4	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Ukraine	6.8	6.8	6.8	6.7	6.6	6.5	6.5	6.4	6.3	6.2	6.2
United States	14.9	15.6	15.3	15.4	15.4	15.4	15.4	15.3	15.2	15.2	15.1
Uzbekistan	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Vietnam	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest of world	17.4	17.7	18.0	18.2	18.5	18.7	18.9	19.0	19.1	19.2	19.3
World total	222.0	223.0	223.2	223.8	224.2	224.5	224.9	225.0	225.0	225.1	225.2

Wheat Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Argentina	5,096	9,481	12,921	3,548	2,248	5,266	9,588	13,821	12,725	12,183	13,495
Australia	14,706	18,478	24,533	18,504	18,461	16,433	15,957	22,477	13,667	8,507	8,242
Canada	18,611	16,162	16,892	18,499	22,849	23,621	21,583	19,716	21,547	23,898	23,949
EU-28	16,935	18,465	9,366	17,510	28,059	29,478	27,832	22,140	17,550	17,546	33,628
Kazakhstan	8,207	4,855	11,838	6,271	8,060	4,939	7,347	7,329	8,901	8,206	6,403
India	-160	-200	876	6,808	6,028	3,358	659	-5,494	-597	479	489
Pakistan	130	1,288	1,025	830	364	-40	581	598	1,204	1,963	391
Russia	18,392	3,894	21,077	10,136	17,747	22,470	24,727	27,310	40,980	35,417	34,160
Turkey	1,074	-691	-396	377	379	-1,751	1,491	1,586	137	45	-4,726
Ukraine	9,309	4,261	5,352	7,145	9,687	11,242	17,404	18,066	17,716	15,905	20,913
United States	20,704	32,509	25,527	24,161	27,318	19,407	18,099	25,388	20,358	21,838	23,418
Total net exports	113,004	108,502	129,011	113,789	141,200	134,423	145,268	152,937	154,188	145,987	160,362
Net importers											
Algeria	5,155	6,516	6,496	6,455	7,462	7,242	8,139	8,406	8,166	7,500	7,141
Brazil	5,996	4,158	5,302	5,773	6,986	3,683	5,686	6,730	6,791	6,418	6,780
China	502	-14	1,955	1,991	5,884	1,123	2,747	3,662	2,933	2,139	4,327
Egypt	10,325	10,375	11,418	8,223	9,960	11,018	11,456	10,716	11,626	11,264	11,833
Indonesia	5,152	6,392	6,235	6,910	7,090	7,195	9,775	9,885	10,445	10,660	10,236
Iran	4,400	-170	708	6,491	4,685	5,115	3,300	1,000	-450	-230	720
Japan	5,206	5,577	6,058	6,323	5,854	5,616	5,457	5,634	5,599	5,440	5,393
South Korea	4,365	4,636	5,057	5,295	4,144	3,789	4,243	4,431	3,977	3,615	3,577
Mexico	2,357	2,583	4,230	3,094	3,317	3,367	3,237	4,251	4,098	4,335	3,912
Morocco	2,218	3,771	3,543	3,789	3,766	3,888	4,282	5,421	3,615	3,648	4,569
Nigeria	3,440	3,482	3,421	3,918	4,080	3,844	4,010	4,572	4,762	4,259	4,938
Uzbekistan	1,277	1,118	2,048	1,513	1,924	2,030	2,462	2,396	2,919	2,637	2,546
Vietnam	1,820	2,342	2,552	1,506	1,980	2,066	2,816	5,290	4,414	3,250	3,370
Rest of world	57,632	56,574	62,903	59,605	66,825	69,620	74,813	76,809	83,825	78,538	84,824
Total net imports	109,845	107,340	121,926	120,886	133,957	129,596	142,423	149,203	152,720	143,473	154,166
Residual	3,159	1,162	7,085	-7,097	7,243	4,827	2,845	3,734	1,468	2,514	6,196
US SRW Gulf Port Price	187	282	261	309	268	223	196	170	186	209	221

Wheat Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Argentina	11,973	14,325	14,619	14,867	15,197	15,451	15,593	15,607	15,490	15,574	15,811
Australia	19,533	16,763	16,903	16,776	16,773	16,965	17,260	17,503	17,684	17,840	18,008
Canada	26,096	24,703	25,177	25,505	25,719	25,950	26,382	26,699	26,996	27,290	27,596
EU-28	20,448	23,145	24,308	24,931	25,332	26,314	27,225	28,253	29,538	31,310	32,902
Kazakhstan	6,452	7,894	8,692	9,066	9,309	9,503	9,659	9,785	9,894	9,999	10,112
India	1,486	771	778	777	771	765	761	750	743	739	741
Pakistan	-2,164	602	1,015	907	712	508	621	573	555	572	623
Russia	38,477	37,626	35,911	36,562	37,648	38,693	39,755	40,646	41,605	42,600	43,597
Turkey	-1,259	-933	-664	-524	-394	-262	-155	-55	49	171	289
Ukraine	17,489	17,917	17,890	17,813	17,698	17,534	17,296	17,318	17,125	16,974	16,846
United States	23,554	21,967	21,496	21,549	21,960	22,457	22,863	23,104	23,260	23,466	23,690
Total net exports	162,083	164,781	166,124	168,230	170,725	173,878	177,259	180,185	182,940	186,534	190,214
Net importers											
Algeria	6,502	6,798	7,062	7,322	7,605	7,688	7,769	7,833	7,889	7,938	7,982
Brazil	6,127	6,492	6,452	6,392	6,301	6,184	6,065	5,946	5,866	5,784	5,700
China	7,972	6,651	6,820	7,079	7,219	7,301	7,412	7,560	7,739	7,810	7,954
Egypt	12,169	12,997	13,104	13,242	13,808	14,393	15,031	15,328	15,826	16,160	16,513
Indonesia	10,576	10,998	11,132	11,296	11,427	11,512	11,632	11,789	11,943	12,069	12,184
Iran	970	1,206	1,377	1,423	1,490	1,639	1,864	2,064	2,251	2,430	2,580
Japan	5,318	5,355	5,375	5,384	5,400	5,409	5,424	5,438	5,448	5,460	5,460
South Korea	3,521	3,584	3,685	3,844	4,262	4,330	4,460	4,570	4,672	4,768	4,516
Mexico	4,347	4,416	4,476	4,534	4,600	4,678	4,769	4,865	4,971	5,083	5,196
Morocco	6,464	6,392	6,020	5,969	5,995	6,069	6,167	6,274	6,384	6,496	6,603
Nigeria	4,709	4,842	4,934	5,035	5,143	5,252	5,368	5,491	5,630	5,782	5,936
Uzbekistan	2,825	2,539	2,592	2,696	2,813	2,920	3,021	3,102	3,166	3,219	3,264
Vietnam	3,367	3,404	3,561	3,677	3,783	3,889	3,997	4,103	4,210	4,318	4,431
Rest of world	82,716	84,605	85,034	85,836	86,378	88,113	89,780	91,321	92,444	94,717	97,395
Total net imports	157,582	160,280	161,623	163,729	166,224	169,377	172,758	175,684	178,439	182,033	185,713
Residual	4,501	4,501	4,501	4,501	4,501	4,501	4,501	4,501	4,501	4,501	4,501
US SRW Gulf Port Price	209	215	219	219	217	216	215	215	215	215	216

Rice

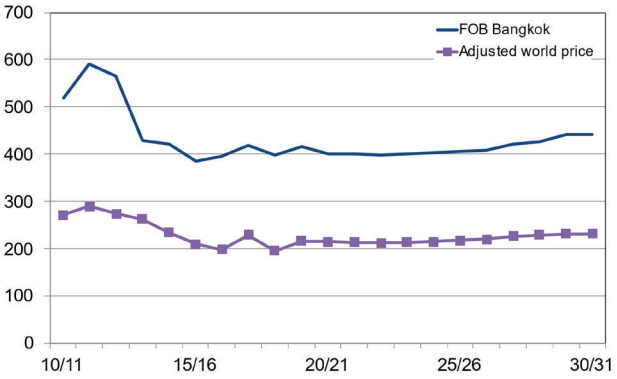
- The U.S. is a relatively small player in world rice markets and therefore has limited impact on prices. Supply and utilization in major Asian rice markets shape prices on the world market.
- While FOB Bangkok prices are expected to increase gradually in dollar terms, prices denominated in some Asian currencies will increase more rapidly. However, when measured in inflation-adjusted terms, that rate of increase will be modest, indicative of a generally stable global rice market.
- In 2020, the U.S. dollar weakened relative to some important Asian rice market currencies, such as those of China, Malaysia, and South Korea. Much of the weakening can be attributed to COVID-related economic impacts. Current projections suggest further weakening of the dollar against these currencies in 2021 before moderating through the remainder of the baseline period.
- Despite fluctuations in currency adjustments over the next few years as economies respond to COVID recovery, rice markets, given broad use as a staple food, will remain stable.

- Rice area increased approximately 1.4 mil ha while yields remained identical to those in 2019/20 resulting in record high global production at about 503 MMT. Given moderating prices in the short to medium term of the projection period, area is expected to remain flat for several years, then increase very slightly in the last half of the projection period.
- Rice yields are projected to increase at the same rate as they have historically. Even with slow moderate changes in area expected for several years, the 1% annual increase in global rice yields will match and eventually outstrip the rate of population growth and rice supplies will be adequate to meet population-induced demand growth.

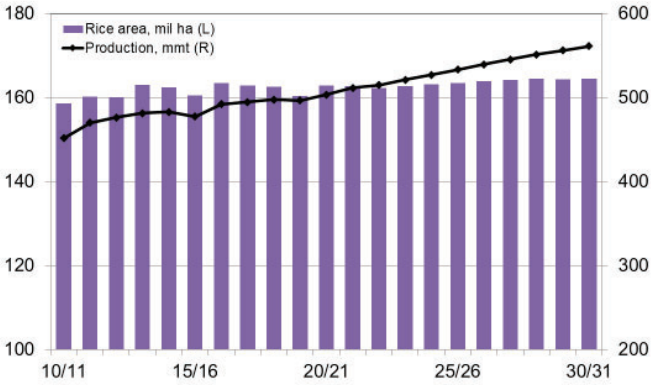
- Rice consumption marked an all time high of 503 MMT in 2020/21. Consumption is expected to continue to increase with global population growth being the primary driver, leaving per capita consumption slightly at or below the recent historical range. Income impacts on rice in diets are different for different regions and income levels. As the traditional staple of Asia, the main consuming region, income impacts are quite small.
- Counter-intuitively, in many developed nations where rice is not generally a dietary staple, income impacts on rice consumption can be positive. Dining out is an activity that increases with income. Growing populations of Asians have introduced their foods into the general American diet.
- Rice consumption is increasing in other regions of the world. Rice, while not the main staple, is also important in Latin American diets as it is in parts of Africa.

Rice Prices Have Modest Upward Potential

Rice prices, $/mt

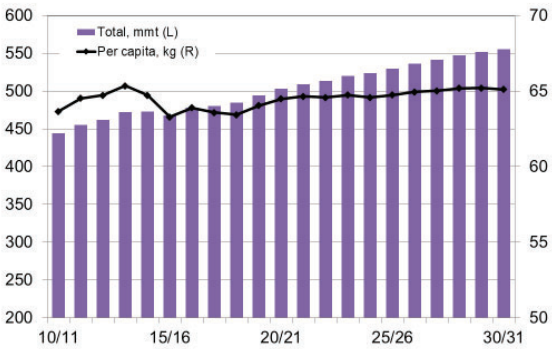


Rice Demand Growth Will Be Met By Productivity



Rice Maintains Importance in Diets

Global rice food use

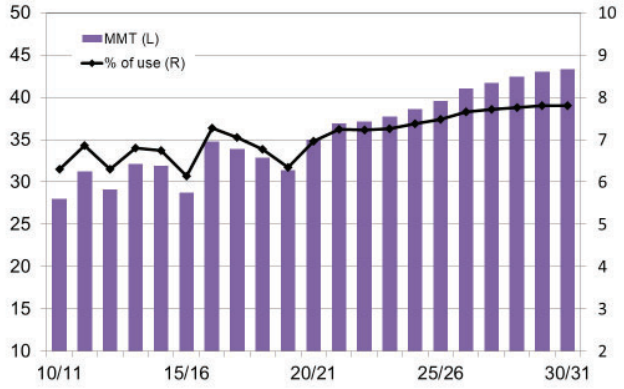


- The level of self-sufficiency in rice consuming nations is high compared to other grains. Even modest changes in production can have relatively large impacts on trade and prices at export points.
- The proportion of the global crop that is traded has been around 6% to 7%. However, with increases in rice demand in non-traditional consuming areas expected through 2030, the proportion of trade to production is expected to slowly edge up by 2030 to about 8%.
- India has been the dominant rice exporter since 2018 followed by, Thailand, and Vietnam. These countries account for nearly 75% of rice exports. In 2020/21 India's exports grew by about 11% and Thailand's exports grew by about 30%. Rice trade is a vital source of export earnings for these countries.
- Rice imports are more broadly distributed than exports with trade expanding in all regions of the world. Philippines is the largest importer followed by the EU Both countries are projected to moderate imports through 2030 and Nigeria will begin to dominate the import market midway through the baseline.
- Though China was the largest importer from 2012-2017, they began exporting at very low levels in 2020 are expected to retain this pattern through the end of the current projection period.
- Japan and South Korea are expected to continue importing at their committed tariff rate quota levels throughout the baseline period.

- Global ending stocks are expected to remain relatively flat and stocks-to-use ratio is expected to fall slightly in 2020/21 as China, who holds approximately 65% of global rice stocks, remained flat. Most other major rice producers are expected to have only minor adjustments to stock levels.
- As with other vital agricultural commodities, China's stock policy is to keep plenty of rice on hand to absorb production and price shocks within the domestic market. This allows China to meet short-term domestic needs without having to face volatile prices on the world market. China has steadily increased inventories for more than the past ten years, but will see only a 12% gain on current levels by 2030.
- With the outlook for stable prices resulting in smooth production and utilization patterns over the next ten years, it is expected that outside of China, inventories will also be stable compared to consumption. In China, the stocks-to-use ratio is expected to edge up slowly as it has done for the past decade.
- The rest of the world has a lesser ability to weather market disruptions. As such, despite the outlook for stability in rice prices, they have the potential for volatility in any given year.

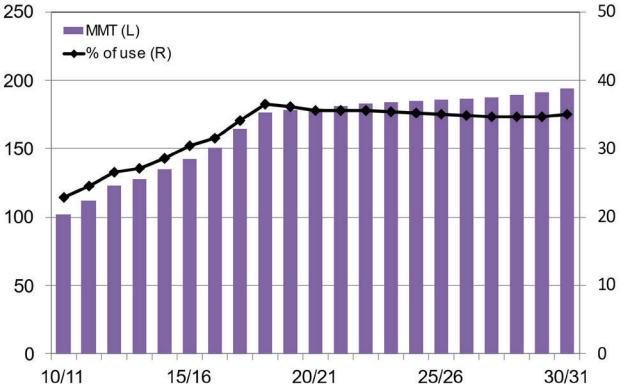
Most Rice Is Consumed in Producing Regions

Rice net exports of exporting countries, mmt



Ample Stocks Reduce Short-Term Upward Price Risks

Global Rice ending stocks, mmt



World Rice Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Area Harvested	155.9	158.5	160.2	160.0	162.9	162.4	160.5	163.5	162.9	162.5	160.4
					(Metric tons per hectare)						
Yield, milled basis	2.83	2.85	2.93	2.98	2.95	2.97	2.97	3.01	3.04	3.06	3.09
					(Million metric tons)						
Supply	557.4	574.0	598.3	614.3	632.2	640.4	639.4	663.1	678.8	694.6	704.2
Production	441.0	451.6	469.6	476.1	481.2	482.7	477.1	491.8	494.4	497.3	496.4
Beginning stocks	94.2	96.6	101.9	111.8	123.0	127.9	135.5	142.7	150.6	164.3	176.9
Net imports	22.2	25.8	26.8	26.4	27.9	29.8	26.8	28.7	33.7	33.0	30.9
Utilization	532.1	546.0	567.1	585.2	600.0	608.5	610.7	628.4	644.9	661.7	672.8
Consumption	435.5	444.1	455.3	462.2	472.1	473.0	467.9	477.8	480.6	484.8	494.5
Ending stocks	96.6	101.9	111.8	123.0	127.9	135.5	142.7	150.6	164.3	176.9	178.3
Net exports	25.3	28.0	31.2	29.1	32.1	31.9	28.7	34.7	33.9	32.8	31.4
Total Demand	557.4	574.0	598.3	614.3	632.2	640.4	639.4	663.1	678.8	694.6	704.2

Rice Area Harvested

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Argentina	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Australia	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0
Brazil	2.8	2.8	2.4	2.4	2.4	2.3	2.0	2.0	2.0	1.7	1.7
Burma (Myanmar)	7.0	7.1	7.0	7.0	7.1	7.0	6.9	7.0	7.1	7.1	6.9
China	29.8	30.1	30.3	30.5	30.7	30.8	30.8	30.7	30.7	30.2	29.7
EU-28	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Indonesia	12.1	12.1	12.2	12.2	12.1	11.8	12.1	12.2	12.3	11.5	11.2
India	41.9	42.9	44.0	42.8	44.1	44.1	43.5	44.0	43.8	44.2	43.8
Japan	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5
Malaysia	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Mexico	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nigeria	1.8	2.4	2.3	2.9	2.9	3.1	3.1	3.3	3.3	3.4	3.5
Pakistan	2.9	2.4	2.6	2.3	2.8	2.9	2.7	2.7	2.8	2.9	3.0
Philippines	4.4	4.5	4.6	4.7	4.8	4.7	4.5	4.7	4.8	4.7	4.6
South Korea	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7
Taiwan	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Thailand	10.9	10.7	11.0	10.8	10.9	10.3	9.4	10.2	10.8	10.8	9.9
United States	1.3	1.5	1.1	1.1	1.0	1.2	1.0	1.3	1.0	1.2	1.0
Vietnam	7.4	7.6	7.7	7.9	7.8	7.8	7.7	7.7	7.6	7.5	7.4
Rest of world	29.4	30.2	30.8	31.2	32.1	32.2	32.6	33.4	32.7	33.4	33.9
World total	155.9	158.5	160.2	160.0	162.9	162.4	160.5	163.5	162.9	162.5	160.4

World Rice Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Area Harvested	162.8	162.7	162.2	162.6	163.1	163.5	163.9	164.1	164.4	164.3	164.4
					(Metric tons per hectare)						
Yield, milled basis	3.09	3.14	3.17	3.20	3.23	3.26	3.29	3.32	3.35	3.38	3.41
					(Million metric tons)						
Supply	714.1	724.9	731.0	738.9	746.5	754.6	763.3	770.8	778.9	785.8	793.0
Production	503.2	511.3	514.8	520.9	526.7	532.9	539.2	545.1	551.0	555.9	561.1
Beginning stocks	178.3	179.1	181.4	182.7	183.6	184.6	185.5	186.3	187.8	189.3	190.9
Net imports	32.6	34.5	34.8	35.3	36.2	37.2	38.6	39.3	40.0	40.6	40.9
Utilization	682.2	690.7	696.3	703.5	708.0	715.0	722.3	729.0	736.4	742.7	749.6
Consumption	503.1	509.3	513.6	519.8	523.4	529.6	535.9	541.2	547.2	551.8	555.5
Ending stocks	179.1	181.4	182.7	183.6	184.6	185.5	186.3	187.8	189.3	190.9	194.2
Net exports	35.0	36.9	37.2	37.7	38.6	39.6	41.0	41.7	42.4	43.0	43.3
Total Demand	717.2	727.6	733.5	741.2	746.5	754.6	763.3	770.8	778.9	785.8	793.0

Rice Area Harvested

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Argentina	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Australia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Brazil	1.7	1.3	1.4	1.5	1.4	1.4	1.5	1.6	1.5	1.5	1.5
Burma (Myanmar)	7.0	7.1	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.1	7.1
China	30.1	29.9	29.7	29.5	29.4	29.3	29.3	29.2	29.2	29.2	29.1
EU-28	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Indonesia	11.6	11.6	11.6	11.6	11.7	11.7	11.7	11.7	11.7	11.6	11.6
India	44.5	44.1	43.3	43.5	43.7	43.8	43.8	43.7	43.6	43.5	43.4
Japan	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4
Malaysia	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Mexico	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nigeria	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5
Pakistan	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.2	3.2	3.2
Philippines	4.7	4.7	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
South Korea	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
Taiwan	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Thailand	10.3	10.5	10.7	10.8	10.9	11.0	11.1	11.1	11.1	11.2	11.2
United States	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Vietnam	7.4	7.4	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Rest of world	33.9	34.3	34.4	34.6	34.8	35.1	35.3	35.7	36.0	36.3	36.6
World total	162.8	162.7	162.2	162.6	163.1	163.5	163.9	164.1	164.4	164.3	164.4

Rice Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Argentina	481	698	588	527	461	305	518	338	419	339	321
Australia	-169	232	324	288	230	151	-27	65	68	-112	-265
Burma (Myanmar)	700	1,075	1,357	1,163	1,688	1,724	1,267	3,340	2,740	2,690	2,290
China	262	-40	-1,349	-2,809	-3,740	-4,274	-4,529	-4,495	-4,136	-430	0
India	2,082	2,774	10,376	10,869	10,619	12,238	10,357	11,710	12,041	10,420	12,487
Pakistan	3,984	3,353	3,402	3,533	3,919	3,770	4,190	3,538	4,011	4,493	3,800
Thailand	8,747	10,447	6,345	6,222	10,669	9,479	9,567	11,365	10,806	7,312	5,250
United States	2,912	2,934	2,585	2,716	2,270	2,295	2,618	2,900	1,889	2,051	1,805
Vietnam	6,334	6,500	7,617	6,600	6,025	6,206	4,788	5,988	6,090	6,081	5,700
Total net exports	25,333	27,973	31,245	29,109	32,141	31,894	28,749	34,749	33,928	32,844	31,388
Net importers											
Brazil	186	-847	-223	-199	-289	-538	357	-216	-590	-131	-350
EU-28	1,096	1,153	1,092	1,192	1,288	1,434	1,532	1,518	1,658	1,848	2,131
Indonesia	1,150	3,098	1,960	650	1,225	1,350	1,048	348	2,348	598	548
Japan	504	611	422	566	599	565	661	659	626	566	615
Malaysia	906	1,075	1,006	874	952	978	778	899	780	970	1,120
Mexico	602	710	645	751	696	707	691	785	711	718	791
Nigeria	1,750	2,400	3,200	2,800	2,800	2,600	2,100	2,500	2,000	1,900	1,300
Philippines	2,200	1,300	1,200	1,400	1,200	1,800	1,600	1,100	1,300	3,600	2,450
South Korea	297	401	377	508	311	463	310	407	334	237	399
Taiwan	145	95	112	99	85	47	17	105	41	19	-70
Rest of world	13,392	15,809	16,986	17,802	19,025	20,356	17,745	20,550	24,533	22,656	21,993
Total net imports	22,228	25,805	26,777	26,443	27,892	29,762	26,839	28,655	33,741	32,981	30,927
Residual	3,105	2,168	4,468	2,666	4,249	2,132	1,910	6,094	187	-137	461
					(Dollars per metric ton)						
Rice price, FOB Bangkok	533	518	590	565	428	420	386	394	418	399	457

Rice Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Argentina	270	333	368	383	396	406	412	417	422	427	423
Australia	36	251	229	206	186	179	187	193	193	187	179
Burma (Myanmar)	2,180	2,251	2,282	2,281	2,350	2,349	2,331	2,288	2,264	2,235	2,203
China	299	667	669	669	670	671	672	672	674	676	676
India	13,804	13,199	12,956	13,039	13,323	13,735	14,572	14,772	15,064	15,240	15,359
Pakistan	4,000	4,898	4,826	4,839	4,890	5,012	5,153	5,299	5,426	5,537	5,632
Thailand	6,801	7,593	7,935	8,204	8,424	8,626	8,833	9,008	9,160	9,303	9,432
United States	1,846	1,821	1,798	1,819	1,856	1,917	1,992	2,046	2,059	2,059	2,036
Vietnam	5,797	5,886	6,098	6,298	6,487	6,675	6,871	7,038	7,185	7,364	7,403
Total net exports	35,033	36,898	37,159	37,738	38,582	39,571	41,022	41,734	42,447	43,028	43,344
Net importers											
Brazil	-202	1,054	666	324	651	559	143	-229	-261	-257	-229
EU-28	2,086	2,282	2,219	2,196	2,164	2,125	2,085	2,060	2,042	2,023	2,010
Indonesia	496	179	399	392	435	471	508	558	605	655	743
Japan	602	606	607	607	607	607	606	607	607	607	607
Malaysia	1,066	1,058	1,047	1,104	1,144	1,181	1,216	1,253	1,290	1,327	1,363
Mexico	790	780	810	829	842	851	860	871	883	895	908
Nigeria	1,501	2,002	1,906	1,996	2,100	2,210	2,319	2,445	2,586	2,734	2,886
Philippines	2,309	2,108	2,106	2,092	2,073	2,053	2,013	1,999	2,003	2,019	2,054
South Korea	393	409	400	408	407	406	407	407	406	409	407
Taiwan	23	-12	20	24	25	22	16	14	12	9	6
Rest of world	23,561	24,025	24,572	25,359	25,728	26,679	28,443	29,343	29,866	30,199	30,182
Total net imports	32,626	34,491	34,752	35,331	36,175	37,164	38,615	39,327	40,040	40,621	40,937
Residual	2,407	2,407	2,407	2,407	2,407	2,407	2,407	2,407	2,407	2,407	2,407
					(Dollars per metric ton)						
Rice price, FOB Bangkok	436	414	424	430	438	449	463	471	475	479	483

Feedgrains

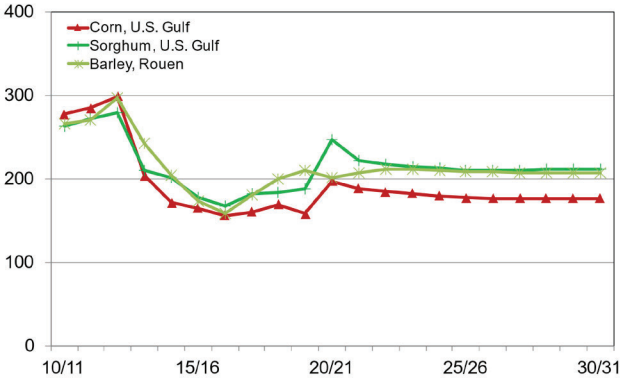
- Global corn production is estimated to be 17.5 MMT higher in 2020/21 than last year, reaching a record global high of 1,114 MMT. The record supply is met with increased feed demand, particularly in China, driving prices higher in 2020/21. Corn prices are expected to move lower through 2025, then stabilize thereafter.
- Barley prices are exhibiting that grain's two distinct markets. The price at Rouen, France, falls slightly more than the U.S. price, reflecting relatively flat global production, but declining demand relative to other feedgrains. Both the Rouen price and the U.S. price decline slightly over the projection period.
- Global sorghum feed use increased in 2020/21 by 17.5% compared to the prior year, with China as the primary driver. Sorghum prices are being pulled up this year as growth in feed demand outpaces production gains by more than double. Sorghum tracks corn with strong prices this year, then will follow corn down slightly in the next five years. In the long run, grain prices will stabilize and exhibit typical relationships.

- Global corn area rose slightly after several years of relatively a relatively flat trend since 2017/18. As corn prices remain moderate, corn area increases are also expected to be moderate over the next ten years, with corn-producing nations maintaining current trends. Corn area is projected to increase around 5% over the next decade.
- Whereas barley area will be at a similar level as the past several years, sorghum area and production is expected to have the highest growth of all the grains. Feedgrain production remains relatively stable over the projection period as modest feedgrains prices will limit area expansion. Wheat and oilseeds competition will constrain global barley area.
- Continuation of grain export taxes in Argentina, plus perennial competition from soybeans will keep corn area from expanding in that country. Of countries with significant acres planted to corn, Brazil and China expect to see the most area expansion by 2030 at 12.9% and 6.8% respectively.

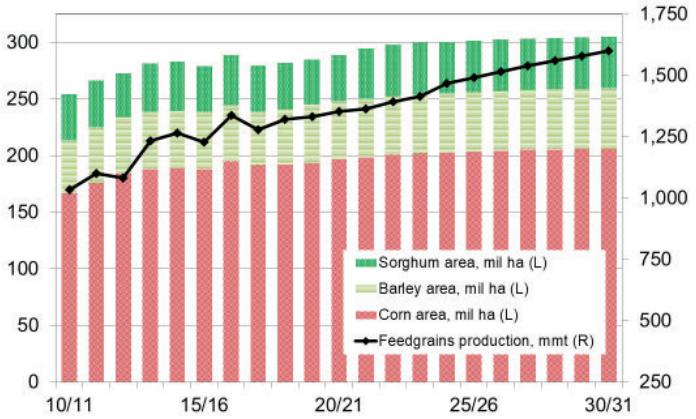
- COVID-related travel restrictions drove major oil price drops undercutting competitiveness of biofuels and subsequently demand. Brazil and China continued with current ethanol policies and moderate corn biofuel use. However, in the case of China, prioritization of corn biofuel production declined relative to demand for feed.
- Feedgrains are important as dietary staples in many parts of the world, particularly in developing regions. Corn is a traditional food in Latin America, as it is in parts of Africa. More than half of global sorghum consumption has traditionally been for food use, especially in least developed regions of Africa. Population growth in those areas will push food demand upward over time.
- In developing countries with higher incomes demand for processed foods is boosting corn use. Many items include corn and products such as cornstarch, corn oil, and HFCS. Nevertheless, there has been pushback on HFCS and other sweeteners with the obesity issue in developed countries.

Prices Rise on Strong Demand, Stabilizing Thereafter

$/metric ton

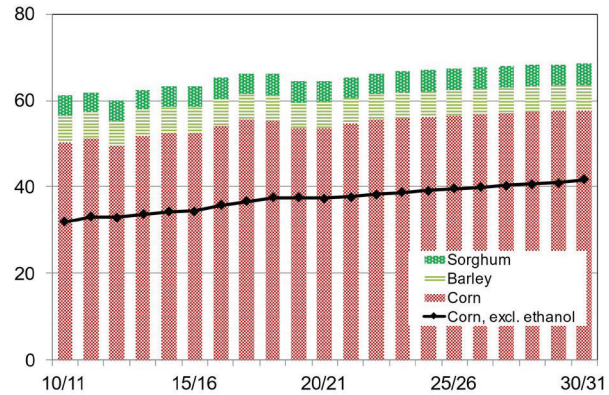


Slow Feedgrain Area Expansion For Feed, Ethanol



Grain Food Use Steady, Biofuel Use Dips

Global food, seed & industrial use, kg/capita



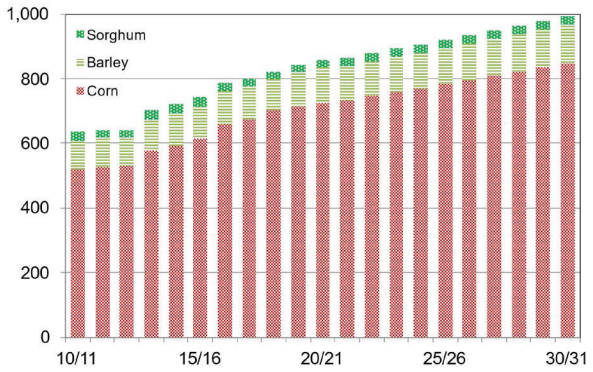
- Where grazing land is limited or where rapid urbanization is occurring, beef and dairy are moving more to grain feeding. Additionally, global aquaculture production has been increasing rapidly over the last several decades, particularly in China and other Asian countries. Though not explicitly captured in the FAPRI model, increases in feedstock demands implicitly reflect this growth sector.
- The African Swine Fever epidemic in China and other Asian countries has led to a severe reduction in swine herds and feed demand. Chinese hog inventories began to recover in 2020, with a trend towards more commercial production and declining backyard production. In the longer run, consistently moderate grain prices will boost livestock production around the world.
- Barley feed use remains flat globally and in major barley feeding countries such as the EU and Russia in 2020/21 compared to the prior year. It will remain relatively flat going forward as lower wheat prices make barley less competitive with that grain in feed rations.
- Sorghum has been fed primarily in producing regions, but increased by 78% in China in 2020/21 and is expected to maintain the current levels throughout the projection period. Sorghum area is expected to expand by 7.7% next year on strong prices, then moderate through 2030.

- After falling from the high levels of 2018/19, global feedgrain trade will increase at a rapid pace in the next ten years as demand in production-deficit areas outpaces their production increases. Corn trade is projected to increase by nearly one-third, as corn captures most of the growing international feed grains market.
- China nearly doubled their sorghum imports nearing the record levels of 2014/15 and 2015/16 to meet feed demand. They are projected to maintain current import levels through 2030. The majority of demand increases will come from human consumption, primarily in subsistence farming countries, which do not generally contribute greatly to sorghum trade.
- The U.S., Brazil, Argentina, and Ukraine will be the major corn exporters. The EU, Japan, Mexico, and Vietnam will remain the four largest importers. China imported a record high 17.5 MMT in 2020/21, exceeding its tariff rate quota (TRQ), and is projected to continue through 2030.

- China holds a large percentage of global corn stocks at approximately 67.5%. They have been drawing down stocks since 2017/18 and are expected to continue through 2022/23. However, they maintain a minimum stocks-to-use of about 65% throughout the baseline.,
- Global corn stocks-to-use net of China ranges from approximately 11% in 2020/21 to about 13% in 2030/31. The market's ability to absorb production shortfalls, demand spikes, and price jumps may be challenged in this range. If production shortfalls are severe or prolonged, global inventories will be quickly drawn down and an environment of tight supplies and high prices will develop.
- A period of tight supplies and higher prices will likely occur sometime in the next ten years. When that likelihood occurs, Chinese large stocks are unlikely to be available on the world market.

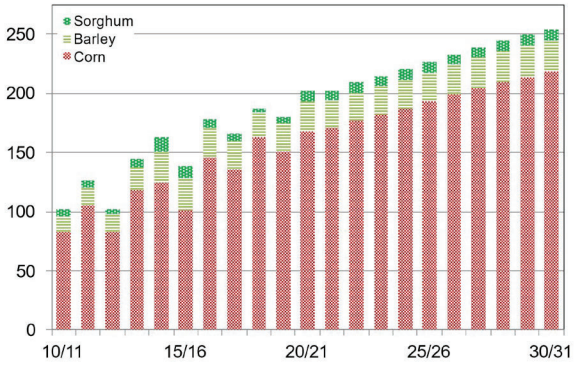
Most Increases in Feed Demand Will Be Met By Corn

Global feed use, mmt



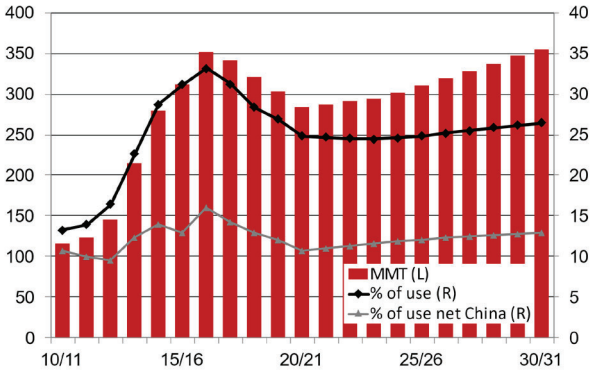
Strong Growth in the Global Feed Markets

Feedgrains net trade of exporting countries, mmt



China Holds Majority of Global Stocks

Global corn ending stocks



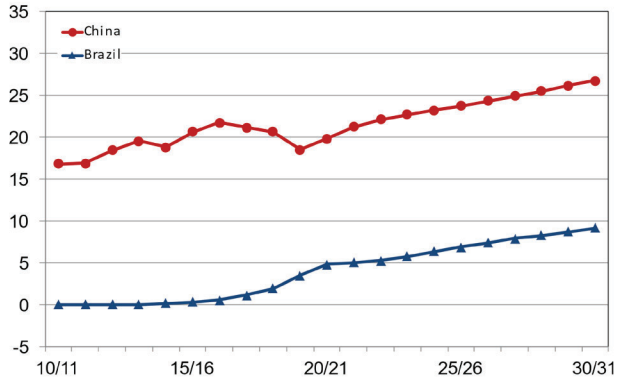
- China announced a new ethanol policy at the end of 2017 that required 10% ethanol in transportation fuels by 2020. As 2020 approached, the blend was below the required percentage, and focus moved away from the policy due to market disruptions related to COVID and meeting trade agreements. In this outlook, FAPRI assumes that a little more than 5% blend rate is reachable and is reflected in the projections.
- Corn is a major feedstock utilized in current Chinese ethanol production, but significant quantities of wheat and cassava are used, as well. Because early indications are that investment in plants is focused on the northeast, the main corn producing area in China, much of the grain-based feedstock demand increase will be for corn.
- Brazil has established targets for corn-based ethanol, whereas traditionally ethanol production in that country has been primarily from sugarcane. Global corn feedstocks are expected to increase by about 30 MMT by 2030, 14 MMTs of which are attributed to increases in China, Brazil, and the EU.

- China is expected to slow the drawdown of their massive corn stocks through 2023, but those reserves will be adequate to meet feedstock needs and ethanol production goals for many years.
- It is assumed that Chinese corn inventories will moderate to a stocks-to-use ratio of around 65% average through the baseline period, well above the levels that existed before the rapid buildup that began in 2011/12. Even, with Chinese corn demand growing rapidly due to feedstock use and ethanol production, maintaining a lower stocks-to-use ratio relative to the peak is possible and will not put the Chinese market in short supply.

- Even with a leveling of the stocks-to-use ratio little increased risk will be felt in the Chinese market. In fact, China recorded record high corn imports in 2020/21 driven by multiple factors including Phase 1 trade agreement with the U.S. and increased feedstock and biofuel use.
- There has been discussion about China's ability to source the increased corn requirements from domestic supplies. That ability seems to be limited. China formerly increased domestic support prices significantly to induce increases in corn area. However, for the past several years, China has moved away from those high support levels and the result has been a flattening in area.
- China will increase corn area to just under the maximum of 2015/16. Recent impact of ASF on demand had reduced domestic prices through 2019, but a relatively flat recovery began in 2020/21. These slightly stronger prices will encourage area recovery through 2030.

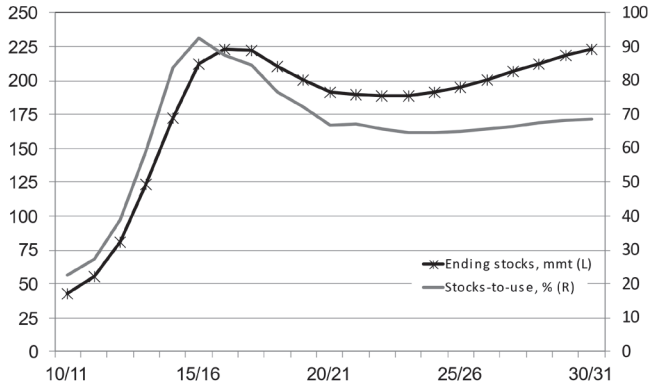
The Ethanol Story: Increasing Feedstocks

Mil tonnes



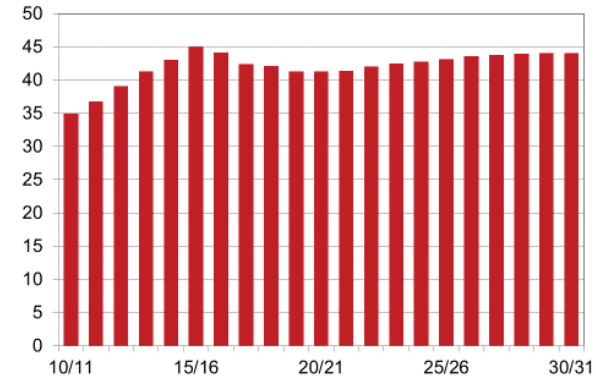
China's Corn Stocks Safeguard Feed and Biofuel Uses

China corn ending stocks



ASF Impacts China's Production in the Near Term

China corn area, million hectares



World Corn Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Area Harvested	158.8	166.5	175.9	183.7	188.1	188.8	188.1	195.0	191.5	192.1	193.3
					(Metric tons per hectare)						
Yield	5.25	5.10	5.18	4.89	5.46	5.60	5.40	5.78	5.63	5.85	5.78
					(Million metric tons)						
Supply	1,050.5	1,065.8	1,114.1	1,109.1	1,284.1	1,379.4	1,415.7	1,561.3	1,568.2	1,610.5	1,582.3
Production	834.0	849.5	910.3	898.8	1,027.3	1,057.6	1,015.2	1,127.8	1,078.6	1,123.8	1,116.4
Beginning stocks	136.1	131.6	115.3	123.4	144.8	214.7	279.7	312.3	352.2	340.8	320.0
Net imports	80.5	84.7	88.4	87.0	112.0	107.1	120.8	121.2	137.5	146.0	145.8
Utilization	963.9	983.0	1,009.3	1,026.4	1,165.4	1,254.6	1,314.2	1,415.3	1,433.1	1,447.2	1,431.6
Feed and residual	504.8	517.1	525.3	528.5	576.3	591.6	614.1	657.7	672.9	703.6	714.8
Food, seed & industrial	327.6	350.5	360.6	353.1	374.4	383.3	387.8	405.4	419.4	423.6	413.8
Ending stocks	131.6	115.3	123.4	144.8	214.7	279.7	312.3	352.2	340.8	320.0	303.0
Net exports	86.6	82.8	104.8	82.7	118.7	124.8	101.5	146.0	135.2	163.3	150.6
Total Demand	1,050.5	1,065.8	1,114.1	1,109.1	1,284.1	1,379.4	1,415.7	1,561.3	1,568.2	1,610.5	1,582.3

Corn Area Harvested

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Argentina	3.0	3.8	3.6	4.0	3.4	3.5	3.7	4.9	5.2	6.1	6.3
Australia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Brazil	12.9	13.8	15.2	15.8	15.8	15.8	16.0	17.6	16.6	17.5	18.5
Canada	1.2	1.2	1.3	1.4	1.5	1.2	1.3	1.4	1.4	1.4	1.5
Chile	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	32.9	35.0	36.8	39.1	41.3	43.0	45.0	44.2	42.4	42.1	41.3
Colombia	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.4
Egypt	0.8	0.9	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.9	0.8
EU-28	8.7	8.4	9.2	9.8	9.7	9.6	9.3	8.6	8.3	8.3	8.9
India	8.3	8.6	8.8	8.7	9.1	9.2	8.8	9.6	9.4	9.0	9.7
Indonesia	3.1	2.9	3.1	3.0	3.1	3.1	3.3	3.4	3.7	3.7	3.8
Japan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Malaysia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mexico	6.3	7.0	6.1	6.9	7.1	7.3	7.2	7.5	7.3	7.2	6.6
Nigeria	3.4	4.1	5.5	5.8	5.8	6.3	6.8	6.6	6.5	6.5	6.5
Paraguay	0.6	0.7	0.9	1.0	0.7	0.8	0.7	0.8	0.8	0.8	0.8
Peru	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5
Philippines	2.5	2.6	2.6	2.6	2.6	2.6	2.4	2.7	2.6	2.5	2.5
Russia	1.1	1.0	1.6	1.9	2.3	2.6	2.7	2.8	2.7	2.4	2.5
South Africa	3.3	2.9	3.1	3.2	3.1	3.0	2.2	3.0	2.6	2.6	2.9
South Korea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Taiwan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thailand	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.1	1.3	1.2
Ukraine	2.1	2.6	3.5	4.4	4.8	4.6	4.1	4.2	4.4	4.6	5.0
United States	32.2	33.0	33.9	35.4	35.4	33.6	32.7	35.1	33.5	32.9	32.9
Vietnam	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.0	1.0
Rest of world	33.1	34.7	36.6	36.6	38.3	38.3	37.9	38.5	40.2	40.3	39.6
World total	158.8	166.5	175.9	183.7	188.1	188.8	188.1	195.0	191.5	192.1	193.3

World Corn Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Area Harvested	196.4	198.6	200.6	201.6	202.5	203.4	204.4	205.1	205.5	205.8	206.1
					(Metric tons per hectare)						
Yield	5.77	5.76	5.83	5.90	6.13	6.20	6.28	6.36	6.44	6.52	6.60
					(Million metric tons)						
Supply	1,597.5	1,591.4	1,625.5	1,655.3	1,715.3	1,749.6	1,786.0	1,821.5	1,854.8	1,886.2	1,916.8
Production	1,133.9	1,143.8	1,169.4	1,189.7	1,240.2	1,262.2	1,284.2	1,305.0	1,323.8	1,342.0	1,359.3
Beginning stocks	303.0	284.1	286.9	290.7	294.9	301.6	309.8	319.1	328.5	337.6	346.7
Net imports	160.6	163.5	169.2	174.9	180.2	185.8	192.0	197.3	202.5	206.6	210.7
Utilization	1,429.5	1,448.5	1,477.3	1,501.8	1,527.7	1,556.5	1,586.7	1,616.8	1,645.0	1,672.3	1,698.7
Feed and residual	727.3	731.2	745.2	757.9	770.3	784.0	798.2	812.2	825.4	837.9	851.1
Food, seed & industrial	418.1	430.4	441.4	449.0	455.9	462.8	469.3	476.1	482.0	487.6	492.6
Ending stocks	284.1	286.9	290.7	294.9	301.6	309.8	319.1	328.5	337.6	346.7	355.0
Net exports	168.0	170.8	176.6	182.3	187.5	193.1	199.3	204.7	209.9	213.9	218.1
Total Demand	1,597.5	1,619.3	1,653.9	1,684.1	1,715.3	1,749.6	1,786.0	1,821.5	1,854.8	1,886.2	1,916.8

Corn Area Harvested

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Argentina	6.1	6.1	6.3	6.5	6.6	6.6	6.6	6.6	6.6	6.6	6.5
Australia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Brazil	19.5	19.2	19.5	19.8	20.1	20.5	20.9	21.3	21.6	21.8	22.0
Canada	1.4	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6
Chile	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	41.3	41.4	42.0	42.4	42.7	43.2	43.6	43.8	43.9	44.0	44.1
Colombia	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Egypt	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
EU-28	9.0	8.8	8.7	8.7	8.8	8.8	8.8	8.8	8.8	8.7	8.7
India	9.4	9.5	9.4	9.3	9.3	9.3	9.4	9.4	9.4	9.5	9.5
Indonesia	3.7	3.9	3.9	3.9	3.8	3.8	3.8	3.7	3.7	3.6	3.6
Japan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Malaysia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mexico	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
Nigeria	6.5	6.6	6.6	6.6	6.6	6.6	6.5	6.5	6.5	6.5	6.5
Paraguay	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Peru	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Philippines	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Russia	2.8	2.9	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0
South Africa	3.0	3.2	3.2	3.1	3.0	3.0	2.9	2.9	2.9	2.8	2.8
South Korea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Taiwan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thailand	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1
Ukraine	5.4	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.5
United States	33.4	33.7	33.9	33.7	33.7	33.6	33.6	33.6	33.5	33.5	33.4
Vietnam	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9
Rest of world	40.3	41.4	42.2	42.6	42.9	43.2	43.4	43.6	43.8	43.9	44.1
World total	196.4	198.6	200.6	201.6	202.5	203.4	204.4	205.1	205.5	205.8	206.1

Corn Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Argentina	16,500	16,342	17,142	18,688	17,100	18,960	21,650	25,975	22,466	37,240	35,495
Australia	9	45	105	105	57	64	62	66	71	48	25
Brazil	11,195	7,613	23,566	24,062	20,178	34,130	10,573	30,750	23,204	38,023	33,800
Canada	-1,970	750	-380	1,272	1,468	-1,138	719	816	267	-765	-1,135
India	1,915	3,507	4,556	4,699	3,864	1,133	275	513	1,061	198	939
Paraguay	1,377	1,825	2,484	2,906	2,200	3,479	1,886	1,892	1,727	2,803	1,990
Russia	395	-75	1,984	1,866	4,142	3,167	4,647	5,545	5,485	2,733	4,022
South Africa	2,064	2,025	1,801	1,977	1,891	-1,271	-1,404	2,289	1,897	940	2,500
Ukraine	5,051	4,970	15,159	12,682	19,938	19,633	16,567	21,305	17,997	30,281	28,900
United States	50,058	45,805	38,350	14,482	47,881	46,617	46,512	56,863	61,001	51,773	44,109
Total net exports	86,594	82,807	104,767	82,739	118,719	124,774	101,487	146,014	135,176	163,274	150,645
Net importers											
Chile	510	634	810	1,100	1,499	1,296	1,468	1,622	2,105	2,280	2,660
China	1,145	868	5,140	2,621	3,255	5,503	3,170	2,387	3,437	4,464	7,584
Colombia	3,650	3,511	3,207	3,264	4,433	4,492	4,455	4,753	5,200	6,048	5,976
Egypt	5,819	5,790	7,148	5,056	8,787	7,835	8,716	8,763	9,459	9,364	10,422
EU-28	1,189	6,289	2,826	9,168	13,610	4,881	12,055	12,782	16,719	21,622	13,800
Indonesia	1,284	3,029	1,685	2,708	3,501	3,125	1,733	636	258	1,013	796
Japan	15,971	15,648	14,888	14,411	15,121	14,657	15,204	15,169	15,668	16,050	15,888
South Korea	8,461	8,107	7,636	8,174	10,406	10,168	10,121	9,181	10,018	10,856	11,892
Malaysia	3,105	2,806	3,345	3,046	3,467	3,239	4,080	3,501	3,615	3,670	3,761
Mexico	7,656	8,165	10,392	5,154	10,448	10,557	12,398	13,075	15,171	15,940	15,497
Nigeria	0	0	0	150	100	-50	0	450	100	300	150
Peru	1,773	1,931	1,764	2,245	2,223	2,733	2,976	3,261	3,393	3,690	3,811
Philippines	118	61	203	92	741	623	742	609	724	675	389
Taiwan	4,521	4,134	4,354	4,241	4,179	3,810	4,656	4,163	4,410	4,508	4,580
Thailand	-746	317	93	328	-499	295	233	-129	501	1,029	1,602
Vietnam	1,500	1,300	1,095	1,495	3,100	4,500	7,500	7,600	8,100	9,600	10,200
Rest of world	24,508	22,096	23,834	23,698	27,632	29,398	31,300	33,349	38,632	34,859	36,820
Total net imports	80,464	84,686	88,420	86,951	112,003	107,062	120,807	121,172	137,510	145,968	145,828
Residual	6,130	-1,879	16,347	-4,212	6,716	17,712	-19,320	24,842	-2,334	17,306	4,817
US Gulf Port Price	163	277	284	298	203	171	165	155	160	169	158

Corn Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Argentina	33,995	35,081	36,537	38,403	39,413	39,820	40,050	40,110	40,424	40,495	40,614
Australia	47	75	92	95	95	103	113	118	120	121	119
Brazil	37,495	33,645	36,455	38,456	40,176	42,604	45,282	47,725	49,076	50,094	51,179
Canada	-685	73	219	43	-175	-271	-231	-122	-18	82	386
India	304	160	195	246	285	319	354	349	377	402	435
Paraguay	2,488	2,559	2,645	2,717	2,797	2,878	2,957	3,037	3,104	3,176	3,247
Russia	3,075	3,829	4,171	4,499	4,772	5,016	5,257	5,488	5,716	5,933	5,983
South Africa	2,827	4,689	4,038	3,743	3,511	3,330	3,212	3,153	3,144	3,151	3,144
Ukraine	24,012	31,038	32,150	32,595	32,970	33,274	33,512	33,805	34,111	34,429	34,739
United States	64,410	59,664	60,065	61,483	63,690	66,031	68,818	71,036	73,796	76,041	78,214
Total net exports	167,968	170,813	176,568	182,278	187,533	193,104	199,324	204,698	209,850	213,924	218,061
Net importers											
Chile	2,784	2,607	2,644	2,722	2,828	2,948	3,077	3,212	3,342	3,474	3,606
China	17,515	11,765	10,167	10,491	10,832	11,032	11,207	11,512	11,693	11,925	12,204
Colombia	6,213	6,039	6,065	6,136	6,244	6,371	6,509	6,658	6,801	6,950	7,099
Egypt	10,282	10,919	11,866	12,323	12,835	13,248	13,610	13,984	14,366	14,764	15,154
EU-28	15,642	17,510	20,286	21,658	21,605	21,839	22,263	22,979	23,643	23,899	23,277
Indonesia	854	929	1,184	1,556	1,829	2,006	2,134	2,337	2,552	2,681	2,768
Japan	16,029	15,647	15,963	16,279	16,493	16,628	16,690	16,701	16,675	16,643	16,466
South Korea	11,997	12,044	12,068	12,097	12,154	12,185	12,225	12,264	12,308	12,345	12,384
Malaysia	3,874	4,263	4,343	4,426	4,498	4,559	4,610	4,652	4,686	4,714	4,734
Mexico	15,808	17,246	16,961	17,322	17,722	18,043	18,231	18,355	18,458	18,526	18,616
Nigeria	398	279	299	315	334	356	378	398	417	436	454
Peru	4,107	4,062	4,257	4,434	4,593	4,738	4,878	5,022	5,156	5,281	5,395
Philippines	592	338	423	497	563	620	662	696	725	754	783
Taiwan	4,399	4,246	4,312	4,337	4,359	4,373	4,382	4,388	4,390	4,394	4,397
Thailand	1,217	1,267	1,497	1,723	1,908	2,055	2,166	2,250	2,314	2,364	2,420
Vietnam	11,029	11,548	12,276	13,029	13,838	14,710	15,650	16,650	17,707	18,825	19,999
Rest of world	37,878	42,757	44,610	45,584	47,549	50,044	53,303	55,291	57,268	58,601	60,955
Total net imports	160,619	163,464	169,219	174,929	180,184	185,755	191,975	197,349	202,501	206,575	210,712
Residual	7,349	7,349	7,349	7,349	7,349	7,349	7,349	7,349	7,349	7,349	7,349
US Gulf Port Price	197	188	184	182	179	177	176	176	177	176	176

World Sorghum Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Area Harvested	40.2	41.0	41.3	38.9	42.6	44.0	40.4	44.4	40.5	40.7	39.8
					(Metric tons per hectare)						
Yield	0.91	0.91	0.86	0.94	0.91	0.98	0.98	0.94	0.91	0.99	0.97
					(Million metric tons)						
Supply	67.5	71.8	66.2	65.1	72.2	83.2	78.5	75.1	69.3	66.9	68.6
Production	55.9	61.0	56.1	55.0	62.0	65.8	62.5	63.2	57.7	59.2	58.0
Beginning stocks	6.1	4.5	5.5	4.1	4.2	5.6	5.7	5.1	5.5	4.7	5.5
Net imports	5.6	6.3	4.6	6.0	6.1	11.8	10.3	6.7	6.1	2.9	5.1
Utilization	61.6	65.4	60.1	60.3	65.1	71.6	68.5	68.0	63.3	63.9	62.7
Feed and residual	25.8	26.7	23.2	24.2	26.8	30.7	27.6	23.8	22.9	20.8	21.1
Food, seed & industrial	31.3	33.3	32.7	31.9	32.7	35.1	35.8	38.7	35.7	37.5	37.6
Ending stocks	4.5	5.5	4.1	4.2	5.6	5.7	5.1	5.5	4.7	5.5	4.0
Net exports	5.9	6.4	6.1	4.8	7.2	11.6	10.0	7.1	6.0	3.0	6.0
Total Demand	67.5	71.8	66.2	65.1	72.2	83.2	78.5	75.1	69.3	66.9	68.6

Sorghum Area Harvested

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Argentina	0.8	1.0	1.0	1.1	1.0	0.8	0.8	0.7	0.7	0.6	0.6
Australia	0.5	0.6	0.7	0.6	0.5	0.7	0.5	0.4	0.5	0.6	0.2
Brazil	0.7	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.8	0.7	0.7
China	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.6	0.8
Ethiopia	1.6	1.9	1.9	1.7	1.7	1.8	1.9	1.9	1.9	1.8	1.9
EU-28	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
India	7.8	7.4	6.2	6.2	5.8	6.2	6.1	5.6	5.0	4.1	4.7
Mexico	1.6	1.9	1.7	1.6	2.1	1.7	1.7	1.5	1.4	1.4	1.3
Nigeria	4.7	5.0	4.7	5.1	5.4	5.7	5.9	6.6	5.8	5.8	5.9
Sudan	6.7	5.6	7.3	4.1	7.1	8.4	5.2	9.2	6.3	7.1	6.3
United States	2.2	1.9	1.6	2.0	2.7	2.6	3.2	2.5	2.0	2.0	1.9
Rest of world	13.1	14.2	14.9	15.0	15.0	14.7	14.2	14.8	15.5	15.9	15.4
World total	40.2	41.0	41.3	38.9	42.6	44.0	40.4	44.4	40.5	40.7	39.8

World Sorghum Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Area Harvested	41.0	44.1	45.2	45.7	45.6	45.6	45.5	45.4	45.4	45.4	45.4
					(Metric tons per hectare)						
Yield	0.97	0.96	0.96	0.97	0.97	0.97	0.98	0.98	0.99	0.99	0.99
					(Million metric tons)						
Supply	74.2	79.3	80.6	81.0	81.6	82.3	82.8	83.3	83.8	84.3	84.8
Production	61.6	66.6	67.5	68.2	68.6	69.0	69.3	69.7	70.0	70.3	70.7
Beginning stocks	4.0	4.0	4.3	4.5	4.6	4.8	4.9	5.0	5.2	5.3	5.4
Net imports	8.6	8.7	8.7	8.4	8.4	8.5	8.5	8.6	8.6	8.7	8.6
Utilization	65.2	70.2	71.5	72.4	72.9	73.4	73.9	74.4	74.8	75.3	75.8
Feed and residual	24.8	27.9	28.1	28.2	28.3	28.4	28.4	28.4	28.3	28.3	28.4
Food, seed & industrial	36.5	38.0	39.0	39.6	39.8	40.1	40.5	40.8	41.2	41.6	41.9
Ending stocks	4.0	4.3	4.5	4.6	4.8	4.9	5.0	5.2	5.3	5.4	5.5
Net exports	8.9	9.0	9.0	8.7	8.7	8.8	8.9	8.9	8.9	9.0	9.0
Total Demand	74.2	79.3	80.6	81.1	81.6	82.3	82.8	83.3	83.8	84.3	84.8

Sorghum Area Harvested

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Argentina	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6
Australia	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Brazil	0.8	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
China	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Ethiopia	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
EU-28	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
India	4.2	5.1	5.5	5.6	5.6	5.6	5.5	5.5	5.4	5.4	5.4
Mexico	1.4	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Nigeria	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
Sudan	7.0	7.7	8.1	8.3	8.1	7.9	7.7	7.6	7.5	7.5	7.4
United States	2.1	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Rest of world	15.6	16.4	16.7	16.9	17.1	17.3	17.4	17.5	17.6	17.8	17.9
World total	41.0	44.1	45.2	45.7	45.6	45.6	45.5	45.4	45.4	45.4	45.4

Sorghum Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Argentina	1,771	1,702	3,084	1,783	1,279	931	494	563	274	411	600
Australia	290	865	1,290	1,161	389	1,629	905	280	456	96	200
Brazil	-4	-1	0	2	10	13	25	1	1	33	-1
Ethiopia	-125	40	45	25	54	-8	51	59	69	69	14
India	127	27	134	228	87	122	74	23	125	51	31
Nigeria	50	60	75	50	50	100	50	94	100	100	50
Sudan	-395	-170	-105	-155	-70	-105	-195	80	-50	-110	-115
United States	4,169	3,849	1,608	1,695	5,357	8,925	8,566	5,996	5,038	2,353	5,172
Total net exports	5,883	6,372	6,131	4,789	7,156	11,607	9,970	7,096	6,013	3,003	5,951
Net importers											
China	42	-64	48	604	4,150	10,153	8,261	5,175	4,393	603	3,680
EU-28	-1	917	81	314	190	117	115	166	418	789	82
Japan	1,649	1,418	1,481	1,897	1,003	903	649	561	577	449	426
Mexico	2,486	2,379	1,369	1,793	162	21	661	548	96	546	566
Rest of world	1,375	1,614	1,600	1,383	546	593	615	283	643	539	365
Total net imports	5,551	6,264	4,579	5,991	6,051	11,787	10,301	6,733	6,127	2,926	5,119
Residual	332	108	1,508	-1,200	1,105	-180	-331	363	-114	77	832
US Gulf Port Price	171	263	272	279	200	191	168	157	172	174	178

Sorghum Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Argentina	1,000	947	893	806	808	822	844	871	882	905	920
Australia	499	638	646	618	616	634	643	650	659	672	678
Brazil	2	98	128	110	89	94	107	126	152	180	188
Ethiopia	-4	60	53	54	54	59	62	68	70	72	74
India	50	145	366	397	385	444	376	370	385	401	437
Nigeria	51	89	88	87	89	91	94	97	100	102	104
Sudan	-50	42	-25	67	98	69	51	38	30	23	18
United States	7,377	7,013	6,878	6,548	6,599	6,609	6,688	6,719	6,658	6,631	6,552
Total net exports	8,926	9,033	9,027	8,687	8,739	8,821	8,865	8,938	8,935	8,986	8,972
Net importers											
China	7,350	7,807	7,725	7,216	7,103	7,048	7,007	6,984	6,932	6,967	6,986
EU-28	97	108	134	138	141	145	150	157	166	172	177
Japan	403	389	423	460	479	495	502	505	506	505	504
Mexico	103	164	166	263	355	425	480	506	496	451	379
Rest of world	648	239	255	284	335	384	400	461	510	566	600
Total net imports	8,601	8,708	8,702	8,362	8,414	8,496	8,540	8,613	8,610	8,661	8,647
Residual	325	325	325	325	325	325	325	325	325	325	325
US Gulf Port Price	236	212	208	204	202	201	200	201	201	201	201

World Barley Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Area Harvested	54.2	47.0	49.1	50.2	50.6	50.6	50.8	49.3	47.4	48.8	51.8
					(Metric tons per hectare)						
Yield	2.79	2.61	2.71	2.57	2.85	2.80	2.94	2.98	3.02	2.85	3.02
					(Million metric tons)						
Supply	198.3	171.1	173.0	166.9	184.8	193.3	197.8	196.7	190.8	178.5	197.7
Production	151.0	122.7	133.3	129.3	144.4	141.7	149.5	147.1	143.2	139.4	156.6
Beginning stocks	32.1	36.9	23.9	22.0	21.2	24.5	23.8	25.8	22.4	19.4	17.7
Net imports	15.2	11.6	15.8	15.6	19.2	27.1	24.5	23.8	25.2	19.7	23.4
Utilization	182.9	157.8	157.6	151.9	166.0	167.1	171.1	172.0	166.4	157.8	173.9
Feed and residual	102.7	91.2	92.1	87.8	97.8	98.7	101.0	104.7	102.1	95.3	107.8
Food, seed & industrial	43.3	42.8	43.5	42.9	43.7	44.7	44.4	44.9	44.9	44.8	46.3
Ending stocks	36.9	23.9	22.0	21.2	24.5	23.8	25.8	22.4	19.4	17.7	19.7
Net exports	15.4	13.4	15.4	15.0	18.8	26.3	26.7	24.7	24.5	20.7	23.9
Total Demand	198.3	171.1	173.0	166.9	184.8	193.3	197.8	196.7	190.8	178.5	197.7

Barley Area Harvested

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Algeria	1.2	1.0	1.0	1.0	0.9	0.8	1.0	0.9	0.8	1.0	1.0
Australia	4.4	3.7	3.7	3.6	3.8	4.1	4.1	4.8	4.1	4.4	4.1
Canada	2.9	2.4	2.4	2.8	2.7	2.2	2.4	2.3	2.1	2.4	2.7
China	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3
EU-28	14.0	12.5	11.9	12.5	12.4	12.4	12.2	12.3	12.1	12.3	12.4
India	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.6	0.7	0.7	0.6
Japan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Kazakhstan	1.7	1.3	1.5	1.6	1.8	1.9	2.0	1.9	2.1	2.5	3.0
Russia	7.7	5.0	7.7	7.6	8.0	8.8	8.0	8.0	7.7	7.8	8.4
Saudi Arabia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turkey	3.4	3.4	3.2	3.3	3.3	3.4	3.4	3.4	3.4	3.6	3.8
Ukraine	5.0	4.3	3.7	3.3	3.2	3.2	3.0	3.0	2.7	2.6	2.8
United States	1.3	1.0	0.9	1.3	1.2	1.0	1.3	1.0	0.8	0.8	0.9
Rest of world	11.1	11.2	11.7	12.0	12.0	11.7	12.2	10.6	10.6	10.4	11.9
World total	54.2	47.0	49.1	50.2	50.6	50.6	50.8	49.3	47.4	48.8	51.8

World Barley Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Area Harvested	51.5	51.8	52.2	52.3	52.4	52.5	52.7	52.9	53.1	53.3	53.5
					(Metric tons per hectare)						
Yield	3.05	2.95	2.97	2.99	3.01	3.04	3.06	3.09	3.11	3.14	3.16
					(Million metric tons)						
Supply	201.6	195.7	197.6	199.5	201.8	204.5	207.3	210.3	213.4	216.3	219.0
Production	157.2	152.8	154.9	156.5	158.0	159.7	161.5	163.5	165.4	167.4	169.3
Beginning stocks	19.7	20.5	20.0	20.0	20.4	20.9	21.4	21.9	22.4	22.8	23.2
Net imports	24.7	22.3	22.7	23.0	23.4	23.9	24.4	24.8	25.6	26.1	26.5
Utilization	176.3	172.8	174.3	175.9	177.8	180.0	182.3	184.8	187.2	189.6	191.9
Feed and residual	108.0	106.1	107.1	107.7	108.8	110.0	111.6	113.3	115.0	116.7	118.3
Food, seed & industrial	47.7	46.7	47.1	47.8	48.1	48.5	48.8	49.1	49.4	49.7	50.0
Ending stocks	20.5	20.0	20.0	20.4	20.9	21.4	21.9	22.4	22.8	23.2	23.7
Net exports	25.3	22.9	23.3	23.6	24.0	24.5	25.0	25.5	26.2	26.7	27.1
Total Demand	201.6	195.7	197.6	199.5	201.8	204.5	207.3	210.3	213.4	216.3	219.0

Barley Area Harvested

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Algeria	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.2
Australia	4.4	4.4	4.4	4.4	4.4	4.5	4.5	4.6	4.6	4.7	4.7
Canada	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8
China	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3
EU-28	12.8	12.5	12.3	12.3	12.2	12.2	12.2	12.2	12.2	12.2	12.2
India	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Japan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Kazakhstan	2.7	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8
Russia	8.0	8.2	8.3	8.3	8.2	8.2	8.2	8.2	8.2	8.2	8.2
Saudi Arabia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turkey	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.9	3.9	3.9
Ukraine	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
United States	0.9	0.7	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7
Rest of world	11.6	12.0	12.3	12.5	12.6	12.7	12.9	13.0	13.1	13.2	13.3
World total	51.5	51.8	52.2	52.3	52.4	52.5	52.7	52.9	53.1	53.3	53.5

Barley Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Australia	3,915	4,664	5,377	4,484	6,217	5,219	5,745	9,190	5,662	3,687	3,325
Canada	1,273	1,163	1,283	1,413	1,552	1,381	1,034	1,482	1,962	2,253	2,283
EU-28	1,022	4,695	2,552	4,900	5,697	9,459	10,542	5,269	5,448	4,759	7,512
Kazakhstan	337	182	697	155	416	442	799	680	1,316	1,788	1,328
Russia	2,644	-105	3,084	1,907	2,483	5,296	4,164	2,737	5,800	4,647	4,436
Ukraine	6,221	2,757	2,421	2,134	2,462	4,456	4,407	5,346	4,283	3,543	4,984
Total net exports	15,412	13,356	15,414	14,993	18,827	26,253	26,691	24,704	24,471	20,677	23,868
Net importers											
Algeria	13	89	672	259	511	876	837	636	522	323	558
China	2,328	1,647	2,537	2,182	4,891	9,859	5,869	8,104	8,144	5,181	5,969
India	-51	-9	-46	-233	-440	-429	-78	199	210	129	191
Japan	1,411	1,359	1,257	1,356	1,294	1,097	1,155	1,197	1,253	1,158	1,253
Saudi Arabia	7,300	5,500	8,700	8,500	9,000	8,200	11,200	8,100	8,000	6,500	6,800
Turkey	-603	34	-64	259	125	770	41	127	742	241	901
United States	238	42	161	314	97	202	170	115	88	21	29
Rest of world	4,556	2,936	2,628	2,961	3,715	6,573	5,312	5,331	6,272	6,136	7,710
Total net imports	15,192	11,598	15,845	15,598	19,193	27,148	24,506	23,809	25,231	19,689	23,411
Residual	220	1,758	-431	-605	-366	-895	2,185	895	-760	988	457

Barley Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Australia	5,000	4,358	4,431	4,482	4,499	4,592	4,709	4,838	4,925	5,004	5,196
Canada	2,903	2,298	2,310	2,257	2,275	2,281	2,319	2,390	2,436	2,482	2,673
EU-28	6,370	5,143	5,206	5,368	5,546	5,886	5,952	6,392	6,765	6,808	6,542
Kazakhstan	1,468	1,614	1,625	1,660	1,692	1,719	1,742	1,761	1,777	1,793	1,809
Russia	5,373	4,154	4,263	4,311	4,344	4,371	4,407	4,384	4,387	4,403	4,408
Ukraine	4,198	5,327	5,482	5,559	5,634	5,683	5,845	5,690	5,938	6,208	6,469
Total net exports	25,313	22,894	23,317	23,637	23,991	24,533	24,975	25,454	26,228	26,698	27,098
Net importers											
Algeria	502	409	450	586	658	679	713	734	804	761	736
China	6,998	5,896	5,884	5,983	6,030	6,085	6,141	6,169	6,211	6,197	6,222
India	195	353	353	377	399	410	416	420	423	419	405
Japan	1,152	1,260	1,266	1,272	1,278	1,288	1,297	1,298	1,304	1,312	1,343
Saudi Arabia	7,610	7,644	7,788	7,748	7,803	7,866	7,927	7,990	8,187	8,364	8,547
Turkey	669	726	750	783	847	900	938	933	926	911	902
United States	-29	54	68	81	89	89	85	79	79	65	59
Rest of world	7,608	5,944	6,151	6,198	6,280	6,608	6,850	7,223	7,686	8,061	8,276
Total net imports	24,705	22,286	22,709	23,029	23,383	23,925	24,367	24,846	25,620	26,090	26,490
Residual	608	608	608	608	608	608	608	608	608	608	608

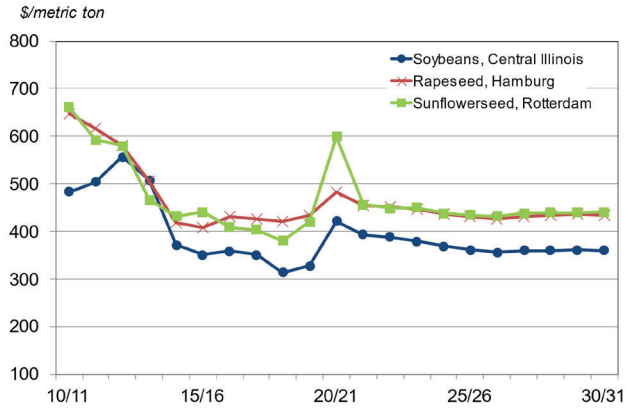
Oilseeds and Products

- Prices for all oilseeds recorded a sharp increase in 2020/21. Strong demand is driven by beginning economic recovery from COVID-19 and increasing feedstock needs in China. Because soybeans are the dominant oilseed, they strongly influence other oilseed prices. However, Russia and Ukraine, the top producers and exporters of sunflowerseed, meal, and oil, recorded significant production declines, spiking sunflowerseed prices by more than 40%.
- In the longer term, oilseed prices are expected to have little upside potential. South American area expansion will also reduce upward pressure on soybean prices through 2030. With a steady increase in global area and yields, production is expected to be sufficient to offset global demand growth.
- Under the Phase 1 agreement, China is expected to import a record high 99.9 MMT of soybeans in 2020/21. This follows a record high the previous year of 98.4 MMT. FAPRI modeling assumes removal of retaliatory tariffs and out of quota tariffs until Phase 1 levels are achieved.
- In major producing regions, rapeseed competes with wheat and barley. But on the demand side, rapeseed products compete with those of other oilseeds. Rapeseed prices will generally mirror those of soybeans and maintain relative price relationships over the baseline period.

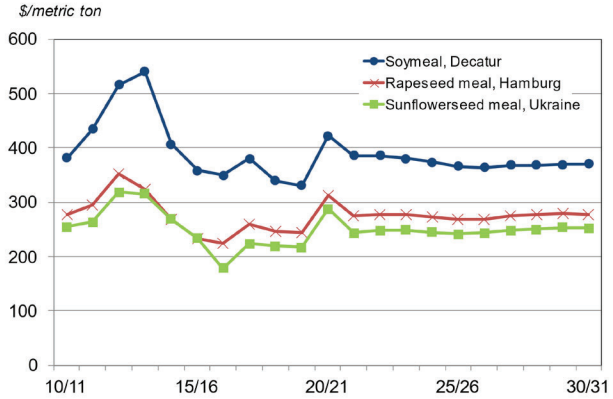
- Soybean, rapeseed, and sunflowerseed meal prices reflect substantial substitution between them and also are influenced by prices of other major livestock feeds. In 2020/21, meal prices are expected to climb in conjunction with bean and seed prices despite the downward impact of ASF on Chinese demand which will contribute to price moderation in the medium term.
- Steady soybean, rapeseed, and sunflowerseed prices will also help keep meal price changes modest. Because the oilseeds are the largest cost categories for protein meal and vegetable oil production, flat oilseed prices will be reflected in meal and oil costs and ultimately in product prices while maintaining crushers' margins.
- Protein meals are important components of livestock feed rations. With persistently moderate prices for soy, rape, and sunflowerseed meals expected over the next ten years, hog, poultry and dairy producers that use them in their feed rations will enjoy limited pressure on feed cost increases.

- Moderate spikes in vegetable oil prices are expected in conjunction with increased demand and supply shortages in palm oil and sunflowerseed markets. On the demand side, substantially different factors affect meals and oils, so those prices do not move in lock step, especially in the short term.
- Biodiesel is a growing demand category for various vegetable oils. However, the petroleum price path plunged in 2020, limiting switching to biofuels. Demand for biofuels will be impacted primarily because of blending mandates in major consuming countries.
- The boom in palm oil production stems from rapid growth in Southeast Asian countries, especially Indonesia and Malaysia. Much of this has recently gone into biodiesel production. However, the EU has placed restrictions on palm oil imports for use in biodiesel production, helping keep slight downward pressure on prices.

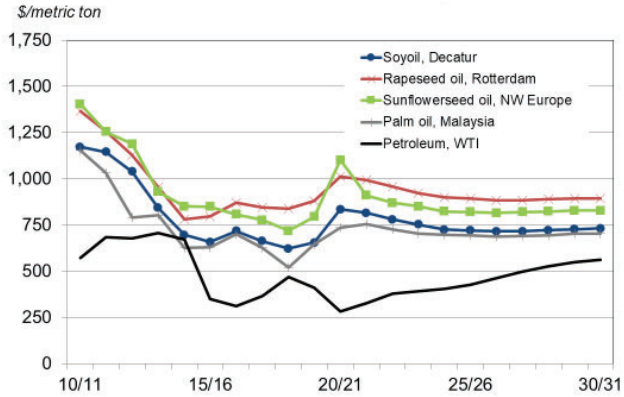
Oilseed Prices Reflect Strong Demand, Short Sunseed Supply



Meal Prices Reflect Prices of Seeds and Other Feeds



Petroleum Does Not Compete With Vegetable Oils



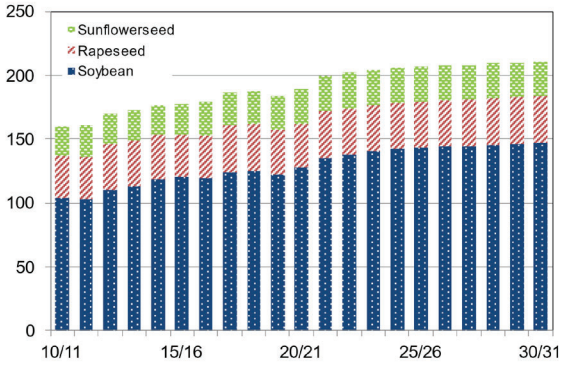
- The long-term increase in oilseed area, especially soybean, will continue but at a slower pace. Moderate prices provide less incentive to expand plantings. Global soybean area is expected to expand 15% from 2020/21 levels through 2030, while sunflowerseed and rapeseed will see slower growth, at an estimated 1.6% and 5.8%, respectively.
- Most of the expansion in soybean area will take place in Argentina and Brazil, where new crop land is being cleared, most of it for soybeans. The increase in Argentina will be somewhat slowed by the permanent export taxes of 30%, compared to 12% for competing grains.
- Compared to soybeans, rapeseed has a much more limited geographic area. It is difficult to sow new lands to rapeseed planting in traditional producing countries such as Canada and the EU, as those producers must also consider established crop rotations, and otherwise limited ability to expand.
- Sunflowerseed area is expected to show little growth in traditional producing countries such as Russia, Kazakhstan, and Ukraine. The expansion since the end of central planning has slowed in recent years and there is now less switching of land from traditional grains into oilseeds.

- Oilseed crushing is induced by growing incomes resulting in higher demand for protein meals and vegetable oils. Most crushing occurs in major producing countries. Argentina processes most of its soybeans and exports the value-added products. Brazil passed the U.S. as the largest exporter of soybeans in 2012/13. China is by far the world's largest importer.
- Major producers and crushers of rapeseed - the EU, China, and Canada - accounted for 71.1% and 70.0% of world totals respectively in 2020/21. China and the EU also import to boost crush. While Japan produces virtually no rapeseed, it also imports substantial quantities to feed crushing facilities.
- Ukraine, Russia, and the EU are the leading sunflowerseed producers and processors, accounting for 73.3% and 76.2% of global totals, respectively, this year.

- Soybeans account for the largest share of global oilseed demand. The U.S. and Brazil account for over 68.0% of global production and 91.8% of exports. Argentina is the third largest producer and Paraguay is the third largest exporter, surpassing Argentina in 2016/17 and through 2030. Argentina is the dominant net exporter for both meal and oil. Over the next ten years, more than one-third of global soybean consumption is expected to be supplied by the U.S. and Brazil alone.
- Rapeseed and products are much less dependent on global markets as processing and other consumption occur more in producing regions. Canada sources the majority of rapeseed and products exports. Trade in seed, meal, and oil in 2030 is expected to increase by 16.8%, 26.3, and 18.4%, respectively.
- Kazakhstan has emerged as the world's largest exporter of sunflowerseed, Ukraine is the dominant exporter of meal and oil. However, trade is not as important in the sunflowerseed market, averaging 1.9% of use over the last ten years, growing slightly through 2030 to 2.8%.

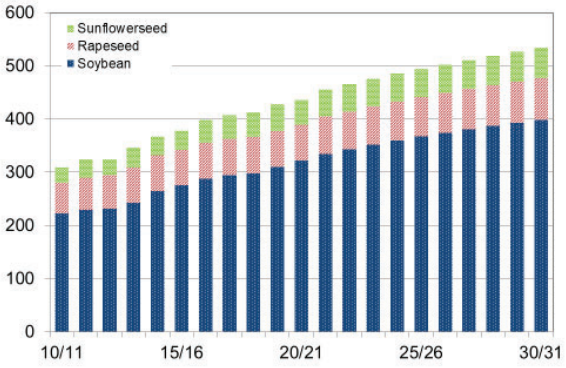
Area Expansion Is Primarily South American Soybeans

World oilseed area harvested, mil ha



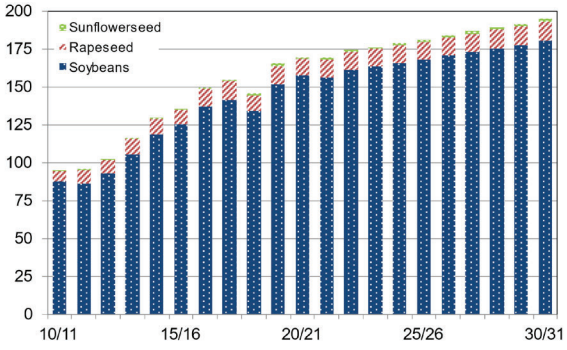
Income Growth Pushes Oil and Protein Demand

World oilseed crush, mmt



Soybeans Dipped in 2018/19 With ASF

Net exports by exporting countries, mmt

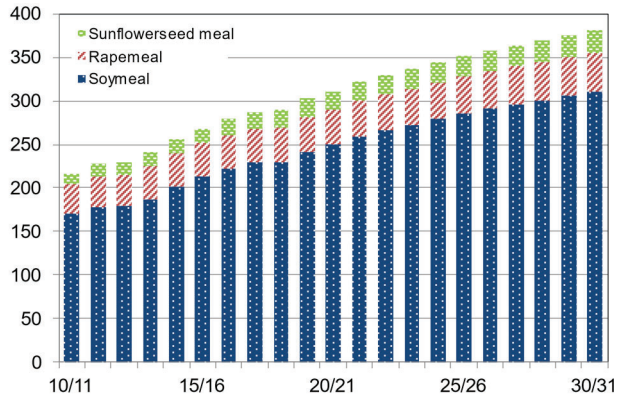


- In combination with population growth, especially in developing and newly emerging regions, per capita incomes are pushing demand for meat, eggs, and dairy products. Increased ability to purchase food allows better diets. As demand for these products increases, so too, does utilization of feed, including protein meals required to produce livestock, milk, eggs and poultry.
- Increasing urbanization in nations such as China is pushing livestock, egg, poultry, and dairy production into locations closer to population centers. As a result, animal production is commercializing, using improved practices and feeds. Protein meals are being increasingly used in feed concentrates.
- Chinese soymeal consumption dipped in 2018/19 due to ASF-related swine loss. However, China's meal use recovered rapidly with increases of 7.6% and 8.3% in the following two years. China's meal use averages 1.3% growth across the projection period, with global meal use growing by 2.2% over the same period.
- Production of substitute proteins in China and other Asian markets hit hard by ASF helped mitigate severe drops in the soy and other meal markets while swine herds recover. Increasing commercialization, especially of swine herds in China, will push this trend through 2030.
- Poultry are much more efficient converters of protein than other animals and poultry production is increasing faster than pork or dairy. Relatively low costs of production and short production cycles, both for meat and eggs, also make poultry attractive for increasing protein in diets in developing regions. Versatility in product lines also has allowed poultry to take market share away from other meats in developed countries.

- With the increase of livestock, especially poultry and hogs, and dairy product consumption around the world, the demand for protein meals has risen dramatically, resulting in a corresponding increase in trade.
- Slight decline in net exports of soy meal 2018/19 through the current year primarily reflect decreased demand for feed of ASF-impacted swine herds in China.
- Many countries import soybeans, rapeseed, sunflowerseed and other oilseeds and crush them, meeting the majority of their meal and oil needs, and supporting a value-added industry. More than one-quarter of soymeal and 15% of rapeseed meal global demand will be met through trade in the projection period.
- While sunflowerseeds are very thinly traded, nearly one-third of sunflowerseed meal consumed is purchased on the international market. Russia, Ukraine, and Kazakhstan account for the majority of exports and Turkey imports more than any other country or region.

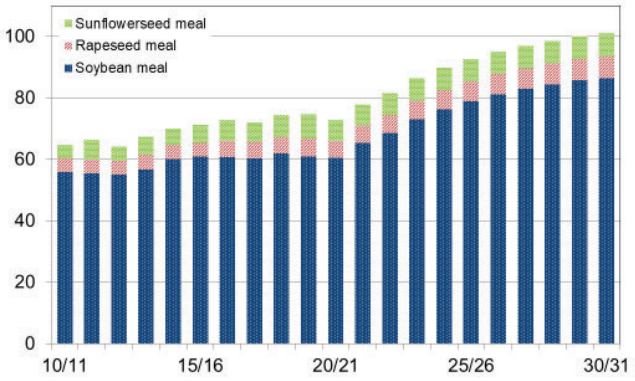
Protein Meals Pushed By Commercial Livestock

World protein meal use, mmt



Soybean Meal Dominates Protein Demand and Trade

Net exports by exporting countries, mmt

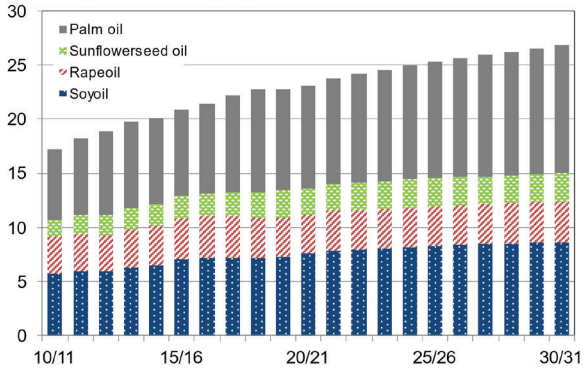


- Vegetable oil consumption is being boosted by population growth, income expansion, and increased industrial uses, including those for biofuels. Particularly soyoil, rapeseed oil, and palm oil contribute to biodiesel supplies. Argentina is a major producer of soy diesel.
- Palm oil production is dramatically increasing global vegetable oil supplies. Indonesia and Malaysia together accounted for 84% of palm oil production in 2020/21, a proportion that is expected to be maintained in the future. Palm oil is taking share in many markets, including those for biofuels.
- Rapeseed oil per capita consumption is stagnating in most regions, with the primary exception being China. Elsewhere, it will not show measurable increases over the next decade as palm oil is displacing rapeseed oil in some regions.
- Similarly, sunflowerseed oil is not increasing dramatically on a per capita basis. Unlike soybeans and products and palm oil, both rapeseed and sunflowerseed products are constrained by limited potential for expanding the land base devoted to those oilseeds.

- Palm oil has captured the largest share of vegetable oil trade. Unlike soybean, rapeseed, or sunflowerseed oils, palm oil is not a co-product of oilseed processing. The trees are fast growing in low-cost areas of the Pacific Rim and Asia and production has exploded, although there are growth cycles. The proportion of palm oil production that is traded is declining slightly – from 60.6% in 2020/21 to 56.6% in 2030. A growing quantity of palm oil demand and trade is attributable to biofuel markets outside of the EU.
- Argentina produces soyoil primarily for the world market, supplying more than 60% of the quantity sold internationally. This share is increasing slightly over the baseline despite export taxes on grains and oilseeds and products that have the potential to marginally restrain soybean and products production and trade from Argentina. However, there is not expected to be an ongoing shift in suppliers to global soybean and products markets.
- Rapeseed crushers cannot absorb the competition from palm oil prices in the baseline as readily as soybean processors, as rapeseed has a nearly 40% oil content, double that of soybeans. As a result, rapeseed crush will be somewhat constrained and rapeseed oil trade will increase relatively slowly.
- Rapeseed oil will see only gradual increases in demand and trade over the next ten years. Primary markets will be China and the U.S. The U.S. will remain the single largest importer of rapeseed oil taking in the majority that is produced by neighboring Canada, which accounts for the vast majority of global trade.
- Though trade is small in absolute terms, sunflowerseed oil is dependent on the international market as nearly 50% of production is currently traded. The largest exporters are Russia and Ukraine, and the largest importers are India and the EU.

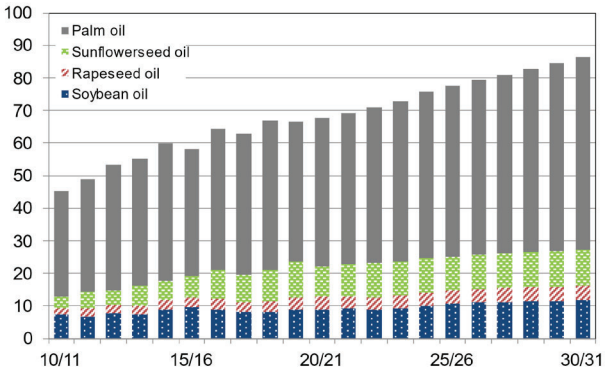
Income-Driven Food and Mandated Biofuels

World vegetable oil use, kg/capita



SE Asian Palm Production Fills Global Veg Oil Needs

Net exports by exporting countries, mmt



World Soybean Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Area Harvested	102.8	103.6	103.1	110.3	112.9	118.7	120.4	119.6	124.3	125.0	122.4
					(Metric tons per hectare)						
Yield	2.54	2.55	2.33	2.44	2.50	2.70	2.62	2.93	2.76	2.89	2.75
					(Million metric tons)						
Supply	390.2	413.0	402.8	415.9	446.1	500.2	519.5	562.1	578.6	590.3	601.4
Production	261.0	264.7	240.8	269.0	282.7	320.5	315.5	349.8	342.9	361.0	336.5
Beginning stocks	45.3	62.6	73.0	57.4	58.1	63.4	78.1	78.4	94.1	98.9	112.8
Net imports	83.9	85.6	89.0	89.5	105.4	116.3	125.9	134.0	141.6	130.3	152.1
Utilization	301.8	325.5	316.7	323.2	341.3	381.8	394.7	425.1	437.2	456.6	450.0
Crush	210.5	222.2	229.2	231.9	243.0	264.7	275.3	287.6	294.7	298.1	309.4
Other utilization	28.7	30.3	30.1	33.3	34.9	38.9	41.0	43.5	43.6	45.7	45.2
Ending Stocks	62.6	73.0	57.4	58.1	63.4	78.1	78.4	94.1	98.9	112.8	95.4
Net Exports	88.4	87.5	86.1	92.6	104.9	118.4	124.9	137.0	141.4	133.7	151.4
Total Demand	390.2	413.0	402.8	415.9	446.1	500.2	519.5	562.1	578.6	590.3	601.4

Soybean Area Harvested

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Argentina	18.6	18.3	17.6	19.8	19.3	19.4	19.4	17.3	16.3	16.6	16.7
Brazil	23.5	24.2	25.0	27.7	30.1	32.1	33.3	33.9	35.2	35.9	36.9
Canada	1.4	1.5	1.6	1.7	1.9	2.3	2.2	2.2	2.9	2.5	2.3
China	9.3	8.7	8.1	7.4	7.1	7.1	6.8	7.6	8.2	8.4	9.3
EU-28	0.4	0.4	0.4	0.4	0.5	0.6	0.9	0.8	0.9	0.9	0.9
India	9.7	9.6	10.1	10.8	11.7	10.9	11.6	11.2	10.3	11.1	12.0
Japan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1
Mexico	0.1	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2
Paraguay	2.7	2.9	3.0	3.2	3.3	3.3	3.3	3.4	3.5	3.5	3.5
South Korea	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1
Taiwan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United States	30.9	31.0	29.9	30.8	30.9	33.4	33.1	33.5	36.2	35.4	30.3
Vietnam	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Rest of world	5.8	6.5	7.1	8.0	7.9	9.2	9.4	9.1	10.1	10.0	10.1
World total	102.8	103.6	103.1	110.3	112.9	118.7	120.4	119.6	124.3	125.0	122.4

World Soybean Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Area Harvested	127.4	135.5	138.0	140.4	142.1	143.2	143.9	144.6	145.5	146.2	146.8
					(Metric tons per hectare)						
Yield	2.83	2.85	2.88	2.90	2.93	2.96	2.99	3.02	3.04	3.07	3.10
					(Million metric tons)						
Supply	611.3	625.2	643.3	660.2	677.1	692.6	706.3	718.4	730.2	741.3	753.4
Production	361.0	386.2	396.7	407.4	416.2	423.6	430.0	436.3	443.0	449.3	455.6
Beginning stocks	95.4	85.0	87.8	91.9	97.8	103.3	107.9	111.5	114.3	117.1	119.9
Net imports	154.9	153.9	158.8	160.9	163.1	165.7	168.3	170.7	172.9	174.9	178.0
Utilization	454.1	469.0	482.2	497.1	511.8	524.6	535.7	545.5	555.0	564.1	573.2
Crush	321.5	334.2	342.9	351.3	359.9	367.6	374.5	380.9	387.2	392.9	398.5
Other utilization	47.5	47.0	47.4	47.9	48.5	49.1	49.7	50.2	50.8	51.3	51.9
Ending Stocks	85.0	87.8	91.9	97.8	103.3	107.9	111.5	114.3	117.1	119.9	122.7
Net Exports	157.2	156.2	161.1	163.1	165.4	167.9	170.6	172.9	175.1	177.2	180.2
Total Demand	611.3	625.2	643.3	660.2	677.1	692.6	706.2	718.4	730.2	741.3	753.4

Soybean Area Harvested

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Argentina	16.7	17.6	18.4	19.2	19.8	20.3	20.7	21.1	21.5	21.8	22.1
Brazil	38.6	40.8	41.9	42.7	43.3	43.6	43.7	43.7	43.7	43.7	43.7
Canada	2.0	2.2	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3
China	9.9	9.8	9.6	9.5	9.5	9.4	9.4	9.4	9.5	9.6	9.6
EU-28	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
India	12.2	12.8	13.2	13.4	13.6	13.7	13.7	13.8	13.9	13.9	13.9
Japan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mexico	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Paraguay	3.7	3.9	4.0	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2
South Korea	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Taiwan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United States	33.3	36.1	35.5	35.4	35.2	35.1	35.0	35.0	35.1	35.1	35.1
Vietnam	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Rest of world	9.7	10.9	11.6	12.2	12.7	13.1	13.3	13.5	13.8	14.1	14.3
World total	127.4	135.5	138.0	140.4	142.1	143.2	143.9	144.6	145.5	146.2	146.8

Soybean Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Argentina	13,087	9,193	7,368	7,736	7,841	10,573	9,246	5,351	-2,571	2,696	5,091
Brazil	28,404	29,914	36,129	41,509	46,224	50,307	53,973	62,885	75,961	74,747	91,577
Canada	1,872	2,693	2,703	3,200	3,129	3,518	3,950	4,106	4,437	4,086	3,644
India	15	18	38	115	179	223	81	189	51	-39	-415
Paraguay	4,639	5,073	3,143	5,055	4,837	4,569	5,375	6,117	6,023	4,888	6,180
United States	40,401	40,566	36,747	35,026	42,641	49,232	52,228	58,358	57,477	47,293	45,358
Total net exports	88,418	87,457	86,128	92,641	104,851	118,422	124,853	137,006	141,378	133,671	151,435
Net importers											
China	50,154	52,149	58,956	59,599	70,149	78,207	83,116	93,381	93,961	82,424	98,443
EU-28	12,623	12,377	12,016	12,446	13,236	13,798	14,976	13,221	14,308	14,806	15,479
Japan	3,401	2,917	2,758	2,830	2,894	3,004	3,186	3,175	3,256	3,314	3,325
South Korea	1,197	1,239	1,139	1,113	1,271	1,246	1,248	1,286	1,256	1,373	1,300
Mexico	3,523	3,498	3,606	3,409	3,842	3,819	4,126	4,126	4,873	5,867	6,000
Taiwan	2,469	2,454	2,285	2,286	2,335	2,520	2,476	2,566	2,666	2,614	2,850
Vietnam	224	932	1,290	1,290	1,564	1,707	1,602	1,646	1,807	1,638	1,900
Rest of world	10,275	10,062	6,963	6,486	10,088	11,992	15,188	14,576	19,480	18,281	22,821
Total net imports	83,866	85,628	89,013	89,459	105,379	116,293	125,918	133,977	141,607	130,317	152,118
Residual	4,552	1,829	-2,885	3,182	-528	2,129	-1,065	3,029	-229	3,354	-683
					(Dollars per metric ton)						
Soybean price, Central IL	357	482	505	537	487	356	346	351	337	307	325

Soybean Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Argentina	3,101	2,615	3,050	3,465	3,366	3,493	3,827	4,352	5,142	5,703	6,424
Brazil	84,621	86,232	90,204	91,077	93,005	95,103	97,210	98,099	98,851	99,727	101,505
Canada	3,650	3,733	3,915	3,986	4,007	4,005	3,999	3,991	4,000	4,014	4,026
India	-186	353	393	415	415	357	230	137	27	-97	-225
Paraguay	6,302	6,314	6,491	6,680	6,822	6,924	6,980	7,038	7,100	7,139	7,164
United States	59,662	56,925	57,030	57,491	57,738	58,064	58,349	59,293	60,001	60,673	61,320
Total net exports	157,150	156,171	161,083	163,115	165,354	167,946	170,593	172,910	175,122	177,159	180,215
Net importers											
China	99,896	101,322	105,513	106,448	107,152	108,047	109,012	109,560	110,321	111,145	112,889
EU-28	15,158	14,724	14,923	15,043	15,134	15,242	15,416	15,479	15,593	15,728	15,880
Japan	3,400	3,451	3,445	3,423	3,398	3,376	3,369	3,349	3,338	3,337	3,336
South Korea	1,280	1,281	1,289	1,297	1,300	1,301	1,301	1,302	1,303	1,303	1,304
Mexico	6,200	6,454	6,618	6,728	6,807	6,862	6,915	6,941	6,957	6,974	6,992
Taiwan	2,891	2,882	2,869	2,863	2,861	2,858	2,857	2,850	2,848	2,847	2,846
Vietnam	2,013	2,081	2,106	2,129	2,152	2,180	2,210	2,240	2,272	2,305	2,341
Rest of world	24,056	21,721	22,063	22,928	24,294	25,822	27,257	28,934	30,234	31,265	32,370
Total net imports	154,894	153,915	158,827	160,859	163,098	165,690	168,337	170,654	172,866	174,903	177,959
Residual	2,256	2,256	2,256	2,256	2,256	2,256	2,256	2,256	2,256	2,256	2,256
					(Dollars per metric ton)						
Soybean price, Central IL	421	393	387	378	368	361	356	360	360	360	360

World Soybean Products Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Soybean Meal											
					(Million metric tons)						
Supply	222.1	235.8	244.1	244.0	254.5	275.8	287.9	296.1	303.3	304.7	312.6
Production	165.8	175.0	180.9	182.3	190.5	208.4	216.1	225.7	232.3	233.6	243.1
Beginning stocks	5.3	6.9	9.3	10.7	9.9	11.1	14.1	13.7	13.8	14.2	12.8
Net imports	51.0	53.9	53.8	51.0	54.0	56.3	57.8	56.7	57.3	56.9	56.7
Utilization	168.6	179.9	188.6	189.0	197.8	215.8	226.9	235.4	243.1	242.9	251.7
Consumption	161.7	170.6	177.9	179.1	186.7	201.7	213.3	221.7	228.9	230.1	241.0
Ending Stocks	6.9	9.3	10.7	9.9	11.1	14.1	13.7	13.8	14.2	12.8	10.7
Net Exports	53.4	55.9	55.5	55.0	56.7	60.0	61.0	60.7	60.2	61.8	61.0
Total Demand	222.1	235.8	244.1	244.0	254.5	275.8	287.9	296.1	303.3	304.7	312.6
Soybean Oil											
Supply	49.3	52.3	53.6	54.4	56.7	61.0	65.5	66.3	66.4	67.4	70.2
Production	39.0	41.5	42.8	43.4	45.3	49.3	51.6	53.8	55.1	55.8	57.9
Beginning stocks	3.6	3.7	4.4	4.3	4.3	3.9	4.5	3.9	3.9	3.9	4.1
Net imports	6.7	7.1	6.3	6.8	7.2	7.8	9.4	8.6	7.4	7.7	8.1
Utilization	41.8	44.9	46.7	46.8	49.4	52.1	56.0	57.4	58.4	59.2	61.5
Consumption	38.1	40.4	42.5	42.6	45.4	47.6	52.1	53.4	54.5	55.1	56.7
Ending Stocks	3.7	4.4	4.3	4.3	3.9	4.5	3.9	3.9	3.9	4.1	4.8
Net Exports	7.4	7.4	6.8	7.6	7.4	8.9	9.5	9.0	8.0	8.2	8.7
Total Demand	49.3	52.3	53.6	54.4	56.7	61.0	65.5	66.3	66.4	67.4	70.2

World Soybean Products Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
Soybean Meal											
					(Million metric tons)						
Supply	320.8	334.8	344.6	356.2	366.8	376.0	384.2	391.6	398.4	404.5	410.0
Production	252.8	262.5	269.3	276.0	282.7	288.7	294.1	299.2	304.0	308.5	313.0
Beginning stocks	10.7	10.1	10.0	10.3	10.9	11.6	12.2	12.7	13.1	13.4	13.8
Net imports	57.3	62.2	65.3	69.9	73.2	75.8	78.0	79.8	81.3	82.6	83.3
Utilization	260.1	269.4	276.1	283.3	290.6	297.3	303.3	308.9	314.2	319.1	323.9
Consumption	250.0	259.5	265.8	272.3	279.0	285.2	290.7	295.9	300.8	305.3	309.9
Ending Stocks	10.1	10.0	10.3	10.9	11.6	12.2	12.7	13.1	13.4	13.8	14.0
Net Exports	60.4	65.4	68.5	73.1	76.3	78.9	81.2	82.9	84.4	85.7	86.5
Total Demand	320.5	334.8	344.6	356.4	367.0	376.3	384.5	391.8	398.7	404.8	410.3
Soybean Oil											
Supply	73.2	75.9	76.9	79.1	81.6	83.7	85.6	87.2	88.7	90.1	91.3
Production	60.3	62.6	64.2	65.8	67.5	68.9	70.2	71.5	72.6	73.7	74.8
Beginning stocks	4.8	4.9	4.5	4.8	4.9	5.1	5.2	5.4	5.5	5.6	5.7
Net imports	8.1	8.4	8.1	8.5	9.2	9.7	10.2	10.4	10.6	10.8	10.9
Utilization	64.2	66.7	67.9	69.8	71.6	73.2	74.7	76.0	77.3	78.5	79.6
Consumption	59.3	62.2	63.2	64.9	66.5	68.0	69.3	70.5	71.7	72.8	73.9
Ending Stocks	4.9	4.5	4.8	4.9	5.1	5.2	5.4	5.5	5.6	5.7	5.8
Net Exports	9.0	9.2	8.9	9.4	10.0	10.5	11.0	11.2	11.4	11.6	11.7
Total Demand	73.2	75.9	76.9	79.2	81.6	83.7	85.6	87.3	88.7	90.1	91.4

Soybean Meal Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Argentina	24,912	27,615	26,043	23,667	24,972	28,574	30,333	31,323	26,264	28,806	27,366
Brazil	12,899	13,929	14,648	13,210	13,922	14,272	15,382	13,727	16,013	16,071	17,489
China	1,098	178	853	1,349	1,997	1,537	1,885	1,050	1,175	915	961
India	3,520	5,161	4,870	4,936	3,245	1,514	363	2,008	1,852	2,136	823
Paraguay	1,040	1,018	505	2,018	2,423	2,566	2,560	2,370	2,628	2,333	2,200
Taiwan	-17	-46	-98	-26	-2	-33	-8	-13	-13	-21	-70
United States	9,980	8,075	8,649	9,889	10,157	11,589	10,485	10,192	12,279	11,571	12,190
Total net exports	53,432	55,930	55,470	55,043	56,714	60,019	61,000	60,657	60,198	61,811	60,959
Net importers											
Canada	980	866	965	738	740	721	454	530	665	593	788
EU-28	20,408	21,268	19,988	16,405	17,844	19,261	18,909	18,459	17,972	18,381	17,257
Japan	2,106	2,208	2,282	1,765	1,976	1,698	1,720	1,620	1,727	1,595	1,857
South Korea	1,662	1,586	1,533	1,539	1,646	1,639	2,042	1,664	1,805	1,784	1,948
Mexico	1,203	1,493	1,537	1,282	1,391	1,780	2,353	2,051	1,860	1,879	1,835
Vietnam	2,879	2,718	2,264	2,911	3,263	4,016	4,974	4,825	4,849	5,049	5,040
Rest of world	21,740	23,754	25,210	26,371	27,185	27,154	27,300	27,533	28,407	27,616	27,973
Total net imports	50,978	53,893	53,779	51,011	54,045	56,269	57,752	56,682	57,285	56,897	56,698
Residual	2,454	2,037	1,691	3,927	2,669	3,750	3,248	3,975	2,913	4,914	4,261
					(Dollars per metric ton)						
Soymeal price 48%, Decatur	343	381	434	516	540	406	358	349	380	340	330

Soybean Oil Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Argentina	4,453	4,561	3,794	4,151	4,078	5,072	5,698	5,387	4,164	5,268	5,403
Brazil	1,412	1,668	1,885	1,245	1,378	1,499	1,487	1,181	1,466	1,055	1,090
Canada	4	34	44	74	62	90	132	152	136	146	117
EU-28	-161	-443	356	689	437	757	590	534	618	372	283
Paraguay	250	229	119	530	632	697	696	674	697	648	635
Taiwan	11	3	16	26	4	9	12	13	7	25	20
United States	1,477	1,394	596	892	777	794	887	1,014	956	700	1,143
Total net exports	7,446	7,446	6,810	7,607	7,368	8,918	9,502	8,955	8,044	8,214	8,691
Net importers											
China	1,437	1,267	1,442	1,325	1,259	666	490	593	270	586	845
India	1,353	817	1,180	1,081	1,803	2,812	4,266	3,533	2,977	2,992	3,597
Japan	26	19	20	38	16	3	7	5	7	13	4
South Korea	305	271	318	284	272	253	246	295	274	326	400
Mexico	190	353	141	190	197	250	307	266	231	144	136
Vietnam	136	60	-24	11	-9	-6	62	-6	7	36	35
Rest of world	3,260	4,361	3,210	3,825	3,670	3,839	4,058	3,921	3,584	3,601	3,118
Total net imports	6,707	7,148	6,287	6,754	7,208	7,817	9,436	8,607	7,350	7,698	8,135
Residual	739	298	523	853	160	1,101	66	348	694	516	556
					(Dollars per metric ton)						
Soyoil price, Decatur	793	1,173	1,144	1,039	843	697	658	718	662	606	654

Soybean Meal Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Argentina	26,204	28,650	30,533	32,156	34,115	35,730	37,001	38,030	38,964	39,704	40,243
Brazil	16,861	19,388	19,725	22,011	23,193	24,074	24,704	25,165	25,533	25,724	25,594
China	979	541	880	1,250	1,271	1,256	1,331	1,381	1,420	1,503	1,441
India	1,731	2,135	2,243	2,328	2,373	2,408	2,474	2,541	2,605	2,656	2,713
Paraguay	2,448	2,523	2,748	2,895	3,002	3,080	3,153	3,190	3,224	3,259	3,294
Taiwan	-36	-17	6	14	17	16	16	17	15	14	12
United States	12,256	12,178	12,363	12,421	12,376	12,374	12,482	12,589	12,678	12,885	13,162
Total net exports	60,444	65,399	68,497	73,075	76,348	78,938	81,160	82,914	84,438	85,745	86,457
Net importers											
Canada	723	731	800	854	899	934	958	981	1,010	1,044	1,075
EU-28	17,552	18,950	19,104	20,705	20,917	21,086	21,076	20,962	20,830	20,627	20,396
Japan	1,716	1,795	1,934	2,018	2,078	2,121	2,132	2,135	2,136	2,124	2,104
South Korea	1,926	1,834	1,862	1,894	1,937	1,980	2,038	2,072	2,081	2,102	2,134
Mexico	1,932	1,704	1,539	1,457	1,416	1,375	1,282	1,183	1,081	965	860
Vietnam	5,091	5,510	5,967	6,418	6,907	7,587	8,283	8,842	9,398	9,823	10,390
Rest of world	28,347	31,716	34,132	36,571	39,035	40,698	42,233	43,579	44,744	45,901	46,339
Total net imports	57,286	62,241	65,339	69,917	73,190	75,780	78,002	79,756	81,280	82,587	83,299
Residual	3,158	3,158	3,158	3,158	3,158	3,158	3,158	3,158	3,158	3,158	3,158
					(Dollars per metric ton)						
Soymeal price 48%, Decatur	422	386	385	380	373	366	364	368	368	369	370

Soybean Oil Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Argentina	5,635	5,575	5,584	5,852	6,471	6,898	7,248	7,384	7,474	7,549	7,561
Brazil	978	1,231	1,248	1,322	1,372	1,406	1,459	1,536	1,570	1,621	1,674
Canada	112	129	135	139	140	142	142	143	143	143	144
EU-28	412	683	311	306	302	324	354	370	403	424	460
Paraguay	675	685	745	782	807	825	841	849	855	862	869
Taiwan	21	27	24	21	18	17	16	15	15	14	15
United States	1,138	847	894	935	935	934	924	922	960	982	1,004
Total net exports	8,971	9,176	8,940	9,356	10,045	10,546	10,986	11,219	11,421	11,596	11,726
Net importers											
China	948	1,251	826	1,014	1,213	1,328	1,402	1,481	1,521	1,557	1,425
India	3,396	3,165	3,197	3,282	3,394	3,491	3,588	3,681	3,763	3,842	3,912
Japan	22	13	16	18	19	20	20	20	20	20	20
South Korea	394	322	336	343	347	347	347	347	346	345	344
Mexico	157	111	84	68	58	52	48	49	51	55	58
Vietnam	27	27	37	46	55	65	75	85	96	106	117
Rest of world	3,202	3,462	3,619	3,761	4,134	4,419	4,681	4,731	4,799	4,845	5,025
Total net imports	8,146	8,351	8,115	8,531	9,220	9,721	10,161	10,394	10,596	10,771	10,901
Residual	825	825	825	825	825	825	825	825	825	825	825
					(Dollars per metric ton)						
Soyoil price, Decatur	834	815	779	752	725	720	715	716	722	726	732

World Rapeseed Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Area Harvested	30.7	33.6	33.3	35.8	35.7	35.0	33.3	33.4	36.5	36.8	34.9
					(Metric tons per hectare)						
Yield	1.98	1.80	1.84	1.77	1.98	2.01	2.06	2.08	2.06	1.98	1.98
					(Million metric tons)						
Supply	75.2	75.1	79.0	79.6	87.6	87.6	85.5	86.7	91.8	91.5	90.3
Production	60.8	60.5	61.2	63.3	70.6	70.4	68.7	69.5	75.2	73.0	69.2
Beginning stocks	7.7	8.7	8.7	6.8	5.5	7.8	7.3	6.2	5.1	8.1	9.6
Net imports	6.7	5.8	9.0	9.4	11.4	9.4	9.5	11.0	11.5	10.4	11.4
Utilization	68.4	68.5	70.2	70.4	76.6	77.4	75.7	75.4	79.4	81.1	78.5
Crush	56.9	57.4	60.5	62.1	66.2	67.1	66.6	67.3	68.2	67.9	68.3
Other utilization	2.7	2.4	2.9	2.8	2.6	3.0	2.9	2.9	3.1	3.6	3.1
Ending Stocks	8.7	8.7	6.8	5.5	7.8	7.3	6.2	5.1	8.1	9.6	7.0
Net Exports	6.8	3.4	8.8	9.2	11.0	10.2	9.7	11.3	12.4	10.4	11.8
Total Demand	75.2	71.9	79.0	79.6	87.6	87.6	85.5	86.7	91.8	91.5	90.3

Rapeseed Area Harvested

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Canada	6.5	6.9	7.6	8.9	8.2	8.4	8.4	8.3	9.3	9.1	8.5
China	7.2	7.3	7.2	7.2	7.2	7.2	7.0	6.6	6.7	6.6	6.6
EU-28	6.5	7.0	6.7	6.3	6.8	6.7	6.5	6.6	6.8	7.0	5.6
India	5.6	6.9	5.9	6.4	6.6	5.8	5.7	6.1	6.7	7.2	7.4
Japan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United States	0.3	0.6	0.4	0.7	0.5	0.6	0.7	0.7	0.8	0.8	0.8
Rest of world	4.5	4.9	5.5	6.4	6.3	6.3	5.0	5.2	6.3	6.1	6.1
World total	30.7	33.6	33.3	35.8	35.7	35.0	33.3	33.4	36.5	36.8	34.9

World Rapeseed Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Area Harvested	34.7	36.1	36.2	36.2	36.3	36.3	36.2	36.3	36.4	36.6	36.7
					(Metric tons per hectare)						
Yield	1.98	2.06	2.08	2.10	2.12	2.14	2.16	2.18	2.21	2.23	2.25
					(Million metric tons)						
Supply	86.9	90.7	91.5	92.9	94.2	95.6	96.8	98.0	99.5	101.0	102.6
Production	68.9	74.4	75.4	76.2	77.1	77.7	78.4	79.2	80.3	81.4	82.5
Beginning stocks	7.0	4.9	4.6	5.1	5.6	6.2	6.6	6.7	6.9	7.1	7.3
Net imports	10.9	11.4	11.5	11.6	11.5	11.7	11.8	12.0	12.3	12.5	12.8
Utilization	75.9	79.3	80.0	81.3	82.6	83.9	85.0	85.9	87.1	88.5	89.8
Crush	67.7	71.3	71.4	72.2	73.0	73.7	74.7	75.4	76.4	77.6	78.7
Other utilization	3.3	3.4	3.5	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6
Ending Stocks	4.9	4.6	5.1	5.6	6.2	6.6	6.7	6.9	7.1	7.3	7.4
Net Exports	11.0	11.4	11.5	11.6	11.5	11.7	11.8	12.1	12.3	12.5	12.8
Total Demand	86.9	90.7	91.5	92.9	94.2	95.6	96.8	98.0	99.5	101.0	102.6

Rapeseed Area Harvested

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Canada	8.3	8.8	8.8	8.8	8.7	8.6	8.6	8.6	8.6	8.6	8.6
China	6.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.9	6.9	7.0
EU-28	5.5	5.8	5.8	5.8	5.8	5.8	5.7	5.7	5.7	5.7	5.6
India	7.2	7.3	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
Japan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United States	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Rest of world	6.4	6.7	6.8	7.0	7.1	7.2	7.2	7.3	7.4	7.5	7.6
World total	34.7	36.1	36.2	36.2	36.3	36.3	36.2	36.3	36.4	36.6	36.7

Rapeseed Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Canada	7,044	6,983	8,598	6,982	9,109	9,139	10,177	10,928	10,740	9,056	10,147
India	0	-3,204	0	0	1	0	0	0	0	0	0
Rest of world	-201	-387	190	2,173	1,866	1,079	-440	416	1,631	1,320	1,649
Total net exports	6,843	3,392	8,788	9,155	10,976	10,218	9,737	11,344	12,371	10,376	11,796
Net importers											
China	2,177	930	2,622	3,421	5,046	4,591	4,010	4,260	4,715	3,486	2,558
EU-28	1,906	2,410	3,603	3,284	3,234	1,729	2,881	3,775	3,869	4,141	6,218
Japan	2,275	2,321	2,350	2,495	2,378	2,489	2,387	2,392	2,384	2,384	2,242
United States	391	188	469	217	768	617	183	579	497	383	383
Total net imports	6,749	5,849	9,044	9,417	11,426	9,426	9,461	11,006	11,465	10,394	11,401
Residual	-94	-748	256	262	450	-792	-276	-338	-906	18	-395
					(Dollars per metric ton)						
Rapeseed price, Hamburg	419	647	616	579	505	417	409	432	425	420	433

Rapeseed Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Canada	9,850	10,073	9,958	9,872	9,672	9,716	9,741	9,851	9,983	10,040	10,165
India	0	0	0	0	0	0	0	0	0	0	0
Rest of world	1,100	1,328	1,547	1,747	1,876	1,990	2,085	2,211	2,344	2,484	2,628
Total net exports	10,950	11,402	11,505	11,619	11,548	11,706	11,826	12,062	12,327	12,524	12,793
Net importers											
China	2,500	3,370	3,415	3,539	3,515	3,681	3,772	3,812	3,955	3,986	4,155
EU-28	5,782	5,074	5,184	5,211	5,200	5,215	5,258	5,466	5,593	5,760	5,860
Japan	2,300	2,400	2,407	2,387	2,364	2,349	2,339	2,331	2,327	2,326	2,324
United States	340	530	471	455	442	433	429	425	423	424	426
Total net imports	10,922	11,374	11,477	11,591	11,520	11,678	11,798	12,034	12,299	12,496	12,765
Residual	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28	-28
					(Dollars per metric ton)						
Rapeseed price, Hamburg	483	455	452	446	437	432	427	432	434	435	433

World Rapeseed Products Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Rapeseed Meal											
					(Million metric tons)						
Supply	36.8	39.1	40.5	41.4	44.3	44.3	44.0	45.1	45.9	45.6	46.5
Production	32.9	33.4	34.9	36.0	38.3	38.7	38.6	38.8	39.4	39.2	39.5
Beginning stocks	0.8	1.3	1.1	1.1	1.0	0.9	1.0	1.1	1.0	1.0	1.1
Net imports	3.1	4.5	4.5	4.3	5.0	4.6	4.4	5.2	5.5	5.4	5.9
Utilization	34.0	34.7	36.0	37.0	39.5	39.6	39.6	39.8	40.3	40.2	40.7
Consumption	32.7	33.6	34.9	36.0	38.5	38.6	38.5	38.8	39.2	39.1	39.6
Ending Stocks	1.3	1.1	1.1	1.0	0.9	1.0	1.1	1.0	1.0	1.1	1.1
Net Exports	2.9	4.4	4.5	4.4	4.8	4.7	4.4	5.3	5.6	5.4	5.8
Total Demand	36.8	39.1	40.5	41.4	44.3	44.3	44.0	45.1	45.9	45.6	46.5
Rapeseed Oil											
Supply	26.3	27.4	29.4	31.3	34.4	36.4	36.8	36.2	35.2	34.1	34.4
Production	23.2	23.4	24.7	25.4	27.0	27.4	27.3	27.5	27.9	27.7	28.0
Beginning stocks	1.4	2.1	2.3	3.3	4.9	6.3	6.6	5.6	4.2	3.1	2.6
Net imports	1.6	1.9	2.4	2.7	2.5	2.7	2.8	3.0	3.1	3.3	3.7
Utilization	24.9	25.5	27.1	28.7	31.9	33.6	33.9	33.1	32.0	30.7	30.5
Consumption	22.7	23.2	23.8	23.7	25.7	26.9	28.2	28.9	28.9	28.1	28.1
Ending Stocks	2.1	2.3	3.3	4.9	6.3	6.6	5.6	4.2	3.1	2.6	2.4
Net Exports	1.4	1.9	2.3	2.7	2.5	2.8	2.9	3.1	3.2	3.4	3.9
Total Demand	26.3	27.4	29.4	31.3	34.4	36.4	36.8	36.2	35.2	34.1	34.4

World Rapeseed Products Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
Rapeseed Meal											
					(Million metric tons)						
Supply	45.7	47.6	48.1	48.8	49.4	50.0	50.7	51.2	51.9	52.8	53.6
Production	39.2	41.3	41.4	41.8	42.3	42.7	43.3	43.7	44.3	45.0	45.6
Beginning stocks	1.1	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Net imports	5.4	5.4	5.7	5.9	6.1	6.2	6.4	6.4	6.6	6.7	6.9
Utilization	40.1	42.0	42.2	42.7	43.1	43.6	44.2	44.6	45.2	45.9	46.5
Consumption	39.2	41.0	41.2	41.6	42.1	42.5	43.1	43.6	44.1	44.8	45.4
Ending Stocks	0.9	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1
Net Exports	5.6	5.6	5.9	6.1	6.2	6.4	6.5	6.6	6.7	6.9	7.1
Total Demand	45.7	47.6	48.1	48.8	49.4	50.0	50.7	51.2	51.9	52.8	53.6
Rapeseed Oil											
Supply	33.7	34.8	35.0	35.3	35.9	36.4	36.9	37.3	37.8	38.4	39.0
Production	27.7	29.2	29.3	29.6	29.9	30.2	30.6	30.9	31.3	31.8	32.2
Beginning stocks	2.4	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.5
Net imports	3.5	3.5	3.5	3.6	3.8	3.9	4.0	4.0	4.1	4.2	4.2
Utilization	29.9	31.1	31.2	31.5	31.9	32.2	32.7	33.0	33.5	34.0	34.5
Consumption	27.8	29.0	29.0	29.3	29.6	29.9	30.3	30.6	31.0	31.5	31.9
Ending Stocks	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.5	2.6
Net Exports	3.8	3.7	3.8	3.8	4.0	4.2	4.2	4.3	4.3	4.4	4.4
Total Demand	33.7	34.8	35.0	35.3	35.9	36.4	36.9	37.3	37.8	38.4	39.0

Rapeseed Meal Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Canada	1,927	2,965	3,302	3,394	3,414	3,614	4,085	4,603	4,522	4,637	4,898
India	912	1,480	1,182	1,208	1,594	1,059	288	412	864	876	825
Japan	-58	-25	-7	-75	-74	42	-7	-1	-6	-7	-1
EU-28	84	18	40	-143	-96	-39	61	292	218	-67	101
Total net exports	2,865	4,438	4,517	4,384	4,838	4,676	4,427	5,306	5,598	5,439	5,823
Net importers											
China	866	1,408	615	5	277	142	245	863	1,244	1,426	1,896
United States	1,132	1,978	2,722	3,057	3,340	3,466	3,547	3,473	3,208	3,241	3,464
Rest of world	1,122	1,104	1,177	1,242	1,366	1,008	647	879	1,003	768	563
Total net imports	3,120	4,490	4,514	4,304	4,983	4,616	4,439	5,215	5,455	5,435	5,923
Residual	255	52	-3	-80	145	-60	12	-91	-143	-4	100
					(Dollars per metric ton)						
Rapemeal price, Hamburg	221	278	295	353	323	269	232	225	259	247	244

Rapeseed Oil Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Canada	1,609	2,296	2,584	2,346	2,265	2,377	2,721	3,052	3,156	3,139	3,409
EU-28	-333	-278	-377	251	8	96	145	185	113	-36	25
Rest of world	136	-105	54	75	220	336	27	-147	-73	258	418
Total net exports	1,412	1,913	2,261	2,672	2,493	2,809	2,893	3,090	3,196	3,361	3,852
Net importers											
China	780	644	1,030	1,592	896	726	765	784	1,051	1,492	1,936
India	14	3	107	8	152	381	380	314	275	58	35
Japan	8	25	29	20	8	19	15	14	18	27	41
United States	816	1,189	1,191	1,036	1,417	1,565	1,686	1,877	1,747	1,684	1,722
Total net imports	1,618	1,861	2,357	2,656	2,473	2,691	2,846	2,989	3,091	3,261	3,734
Residual	-206	52	-96	16	20	118	47	101	105	100	118
					(Dollars per metric ton)						
Rapeoil price, Rotterdam	927	1,367	1,258	1,127	954	782	798	871	844	840	879

Rapeseed Meal Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Canada	4,824	5,001	5,001	5,085	5,247	5,274	5,326	5,348	5,390	5,486	5,556
India	789	617	562	614	685	754	952	884	1,020	1,138	1,173
Japan	-8	56	93	77	59	51	50	56	63	72	75
EU-28	-6	-51	252	344	246	305	215	322	265	228	271
Total net exports	5,600	5,623	5,909	6,121	6,237	6,384	6,543	6,610	6,738	6,923	7,075
Net importers											
China	1,485	1,379	1,447	1,517	1,534	1,561	1,601	1,701	1,777	1,803	1,833
United States	3,460	3,522	3,551	3,587	3,632	3,679	3,729	3,772	3,808	3,842	3,894
Rest of world	477	543	732	839	893	967	1,035	960	974	1,100	1,171
Total net imports	5,422	5,445	5,731	5,943	6,059	6,206	6,365	6,432	6,560	6,745	6,897
Residual	-178	-178	-178	-178	-178	-178	-178	-178	-178	-178	-178
					(Dollars per metric ton)						
Rapemeal price, Hamburg	311	274	278	277	272	269	268	275	276	279	278

Rapeseed Oil Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Canada	3,380	3,403	3,440	3,486	3,588	3,592	3,625	3,636	3,665	3,739	3,788
EU-28	-49	-165	-117	-98	-12	152	187	264	279	334	335
Rest of world	427	458	430	418	423	442	411	387	379	349	326
Total net exports	3,758	3,697	3,752	3,806	3,999	4,186	4,223	4,287	4,322	4,423	4,449
Net importers											
China	1,587	1,337	1,359	1,395	1,559	1,718	1,727	1,763	1,775	1,842	1,837
India	33	88	108	117	124	129	134	140	145	157	163
Japan	43	51	53	58	60	61	64	64	65	66	68
United States	1,854	1,980	1,992	1,996	2,015	2,036	2,058	2,078	2,097	2,117	2,140
Total net imports	3,517	3,456	3,511	3,565	3,758	3,945	3,982	4,046	4,081	4,182	4,208
Residual	241	241	241	241	241	241	241	241	241	241	241
					(Dollars per metric ton)						
Rapeoil price, Rotterdam	1,013	993	956	924	899	892	884	885	891	893	894

World Sunflowerseed Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Area Harvested	23.0	23.1	24.6	23.6	24.0	23.1	23.5	25.9	25.9	25.8	26.3
					(Metric tons per hectare)						
Yield	1.38	1.42	1.57	1.48	1.73	1.70	1.73	1.86	1.85	1.96	2.09
					(Million metric tons)						
Supply	35.7	35.7	41.4	37.6	44.4	42.6	44.2	51.9	51.8	54.2	59.1
Production	31.6	32.8	38.7	34.9	41.5	39.2	40.7	48.2	47.8	50.6	55.0
Beginning stocks	3.8	2.6	2.3	2.5	2.8	3.3	2.9	2.8	3.4	2.7	2.4
Net imports	0.3	0.3	0.4	0.2	0.1	0.1	0.5	0.9	0.5	1.0	1.7
Utilization	35.5	35.2	40.7	37.4	43.9	42.4	43.5	50.8	50.9	52.7	57.0
Crush	29.1	29.0	34.4	30.8	36.9	35.6	36.6	43.1	44.0	46.2	50.2
Other utilization	3.7	4.0	3.8	3.8	3.7	3.9	4.1	4.2	4.2	4.1	4.2
Ending Stocks	2.6	2.3	2.5	2.8	3.3	2.9	2.8	3.4	2.7	2.4	2.5
Net Exports	0.3	0.5	0.6	0.3	0.5	0.2	0.6	1.1	0.9	1.5	2.1
Total Demand	35.7	35.7	41.4	37.6	44.4	42.6	44.2	51.9	51.8	54.2	59.1

Sunflowerseed Area Harvested

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Argentina	1.5	1.7	1.8	1.6	1.3	1.4	1.4	1.8	1.7	1.9	1.5
China	1.0	1.0	1.0	0.9	0.9	1.0	1.1	1.3	1.2	0.9	1.3
EU-28	3.9	3.7	4.3	4.3	4.6	4.3	4.2	4.1	4.4	4.0	4.3
India	1.5	0.9	0.7	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.2
Kazakhstan	0.6	0.7	1.0	0.7	0.8	0.8	0.7	0.8	0.9	0.9	0.8
Russia	5.6	5.6	7.2	6.1	6.8	6.4	6.5	7.2	7.1	7.9	8.4
Turkey	0.5	0.5	0.5	0.6	0.7	0.5	0.6	0.6	0.7	0.7	0.7
Ukraine	5.0	5.4	5.4	5.5	5.3	5.3	5.5	6.8	6.8	6.5	6.4
United States	0.8	0.8	0.6	0.7	0.6	0.6	0.7	0.6	0.5	0.5	0.5
Rest of world	2.6	2.7	2.2	2.3	2.3	2.2	2.4	2.3	2.3	2.2	2.2
World total	23.0	23.1	24.6	23.6	24.0	23.1	23.5	25.9	25.9	25.8	26.3

World Sunflowerseed Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Area Harvested	26.9	28.0	27.9	27.6	27.6	27.5	27.4	27.3	27.3	27.3	27.3
					(Metric tons per hectare)						
Yield	1.86	2.01	2.03	2.06	2.08	2.11	2.14	2.17	2.20	2.23	2.26
					(Million metric tons)						
Supply	53.6	59.2	60.4	60.8	61.7	62.3	63.1	64.0	65.0	66.0	66.8
Production	50.0	56.3	56.7	56.8	57.5	57.9	58.6	59.3	60.2	61.0	61.7
Beginning stocks	2.5	1.9	2.6	2.9	3.0	3.2	3.3	3.4	3.5	3.6	3.7
Net imports	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4
Utilization	52.2	57.8	58.9	59.4	60.2	60.8	61.5	62.3	63.3	64.3	65.1
Crush	46.1	50.8	51.6	51.9	52.4	52.9	53.4	54.1	55.0	55.7	56.4
Other utilization	4.2	4.4	4.5	4.5	4.6	4.6	4.7	4.7	4.8	4.8	4.9
Ending Stocks	1.9	2.6	2.9	3.0	3.2	3.3	3.4	3.5	3.6	3.7	3.8
Net Exports	1.4	1.4	1.5	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.7
Total Demand	53.6	59.2	60.4	60.8	61.7	62.3	63.1	64.0	65.0	66.0	66.8

Sunflowerseed Area Harvested

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Argentina	1.4	1.7	1.8	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5
China	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
EU-28	4.3	4.4	4.4	4.4	4.4	4.3	4.3	4.4	4.4	4.4	4.4
India	0.2	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4
Kazakhstan	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Russia	8.5	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
Turkey	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Ukraine	6.8	6.8	6.7	6.5	6.4	6.3	6.3	6.3	6.3	6.3	6.3
United States	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rest of world	2.3	2.6	2.4	2.4	2.5	2.5	2.6	2.6	2.6	2.6	2.6
World total	26.9	28.0	27.9	27.6	27.6	27.5	27.4	27.3	27.3	27.3	27.3

Sunflowerseed Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Argentina	51	70	73	77	73	62	308	75	55	172	190
China	125	171	183	156	141	199	212	260	361	219	234
India	4	6	4	3	3	4	1	3	1	0	0
Kazakhstan	8	0	35	29	144	115	146	264	307	404	253
Russia	-3	-32	304	10	100	-27	-14	261	51	306	1,181
Ukraine	346	432	265	107	55	30	61	167	9	81	22
Rest of world	-257	-147	-221	-101	-40	-136	-67	107	111	316	252
Total net exports	274	500	643	281	476	247	647	1,137	895	1,498	2,132
Net importers											
EU-28	-298	-218	-316	-307	-393	-252	198	336	-127	-66	512
Turkey	716	679	796	559	540	421	374	530	622	1,000	1,079
United States	-133	-119	-62	-82	-55	-41	-27	-10	18	51	136
Total net imports	285	342	418	170	92	128	545	856	513	985	1,727
Residual	-11	158	225	111	384	119	102	281	382	513	405
					(Dollars per metric ton)						
Sunflowerseed, Rotterdam	452	661	593	580	466	432	440	408	403	380	420

Sunflowerseed Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Argentina	13	-11	160	151	210	245	265	285	292	303	265
China	201	322	292	247	229	208	190	186	173	159	164
India	0	0	0	0	0	0	0	0	0	0	0
Kazakhstan	304	252	277	276	274	273	271	269	268	270	272
Russia	513	422	313	242	272	310	323	336	349	357	347
Ukraine	128	188	184	190	216	223	234	260	290	291	316
Rest of world	229	271	246	320	297	284	293	276	270	323	382
Total net exports	1,388	1,445	1,472	1,426	1,498	1,544	1,576	1,612	1,641	1,703	1,747
Net importers											
EU-28	223	134	52	24	53	77	85	52	44	64	85
Turkey	749	814	932	938	1,002	1,037	1,074	1,157	1,203	1,251	1,282
United States	64	145	136	112	91	78	65	51	43	36	27
Total net imports	1,036	1,093	1,120	1,074	1,146	1,192	1,224	1,260	1,289	1,351	1,395
Residual	352	352	352	352	352	352	352	352	352	352	352
					(Dollars per metric ton)						
Sunflowerseed, Rotterdam	599	457	448	449	438	434	432	438	439	440	440

World Sunflowerseed Products Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Sunflowerseed Meal											
					(Million metric tons)						
Supply	17.6	18.1	22.7	20.4	22.9	22.5	23.5	27.2	27.0	29.3	31.1
Production	13.4	13.3	15.6	14.1	16.8	16.1	16.5	19.4	19.9	20.8	22.2
Beginning stocks	0.8	1.0	1.1	1.7	0.8	1.4	1.5	1.4	1.3	1.4	1.3
Net imports	3.4	3.8	6.0	4.6	5.3	5.0	5.5	6.4	5.8	7.1	7.6
Utilization	13.8	13.8	16.3	15.6	17.1	17.2	17.8	20.3	20.8	22.0	23.2
Consumption	12.8	12.7	14.6	14.8	15.8	15.7	16.3	19.0	19.4	20.7	22.0
Ending Stocks	1.0	1.1	1.7	0.8	1.4	1.5	1.4	1.3	1.4	1.3	1.2
Net Exports	3.8	4.3	6.4	4.8	5.8	5.3	5.8	6.9	6.2	7.3	7.9
Total Demand	17.6	18.1	22.7	20.4	22.9	22.5	23.5	27.2	27.0	29.3	31.1
Sunflowerseed Oil											
Supply	17.0	16.8	21.0	20.0	23.4	22.5	23.5	27.2	27.9	29.3	32.6
Production	12.1	12.1	14.3	12.9	15.6	14.9	15.4	18.2	18.5	19.5	21.5
Beginning stocks	1.9	1.9	1.8	3.0	2.3	2.9	2.5	1.9	2.2	2.2	1.8
Net imports	3.0	2.8	4.8	4.1	5.5	4.6	5.5	7.1	7.2	7.6	9.4
Utilization	13.4	13.2	15.5	15.4	17.1	16.7	16.9	18.5	19.5	19.7	21.5
Consumption	11.4	11.3	12.5	13.1	14.1	14.1	15.0	16.2	17.3	17.9	19.5
Ending Stocks	1.9	1.8	3.0	2.3	2.9	2.5	1.9	2.2	2.2	1.8	2.0
Net Exports	3.7	3.7	5.5	4.6	6.3	5.8	6.6	8.8	8.4	9.6	11.1
Total Demand	17.0	16.8	21.0	20.0	23.4	22.5	23.5	27.2	27.9	29.3	32.6

World Sunflowerseed Products Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
Sunflowerseed Meal											
					(Million metric tons)						
Supply	28.6	30.2	31.0	31.4	31.7	32.0	32.4	32.7	33.2	33.6	34.0
Production	20.9	22.9	23.3	23.4	23.7	23.9	24.2	24.5	24.9	25.2	25.6
Beginning stocks	1.2	0.6	0.9	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2
Net imports	6.5	6.6	6.8	6.9	7.0	7.0	7.0	7.1	7.1	7.2	7.3
Utilization	21.9	23.3	23.9	24.2	24.5	24.8	25.1	25.4	25.8	26.1	26.5
Consumption	21.2	22.4	22.9	23.1	23.4	23.6	23.9	24.2	24.6	25.0	25.3
Ending Stocks	0.6	0.9	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2
Net Exports	6.8	6.9	7.1	7.2	7.2	7.2	7.3	7.3	7.4	7.5	7.5
Total Demand	28.6	30.2	31.0	31.4	31.7	32.0	32.4	32.7	33.2	33.6	34.0
Sunflowerseed Oil											
Supply	29.5	31.7	32.9	33.2	33.6	33.9	34.2	34.7	35.2	35.8	36.2
Production	19.4	21.4	21.7	21.8	22.1	22.3	22.5	22.8	23.1	23.5	23.8
Beginning stocks	2.0	1.4	1.9	2.1	2.3	2.3	2.4	2.5	2.5	2.6	2.6
Net imports	8.0	8.9	9.2	9.2	9.3	9.3	9.3	9.4	9.6	9.7	9.8
Utilization	20.2	21.7	22.5	22.8	23.1	23.4	23.7	24.1	24.5	24.9	25.2
Consumption	18.8	19.7	20.4	20.5	20.8	21.0	21.2	21.6	21.9	22.2	22.5
Ending Stocks	1.4	1.9	2.1	2.3	2.3	2.4	2.5	2.5	2.6	2.6	2.7
Net Exports	9.2	10.1	10.4	10.4	10.5	10.4	10.5	10.6	10.8	10.9	11.0
Total Demand	29.4	31.7	32.9	33.2	33.6	33.9	34.2	34.7	35.2	35.8	36.2

Sunflowerseed Meal Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Argentina	586	740	839	327	363	556	734	789	760	883	600
Kazakhstan	48	48	64	32	39	42	36	40	78	33	90
Russia	658	566	1,681	1,361	1,722	1,330	1,204	1,291	1,164	1,563	2,006
Ukraine	2,516	2,926	3,836	3,050	3,648	3,388	3,816	4,806	4,229	4,803	5,171
United States	6	3	3	19	-3	-13	-9	-6	5	13	18
Total net exports	3,814	4,283	6,423	4,789	5,769	5,303	5,781	6,920	6,236	7,295	7,885
Net importers											
China	3	0	-1	-1	1	-10	-23	-32	186	1,262	2,038
EU-28	1,947	2,147	3,734	2,908	3,195	2,911	3,086	3,449	3,081	3,283	2,611
India	4	-4	18	90	33	28	180	304	120	154	323
Turkey	427	500	737	430	761	761	799	960	910	887	1,014
Rest of world	1,035	1,129	1,555	1,151	1,322	1,267	1,461	1,679	1,507	1,513	1,567
Total net imports	3,416	3,772	6,043	4,578	5,312	4,957	5,503	6,360	5,804	7,099	7,553
Residual	398	511	380	211	457	346	278	560	432	196	332
					(Dollars per metric ton)						
Sunmeal price, Ukraine	228	254	263	318	315	269	233	178	224	219	217

Sunflowerseed Oil Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Argentina	578	978	790	353	343	502	605	771	783	853	600
Russia	449	31	1,413	990	1,788	1,453	1,538	2,160	2,280	2,641	3,808
Ukraine	2,644	2,651	3,262	3,244	4,180	3,870	4,499	5,851	5,341	6,063	6,686
Total net exports	3,671	3,660	5,465	4,587	6,311	5,825	6,642	8,782	8,404	9,557	11,094
Net importers											
China	169	22	121	361	529	532	877	723	783	1,030	1,746
EU-28	815	652	785	701	667	411	1,044	1,333	1,003	1,480	1,794
India	567	634	1,071	953	1,514	1,571	1,489	2,136	2,496	2,328	2,600
Kazakhstan	76	29	-13	46	70	113	106	52	25	57	-16
Turkey	116	244	380	334	183	189	91	149	127	73	155
United States	-76	9	55	4	-2	51	3	22	33	5	129
Rest of world	1,309	1,230	2,416	1,671	2,534	1,758	1,932	2,729	2,686	2,608	2,959
Total net imports	2,976	2,820	4,815	4,070	5,495	4,625	5,542	7,144	7,153	7,581	9,367
Residual	695	840	650	517	816	1,200	1,100	1,638	1,251	1,976	1,727
					(Dollars per metric ton)						
Sunoil price, NW Europe	956	1,404	1,254	1,189	929	850	849	807	776	719	795

Sunflowerseed Meal Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Argentina	727	710	762	749	732	741	761	700	667	644	592
Kazakhstan	81	47	60	70	76	80	84	85	86	87	88
Russia	1,472	1,491	1,513	1,488	1,562	1,536	1,531	1,539	1,550	1,601	1,632
Ukraine	4,472	4,630	4,746	4,896	4,863	4,873	4,924	4,991	5,107	5,161	5,202
United States	7	7	7	7	7	7	7	7	7	7	7
Total net exports	6,760	6,885	7,088	7,210	7,240	7,238	7,308	7,323	7,418	7,501	7,522
Net importers											
China	1,385	1,364	1,319	1,306	1,303	1,307	1,314	1,322	1,332	1,344	1,356
EU-28	2,488	2,483	2,554	2,556	2,528	2,467	2,475	2,471	2,516	2,494	2,432
India	178	193	183	178	179	181	182	184	188	191	196
Turkey	891	1,054	1,074	1,140	1,193	1,240	1,277	1,267	1,276	1,311	1,309
Rest of world	1,550	1,522	1,690	1,762	1,768	1,774	1,791	1,809	1,836	1,892	1,960
Total net imports	6,491	6,616	6,819	6,941	6,971	6,969	7,039	7,054	7,149	7,232	7,253
Residual	269	269	269	269	269	269	269	269	269	269	269
					(Dollars per metric ton)						
Sunmeal price, Ukraine	243	248	249	244	241	243	248	250	253	252	281

Sunflowerseed Oil Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Argentina	675	778	835	797	733	670	602	542	493	457	398
Russia	3,034	3,005	3,128	3,212	3,228	3,266	3,306	3,344	3,381	3,420	3,452
Ukraine	5,509	6,304	6,427	6,428	6,503	6,513	6,593	6,715	6,886	7,026	7,122
Total net exports	9,218	10,086	10,390	10,438	10,464	10,449	10,500	10,602	10,761	10,902	10,972
Net importers											
China	1,500	1,570	1,713	1,703	1,744	1,775	1,796	1,820	1,833	1,846	1,852
EU-28	1,177	1,550	1,465	1,404	1,396	1,360	1,320	1,275	1,211	1,133	1,052
India	2,356	2,529	2,599	2,631	2,682	2,763	2,844	2,895	2,940	3,009	3,080
Kazakhstan	11	44	31	24	20	19	21	24	28	33	38
Turkey	61	212	198	225	227	236	244	243	260	279	311
United States	22	63	87	102	112	118	124	128	132	136	139
Rest of world	2,904	2,930	3,109	3,161	3,095	2,990	2,963	3,028	3,169	3,277	3,312
Total net imports	8,030	8,898	9,202	9,250	9,276	9,261	9,312	9,414	9,573	9,714	9,784
Residual	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188	1,188
					(Dollars per metric ton)						
Sunoil price, NW Europe	911	869	851	824	820	816	819	823	828	829	782

World Palm Oil Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Area Harvested	16.0	17.0	18.0	18.6	19.5	20.2	21.2	21.9	22.7	23.2	23.8
					(Metric tons per hectare)						
Yield	2.90	2.89	2.92	3.04	3.05	3.06	2.77	2.97	3.10	3.19	3.08
					(Million metric tons)						
Supply	82.8	85.7	93.5	103.2	106.2	111.1	107.1	114.8	121.3	129.5	126.3
Production	46.4	49.2	52.5	56.5	59.3	61.8	58.8	65.2	70.4	74.1	73.2
Beginning stocks	6.2	6.3	8.0	9.3	9.4	9.6	10.8	8.9	9.7	11.1	11.3
Net imports	30.2	30.3	33.0	37.4	37.6	39.6	37.6	40.8	41.1	44.4	41.8
Utilization	50.8	53.5	59.1	64.8	67.4	68.8	68.1	71.2	78.0	83.7	83.4
Consumption	44.5	45.5	49.8	55.4	57.7	58.0	59.2	61.5	66.9	72.5	71.9
Ending Stocks	6.3	8.0	9.3	9.4	9.6	10.8	8.9	9.7	11.1	11.3	11.5
Net Exports	32.0	32.3	34.4	38.5	38.9	42.3	39.0	43.6	43.2	45.8	42.9
Total Demand	82.8	85.7	93.5	103.2	106.2	111.1	107.1	114.8	121.3	129.5	126.3

Palm Oil Production

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million metric tons)						
India	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Indonesia	6.5	7.3	8.1	8.4	9.0	9.5	10.2	10.6	11.0	11.3	11.8
Malaysia	4.1	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.2	5.3	5.4
Nigeria	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Thailand	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8
Rest of world	2.3	2.4	2.5	2.6	2.7	2.7	3.0	3.1	3.2	3.2	3.3
World total	16.0	17.0	18.0	18.6	19.5	20.2	21.2	21.9	22.7	23.2	23.8

World Palm Oil Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Area Harvested	24.1	24.5	25.1	25.7	26.2	26.6	27.1	27.5	27.8	28.2	28.5
					(Metric tons per hectare)						
Yield	3.13	3.23	3.27	3.31	3.35	3.40	3.44	3.48	3.52	3.56	3.60
					(Million metric tons)						
Supply	131.0	133.8	139.2	144.3	149.6	154.1	158.7	162.9	167.2	171.7	176.1
Production	75.5	78.9	82.1	85.0	87.8	90.4	93.0	95.5	98.0	100.3	102.7
Beginning stocks	11.5	10.4	11.0	11.7	12.3	12.8	13.5	14.2	14.8	15.4	15.9
Net imports	44.1	44.5	46.1	47.6	49.5	50.9	52.2	53.2	54.5	56.0	57.5
Utilization	85.1	87.5	91.3	94.9	98.2	101.4	104.7	107.8	110.9	113.9	116.8
Consumption	74.7	76.5	79.7	82.6	85.4	87.9	90.5	93.0	95.5	97.9	100.3
Ending Stocks	10.4	11.0	11.7	12.3	12.8	13.5	14.2	14.8	15.4	15.9	16.5
Net Exports	45.8	46.1	47.7	49.3	51.2	52.5	53.8	54.9	56.1	57.6	59.1
Total Demand	130.9	133.7	139.1	144.2	149.4	153.9	158.5	162.7	167.0	171.5	175.9

Palm Oil Production

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million metric tons)						
India	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Indonesia	12.0	12.0	12.3	12.6	12.9	13.2	13.4	13.7	13.9	14.1	14.3
Malaysia	5.5	5.6	5.7	5.9	6.0	6.1	6.1	6.2	6.3	6.3	6.4
Nigeria	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Thailand	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0
Rest of world	3.3	3.4	3.6	3.7	3.8	3.9	4.0	4.0	4.1	4.2	4.2
World total	24.1	24.5	25.1	25.7	26.2	26.6	27.1	27.5	27.8	28.2	28.5

Palm Oil Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Thousand metric tons)						
Net exporters											
Indonesia	16,524	16,400	18,453	20,335	21,692	25,956	22,906	27,628	26,966	28,195	26,238
Malaysia	15,327	15,558	15,734	17,567	16,986	16,412	16,108	15,680	15,932	17,307	16,422
Thailand	120	316	249	549	198	-24	11	298	345	264	227
Total net exports	31,971	32,274	34,436	38,451	38,876	42,344	39,025	43,606	43,243	45,766	42,887
Net importers											
Bangladesh	951	996	982	1,030	1,232	1,280	1,511	1,347	1,636	1,557	1,484
China	5,759	5,710	5,840	6,588	5,571	5,695	4,684	4,868	5,288	6,764	6,686
Egypt	1,155	1,256	1,184	957	1,065	1,480	1,033	1,314	1,086	1,008	1,152
EU-28	5,298	4,744	5,538	6,677	6,807	6,819	6,569	7,083	6,933	7,181	7,255
India	5,674	5,584	7,201	8,364	7,820	9,139	8,860	9,341	8,608	9,710	7,398
Nigeria	407	417	422	452	500	488	245	280	284	379	332
Pakistan	1,987	2,062	2,214	2,245	2,725	2,824	2,720	3,075	3,093	3,175	3,275
United States	978	953	1,014	1,256	1,207	1,121	1,293	1,350	1,511	1,520	1,512
Rest of world	7,998	8,563	8,645	9,867	10,638	10,800	10,647	12,116	12,671	13,069	12,665
Total net imports	30,207	30,285	33,040	37,436	37,565	39,646	37,562	40,774	41,110	44,363	41,759
Residual	1,764	1,989	1,396	1,015	1,311	2,698	1,463	2,832	2,133	1,403	1,128
					(Dollars per metric ton)						
Palm oil price, Malaysia	793	1,154	1,032	791	803	626	628	699	626	521	645

Palm Oil Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand metric tons)						
Net exporters											
Indonesia	28,860	28,296	29,024	29,984	31,099	32,190	33,163	33,831	34,611	35,595	36,624
Malaysia	16,576	17,690	18,671	19,055	19,720	19,904	20,185	20,457	20,850	21,302	21,670
Thailand	321	132	53	259	344	427	501	583	663	747	824
Total net exports	45,757	46,118	47,749	49,298	51,163	52,522	53,849	54,871	56,124	57,644	59,118
Net importers											
Bangladesh	1,625	1,667	1,755	1,836	1,917	2,002	2,093	2,184	2,277	2,365	2,459
China	6,870	6,432	6,386	6,347	6,269	6,302	6,417	6,433	6,444	6,394	6,377
Egypt	1,235	1,243	1,274	1,329	1,381	1,429	1,470	1,512	1,554	1,593	1,636
EU-28	6,670	6,669	6,754	6,713	6,616	6,527	6,446	6,368	6,305	6,232	6,189
India	8,702	9,289	9,612	9,985	10,319	10,568	10,754	11,093	11,370	11,551	11,781
Nigeria	337	381	404	416	429	441	452	468	491	518	545
Pakistan	3,394	3,465	3,511	3,692	3,867	4,041	4,225	4,406	4,583	4,747	4,915
United States	1,496	1,505	1,521	1,540	1,557	1,576	1,596	1,616	1,636	1,653	1,674
Rest of world	13,764	13,801	14,865	15,773	17,143	17,970	18,730	19,126	19,799	20,924	21,877
Total net imports	44,091	44,452	46,083	47,632	49,497	50,856	52,183	53,205	54,458	55,978	57,452
Residual	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1,666	1,666
					(Dollars per metric ton)						
Palm oil price, Malaysia	735	754	726	705	696	693	688	690	693	704	703

Cotton

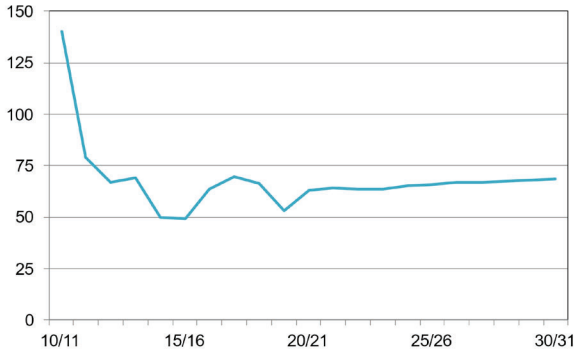
- Cotton prices are expected to recover in 2020/21 from the prior year price decline made worse by COVID-related trade impacts. Likewise, with mill use as cotton consumption stalled with global economic downturns. Moderate improvements in production are expected through 2030 and along with mild gains in mill use, slight upward price pressure is expected over the next ten years.
- China held stocks relatively constant from 2019/20 and increased imports this year by 48.6%. This resulted in higher domestic prices and moderately higher global price levels.
- It is anticipated that China will draw down inventories further over the projection period with 2030 levels expected to be 58.4% of current stocks. This will contribute to steady imports and slight upward pressure on prices. Competition from other fibers, including man-made fibers will help keep cotton demand from rising rapidly, and dampen upward pressure on prices.

- Global cotton area declined by 2.4 million hectares in 2020/21 in response to last year's deflated prices and increased stocks. Along with global average yields decreasing for the third year in a row, cotton production decreased by approximately nine million bales.
- Global cotton area is expected to increase modestly through in 2022/23 then moderate through 2030. Because of limited arable land, emerging environmental problems like erosion and competition from grains and oilseeds, cotton area will struggle to make gains through the projection period.
- Technology is vital to increasing cotton production to meet expanding global needs. Adoption of higher-yielding varieties and genetic and agronomic improvements will be the basis of increasing production in the future.
- India remains the world's largest cotton producer, with 2019/20 reaching peak acreage of 13.4 million hectares. However, they remain a relatively small exporter, averaging a fairly constant about 3.8 million bales through 2030.

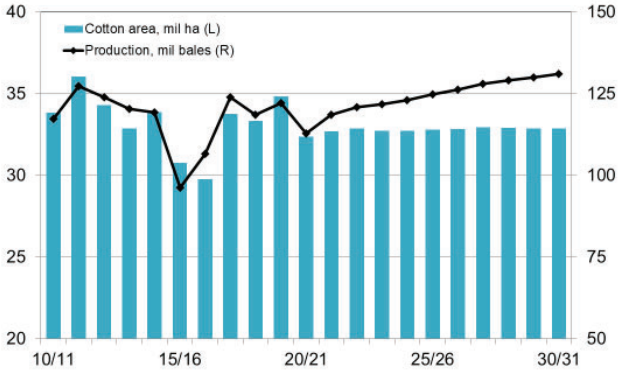
- Global economic downturns and trade disruptions strongly impacted cotton mill use in 2019/20. Demand for cotton and cotton goods declined with global COVID quarantines. Mill use and consumer demand realize a quick recovery with economies expected to begin recovery.
- Global cotton mill use is expected to increase across the baseline. Declining mill use by China is the primary factor behind the earlier declines but is expected to continue with moderate increases to approximately 8% of above current levels by 2030.
- Cotton demand will increase in other countries, as well. India, Pakistan, and Bangladesh are projected to be significant sources of demand growth. Textiles industries are shifting from developed nations to developing regions with cheaper labor.
- Per capita cotton consumption is expected to increase next year, then decline slightly through 2030. This indicates that a consistently expanding global population, and especially in developing regions, will be the primary driver of clothing and textile demand.

Post COVID, Prices Return to Stable Levels

Cotton adjusted world price, cents/ lb

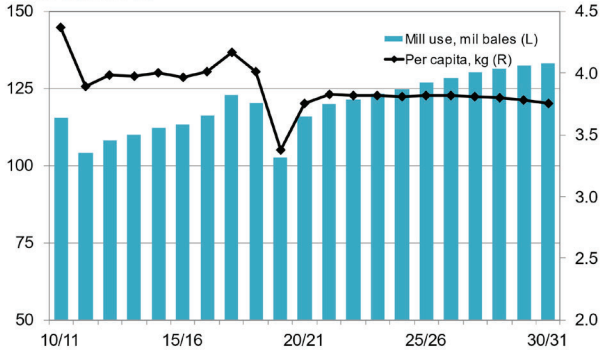


New Varieties Boost Yields, Production



Post-COVID Recovery and Population Growth Drive Use

Global cotton mill use

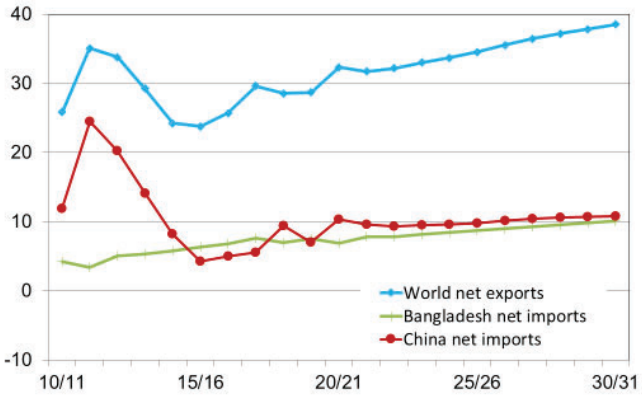


- In the five previous years China's cotton stock buildup was waning as was its outright domination of the global cotton trade. Given recent increased use, stocks continue to be drawn down through the projection period on expectations of rising domestic prices.
- China's imports are increasing over the baseline under the Phase 1 agreement and as they capitalize on excess manufacturing capacity to meet COVID-related demand increases – specifically personal protective equipment and generally pent-up demand for textiles as economies recover.
- Bangladesh will account for a large proportion of the expected increase in cotton imports as they continue to grow their domestic textile industries. Recently the top global cotton importer, they remain China's strongest competitor for cotton imports.
- At least one-quarter of global cotton production was sold on the world market in 2020/21 and that share is expected to mildly increase over the next ten years.
- The largest sources of cotton exports are the U.S, Brazil, and India which together account for at least 85% of global sales through 2030. The U.S. will remain the largest exporter over the projection period and will comprise more than half of global cotton exports.

- With the exception of Australia, all major cotton trading countries increased stocks in 2019/20 in response to COVID. Since 2015/16 China has been holding a decreasing portion of global inventories, which is expected through the remainder of the projection period. In contrast, India will hold a larger proportion of global stocks, surpassing China in 2029/30. Distribution of global stocks across countries should help buffer short-term supply shortages that might occur.
- Although China will continue reducing its cotton inventories for several years, it is still expected to hold at least one-fourth of global stocks throughout the projection period. Nevertheless, a moderate supply shock in China may now be able to have measurable impact on that country's market.
- The ending stocks-to-use ratio for the rest of the world is at a recent high and inventories will be able to absorb a moderate supply decline in the future. Therefore, the world cotton market is not expected to be more volatile from short-term supply or demand shocks outside of China.

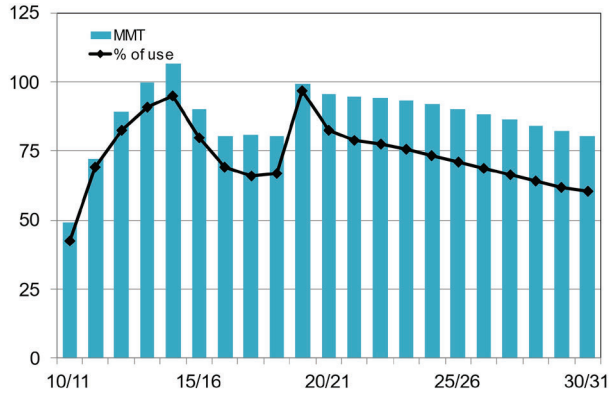
Manufacturing Use in China Increasing Post-COVID

Cotton net trade, mil. bales



Post-COVID Recovery Slowly Returns to Recent Average

Global Cotton ending stocks



World Cotton Supply & Utilization

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Area Harvested	30.2	33.8	36.1	34.3	32.9	33.9	30.8	29.8	33.8	33.4	34.8
					(Kilograms per hectare)						
Yield	743	755	768	786	798	766	681	780	800	774	764
					(Million bales)						
Supply	191.6	190.7	211.0	231.0	239.2	243.6	227.5	222.5	233.7	229.0	230.5
Production	103.1	117.3	127.2	123.9	120.4	119.2	96.2	106.7	124.0	118.6	122.1
Beginning stocks	61.5	46.2	49.3	72.0	89.3	99.9	106.8	90.3	80.3	81.1	80.3
Net imports	27.0	27.2	34.5	35.0	29.5	24.5	24.6	25.5	29.4	29.3	28.1
Utilization	165.7	164.7	176.1	197.5	209.8	219.2	203.5	196.6	204.0	200.4	201.9
Mill & other	119.5	115.5	104.1	108.2	109.9	112.3	113.2	116.3	122.9	120.2	102.6
Ending stocks	46.2	49.3	72.0	89.3	99.9	106.8	90.3	80.3	81.1	80.3	99.3
Net exports	25.9	25.8	35.1	33.8	29.3	24.2	23.8	25.7	29.6	28.6	28.7
Unaccounted	0.0	0.1	-0.2	-0.3	0.1	0.3	0.3	0.2	0.1	0.0	0.0
Total Demand	191.6	190.7	211.0	231.0	239.2	243.6	227.5	222.5	233.7	229.0	230.5

Cotton Area Harvested

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
					(Million hectares)						
Argentina	0.4	0.6	0.5	0.4	0.5	0.5	0.4	0.2	0.3	0.3	0.4
Australia	0.2	0.6	0.7	0.4	0.4	0.2	0.3	0.6	0.5	0.4	0.1
Bangladesh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brazil	0.8	1.4	1.4	0.9	1.1	1.0	1.0	0.9	1.2	1.6	1.7
China	5.3	5.3	5.5	5.3	4.8	4.4	3.1	2.9	3.4	3.5	3.5
EU-28	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.4
India	10.3	11.3	12.2	12.0	12.0	12.8	12.3	10.9	12.6	12.6	13.3
Indonesia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pakistan	3.0	2.8	3.0	3.0	2.9	3.0	2.9	2.5	2.7	2.3	2.5
Turkey	0.3	0.3	0.5	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.6
United States	3.0	4.3	3.8	3.8	3.1	3.8	3.3	3.8	4.5	4.0	4.7
Uzbekistan	1.3	1.4	1.4	1.4	1.3	1.3	1.3	1.2	1.3	1.1	1.0
Rest of world	5.1	5.6	6.7	6.4	6.1	6.2	5.6	6.0	6.5	6.6	6.8
World total	30.2	33.8	36.1	34.3	32.9	33.9	30.8	29.8	33.8	33.4	34.8

World Cotton Supply & Utilization

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Area Harvested	32.4	32.7	32.9	32.7	32.7	32.8	32.8	32.9	32.9	32.9	32.9
					(Kilograms per hectare)						
Yield	759	790	801	810	819	828	837	846	854	861	868
					(Million bales)						
Supply	244.5	245.8	247.7	249.0	249.9	251.1	251.9	252.6	252.6	252.1	251.7
Production	112.9	118.6	120.9	121.7	123.1	124.8	126.2	127.9	129.0	130.0	131.1
Beginning stocks	99.3	95.5	94.6	94.3	93.2	91.8	90.2	88.2	86.4	84.3	82.2
Net imports	32.3	31.7	32.2	33.0	33.7	34.5	35.5	36.4	37.2	37.8	38.5
Utilization	211.5	214.5	215.9	216.4	216.6	216.9	216.8	216.6	215.8	214.7	213.6
Mill & other	116.0	119.9	121.6	123.2	124.8	126.8	128.5	130.2	131.5	132.6	133.3
Ending stocks	95.5	94.6	94.3	93.2	91.8	90.2	88.2	86.4	84.3	82.2	80.3
Net exports	32.3	31.7	32.2	33.0	33.7	34.5	35.5	36.4	37.2	37.8	38.5
Unaccounted	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Demand	244.0	246.3	248.2	249.5	250.5	251.6	252.4	253.1	253.1	252.7	252.3

Cotton Area Harvested

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Million hectares)						
Argentina	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Australia	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Bangladesh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brazil	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
China	3.3	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
EU-28	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
India	13.4	13.1	13.1	13.1	13.1	13.1	13.1	13.2	13.3	13.3	13.4
Indonesia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pakistan	2.2	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.8	1.8
Turkey	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
United States	3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Uzbekistan	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Rest of world	6.0	6.3	6.4	6.4	6.4	6.4	6.4	6.4	6.3	6.3	6.3
World total	32.4	32.7	32.9	32.7	32.7	32.8	32.8	32.9	32.9	32.9	32.9

Cotton Trade

	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
						(Thousand bales)					
Net exporters											
Argentina	-21	288	376	223	187	375	210	250	156	540	388
Australia	2,112	2,500	4,640	6,168	4,852	2,404	2,828	3,731	3,915	3,632	1,360
Brazil	1,839	1,297	4,763	4,242	2,083	3,886	4,223	2,600	4,092	6,001	8,932
EU-28	53	-56	632	552	731	758	504	633	638	1,073	1,243
India	6,070	4,800	10,480	6,574	8,586	2,973	4,692	1,814	3,505	1,721	920
United States	12,037	14,367	11,695	13,016	10,517	11,234	9,120	14,910	16,278	14,834	15,524
Uzbekistan	3,800	2,650	2,500	3,000	2,300	2,600	2,200	1,750	1,000	750	300
Total net exports	25,890	25,846	35,086	33,775	29,256	24,230	23,777	25,688	29,584	28,551	28,667
Net importers											
Bangladesh	4,000	4,250	3,400	5,000	5,300	5,750	6,375	6,800	7,600	7,000	7,500
China	10,880	11,857	24,478	20,280	14,096	8,213	4,278	4,971	5,574	9,427	6,979
Indonesia	2,685	2,490	2,495	3,132	2,984	3,338	2,926	3,386	3,512	3,045	2,508
Pakistan	849	763	-260	1,350	690	440	3,050	2,325	3,240	2,790	3,920
Turkey	4,244	3,204	2,082	3,474	4,084	3,572	4,031	3,392	3,906	2,894	4,222
Rest of world	4,356	4,669	2,285	1,809	2,341	3,173	3,892	4,629	5,592	4,183	2,978
Total net imports	27,014	27,233	34,480	35,045	29,495	24,486	24,552	25,503	29,424	29,339	28,107
Residual	-1,124	-1,387	606	-1,270	-239	-256	-775	185	160	-788	560

Cotton Trade

	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
					(Thousand bales)						
Net exporters											
Argentina	552	476	316	179	150	209	220	249	271	294	318
Australia	1,509	2,517	2,462	3,126	3,281	3,387	3,468	3,539	3,604	3,640	3,656
Brazil	9,979	8,716	8,867	8,884	8,932	9,175	9,591	10,177	10,639	10,982	11,331
EU-28	1,039	907	863	819	800	807	844	876	895	910	922
India	3,991	3,028	3,239	3,358	3,601	3,811	4,019	4,110	4,195	4,330	4,516
United States	14,964	15,557	15,786	15,928	16,195	16,413	16,659	16,787	16,881	16,966	17,086
Uzbekistan	290	528	644	715	745	727	727	706	698	689	684
Total net exports	32,325	31,729	32,177	33,009	33,705	34,529	35,528	36,445	37,183	37,810	38,514
Net importers											
Bangladesh	6,895	7,810	7,800	8,158	8,417	8,694	8,972	9,251	9,530	9,809	10,088
China	10,372	9,548	9,352	9,471	9,558	9,817	10,138	10,436	10,596	10,733	10,746
Indonesia	2,591	3,051	3,183	3,256	3,293	3,315	3,330	3,353	3,370	3,381	3,390
Pakistan	4,858	4,403	4,164	4,234	4,307	4,409	4,508	4,628	4,746	4,858	4,960
Turkey	4,060	3,262	3,395	3,472	3,560	3,668	3,757	3,788	3,872	3,886	3,929
Rest of world	3,536	3,643	4,271	4,407	4,558	4,614	4,810	4,978	5,058	5,132	5,389
Total net imports	32,313	31,717	32,165	32,997	33,693	34,517	35,516	36,433	37,171	37,798	38,502
Residual	12	12	12	12	12	12	12	12	12	12	12