TECHNICAL REPORT
UCED 2019/20-09

International Crops Baseline Briefing Book

Prepared by the University Center for Economic Development (UCED)

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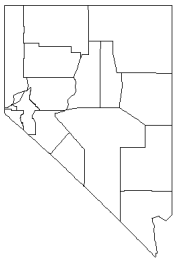

UNIVERSITY OF NEVADA, RENO

International Crops Baseline Briefing Book

Report Prepared by

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in cooperation with

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March 2020

This publication, *International Crops Baseline Briefing Book*, was published by the University of Nevada Economic Development Center. Funds for the publication were provided by the United States Department of Agriculture Office of the Chief Economist under the Cooperative Agreement for Analysis of Agricultural Markets and Policies contract No. 58-0111-19-011. This publication's statements, findings, conclusions, recommendations, and/or data represent solely the findings and views of the author and do not necessarily represent the views of the United States Department of Agriculture, University of Nevada, or any reference sources used or quoted by this study. Correspondence regarding this document should be sent to:

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Department of Economics

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 2020 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 2019/20. Because the 2019/20 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 2018/19 production data. Because the 2018/19 marketing years runs into early 2020 for several crops, 2018/19 utilization estimates were not absolutely aligned to PS&D data, but that data were used as guidelines. Also, many 2019/20 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 not include or incorporate any aspects of the Phase 1 trade agreement between the U.S. and China signed on January 15, 2020. All existing tariffs remain in place. No official commitments for Chinese imports of American goods are incorporated.

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Macroeconomic Assumptions

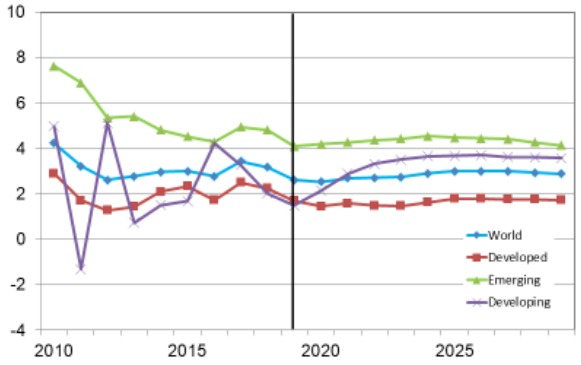
- The growth rate in emerging and developed economies is expected to remain relatively steady. Lagging growth is expected in developing economies for several years due to trade wars and sanctions, geo-political disruption, and national debt and financial issues.
- The U.S. GDP growth slowed in 2019 as compared to 2018, and is projected to remain at growth rates just under 2.5% through 2029. GDP growth in Canada remained steady in 2019 and is expected to remain fairly constant across the next decade. Mexico's GDP slowed in 2019 and will remain in the mid 3% range through 2029.
- Much of Western Europe including the UK, despite Brexit, will maintain fairly constant growth across the next decade. Japan's GDP gained slightly to 0.7% in 2019 and is expected to grow towards 1.4% by 2029.
- China's economic expansion is expected to grow slightly in 2020, as will India's. Both these countries are expected to maintain steady GDP near current levels over the next decade 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% within the next 5 years, although individual nations' growth rates will vary considerably.
- Global refugee resettlement continued to decrease in 2019. Though the U.S. continues to be the top resettlement destination though in 2019 total U.S. resettlements decreased by 17.2% from 2018, the second year of U.S. refugee resettlement declines.
- 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. Developed nations will continue to experience population growth declines, although at a very gradual pace.

- 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.
- Despite relatively high total GDP growth in developing countries, rapid increases in population dilute per capita income expansion and constrain improvements in standards of living. 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.

A Few Major Developing Nations are Lagging Growth

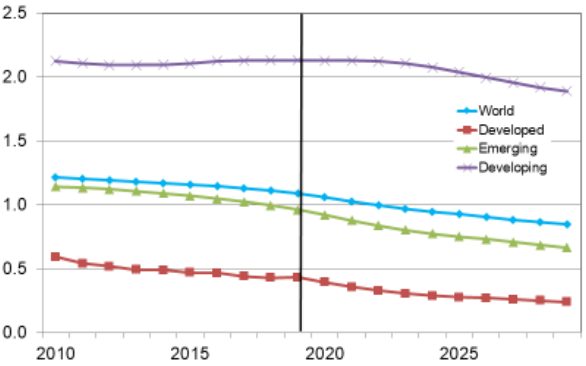
Real GDP, % change



Sources: IFS, IHS Markit

Population Growth Slowing in All Regions

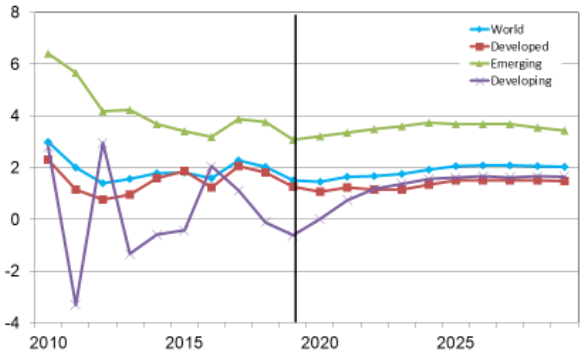
Population, % change



Sources: IFS, IHS Markit

Per Person, Developing Regions Will Struggle

Real per capita GDP, % change



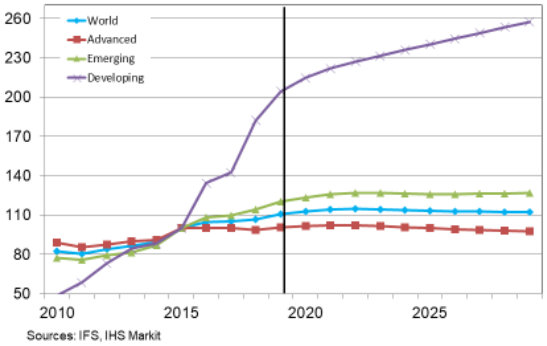
Sources: IFS, IHS Markit

- The value of the U.S. dollar reached a local peak of strength relative to a global basket of currencies in 2019. The dollar is expected to maintain strength through 2022 though at declining levels, then weaken slightly against advanced and emerging countries but continue to strengthen against developing countries' currencies.
- The current strength of the dollar contributes to increased U.S. imports and reduces its exports as U.S. goods become more expensive abroad, thus contributing to imbalanced U.S. trade.
- The Japanese yen gained strength slightly against the dollar and will remain relatively stable through 2024 before strengthening against the dollar for the latter half of the decade. The euro preformed well in 2019 against the dollar, though it did not remain as strong as 2018. The Russian ruble weakened slightly against the dollar in 2019, and is projected to remain near current levels through 2029.
- 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 tanked in 2019 as a result of their internal financial crisis. While the depreciation of the peso will continue through 2029, the rate of depreciation is forecast to slow around 2024.

- 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 weaken in the medium term before stabilizing toward the end of the projection period. Developing nations' currencies are expected to depreciate across the decade, though stabilizing in 2025 through 2029.
- 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…

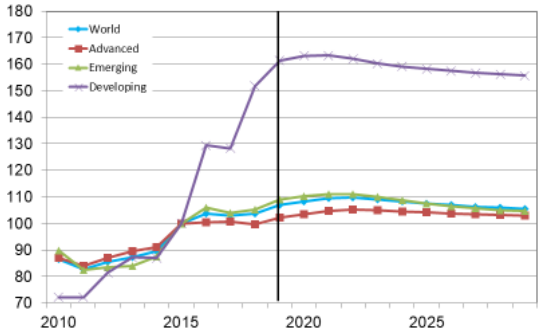
Exchange rate index, 2015=100



Sources: IFS, IHS Markit

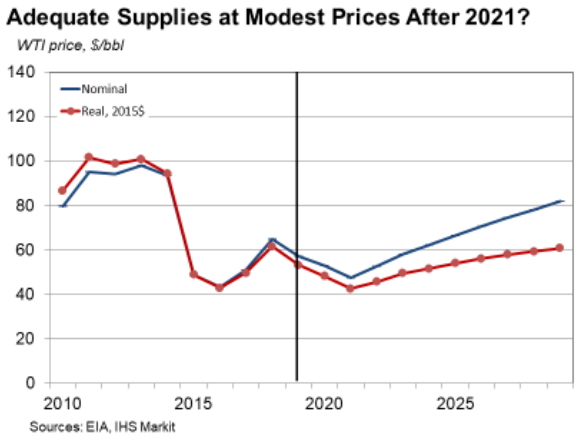
…Purchasing Power Improves

Real exchange rate index, 2015=100



Sources: IFS, IHS Markit

- The West Texas Intermediate spot price for crude oil averaged below $60 barrel in 2019. Moderate price drops are projected through 2021 and projected to increase thereafter, but remaining below $80 per barrel through at least 2028.
- Oil price outlooks always have substantial risk around them, and while the medium term prices are expected to grow modestly, uncertainty in the outer years of the projection period persist. While supplies are currently plentiful, growing demand will absorb them, and new production technologies could require higher prices to come online.
- 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.



Macroeconomic Indicators

Real GDP

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
						(Percent change)					
World	1.7	-1.7	4.2	3.2	2.6	2.8	3.0	3.0	2.8	3.4	3.2
Algeria	2.4	1.6	3.6	2.9	3.4	2.8	3.8	3.8	3.3	1.6	2.1
Argentina	4.1	-5.9	10.1	6.0	-1.0	2.4	-2.5	2.7	-2.1	2.7	-2.5
Australia	2.7	1.9	2.4	2.8	3.8	2.1	2.6	2.3	2.8	2.5	2.7
Bangladesh	6.0	5.0	5.6	6.5	6.5	6.0	6.1	6.6	7.1	7.3	7.9
Brazil	5.1	-0.1	7.5	4.0	1.9	3.0	0.5	-3.6	-3.3	1.3	1.3
Burma (Myanmar)	10.3	10.6	10.4	5.6	7.3	8.4	8.0	7.0	5.9	6.8	7.1
Canada	1.0	-2.9	3.1	3.1	1.8	2.3	2.9	0.7	1.0	3.2	2.0
Chile	3.5	-1.6	5.9	6.0	5.4	4.1	1.7	2.3	1.6	1.5	4.0
China	9.5	9.1	10.6	10.2	7.9	7.9	7.4	7.0	6.7	6.8	6.6
Colombia	3.3	1.2	4.3	7.4	3.9	4.6	4.7	3.0	2.1	1.4	2.6
Egypt	7.2	4.7	5.1	1.8	2.2	2.2	2.9	4.4	4.3	4.2	5.3
Ethiopia	10.8	8.8	12.6	13.2	8.6	10.6	10.3	10.4	7.6	11.1	7.9
EU-28	0.5	-4.3	2.2	1.9	-0.6	0.0	1.6	2.3	2.0	2.9	2.1
India	3.3	7.7	8.5	5.3	5.5	6.4	7.4	8.0	8.1	7.1	6.8
Indonesia	5.9	4.7	6.4	6.2	6.0	5.6	5.0	4.9	5.0	5.1	5.2
Iran	0.7	3.8	5.8	-0.8	-6.5	-1.8	2.3	-0.6	13.3	3.7	-2.1
Japan	-1.1	-5.4	4.2	-0.1	1.5	2.0	0.3	1.3	0.5	2.2	0.3
Kazakhstan	3.3	1.2	7.3	7.4	4.8	6.0	4.2	1.2	1.1	4.1	4.1
Malaysia	4.9	-1.6	7.5	5.3	5.5	4.7	6.0	5.1	4.4	5.7	4.7
Mexico	0.9	-5.0	5.1	3.7	3.4	1.6	2.8	3.3	2.6	2.4	2.1
Morocco	5.9	4.2	3.8	5.2	3.0	4.5	2.7	4.5	1.1	4.1	3.0
Nigeria	6.8	8.0	10.2	4.8	4.1	5.2	6.2	2.7	-1.6	0.8	1.9
Pakistan	1.7	2.8	1.6	2.7	3.5	4.4	4.7	4.7	5.5	5.6	5.8
Paraguay	6.4	-0.3	11.1	4.2	-0.5	8.4	4.9	3.1	4.3	5.0	3.4
Peru	9.2	1.1	8.4	6.5	5.9	5.8	2.4	3.3	4.1	2.5	4.0
Philippines	4.2	1.2	7.7	3.6	6.6	7.1	6.1	6.1	6.9	6.7	6.2
Russia	5.5	-7.9	4.5	3.0	3.7	1.7	-0.1	-2.3	0.3	1.7	2.2
Saudi Arabia	6.2	-2.1	5.0	10.0	5.4	2.7	3.7	4.1	1.7	-0.7	2.4
South Korea	3.0	0.8	6.8	3.7	2.4	3.2	3.2	2.8	2.9	3.2	2.7
Sudan	7.8	3.2	3.5	-2.0	0.5	4.4	2.7	1.9	2.9	1.7	-2.3
Taiwan	0.8	-1.6	10.2	3.7	2.2	2.5	4.7	1.5	2.2	3.3	2.7
Thailand	1.8	-0.7	7.5	0.8	7.2	2.7	1.0	3.2	3.4	4.0	4.1
Turkey	0.9	-4.8	8.9	10.7	4.7	8.9	5.0	5.9	3.2	7.4	2.9
Ukraine	2.6	-15.4	0.3	5.5	0.2	0.0	-6.6	-9.8	2.4	2.5	3.3
Uzbekistan	9.0	8.1	8.5	8.3	8.2	8.0	7.2	7.4	6.1	4.5	5.1
Vietnam	5.7	5.4	6.4	6.2	5.2	5.5	6.0	6.7	6.2	6.8	7.1
United States	-0.1	-2.5	2.6	1.6	2.2	1.8	2.5	2.9	1.6	2.4	2.9
Rest of world											
Wheat	0.9	-3.7	3.1	2.6	3.0	2.7	2.4	2.1	2.7	2.6	2.6
Rice	1.6	-3.6	3.3	3.1	2.8	2.8	2.3	1.7	2.7	2.8	2.5
Corn	0.6	-3.8	2.8	2.8	2.5	2.8	2.5	2.2	3.1	2.9	2.3
Barley	1.9	-2.2	4.5	3.0	2.7	2.9	2.4	1.8	2.3	2.9	2.5
Sorghum	1.7	-3.0	3.9	3.2	2.9	3.0	2.6	2.0	2.8	3.1	2.7
Soybeans	1.9	-2.8	3.6	3.1	3.2	3.0	2.5	2.1	2.9	2.9	2.7
Rapeseed	2.2	-2.5	4.5	3.4	2.9	2.9	2.4	1.8	2.3	2.8	2.5
Sunflowerseed	1.3	-2.5	4.1	2.5	2.6	2.7	2.2	1.7	2.1	2.7	2.2
Palm oil	1.3	-3.5	4.2	2.7	2.4	2.6	1.8	1.4	1.7	2.6	1.9
Cotton	1.1	-3.6	3.9	2.3	2.5	2.5	2.0	1.6	2.2	2.6	2.1

Sources: International Financial Statistics through 2018, IHS Markit projections after 2018

Macroeconomic Indicators

Real GDP

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
					(Percent change)						
World	2.6	2.5	2.7	2.7	2.7	2.9	3.0	3.0	3.0	2.9	2.9
Algeria	0.9	1.1	0.9	1.6	1.8	2.3	2.0	2.3	2.2	2.4	2.4
Argentina	-2.6	-2.6	0.0	0.3	1.2	2.3	2.1	2.3	2.6	2.6	2.9
Australia	1.8	2.1	2.7	2.6	2.6	2.5	2.5	2.5	2.4	2.4	2.4
Bangladesh	7.8	6.4	6.0	6.0	5.8	5.7	5.6	5.5	5.4	5.3	5.2
Brazil	1.1	1.7	1.7	1.8	2.1	2.5	2.7	2.8	3.0	3.0	3.0
Burma (Myanmar)	6.7	6.9	7.1	6.9	6.7	6.5	6.4	6.2	6.1	5.9	5.8
Canada	1.6	1.5	1.3	1.4	1.5	1.7	1.8	1.8	1.8	1.7	1.8
Chile	1.1	1.6	2.8	3.1	3.3	3.4	3.8	4.1	4.0	3.9	4.0
China	6.2	5.8	5.6	5.5	5.4	5.4	5.3	5.2	5.1	4.8	4.6
Colombia	3.1	3.2	2.9	2.8	2.7	2.7	2.9	3.1	3.1	3.1	3.2
Egypt	5.6	5.8	5.1	5.0	4.7	4.4	4.2	4.1	4.1	4.0	4.0
Ethiopia	7.5	7.4	7.3	7.2	7.1	7.0	6.8	6.2	5.7	5.7	5.6
EU-28	1.4	1.1	1.2	1.4	1.5	1.5	1.5	1.5	1.4	1.4	1.4
India	4.8	5.5	6.2	6.7	6.8	6.8	6.6	6.3	5.9	5.6	5.6
Indonesia	5.0	5.1	5.1	5.1	5.1	5.0	4.9	4.8	4.8	4.7	4.7
Iran	-7.7	-3.7	0.5	1.1	1.6	1.8	1.9	1.7	1.8	1.8	1.9
Japan	1.1	0.6	0.7	0.4	0.7	1.0	1.0	1.0	0.9	0.9	0.9
Kazakhstan	3.9	3.4	3.5	4.1	4.0	3.9	4.0	4.0	3.5	2.8	2.2
Malaysia	4.4	4.1	4.5	4.5	4.6	4.7	4.6	4.5	4.4	4.4	4.4
Mexico	0.1	0.7	1.1	1.0	1.3	1.7	2.3	2.3	2.7	2.8	2.9
Morocco	2.6	3.4	3.4	3.5	3.3	3.2	3.1	3.1	3.1	3.1	3.0
Nigeria	1.9	1.7	2.6	2.5	2.7	2.7	2.5	2.7	3.0	3.2	3.3
Pakistan	3.4	2.6	3.0	4.2	4.2	4.3	4.9	4.9	4.8	4.8	4.8
Paraguay	-0.2	2.4	3.0	2.9	3.2	2.9	3.1	2.8	2.8	2.8	2.8
Peru	2.3	2.5	3.2	3.2	3.7	2.9	3.1	3.3	3.4	3.5	3.5
Philippines	5.9	6.1	6.0	5.9	5.7	5.6	5.5	5.3	5.1	5.1	5.0
Russia	1.1	1.6	1.6	1.7	1.7	1.8	1.9	2.0	2.0	1.9	1.8
Saudi Arabia	0.3	1.6	2.3	1.9	2.0	2.0	2.1	2.9	3.3	3.3	3.3
South Korea	1.7	1.6	2.1	2.2	2.0	1.9	1.9	1.8	1.7	1.6	1.5
Sudan	-2.7	-1.6	-0.9	0.9	1.2	2.1	2.2	2.2	2.1	2.0	1.9
Taiwan	2.5	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0
Thailand	2.6	2.8	3.2	3.1	3.3	3.3	3.2	3.2	3.2	3.0	2.9
Turkey	0.5	2.5	1.5	1.9	2.6	3.0	3.0	3.0	3.0	2.9	2.9
Ukraine	3.8	3.4	3.3	3.2	3.2	3.6	3.5	4.4	3.2	3.0	2.9
Uzbekistan	5.8	6.2	5.9	5.5	5.1	4.6	3.7	4.1	3.7	3.4	3.2
Vietnam	7.0	6.7	6.6	6.4	6.4	6.2	6.1	6.1	6.0	6.0	6.0
United States	2.3	2.1	2.1	1.7	1.5	1.8	2.2	2.2	2.2	2.2	2.1
Rest of world											
Wheat	2.1	2.1	2.6	2.7	2.7	2.9	2.9	3.0	3.0	3.0	3.0
Rice	1.8	2.1	2.4	2.5	2.6	2.7	2.8	2.9	2.9	2.9	2.9
Corn	1.6	1.9	2.3	2.5	2.6	2.8	2.8	2.9	3.0	2.9	2.9
Barley	1.9	2.0	2.5	2.7	2.8	2.9	3.0	3.0	3.1	3.1	3.1
Sorghum	2.0	2.2	2.5	2.7	2.7	2.8	2.9	3.0	3.0	2.9	2.9
Soybeans	2.0	2.3	2.6	2.8	2.9	3.0	3.0	3.1	3.1	3.1	3.1
Rapeseed	1.8	2.0	2.4	2.6	2.7	2.8	2.9	3.0	3.0	3.0	3.0
Sunflowerseed	1.8	1.9	2.2	2.2	2.4	2.5	2.6	2.6	2.7	2.7	2.7
Palm oil	1.4	1.5	1.9	1.9	2.1	2.3	2.4	2.4	2.4	2.4	2.4
Cotton	1.6	1.7	2.0	2.1	2.2	2.3	2.4	2.5	2.5	2.5	2.5

Sources: International Financial Statistics through 2018, IHS Markit projections after 2018

GDP Deflator

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
						(Percent change)					
Algeria	15.4	-11.2	16.1	18.2	7.5	-0.1	-0.3	-6.5	1.5	4.4	10.8
Argentina	23.1	15.5	20.9	23.7	22.4	23.9	40.3	26.6	41.1	26.0	40.7
Australia	6.3	0.4	5.4	4.7	-0.5	1.3	0.4	-0.7	1.0	3.7	2.2
Bangladesh	7.9	6.8	7.1	7.9	8.2	7.2	5.7	5.9	6.7	6.3	5.6
Brazil	8.8	7.3	8.5	8.4	8.0	7.5	7.9	7.6	8.1	3.6	3.3
Burma (Myanmar)	13.6	4.8	6.3	10.3	3.1	4.4	4.2	4.1	3.6	6.2	5.8
Canada	4.0	-2.3	2.8	3.2	1.2	1.7	1.9	-0.9	0.8	2.5	1.8
Chile	-0.1	4.6	9.0	3.2	1.1	2.0	5.9	5.0	4.5	4.8	2.0
China	8.1	-0.1	6.9	7.5	2.3	2.0	0.7	0.0	1.0	3.9	2.9
Colombia	7.8	4.2	3.8	6.0	3.7	2.5	2.1	2.5	5.2	5.1	3.7
Egypt	12.2	11.2	10.1	11.7	19.5	8.7	11.2	9.9	6.2	22.9	21.4
Ethiopia	30.3	24.1	1.4	20.1	33.5	4.9	11.0	10.8	9.4	6.3	7.8
EU-28	2.4	1.2	0.8	1.2	1.4	1.2	1.0	1.4	0.9	1.1	1.4
India	9.5	6.6	10.8	8.8	7.9	6.2	3.4	2.3	3.2	3.8	4.1
Indonesia	19.0	6.1	7.3	7.5	3.8	5.0	5.4	4.0	2.5	4.2	3.8
Iran	15.8	2.9	18.6	41.4	21.9	34.2	18.0	0.8	1.7	12.4	28.8
Japan	-1.0	-0.6	-1.9	-1.7	-0.8	-0.3	1.8	2.1	0.3	-0.2	-0.1
Kazakhstan	20.9	4.7	19.5	20.5	4.8	9.5	5.8	1.8	13.6	11.2	9.2
Malaysia	10.4	-5.9	7.2	5.4	1.0	0.2	2.4	1.2	1.7	3.8	0.7
Mexico	6.3	3.9	4.6	5.8	4.2	1.4	4.4	2.8	5.5	6.6	5.0
Morocco	4.5	0.1	1.0	-0.7	0.4	1.3	0.4	2.1	1.4	0.8	1.6
Nigeria	11.2	4.7	13.6	9.6	9.5	6.0	4.7	2.9	9.4	11.4	10.2
Pakistan	13.2	20.7	10.9	19.6	6.0	7.0	7.4	4.1	0.4	4.0	2.5
Paraguay	12.2	3.7	4.6	5.1	4.8	4.4	2.8	1.6	4.1	2.1	2.2
Peru	2.0	1.5	6.0	5.2	2.0	1.5	2.7	2.7	3.5	3.9	2.0
Philippines	7.5	2.8	4.1	4.0	2.0	2.1	3.3	-0.6	1.7	2.3	3.7
Russia	18.1	2.0	14.2	17.7	9.1	5.4	8.2	7.6	3.2	5.4	10.2
Saudi Arabia	17.7	-15.7	17.2	15.5	4.0	-1.2	-2.3	-16.9	-3.0	7.6	11.5
South Africa	8.8	7.5	6.4	6.5	5.3	6.2	5.5	5.2	7.2	5.3	3.9
South Korea	2.8	3.6	2.7	1.3	1.3	1.0	0.9	3.2	2.0	2.2	0.5
Sudan	14.2	4.0	19.6	21.0	34.9	34.9	33.9	21.4	-1.1	36.3	23.9
Taiwan	-2.5	0.0	-1.3	-2.2	0.6	1.5	1.7	3.4	0.7	-0.9	-0.7
Thailand	5.1	0.2	4.0	3.7	1.9	1.8	1.5	0.7	2.5	2.0	1.4
Turkey	12.1	5.4	6.5	8.7	7.5	5.9	7.7	7.8	8.1	10.8	16.4
Ukraine	28.6	13.0	13.6	14.2	7.8	4.3	15.9	38.9	17.1	22.1	15.4
Uzbekistan	26.8	17.3	16.5	16.6	14.9	14.2	36.8	10.4	8.7	19.4	28.1
Vietnam	22.2	6.5	12.2	20.5	21.7	4.7	3.7	-0.2	1.1	4.1	3.2
United States	1.9	0.8	1.2	2.1	1.9	1.8	1.9	1.0	1.0	1.9	2.4

Sources: International Financial Statistics through 2018, IHS Markit projections after 2018

GDP Deflator

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
						(Percent change)					
Algeria	-1.1	0.8	3.7	3.3	4.0	3.7	3.2	2.7	3.2	3.4	3.9
Argentina	47.6	40.7	24.5	15.6	12.8	9.3	7.1	6.4	6.3	6.2	5.9
Australia	3.5	2.3	2.5	2.9	2.9	2.9	2.7	2.6	2.5	2.4	2.3
Bangladesh	4.7	5.5	6.1	6.2	5.9	6.3	6.0	6.0	6.0	6.0	6.0
Brazil	4.7	4.7	3.2	3.2	3.4	3.2	3.7	3.5	3.5	3.5	3.6
Burma (Myanmar)	5.4	5.1	5.0	4.9	4.9	4.8	4.6	4.4	4.2	4.0	3.9
Canada	1.8	2.0	1.6	1.9	2.2	2.1	2.0	1.8	1.7	1.7	1.7
Chile	0.9	-1.2	3.2	2.7	2.7	3.2	3.4	3.1	3.1	3.1	3.2
China	2.0	2.7	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0
Colombia	5.7	3.1	3.8	3.4	3.4	3.2	2.9	2.7	2.9	3.2	3.2
Egypt	9.7	8.4	4.8	3.9	4.0	3.2	3.1	3.1	3.2	3.2	3.3
Ethiopia	9.4	9.7	7.4	6.7	6.2	6.5	6.7	6.9	7.3	7.2	7.2
EU-28	1.7	1.4	1.3	1.4	1.5	1.6	1.6	1.7	1.6	1.6	1.6
India	2.1	4.3	5.1	5.2	5.4	5.3	5.1	5.1	4.8	4.6	4.4
Indonesia	1.8	3.3	4.8	5.7	5.7	5.5	5.5	5.3	5.2	5.2	5.0
Iran	36.8	22.4	18.6	15.1	13.2	10.7	9.6	9.4	9.2	9.1	8.8
Japan	0.7	1.1	0.1	0.7	1.0	1.3	1.3	1.3	1.3	1.3	1.4
Kazakhstan	5.6	4.8	5.3	4.9	4.4	3.9	3.6	3.3	2.9	2.5	2.6
Malaysia	0.1	2.3	3.3	3.2	2.7	2.4	2.5	1.9	2.3	2.0	2.2
Mexico	3.6	3.4	3.5	3.5	3.7	3.9	3.3	3.3	3.4	3.3	3.3
Morocco	-0.2	1.5	2.5	3.3	3.1	2.9	2.8	2.7	2.7	2.6	2.6
Nigeria	11.3	11.9	11.6	12.7	12.0	11.5	11.2	11.0	10.8	10.6	10.4
Pakistan	8.0	9.5	7.6	6.7	6.3	5.9	5.5	5.2	4.9	4.8	4.5
Paraguay	0.2	2.0	4.5	3.8	4.1	3.9	3.7	3.6	3.4	3.3	3.2
Peru	1.5	1.5	1.9	2.3	2.4	2.5	2.2	2.1	2.3	2.3	2.2
Philippines	2.1	3.1	2.6	2.5	2.9	3.2	3.0	2.9	2.4	2.2	2.2
Russia	3.4	-0.3	5.6	4.6	3.4	3.8	2.9	3.1	3.5	4.0	3.8
Saudi Arabia	0.4	4.1	3.1	3.3	3.7	3.6	3.7	3.0	2.9	3.1	3.0
South Africa	3.5	4.1	4.6	5.5	5.7	5.2	4.9	4.8	4.8	4.7	4.6
South Korea	-0.4	2.7	1.4	1.7	1.9	2.0	1.9	1.9	1.8	1.7	1.6
Sudan	57.3	44.0	30.8	22.9	20.4	16.8	14.2	12.9	11.7	11.3	10.8
Taiwan	0.3	0.4	1.0	1.4	1.6	1.8	2.0	2.2	2.2	2.2	2.2
Thailand	1.3	3.2	-1.6	3.2	1.2	1.3	1.6	1.4	2.1	1.8	1.4
Turkey	14.7	9.3	10.8	9.2	6.8	5.3	4.6	4.6	4.7	4.9	4.7
Ukraine	17.7	10.9	8.6	7.2	6.0	4.5	4.8	1.5	5.2	5.0	4.9
Uzbekistan	18.6	18.7	14.0	11.6	10.3	9.2	8.3	7.4	6.7	5.8	5.2
Vietnam	1.4	3.3	7.8	5.1	5.0	4.5	4.6	4.7	4.5	4.5	4.6
United States	1.8	2.0	2.3	2.5	2.5	2.4	2.3	2.2	2.3	2.3	2.3

Sources: International Financial Statistics through 2018, IHS Markit projections after 2018

Exchange Rate

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
						(Percent change)					
Algeria	-6.8	12.5	2.4	-1.9	6.3	2.4	1.5	25.0	8.7	1.4	5.1
Argentina	1.6	18.0	5.0	5.5	10.4	20.3	47.9	14.3	59.8	12.2	69.6
Australia	-0.2	7.6	-15.0	-11.1	-0.4	7.3	7.1	20.0	1.1	-3.0	2.6
Bangladesh	-0.4	0.6	0.9	6.5	10.4	-4.6	-0.6	0.4	0.7	2.5	3.8
Brazil	-5.8	9.0	-12.0	-4.9	16.8	10.4	9.1	41.4	4.9	-8.6	14.5
Burma (Myanmar)	-11.7	-8.9	-6.7	-16.6	5.1	11.1	5.4	18.1	6.2	10.2	5.1
Canada	-0.6	7.0	-9.8	-4.0	1.0	3.1	7.2	15.8	3.7	-2.1	-0.1
Chile	0.0	7.3	-9.0	-5.2	0.6	1.8	15.2	14.7	3.5	-4.2	-1.2
China	-8.6	-1.7	-0.9	-4.5	-2.4	-2.5	0.2	2.0	5.7	1.7	-2.1
Colombia	-5.3	9.7	-12.0	-2.7	-2.8	4.0	7.1	37.0	11.4	-3.4	0.1
Egypt	-3.6	2.1	1.4	5.5	2.1	13.4	3.0	8.7	30.3	77.4	-0.1
Ethiopia	7.1	22.7	22.3	17.3	4.8	5.2	5.1	5.1	5.6	9.8	14.9
EU-28	-6.5	5.3	4.9	-4.8	8.2	-3.2	0.1	19.6	0.3	-1.9	-4.5
India	5.2	11.3	-5.5	2.1	14.5	9.7	4.1	5.1	4.7	-3.1	5.0
Indonesia	6.1	7.1	-12.5	-3.5	7.0	11.4	13.4	12.8	-0.6	0.5	6.4
Iran	1.8	4.4	3.9	3.5	54.2	67.3	7.0	9.6	5.1	7.9	73.5
Japan	-12.2	-9.5	-6.2	-9.1	0.0	22.3	8.4	14.3	-10.1	3.1	-1.6
Kazakhstan	-1.8	22.6	-0.1	-0.5	1.7	2.0	17.8	24.3	53.5	-4.6	5.7
Malaysia	-3.0	5.7	-8.6	-5.0	0.9	2.0	3.9	19.3	6.2	3.7	-6.2
Mexico	1.8	21.4	-6.5	-1.6	5.8	-3.0	4.2	19.3	17.8	1.2	1.7
Morocco	-5.4	4.0	4.5	-3.9	6.7	-2.6	0.0	16.2	0.5	-1.2	-3.1
Nigeria	-5.8	25.6	0.9	2.4	2.4	-0.1	0.8	21.4	31.7	20.6	0.1
Pakistan	15.9	16.1	4.3	1.3	8.2	8.8	-0.5	1.7	1.9	0.7	15.5
Paraguay	-13.3	13.8	-4.6	-11.5	5.6	-2.4	3.3	16.6	8.9	-0.9	2.0
Peru	-6.5	3.0	-6.2	-2.5	-4.2	2.4	5.1	12.2	6.0	-3.4	0.8
Philippines	-4.0	7.6	-5.4	-4.0	-2.5	0.5	4.6	2.5	4.4	6.1	4.5
Russia	-2.8	27.7	-4.4	-3.2	5.7	2.5	20.8	58.9	9.7	-13.0	7.6
Saudi Arabia	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Africa	17.3	2.6	-13.6	-0.8	13.1	17.6	12.4	17.6	15.3	-9.4	-0.7
South Korea	18.6	15.9	-9.5	-4.1	1.6	-2.8	-3.8	7.4	2.6	-2.6	-2.6
Sudan	3.7	10.1	0.2	15.6	34.0	33.1	20.6	5.0	3.1	7.6	261.5
Taiwan	-0.5	1.5	-9.2	-6.5	0.9	2.0	5.9	6.1	-3.1	-6.5	-0.9
Thailand	-3.5	2.9	-7.6	-3.8	1.9	-1.1	5.7	5.5	3.0	-3.8	-4.8
Turkey	-0.1	19.1	-3.0	11.5	7.2	6.0	15.0	24.3	11.0	20.8	32.4
Ukraine	4.3	47.9	1.9	0.4	0.3	0.0	48.7	83.8	17.0	4.1	2.3
Uzbekistan	4.9	11.3	8.0	7.4	10.2	10.8	10.3	11.1	15.5	72.5	57.8
Vietnam	1.2	4.7	9.1	10.2	1.6	0.5	1.0	2.6	1.1	2.0	1.0
United States, trd wtd	-2.9	4.6	-1.1	-3.1	3.7	2.5	3.1	10.6	5.0	1.5	1.7

Sources: International Financial Statistics through 2018, IHS Markit projections after 2018

Exchange Rate

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
					(Percent change)						
Algeria	2.4	3.6	1.9	0.8	0.6	0.9	1.3	1.3	1.3	1.3	1.3
Argentina	71.8	92.3	21.0	4.2	3.6	3.2	3.4	2.0	1.3	1.5	2.5
Australia	7.5	0.6	2.5	0.4	-4.8	-2.6	-0.1	-0.1	-0.1	0.1	0.2
Bangladesh	1.2	3.6	5.8	4.1	5.1	4.4	4.6	4.5	4.5	4.4	4.3
Brazil	8.0	7.9	0.1	0.9	1.5	1.6	1.7	1.6	1.5	1.6	1.7
Burma (Myanmar)	7.7	5.0	3.5	3.0	3.1	3.1	3.1	3.1	2.9	2.7	2.5
Canada	2.4	0.9	1.7	-0.1	0.3	-0.6	-0.9	-1.5	-1.6	-1.3	-1.5
Chile	9.6	7.2	-5.9	-3.6	-1.7	-1.1	0.0	0.6	0.8	0.9	0.9
China	4.5	0.3	1.2	1.0	-1.2	-1.5	-1.3	-0.8	-0.3	0.0	0.2
Colombia	11.0	0.8	-1.1	0.2	0.8	0.7	0.6	0.7	0.6	0.6	0.8
Egypt	-5.3	-4.9	1.3	0.9	0.2	0.5	0.6	0.8	0.8	0.9	1.0
Ethiopia	5.9	17.3	14.3	10.2	5.6	7.6	7.5	7.4	7.3	7.2	7.2
EU-28	5.4	3.1	1.9	-0.3	-1.4	-1.4	-1.2	-1.2	-1.2	-1.2	-1.0
India	3.0	1.9	3.9	0.2	1.5	0.7	0.4	0.2	-0.7	-2.2	-1.3
Indonesia	-0.6	-2.3	1.5	-0.2	-2.4	-0.4	-0.2	0.5	0.9	0.8	0.8
Iran	52.9	7.2	8.8	8.6	8.0	6.0	6.1	5.8	5.7	5.4	5.0
Japan	-1.2	-0.2	1.9	0.7	-0.5	-1.7	-2.4	-2.6	-2.4	-1.8	-1.5
Kazakhstan	11.0	0.2	2.4	-0.3	0.0	-0.4	-0.5	-1.4	-2.2	-1.2	-0.9
Malaysia	2.7	0.3	0.1	-0.2	-0.1	-0.1	-0.1	-0.4	-0.1	-0.1	-0.1
Mexico	0.1	-0.7	0.8	3.3	1.7	2.2	2.1	1.7	1.6	1.5	1.6
Morocco	2.4	1.9	1.6	1.4	0.8	-0.1	-0.5	-0.4	-0.2	-0.1	0.0
Nigeria	0.1	0.3	1.2	1.7	1.9	2.2	2.5	2.7	2.9	3.1	3.2
Pakistan	23.0	5.4	4.6	4.2	3.4	3.0	2.8	2.5	2.3	2.1	1.9
Paraguay	8.9	4.3	0.6	-0.1	0.0	0.1	0.3	0.5	0.5	0.5	0.5
Peru	2.0	3.0	1.7	1.5	0.4	0.1	-0.3	-0.6	-0.8	-0.9	-1.0
Philippines	-1.6	-1.3	1.6	-0.8	-1.2	-0.9	-0.9	-0.8	-0.8	-0.7	-0.6
Russia	3.2	-1.5	0.7	0.3	1.0	0.8	0.5	0.6	0.8	0.9	0.8
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	9.2	2.3	-1.1	0.3	0.7	1.1	1.6	2.0	2.3	2.5	2.5
South Korea	5.9	0.2	0.1	0.1	0.1	0.0	0.0	0.0	-0.1	-0.2	-0.2
Sudan	89.9	-0.1	3.3	3.3	3.1	3.2	3.4	3.3	3.7	4.0	3.9
Taiwan	2.5	-2.4	0.3	-0.2	-1.6	-1.7	-1.3	-0.9	-0.7	-0.5	-0.2
Thailand	-3.9	-1.3	1.0	0.0	-0.4	0.2	0.0	0.2	0.2	0.3	1.1
Turkey	17.6	16.5	16.8	6.9	4.5	3.4	2.9	2.9	2.2	1.2	1.6
Ukraine	-5.0	-7.7	0.5	-3.5	-1.6	-1.8	-0.6	-5.0	-2.0	-2.0	-2.0
Uzbekistan	9.5	12.9	8.2	7.8	6.4	5.0	4.2	3.6	3.5	3.3	2.9
Vietnam	2.0	1.3	1.6	1.2	0.8	0.9	1.0	1.1	1.1	1.1	1.1
United States, trd wtd	0.2	-1.1	-0.9	-0.6	-0.3	-0.2	0.0	0.1	0.1	0.3	0.3

Sources: International Financial Statistics through 2018, IHS Markit projections after 2018

Population

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
					(Percent change)						
World	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.1	1.1	1.1
Algeria	1.6	1.7	1.8	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.0
Argentina	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0
Australia	2.0	2.0	1.9	1.7	1.6	1.5	1.5	1.4	1.4	1.3	1.3
Bangladesh	1.2	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1
Brazil	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
Burma (Myanmar)	0.6	0.6	0.7	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.6
Canada	1.1	1.1	1.1	1.0	1.1	1.1	1.0	0.8	1.0	1.2	1.4
Chile	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.2	1.3	1.4	1.4
China	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5
Colombia	1.2	1.1	1.1	1.0	0.9	0.9	1.0	1.2	1.4	1.5	1.5
Egypt	0.6	0.6	0.7	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.6
Ethiopia	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.4
EU-28	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
India	1.5	1.4	1.4	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.0
Indonesia	1.3	1.3	1.3	1.4	1.4	1.3	1.3	1.3	1.2	1.2	1.1
Iran	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.4
Japan	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
Kazakhstan	1.0	1.1	1.3	1.5	1.6	1.6	1.6	1.6	1.5	1.4	1.3
Malaysia	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.4	1.4	1.4	1.4
Mexico	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.2	1.2	1.2	1.1
Morocco	1.2	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3
Nigeria	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6
Pakistan	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Paraguay	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3
Peru	0.8	0.8	0.8	0.8	0.8	0.9	1.1	1.3	1.5	1.7	1.7
Philippines	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.5	1.5	1.4
Russia	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Saudi Arabia	2.8	2.9	3.0	3.1	3.1	3.1	2.9	2.6	2.3	2.0	1.8
South Africa	1.3	1.4	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.4	1.4
South Korea	0.3	0.3	0.4	0.5	0.6	0.6	0.5	0.4	0.3	0.2	0.1
Sudan	2.6	2.6	2.5	-21.5	2.1	2.1	2.1	2.1	2.2	2.2	2.1
Taiwan	0.4	0.4	0.4	0.4	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	0.5	0.4	0.4	0.4	0.3	0.3
Turkey	1.2	1.3	1.4	1.5	1.6	1.7	1.7	1.7	1.7	1.6	1.5
Ukraine	-0.5	-0.4	-0.4	-0.4	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5
Uzbekistan	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.6
Vietnam	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.0	1.0	1.0
United States	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6
Rest of world											
Wheat	2.0	1.9	1.9	1.3	1.9	1.8	1.8	1.8	1.8	1.8	1.8
Rice	1.7	1.7	1.7	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Corn	2.0	2.0	2.0	1.4	2.0	2.0	2.0	1.9	1.9	1.9	1.9
Barley	1.8	1.8	1.8	1.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Sorghum	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Soybeans	1.8	1.8	1.8	1.4	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Rapeseed	1.7	1.7	1.7	1.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Sunflowerseed	1.7	1.7	1.7	1.4	1.7	1.7	1.7	1.6	1.6	1.6	1.6
Palm oil	1.5	1.5	1.5	1.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Cotton	1.6	1.7	1.7	1.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6

Sources: International Financial Statistics through 2018, IHS Markit projections after 2018

Population

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
						(Percent change)					
World	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8
Algeria	2.0	1.9	1.7	1.6	1.6	1.5	1.4	1.3	1.3	1.2	1.2
Argentina	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8
Australia	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	0.9
Bangladesh	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7
Brazil	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4
Burma (Myanmar)	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7
Canada	1.4	1.2	1.0	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0
Chile	1.2	0.9	0.5	0.2	0.0	-0.1	0.0	0.1	0.2	0.2	0.3
China	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1
Colombia	1.4	1.1	0.8	0.5	0.3	0.3	0.4	0.5	0.5	0.6	0.6
Egypt	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7
Ethiopia	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.0	2.0
EU-28	0.1	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
India	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8
Indonesia	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.8
Iran	1.4	1.3	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.9	0.8
Japan	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5
Kazakhstan	1.3	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.9	0.8	0.8
Malaysia	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.0
Mexico	1.1	1.1	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8
Morocco	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9
Nigeria	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4
Pakistan	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.7	1.7	1.7	1.6
Paraguay	1.3	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0
Peru	1.6	1.4	1.2	1.0	0.8	0.8	0.8	0.9	0.9	0.9	0.9
Philippines	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.1
Russia	0.1	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3
Saudi Arabia	1.7	1.6	1.5	1.4	1.4	1.3	1.2	1.2	1.1	1.1	1.0
South Africa	1.3	1.3	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0
South Korea	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
Sudan	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.8
Taiwan	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
Thailand	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Turkey	1.3	1.1	0.8	0.6	0.5	0.4	0.5	0.5	0.5	0.6	0.6
Ukraine	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7
Uzbekistan	1.6	1.5	1.4	1.3	1.2	1.2	1.1	1.1	1.0	1.0	0.9
Vietnam	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6
United States	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6
Rest of world											
Wheat	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.5
Rice	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4
Corn	1.9	1.8	1.8	1.8	1.8	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	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.2
Soybeans	1.7	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4
Rapeseed	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3
Sunflowerseed	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.3
Palm oil	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.2
Cotton	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3

Sources: International Financial Statistics through 2018, IHS Markit projections after 2018

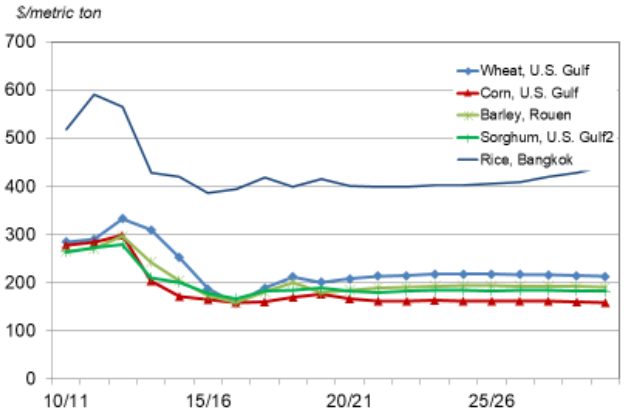
International Crops Summary

- Wheat prices are declining in 2019/20, both in absolute terms and relative to the prices of other grains, due to a more than 30 mmt increase in global production, reaching a record. Longer term, wheat prices will re-establish a more normal relationship with other grains as yields and production revert to average levels.
- Corn prices are rising this year as the adverse weather in the U.S. Midwest at planting time resulted in reduced supplies. Additionally, a renewed rise in corn use for ethanol, particularly in China and Brazil added to rising consumption. Increases in demand this year will combine with lower supply and result in a reduction in ending stocks.
- Longer term, our assumption of normal weather leads to projections of 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.

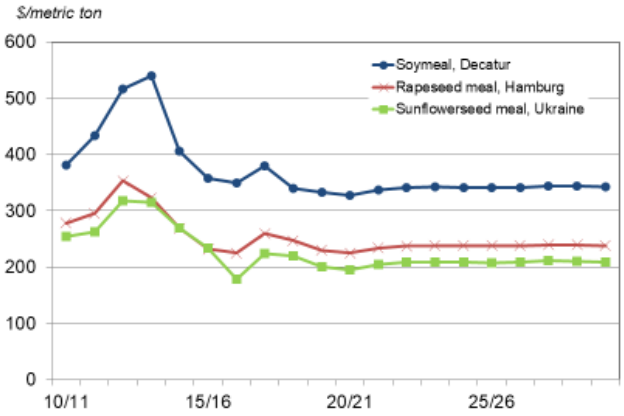
- Substitution between different meals and vegetable oils creates a long-term relationship between oilseed prices. Several years ago short term movements in various oilseed prices stemming from production disruptions resulted in prices moving away from long-term relations. However, those issues have diminished and prices between oilseeds are returning to long-term patterns
- Perennial expansion in Brazil and Argentina was not enough to offset the sharp decline in U.S. soybean area stemming from adverse weather last spring. As a result, global soybean production dropped approximately 20 mmt from output in 2018/19, sending prices higher. As production stabilizes, prices of will remain well 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 the 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.

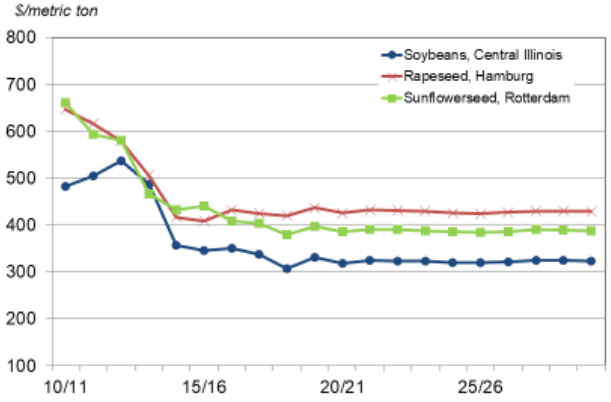
Ample Supplies Mean Stable Prices



Meal Prices Reflect Low Prices of Other Feeds



Production Offsets Demand Growth, Flat Prices Result



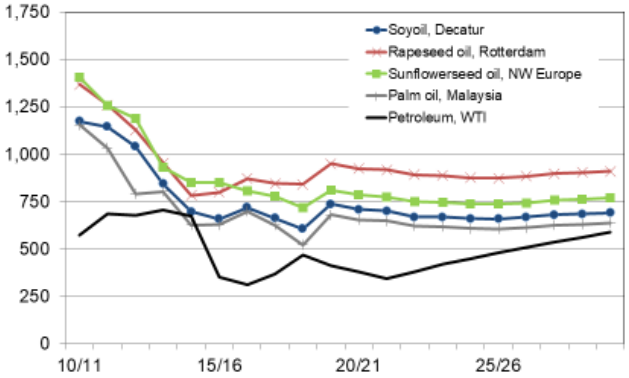
- Vegetable oil prices are higher in 2019/20 across the board. Constrained supplies in U.S. soybeans and EU and Canadian rapeseed are pushing those prices higher, adding to underlying costs for oils. Vegetable oil prices are the most volatile of the oilseed complex and relatively small decreases in supplies 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 price path in this baseline is below vegetable oil prices, limiting switching to biofuels beyond mandates for increased biofuel use in various countries. and anti-dumping duties involving Argentina, the EU, U.S, and Indonesia.
- Despite higher production in palm oil and sunflowers, those respective oil prices rose along with higher prices for soy and rapeseed oils. Prices of all oils are expected to gradually decline in the medium term before stabilizing, then slowly increase as demand increases pressure supplies.

- Global cotton increased by one million hectares from 2018/19 levels this year, and production grew around one percent, sufficient to meet global demand. As a result, total supplies are more than adequate to meet stagnant global demand. As a result, cotton prices are expected to drop sharply in 2019/20 and slightly again next year, before stabilizing thereafter.
- China continues to draw down cotton stocks. The inventory reduction will allow that country to keep imports down, even as area and production do not recover fully to previous highs. However, this is a medium-term phenomenon, as mill use is expected to show no growth over the projection period, resulting in little need to increase production or continue to reduce stocks
- 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 from 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.

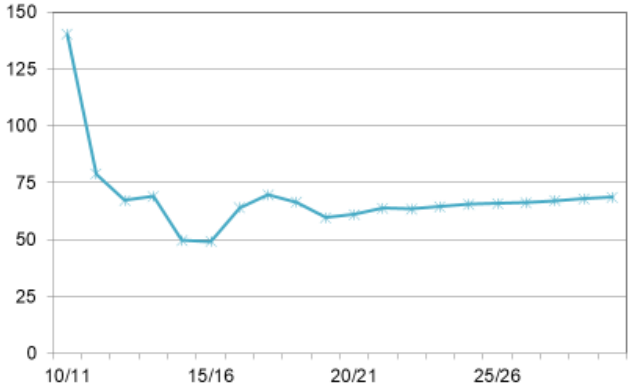
Petroleum Does Not Compete With Vegetable Oils

$/metric ton



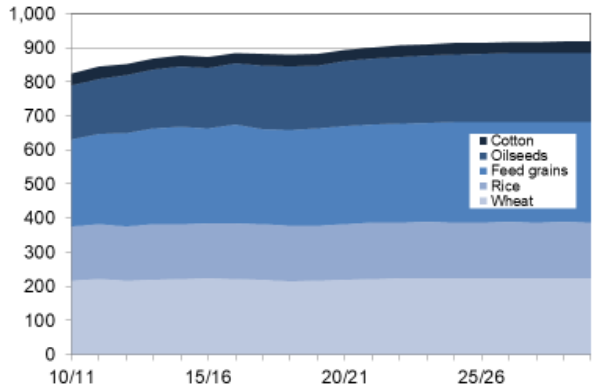
Cotton Price Reflects Slow Population-Driven Demand

Cotton adjusted world price, cents/lb



Increasing Area Required Only for Feed Crops

World crop area, million hectares



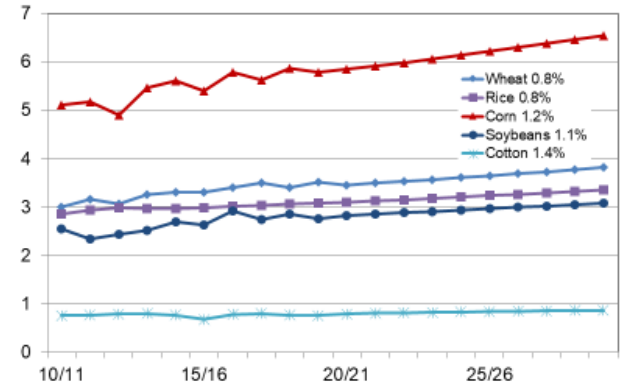
- Yields of major grains, oilseeds, and fiber crops are expected to continue growing at long-term trend rates. This means productivity will expand around one percent per year, slightly more than the global population growth rate, which is projected to dip below 1% per year after 2020.
- One percent yield 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 20% 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. Fourteen percent of global demand is expected to be met by trade in the coming decade.
- Sorghum is a traditional staple crop in areas such as Africa. As incomes increase and diets in rural areas shift away from sorghum, demand and trade for this grain will stagnate.
- Egypt, the EU, Japan, South Korea, Mexico, and Vietnam will continue as the largest corn importers. China’s corn imports are expected to be higher as that country complies with the WTO ruling regarding their tariff-rate quota (TRQ) for importing corn.
- 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, especially for brewing is expected to be stable, at best, as demand for beer has weakened in recent years.

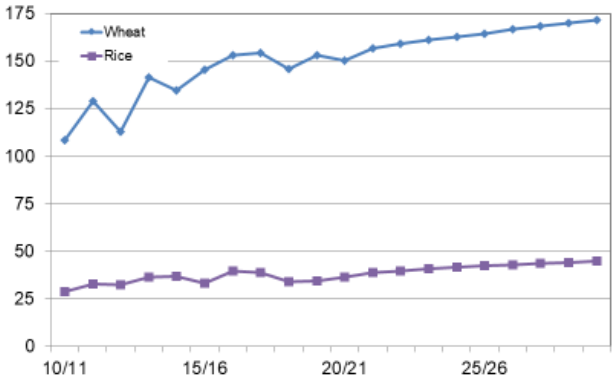
Yield Gains Push Supply Growth

Global average yield, metric tons/hectare



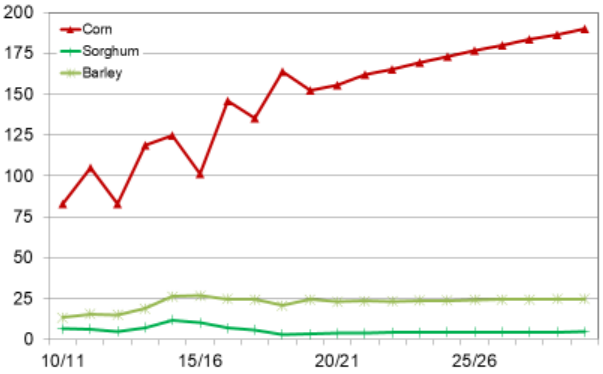
Wheat Trade Is More Global Than Rice

Net exports by exporting countries, mmt



Corn Is Preferred Grain for Livestock Feed, Ethanol

Net exports by exporting countries, mmt



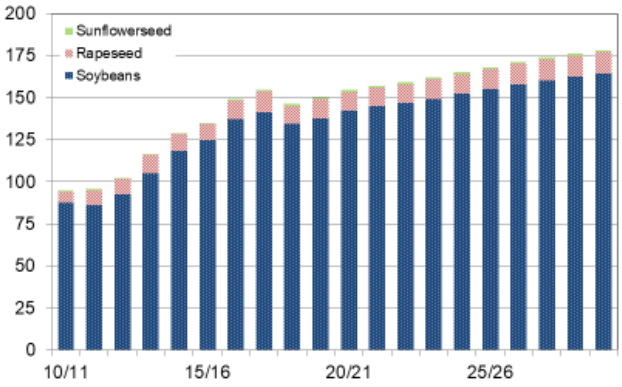
- Soybeans account for the largest share of global oilseed utilization and the U.S., Argentina, and Brazil are the largest producers and exporters. China is by far the largest importer, and Brazil dominates in that market, especially with the recent tariffs levied against U.S. exports that were not addressed in the recent Phase 1 agreement between the U.S. and China. Over the next ten years, 40% of global consumption is expected to be supplied by trade.
- 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, 15% of global rapeseed demand will be met through trade. Canada accounts for nearly all rapeseed and rapeseed meal trade.
- 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% 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 and hogs, and milk production around the world, particularly in commercial operations, the demand for protein meals will continue to rise rapidly.
- Many countries crush both domestically produced and imported oilseeds domestically, meeting the 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 10 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. Ukraine accounts for two-thirds of exports, while the EU absorbs around 40% of global sales.

- 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. Nearly two-thirds of palm oil production is traded, coming primarily from Indonesia and Malaysia. A significant proportion of palm oil demand and trade is attributable to biofuel markets. However, the EU has instituted policies against palm oil trade because of competition in biodiesel markets.
- Argentina generally exports more than 60% of its soyoil production. However, the equalizing of the permanent 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.

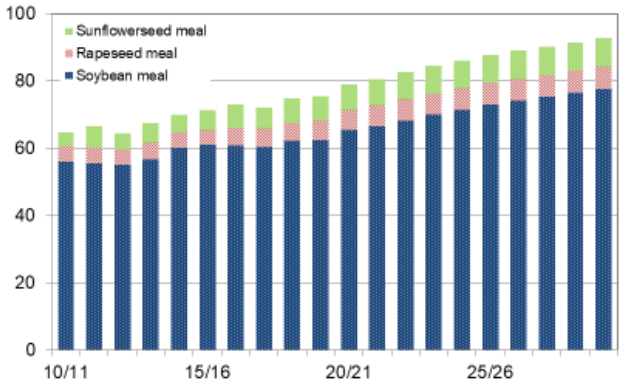
Soybeans Are Most Widely Traded Oilseed

Net exports by exporting countries, mmt



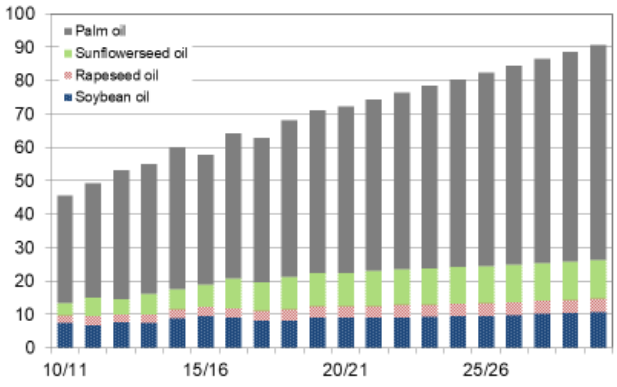
Soybean Meal Supplies Most Livestock Feed Needs

Net exports by exporting countries, mmt



Cheaper Palm Oil Dominates World Trade

Net exports by exporting countries, mmt

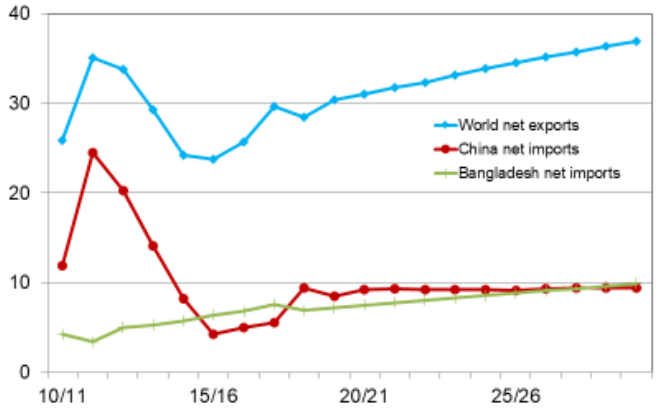


- In 2014/15, China ended its massive cotton stocks buildup, also bringing to an end its outright domination of the global cotton trade. Stocks are being drawn down and the high cotton imports of 2011/12 through 2013/14 have not been sustained. This trend combined with steady expansion of textile and garment manufacturing in Bangladesh has propelled that country to rival China as a top cotton importer.
- China is expected to continue reducing inventories over the next several years. Its stocks-to-use ratio is projected to fall from more than one year's equivalent as recently as 2016/17 to less than two-thirds. China will no longer drive cotton trade or move prices to the same extent as a few years ago.
- 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.
- With a continued drawdown of its huge Chinese corn inventories as ethanol production and other use expands, the Chinese and global corn inventories will fall significantly, However, this inventory is not available to the world market, and the remaining stocks will be more than adequate to absorb short-term supply shocks.

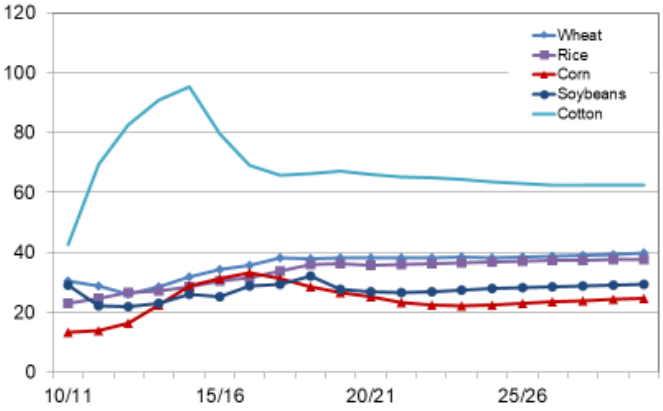
Textile, Clothing Manufacturing Shifting to Bangladesh

Cotton net trade, mil. bales



China Draws Down Corn in Medium Term

Global stocks-to-use, percent



Agricultural Commodity Prices

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Dollars per metric ton)						
Wheat											
SRW, U.S. Gulf	206	187	282	261	309	268	223	196	170	186	209
HRW, U.S. Gulf	264	205	284	290	332	309	252	187	157	188	212
Standard grade, Rouen	213	179	322	276	329	273	216	180	185	196	220
No. 2, Argentina	244	227	302	271	330	327	270	209	191	198	235
Soft white, Australia	321	209	273	249	324	281	253	218	195	227	275
No. 1 CWS, Canada	350	280	394	416	359	331	285	232	216	260	254
Corn											
No. 2 yellow, U.S. Gulf	173	163	277	284	298	203	171	165	157	160	169
Sorghum											
No. 2 yellow, U.S. Gulf	158	171	263	272	279	210	201	178	167	182	184
Barley											
Barley Unit Value, Alberta	189	156	149	193	236	233	149	160	149	143	182
Feed barley, Rouen	178	146	265	270	296	242	204	173	158	181	200
Soybeans											
No. 1 yellow, Central Illinois	365	357	482	505	537	487	356	346	351	337	307
fob Rio Grande, Brazil	403	390	508	549	538	514	388	382	385	396	360
fob Buenos Aires, Argentina	392	395	511	533	543	517	401	375	376	386	347
cif Rotterdam	421	429	549	562	592	542	407	396	404	403	370
Soybean Meal											
Decatur, IL, 48%	365	343	381	434	516	540	406	358	349	380	340
fob Rio Grande, Brazil	333	327	383	442	489	500	376	335	322	368	325
fob Buenos Aires, Argentina	290	311	386	442	506	509	386	349	326	375	321
cif Rotterdam	401	391	418	461	538	533	403	351	336	382	329
Soybean Oil											
Decatur, IL	709	793	1,173	1,144	1,039	843	697	658	718	662	606
fob Rio Grande, Brazil	740	848	1,210	1,162	1,012	871	706	704	765	722	651
fob Buenos Aires, Argentina	741	829	1,211	1,164	1,014	870	705	698	763	722	649
Dutch fob	826	924	1,306	1,241	1,098	950	778	774	848	822	745
Rapeseed (canola)											
cif Hamburg	393	419	647	616	579	505	417	409	432	425	420
Export, West Coast, Canada	501	432	424	561	618	616	452	412	410	427	414
Rapeseed Meal											
fob Hamburg	195	221	278	295	353	323	269	232	225	259	247
Rapeseed Oil											
cif Rotterdam	868	927	1,367	1,258	1,127	954	782	798	871	844	840
Sunflowerseed											
cif Rotterdam	364	452	661	593	580	466	432	440	408	403	380
Sunflowerseed Meal											
cif Rotterdam	178	228	254	263	318	315	269	233	178	224	219
Sunflowerseed Oil											
fob NW Europe	837	956	1,404	1,254	1,189	929	850	849	807	776	719
Palm Oil											
Malaysia	633	793	1,154	1,032	791	803	626	628	699	626	521
Cotton											
Adjusted World Price	961	1351	3089	1739	1482	1522	1096	1083	1408	1537	1463

Agricultural Commodity Prices

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Dollars per metric ton)						
Wheat											
SRW, U.S. Gulf	185	193	198	198	202	202	202	201	200	199	197
HRW, U.S. Gulf	200	208	213	214	217	218	217	216	215	214	213
Standard grade, Rouen	195	203	208	209	212	213	212	211	211	210	208
No. 2, Argentina	199	207	213	213	217	217	217	217	217	217	217
Soft white, Australia	253	264	271	264	260	258	258	257	256	255	255
No. 1 CWS, Canada	265	278	286	287	291	289	285	280	276	271	265
Corn											
No. 2 yellow, U.S. Gulf	176	166	161	162	163	162	161	161	161	160	159
Sorghum											
No. 2 yellow, U.S. Gulf	189	182	180	183	184	184	183	183	183	183	182
Barley											
Barley Unit Value, Alberta	168	163	162	162	164	163	162	162	162	160	158
Feed barley, Rouen	179	185	189	190	193	193	193	193	192	192	190
Soybeans											
No. 1 yellow, Central Illinois	330	319	325	324	324	320	320	322	325	324	322
fob Rio Grande, Brazil	368	348	354	353	353	349	348	350	353	354	352
fob Buenos Aires, Argentina	347	334	341	340	339	336	335	337	341	340	338
cif Rotterdam	380	367	374	372	372	369	368	370	374	373	371
Soybean Meal											
Decatur, IL, 48%	332	328	336	341	343	341	341	342	344	344	342
fob Rio Grande, Brazil	311	306	315	319	321	319	319	320	322	322	320
fob Buenos Aires, Argentina	303	298	307	313	314	312	312	313	315	315	313
cif Rotterdam	326	321	330	335	337	335	335	336	338	338	336
Soybean Oil											
Decatur, IL	736	708	700	669	668	660	658	667	680	685	690
fob Rio Grande, Brazil	789	761	752	720	720	711	709	719	732	736	741
fob Buenos Aires, Argentina	741	712	703	670	669	660	658	668	682	687	692
Dutch fob	812	780	770	734	733	723	722	732	747	752	758
Rapeseed (canola)											
cif Hamburg	437	425	432	431	429	426	424	427	430	430	429
Export, West Coast, Canada	421	410	416	415	414	411	410	414	416	417	417
Rapeseed Meal											
fob Hamburg, $/mt	230	225	234	237	238	238	238	238	239	240	238
Rapeseed Oil											
cif Rotterdam	950	922	916	891	887	875	873	883	897	903	909
Sunflowerseed											
cif Rotterdam	397	385	391	390	388	386	384	386	390	389	388
Sunflowerseed Meal											
cif Rotterdam	200	195	204	208	209	208	208	209	211	211	209
Sunflowerseed Oil											
fob NW Europe	811	784	775	750	745	738	735	743	757	762	769
Palm Oil											
Malaysia	680	654	647	621	618	607	605	612	626	631	638
Cotton											
Adjusted World Price	1315	1347	1406	1399	1422	1443	1451	1461	1479	1499	1513

Global Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Grains											
Wheat	224.2	225.8	217.1	221.2	216.2	220.0	221.3	224.0	222.4	218.6	215.5
Rice	158.6	155.9	158.5	160.2	160.0	162.4	162.3	160.3	163.1	163.0	162.7
Corn	159.2	158.8	166.5	175.9	183.8	188.0	188.9	187.9	194.9	192.1	191.7
Sorghum	44.3	40.2	41.0	41.3	38.9	42.6	44.1	40.6	44.6	39.5	40.1
Barley	55.1	54.1	47.0	49.1	50.2	50.6	50.6	50.8	49.3	47.4	48.1
Total grains modeled	641.4	634.9	630.1	647.7	649.0	663.6	667.2	663.6	674.3	660.6	658.0
Oilseeds											
Soybeans	96.6	102.8	103.6	103.1	110.3	112.9	118.9	120.7	119.8	124.5	125.5
Rapeseed	31.2	30.7	33.6	33.3	35.8	35.7	35.1	33.3	33.4	36.6	36.6
Sunflowerseed	23.9	23.0	23.1	24.6	23.6	24.0	23.1	23.5	25.9	25.9	25.9
Total oilseeds modeled	151.7	156.4	160.3	161.1	169.7	172.6	177.0	177.5	179.2	186.9	188.0
Cotton	30.6	30.2	33.8	36.1	34.3	32.9	33.9	30.8	29.8	33.7	33.5
Total crops modeled	823.7	821.5	824.2	844.8	853.0	869.1	878.1	871.9	883.3	881.3	879.6

Global Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million metric tons)						
Grains	**236.6**	**246.2**	**240.1**	**288.2**	**247.7**	**322.1**	**333.9**	**316.5**	**370.2**	**358.4**	**366.9**
Wheat	116.7	113.0	108.5	129.0	112.9	141.1	134.4	145.3	153.0	154.2	145.5
Rice	22.4	24.9	28.9	32.8	32.1	36.2	36.7	32.9	39.5	38.7	33.8
Corn	73.9	86.6	82.8	104.8	82.7	118.7	124.8	101.5	146.0	135.2	163.8
Sorghum	5.7	6.3	6.5	6.2	4.9	7.2	11.7	10.2	7.0	5.8	3.1
Barley	17.9	15.4	13.4	15.4	15.0	18.8	26.3	26.7	24.7	24.5	20.7
Oilseeds	**82.1**	**95.8**	**94.8**	**95.9**	**102.4**	**116.6**	**129.0**	**135.0**	**149.1**	**154.7**	**146.4**
Soybeans	72.5	88.4	87.5	86.1	92.6	104.9	118.3	124.9	137.0	141.4	134.3
Rapeseed	9.1	6.8	6.6	8.8	9.1	11.0	10.2	9.7	11.3	12.3	10.7
Sunflowerseed	0.5	0.6	0.7	1.0	0.6	0.8	0.5	0.5	0.8	1.0	1.4
Protein meals	**57.5**	**60.2**	**64.7**	**66.5**	**64.3**	**67.4**	**70.0**	**71.2**	**72.9**	**72.0**	**74.8**
Soybean meal	50.8	53.4	56.0	55.6	55.1	56.7	60.1	61.0	60.7	60.2	62.1
Rapeseed meal	2.8	2.9	4.5	4.5	4.5	4.9	4.6	4.4	5.3	5.6	5.4
Sunflowerseed meal	3.9	3.8	4.3	6.4	4.8	5.8	5.3	5.8	6.9	6.2	7.3
Vegetable oils	**43.7**	**44.8**	**45.6**	**49.3**	**53.1**	**55.0**	**59.8**	**57.7**	**64.3**	**62.8**	**68.1**
Soybean oil	7.4	7.4	7.4	6.8	7.6	7.4	8.9	9.5	9.0	8.0	8.2
Rapeseed oil	1.6	1.7	2.2	2.6	2.4	2.5	2.7	2.7	2.9	3.1	3.4
Sunflowerseed oil	3.7	3.7	3.7	5.5	4.6	6.3	5.8	6.6	8.8	8.4	9.5
Palm oil	31.0	32.0	32.3	34.4	38.5	38.9	42.3	38.8	43.6	43.2	47.0
Cotton	21.8	25.9	25.8	35.1	33.8	29.3	24.2	23.8	25.7	29.6	28.5

Figures are the sums of net exports by exporting countries.

Global Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
						(Million hectares)					
Grains											
Wheat	217.2	219.8	222.5	223.2	223.0	222.9	222.9	223.4	223.5	223.7	223.7
Rice	161.3	163.0	163.9	165.0	165.4	165.4	165.1	165.0	164.7	164.6	164.5
Corn	192.2	193.3	194.9	196.5	198.5	199.8	200.5	201.1	201.4	201.4	201.3
Sorghum	40.8	41.4	41.4	41.3	41.3	41.2	41.2	41.1	41.1	40.9	40.8
Barley	51.6	52.0	52.1	52.0	52.1	52.1	52.1	52.1	52.1	52.1	52.1
Total grains modeled	663.1	669.5	674.8	678.1	680.3	681.4	681.9	682.7	682.8	682.8	682.4
Oilseeds											
Soybeans	122.7	128.5	129.4	131.5	132.9	134.3	135.2	135.7	136.5	137.2	137.9
Rapeseed	34.5	35.4	35.7	36.0	36.2	36.5	36.6	36.7	36.8	37.0	37.2
Sunflowerseed	26.5	27.7	28.1	28.3	28.4	28.3	28.2	28.1	28.0	27.9	27.8
Total oilseeds modeled	183.7	191.5	193.1	195.7	197.6	199.1	200.0	200.5	201.3	202.2	203.0
Cotton	34.5	33.1	32.8	33.1	32.9	33.0	33.0	33.0	33.1	33.1	33.1
Total crops modeled	881.3	894.1	900.7	906.9	910.8	913.4	914.9	916.2	917.2	918.0	918.5

Global Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
						(Million metric tons)					
Grains	**367.5**	**368.4**	**384.2**	**391.2**	**398.8**	**405.6**	**411.3**	**418.2**	**424.4**	**429.3**	**435.6**
Wheat	153.1	149.9	156.4	159.0	161.1	162.8	164.0	166.6	168.3	169.7	171.4
Rice	34.3	36.4	38.6	39.7	40.6	41.6	42.3	43.0	43.6	44.1	44.9
Corn	152.4	155.4	162.0	165.2	169.2	173.1	176.5	179.9	183.6	186.4	190.2
Sorghum	3.3	3.6	3.8	4.1	4.2	4.3	4.3	4.4	4.5	4.5	4.6
Barley	24.4	23.1	23.4	23.3	23.6	23.8	24.1	24.3	24.5	24.5	24.6
Oilseeds	**150.1**	**154.4**	**157.0**	**159.1**	**162.0**	**165.0**	**168.1**	**171.1**	**173.8**	**176.0**	**178.0**
Soybeans	137.7	142.2	144.7	146.6	149.2	152.0	155.0	157.8	160.3	162.3	164.1
Rapeseed	11.2	11.1	11.1	11.3	11.6	11.8	12.0	12.2	12.4	12.5	12.8
Sunflowerseed	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Protein meals	**75.6**	**78.9**	**80.6**	**82.6**	**84.5**	**86.1**	**87.6**	**88.9**	**90.1**	**91.4**	**92.6**
Soybean meal	62.4	65.3	66.5	68.1	69.8	71.4	72.9	74.1	75.2	76.4	77.6
Rapeseed meal	5.7	5.9	6.2	6.3	6.4	6.4	6.4	6.4	6.5	6.5	6.6
Sunflowerseed meal	7.5	7.7	7.9	8.1	8.2	8.3	8.3	8.4	8.4	8.5	8.5
Vegetable oils	**71.1**	**72.2**	**74.2**	**76.4**	**78.3**	**80.2**	**82.3**	**84.4**	**86.5**	**88.5**	**90.5**
Soybean oil	8.9	9.1	8.9	9.1	9.2	9.4	9.6	9.8	10.2	10.5	10.7
Rapeseed oil	3.5	3.4	3.6	3.7	3.7	3.8	3.8	3.8	3.9	3.9	3.9
Sunflowerseed oil	9.9	9.9	10.4	10.7	10.9	11.1	11.2	11.3	11.4	11.5	11.6
Palm oil	48.7	49.8	51.2	52.9	54.5	56.0	57.7	59.4	61.1	62.7	64.3
Cotton	30.4	31.0	31.7	32.3	33.1	33.9	34.5	35.2	35.7	36.3	36.9

Figures are the sums of net exports by exporting countries.

Global Stocks-To-Use

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					World						
					(Percent)						
Grains											
Wheat	26.7	31.3	30.4	28.8	26.1	28.6	31.8	34.3	35.8	38.2	37.9
Rice	21.6	22.2	23.0	24.6	26.6	27.0	28.6	30.5	31.4	33.8	35.8
Corn	17.1	15.8	13.3	13.9	16.4	22.6	28.7	31.1	33.1	31.2	28.5
Sorghum	9.6	7.9	9.1	7.4	7.5	9.4	8.6	8.0	8.7	8.2	9.3
Barley	22.5	25.3	17.8	16.2	16.2	17.3	16.6	17.8	15.0	13.2	12.8
Oilseeds											
Soybeans	20.4	26.2	28.9	22.2	21.9	23.0	25.9	25.3	28.7	29.2	32.1
Rapeseed	13.9	14.6	14.5	10.8	8.5	11.2	10.3	8.9	7.1	10.6	12.0
Sunflowerseed	11.8	7.9	6.9	6.6	8.0	8.0	7.4	6.9	7.3	6.1	5.5
Protein meals											
Soybean meal	3.4	4.3	5.5	6.1	5.5	5.9	7.0	6.4	6.3	5.8	5.3
Rapeseed meal	2.7	3.8	3.2	3.2	2.7	2.4	2.6	2.9	2.8	2.8	2.4
Sunflowerseed meal	6.5	7.8	8.4	11.6	5.4	9.3	10.9	10.6	7.8	8.2	6.8
Vegetable oils											
Soybean oil	9.9	9.7	11.0	10.1	9.9	8.8	9.3	7.2	7.0	6.4	6.5
Rapeseed oil	6.9	9.4	9.8	13.9	20.8	24.4	24.1	20.0	14.4	10.8	8.6
Sunflowerseed oil	18.0	16.6	16.1	24.2	17.4	21.0	18.3	11.1	11.1	10.5	9.6
Palm oil	14.9	15.2	18.3	19.1	16.5	15.7	17.3	13.9	14.6	16.5	14.3
Cotton	55.7	38.6	42.7	69.2	82.5	90.9	95.1	79.6	69.1	65.8	66.2
					World, excluding China						
					(Percent)						
Grains											
Wheat	23.3	27.5	25.7	25.2	22.1	22.8	24.6	24.8	24.0	24.5	22.7
Rice	18.0	18.1	18.6	19.5	20.1	18.6	17.8	16.7	15.3	15.8	17.4
Corn	14.6	13.6	10.7	9.9	9.5	12.3	13.9	12.9	15.9	14.3	12.9
Sorghum	9.6	8.1	9.2	7.6	7.6	10.2	10.4	9.4	9.6	9.1	9.9
Barley	23.1	25.9	18.3	16.4	16.5	17.8	17.8	18.7	15.9	14.0	13.3
Oilseeds											
Soybeans	22.3	27.6	31.3	22.1	24.2	25.3	28.6	28.7	32.8	32.7	37.6
Rapeseed	13.3	13.3	14.9	11.6	8.9	12.9	11.7	10.0	7.5	11.9	14.0
Sunflowerseed	12.5	8.4	6.7	6.1	8.2	8.3	7.6	6.5	7.0	6.1	5.6
Protein meals											
Soybean meal	4.3	5.6	7.3	8.3	7.6	8.2	9.8	9.1	9.2	8.4	7.5
Rapeseed meal	3.6	5.4	4.4	4.4	3.7	3.4	3.6	4.0	3.9	3.9	3.4
Sunflowerseed meal	6.7	8.1	8.8	12.0	5.7	9.7	11.4	11.1	8.1	8.7	7.5
Vegetable oils											
Soybean oil	11.5	10.8	14.0	11.7	10.3	9.1	10.6	8.4	8.3	7.6	7.8
Rapeseed oil	5.4	5.7	5.8	7.1	6.2	8.0	9.3	9.3	8.0	6.8	5.9
Sunflowerseed oil	18.8	17.4	16.7	25.2	18.6	22.4	19.7	12.2	12.1	11.5	10.4
Palm oil	15.8	16.6	20.4	21.1	17.7	16.8	18.6	14.7	15.3	17.1	15.4
Cotton	60.5	46.0	55.7	62.0	53.9	49.3	51.9	43.3	44.2	52.4	54.4

Global Stocks-To-Use

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					World						
					(Percent)						
Grains											
Wheat	38.1	38.2	38.3	38.3	38.3	38.2	38.5	38.8	38.9	39.3	39.7
Rice	36.1	35.8	36.0	36.3	36.6	36.8	37.0	37.2	37.3	37.5	37.5
Corn	26.7	25.1	23.2	22.4	22.2	22.5	22.9	23.5	23.9	24.4	24.7
Sorghum	8.8	8.9	9.1	9.2	9.4	9.5	9.6	9.8	9.9	10.0	10.1
Barley	13.2	13.1	13.4	13.8	14.2	14.5	14.8	15.2	15.4	15.7	15.9
Oilseeds											
Soybeans	27.7	26.8	26.5	26.9	27.4	27.8	28.3	28.6	28.8	29.1	29.3
Rapeseed	10.8	10.9	11.0	11.3	11.6	11.9	12.1	12.2	12.3	12.3	12.3
Sunflowerseed	5.9	5.8	6.2	6.5	6.8	7.0	7.2	7.3	7.4	7.5	7.6
Protein meals											
Soybean meal	5.1	5.0	5.1	5.1	5.2	5.2	5.3	5.3	5.3	5.4	5.4
Rapeseed meal	2.6	2.7	2.8	2.8	2.8	2.9	2.9	3.0	3.0	3.0	3.1
Sunflowerseed meal	6.5	6.3	6.3	6.4	6.6	6.7	6.8	7.0	7.1	7.1	7.3
Vegetable oils											
Soybean oil	6.1	6.2	6.3	6.4	6.5	6.6	6.7	6.7	6.8	6.8	6.8
Rapeseed oil	6.2	6.6	6.8	7.0	7.1	7.3	7.4	7.5	7.6	7.7	7.8
Sunflowerseed oil	10.3	10.5	10.4	10.5	10.6	10.7	10.8	10.9	10.9	11.0	11.0
Palm oil	13.7	14.1	14.4	14.7	14.9	15.2	15.4	15.6	15.7	15.9	16.0
Cotton	67.1	66.1	65.3	64.9	64.2	63.6	63.0	62.5	62.3	62.3	62.3
					World, excluding China						
					(Percent)						
Grains											
Wheat	22.3	21.6	21.7	21.7	21.8	21.9	22.1	22.4	22.6	22.8	23.0
Rice	17.3	16.9	17.1	17.3	17.7	18.0	18.2	18.4	18.6	18.7	18.8
Corn	12.0	13.0	13.4	13.5	13.7	13.8	14.0	14.2	14.4	14.5	14.7
Sorghum	9.4	9.5	9.7	9.9	10.1	10.2	10.3	10.5	10.6	10.7	10.8
Barley	13.8	13.8	14.1	14.5	14.8	15.1	15.5	15.8	16.1	16.4	16.6
Oilseeds											
Soybeans	31.1	30.0	29.4	30.0	30.6	31.2	31.7	32.1	32.4	32.8	33.0
Rapeseed	12.4	12.7	12.8	13.2	13.5	13.9	14.2	14.4	14.5	14.5	14.5
Sunflowerseed	5.9	5.9	6.2	6.6	6.9	7.1	7.3	7.4	7.5	7.6	7.7
Protein meals											
Soybean meal	7.2	6.9	7.0	7.1	7.1	7.2	7.3	7.3	7.3	7.3	7.4
Rapeseed meal	3.6	3.8	3.9	4.0	4.0	4.1	4.1	4.2	4.2	4.3	4.3
Sunflowerseed meal	7.2	7.1	7.2	7.3	7.4	7.6	7.8	7.9	8.0	8.1	8.2
Vegetable oils											
Soybean oil	7.5	7.5	7.6	7.8	7.9	8.1	8.2	8.3	8.3	8.4	8.4
Rapeseed oil	4.4	5.0	5.3	5.6	5.8	6.0	6.2	6.3	6.5	6.6	6.7
Sunflowerseed oil	11.4	11.6	11.6	11.7	11.8	12.0	12.1	12.1	12.2	12.2	12.2
Palm oil	14.7	15.1	15.5	15.8	16.1	16.5	16.7	16.9	17.1	17.3	17.4
Cotton	58.6	59.3	59.3	60.0	60.3	60.4	60.6	60.7	60.7	60.7	60.7

Wheat

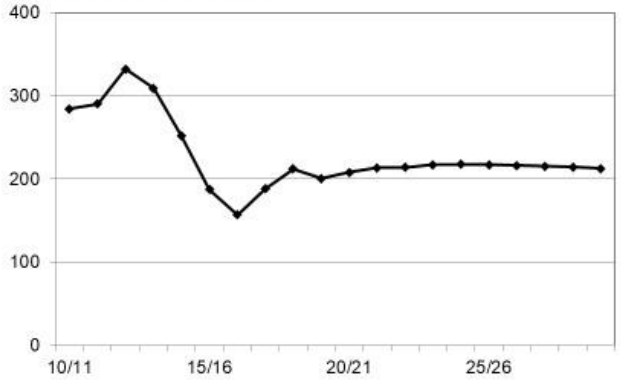
- Following two years of price recovery, global wheat area increased slightly resulting in a global production increase of approximately 33 mmt in 2019/20. Global prices are forecast to remain constant near current levels through 2029. It is anticipated that prices going forward will recover the normal price relationship between wheat and other grains.
- With the assumption of normal weather and average yields in coming years, production is expected to maintain levels that will balance global supply and demand at more normal, stable prices. Comparatively higher prices than in recent years will ensure that wheat successfully competes for land against other crops.
- Despite current moderate prices, the underlying costs of production have risen. Fertilizers and other agricultural chemicals, and other inputs are pricier than just a few years ago, but those prices are not expected to appreciate rapidly. Energy prices are only projected to increase moderately in the next few years, and even this slow appreciation in costs will be partially offset by increasing productivity. This will help producers meet global wheat demand without large increases in prices.

- Worldwide wheat area grew by approximately two million hectares in 2019/20 as prices and area recover from a three-year decline. The largest area gain was in Mexico, followed by Argentina and Ukraine. Global area will continue moderate increases through 2022 in response to concurrent price recovery, then is forecast to remain relatively level through 2029.
- The combination of more harvested area and higher yields in 2019/20 relative to the previous year led to an estimated 33 mmt increase in production. This increase in output is expected to pressure prices further upward.
- By the end of the baseline period, wheat area is projected to be around 224 million hectares and production will increase primarily through the expected 1% annual yield growth.

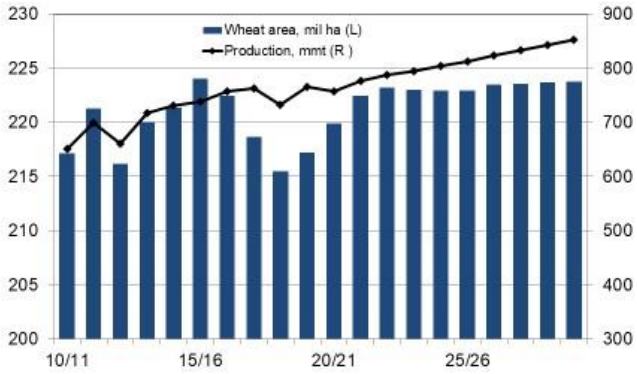
- Total wheat consumption will increase primarily from population growth, whereas per capita wheat food consumption will be nearly stable throughout the projection period. Income impacts on wheat vary across regions and income levels. Per capita consumption is declining in high-income countries where 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 2019/20

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

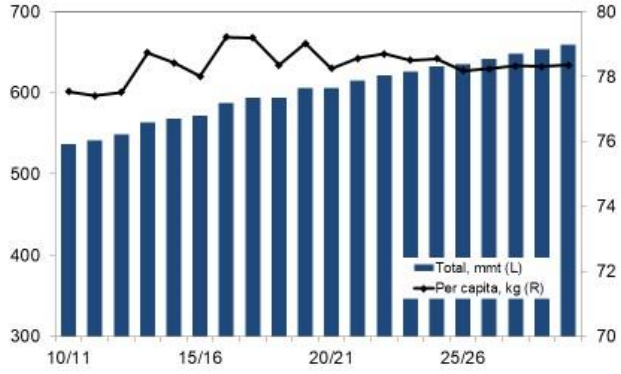


Yield Gains, More than Area, Will Boost Wheat Production



Wheat Food Demand Driven by Population Growth

Global wheat food and industrial use



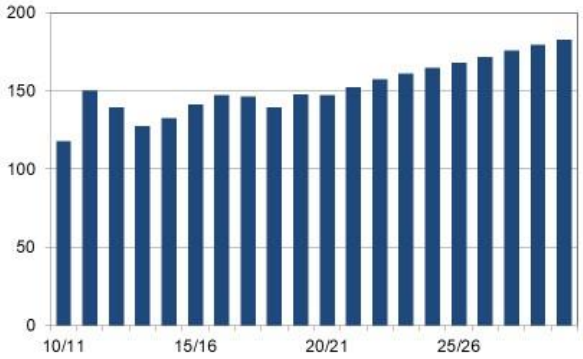
- Wheat feed use is increased modestly in response to the slight dip in prices associated with increased production in 2019/20. In the future, feeding is expected to expand primarily in traditional wheat feeding regions such as the former Soviet Union and Europe, but also rise in China and Canada. China's wheat feed use may be moderated through 2023 due to impacts from ASF.
- Cattle inventory declines have slowed in Russia and Ukraine, and hog and poultry production have turned the corner in these countries, as well as Kazakhstan. During the baseline period, livestock production is expected to increase again in major wheat feeding regions, and accompanying wheat feed use is expected to increase.
- 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 modestly higher than last year's level in 2018/19, as prices softened and feed use increased. Production changes in exporting countries will result in shifts in trade patterns this year. Australia, Kazakhstan, Pakistan, and Russia will export at lower levels. Exports are expected to increase relative to last year in Argentina, E.U., Ukraine, and the U.S.
- Some major importers are expected to purchase less on the world market in 2019/20. Algeria, is notably expected to reduce imports. Egypt will remain the single largest export market throughout the baseline. Algeria, Brazil, Indonesia, and Japan also rank consistently among the top importers. Vietnam is increasing its presence on world markets.
- Rising global excess demand over the projection period will be met primarily by traditional major exporting nations. Trade will cover 20% to 21% 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 2019/20 by approximately nine mmt. As prices stabilize inventories will move higher in subsequent years to keep pace with steadily rising demand. This year's decrease in ending stocks is expected to occur primarily in Canada, and Ukraine. Notably, China and India expected to substantially build stocks.
- China's grain policies result in holding a large proportion of annual needs in reserve to buffer production shortfalls and high prices. Since 2013/14, China has been building wheat stocks, resulting in a substantial rise in its stocks-to-use ratio, with more than a year's consumption requirements expected to be on hand at the end of 2019/20, compared to about 22% for the rest of the world.
- 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.

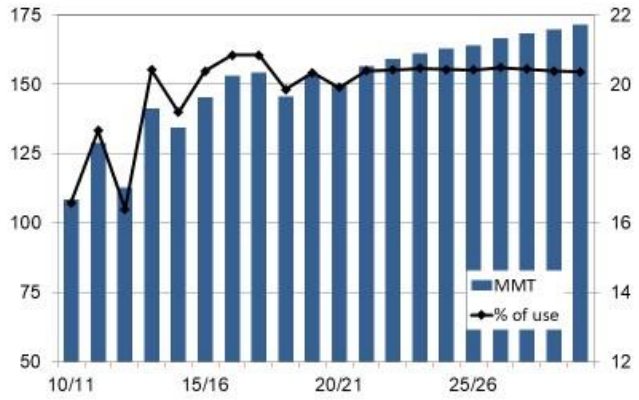
Feed Use Recovers in Short Term Given Lower Prices

Global wheat feed use, mmt



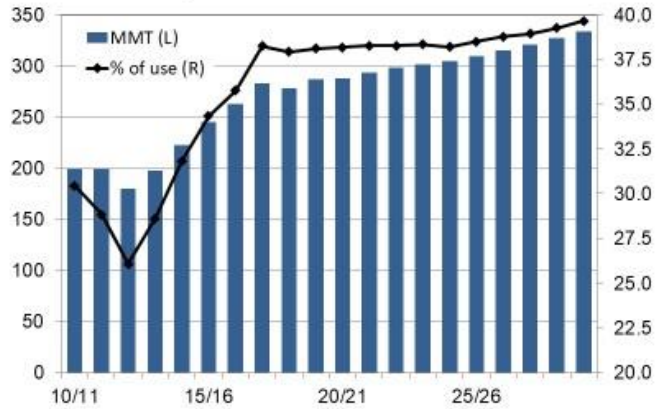
Trade Redistributes Global Wheat Supplies

Wheat net trade



Wheat Stock Building Will Slow With Moderate Prices

Global wheat ending stocks



World Wheat Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Area Harvested	224.2	225.8	217.1	221.2	216.2	220.0	221.3	224.0	222.4	218.6	215.5
					(Metric tons per hectare)						
Yield	3.05	3.05	3.00	3.16	3.05	3.26	3.30	3.30	3.40	3.49	3.39
					(Million metric tons)						
Supply	923.6	968.1	962.1	1,019.8	980.7	1,030.1	1,057.7	1,103.0	1,150.3	1,177.4	1,156.9
Production	684.8	688.2	650.7	698.7	660.4	716.6	730.4	738.1	756.3	762.9	731.4
Beginning stocks	128.5	170.1	204.1	199.2	199.4	179.5	197.7	222.8	244.9	262.7	283.1
Net imports	110.3	109.8	107.3	121.9	120.9	134.0	129.6	142.1	149.2	151.8	142.4
Utilization	806.8	855.1	853.6	890.8	867.8	889.0	923.3	957.7	997.3	1,023.1	1,011.4
Feed and residual	124.0	123.3	117.6	149.9	139.6	127.4	132.4	141.2	147.3	146.4	139.4
Food, seed & industrial	512.8	527.7	536.7	541.5	548.7	563.9	568.1	571.7	587.2	593.7	593.9
Ending stocks	170.1	204.1	199.2	199.4	179.5	197.7	222.8	244.9	262.7	283.1	278.1
Net exports	116.7	113.0	108.5	129.0	112.9	141.1	134.4	145.3	153.0	154.2	145.5
Total Demand	923.6	968.1	962.1	1,019.8	980.7	1,030.1	1,057.7	1,103.0	1,150.3	1,177.4	1,156.9

Wheat Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Algeria	1.8	1.9	2.0	2.0	2.0	2.0	1.7	2.1	1.3	1.6	2.1
Argentina	5.3	4.0	4.8	5.2	3.6	3.5	5.0	3.9	5.6	5.8	6.1
Australia	13.5	13.9	13.5	13.9	13.0	12.6	12.4	11.3	12.2	10.9	10.2
Brazil	2.4	2.4	2.2	2.2	1.9	2.2	2.7	2.5	2.1	1.9	2.0
Canada	10.0	9.7	8.3	8.6	9.5	10.4	9.6	9.6	9.0	9.0	9.9
China	23.7	24.4	24.5	24.5	24.6	24.5	24.5	24.6	24.7	24.5	24.3
Egypt	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.3	1.3	1.3	1.3
EU-28	26.8	26.0	26.0	25.8	26.0	25.9	26.7	26.8	27.2	26.2	25.6
India	28.0	27.8	28.5	29.1	29.9	30.0	30.5	31.5	30.2	30.8	29.7
Iran	5.3	6.6	7.0	6.4	6.4	6.4	6.1	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	12.9	14.3	13.1	13.7	12.4	13.0	11.9	11.6	12.4	11.9	11.4
Mexico	0.8	0.8	0.7	0.7	0.6	0.6	0.7	0.8	0.7	0.7	0.5
Morocco	2.9	3.0	2.9	3.1	3.1	3.2	3.0	3.3	2.4	3.3	2.9
Nigeria	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Pakistan	8.6	9.0	9.1	8.9	8.7	8.7	9.2	9.2	9.2	9.1	8.8
Russia	26.1	26.7	21.8	24.8	21.3	23.4	23.6	25.6	27.0	27.4	26.3
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	7.7	7.8	8.0	7.7	7.8	7.7	7.7	7.9	7.8	7.8	7.6
Ukraine	7.1	6.8	6.3	6.7	5.6	6.6	6.3	7.1	6.5	6.6	6.7
United States	22.7	20.2	19.0	18.5	19.7	18.3	18.8	19.1	17.7	15.2	16.0
Uzbekistan	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	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	15.8	17.5	16.6	16.6	17.1	18.0	18.0	17.5	16.7	16.2	15.8
World total	224.2	225.8	217.1	221.2	216.2	220.0	221.3	224.0	222.4	218.6	215.5

World Wheat Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Area Harvested	217.2	219.8	222.5	223.2	223.0	222.9	222.9	223.4	223.5	223.7	223.7
					(Metric tons per hectare)						
Yield	3.52	3.44	3.49	3.53	3.56	3.60	3.64	3.68	3.72	3.77	3.81
					(Million metric tons)						
Supply	1,192.7	1,191.2	1,217.5	1,236.8	1,250.9	1,265.1	1,277.5	1,295.8	1,313.3	1,330.3	1,347.7
Production	764.4	757.0	776.3	787.2	794.6	803.3	811.8	822.8	832.4	842.8	852.3
Beginning stocks	278.1	287.1	287.7	293.5	298.1	301.8	304.6	309.3	315.5	320.6	326.9
Net imports	150.2	147.1	153.5	156.1	158.2	159.9	161.2	163.7	165.4	166.8	168.5
Utilization	1,040.2	1,040.9	1,060.5	1,077.0	1,089.1	1,101.7	1,112.8	1,128.8	1,144.1	1,159.8	1,175.6
Feed and residual	147.6	147.4	152.3	157.1	161.0	164.6	168.1	171.8	175.5	179.5	182.4
Food, seed & industrial	605.5	605.9	614.6	621.8	626.3	632.5	635.4	641.6	648.0	653.4	659.3
Ending stocks	287.1	287.7	293.5	298.1	301.8	304.6	309.3	315.5	320.6	326.9	333.8
Net exports	153.1	149.9	156.4	159.0	161.1	162.8	164.0	166.6	168.3	169.7	171.4
Total Demand	1,193.3	1,190.9	1,216.9	1,236.0	1,250.2	1,264.5	1,276.8	1,295.4	1,312.4	1,329.5	1,346.9

Wheat Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Algeria	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	
Argentina	6.4	6.4	6.4	6.3	6.2	6.2	6.3	6.2	6.2	6.2	6.3
Australia	10.1	10.1	10.7	11.0	11.2	11.2	11.2	11.3	11.3	11.3	11.3
Brazil	2.0	2.0	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3
Canada	9.7	10.0	10.3	10.4	10.5	10.5	10.5	10.4	10.4	10.3	10.3
China	23.7	24.2	24.1	24.1	23.8	23.7	23.4	23.4	23.4	23.6	23.6
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	26.1	25.9	26.2	26.2	26.2	26.3	26.3	26.4	26.4	26.4	26.4
India	29.9	30.0	30.7	30.7	30.9	31.0	31.1	31.2	31.2	31.3	31.4
Iran	6.7	6.9	6.9	6.9	6.7	6.5	6.4	6.2	6.1	6.0	5.8
Japan	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Kazakhstan	11.3	11.7	11.8	11.9	11.9	11.9	11.9	11.8	11.7	11.6	11.5
Mexico	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8
Morocco	2.8	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.1
Nigeria	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Pakistan	8.8	8.9	8.9	8.9	8.8	8.8	8.8	8.8	8.8	8.8	8.9
Russia	27.2	27.0	27.2	27.3	27.4	27.5	27.5	27.8	28.1	28.3	28.5
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	7.2	7.5	7.6	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
Ukraine	7.1	7.0	6.7	6.6	6.5	6.4	6.4	6.4	6.5	6.5	6.5
United States	15.0	15.5	16.3	16.3	16.2	16.2	16.1	16.0	15.9	15.8	15.7
Uzbekistan	1.4	1.4	1.4	1.4	1.4	1.4	1.4	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	17.6	17.5	17.6	17.7	17.7	17.8	18.0	18.2	18.2	18.3	18.3
World total	217.2	219.8	222.5	223.2	223.0	222.9	222.9	223.4	223.5	223.7	223.7

Wheat Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Argentina	6,768	5,096	9,481	12,921	3,548	2,248	5,266	9,588	13,821	12,725	12,183
Australia	14,632	14,706	18,478	24,533	18,504	18,458	16,432	15,966	22,490	13,690	8,646
Canada	18,491	18,611	16,162	16,892	18,499	22,849	23,621	21,583	19,721	21,549	23,902
EU-28	17,722	16,935	18,465	9,366	17,510	28,059	29,478	27,832	22,140	17,559	17,548
Kazakhstan	6,028	8,207	4,855	11,838	6,271	8,060	4,939	7,347	7,329	8,901	8,206
India	16	-160	-200	876	6,808	6,028	3,358	659	-5,494	-597	479
Pakistan	-1,049	130	1,288	1,025	830	364	-40	581	597	1,197	1,497
Russia	18,190	18,392	3,894	21,077	10,136	17,747	22,470	24,727	27,310	40,964	35,392
Turkey	-1,230	1,074	-691	-396	-543	306	-1,733	1,479	1,661	151	-16
Ukraine	12,964	9,309	4,261	5,352	7,145	9,687	11,242	17,404	18,066	17,716	15,907
United States	24,179	20,704	32,509	25,527	24,161	27,318	19,407	18,099	25,388	20,354	21,803
Total net exports	116,711	113,004	108,502	129,011	112,869	141,124	134,440	145,265	153,029	154,209	145,547
Net importers											
Algeria	6,307	5,155	6,516	6,496	6,455	7,462	7,242	8,139	8,406	8,166	7,500
Brazil	6,008	5,996	4,158	5,302	5,773	6,986	3,683	5,686	6,730	6,791	6,418
China	-242	502	-14	1,955	1,991	5,884	1,123	2,747	3,662	2,933	2,139
Egypt	9,806	10,325	10,375	11,418	8,223	9,960	11,018	11,456	10,710	11,626	11,257
Indonesia	5,275	5,152	6,392	6,235	6,910	7,090	7,195	9,775	9,885	10,200	10,506
Iran	6,750	4,400	-170	708	6,491	4,685	5,115	3,300	1,000	-450	-230
Japan	4,884	5,206	5,577	6,058	6,323	5,854	5,616	5,457	5,634	5,599	5,440
South Korea	3,277	4,365	4,636	5,057	5,295	4,144	3,789	4,243	4,431	3,977	3,615
Mexico	1,936	2,357	2,583	4,230	3,094	3,317	3,367	3,237	4,251	4,098	4,335
Morocco	3,642	2,218	3,771	3,543	3,789	3,766	3,888	4,282	5,421	3,616	3,631
Nigeria	3,020	3,440	3,482	3,421	3,918	4,080	3,844	4,010	4,572	4,762	4,185
Uzbekistan	1,240	1,277	1,118	2,048	1,513	1,924	2,030	2,462	2,396	2,919	2,637
Vietnam	926	1,820	2,342	2,552	1,506	1,980	2,066	2,816	5,290	4,380	2,865
Rest of world	57,464	57,632	56,574	62,903	59,604	66,827	69,624	74,491	76,770	83,155	78,101
Total net imports	110,293	109,845	107,340	121,926	120,885	133,959	129,600	142,101	149,158	151,772	142,399
Residual	6,418	3,159	1,162	7,085	-8,016	7,165	4,840	3,164	3,871	2,437	3,148
					(Dollars per metric ton)						
US SRW Gulf Port Price	206	187	282	261	309	268	223	196	170	186	209

Wheat Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Argentina	12,963	14,619	14,699	14,577	14,569	14,800	15,101	15,161	15,413	15,655	15,918
Australia	7,562	9,047	12,249	13,154	13,590	13,827	13,991	14,116	14,223	14,321	14,411
Canada	23,563	23,852	24,578	25,063	25,423	25,665	25,859	26,011	26,128	26,233	26,336
EU-28	25,812	24,407	25,575	26,086	26,646	27,142	27,010	27,485	27,387	27,293	27,325
Kazakhstan	5,041	7,490	7,767	7,941	8,084	8,188	8,286	8,358	8,404	8,429	8,440
India	472	670	680	694	700	694	688	679	668	656	648
Pakistan	641	859	884	749	576	402	207	349	348	364	384
Russia	33,464	30,986	31,260	31,844	32,347	32,685	33,053	34,168	35,149	35,929	36,734
Turkey	-222	-89	-91	253	467	641	784	894	932	939	957
Ukraine	20,368	17,842	17,616	17,448	17,386	17,419	17,651	17,953	18,256	18,563	18,886
United States	23,443	20,260	21,169	21,150	21,295	21,317	21,397	21,398	21,361	21,339	21,312
Total net exports	153,107	149,943	156,385	158,960	161,082	162,780	164,029	166,572	168,268	169,722	171,351
Net importers											
Algeria	6,993	7,513	7,814	8,042	8,180	8,329	8,449	8,560	8,668	8,772	8,865
Brazil	7,112	6,999	6,684	6,517	6,343	6,197	6,071	5,974	5,902	5,849	5,804
China	2,147	2,417	2,257	2,455	2,553	2,626	2,568	2,706	2,628	2,660	2,835
Egypt	11,653	12,317	12,432	12,669	12,969	13,289	13,631	13,980	14,335	14,694	15,063
Indonesia	10,777	11,164	11,295	11,481	11,653	11,803	11,944	12,078	12,206	12,331	12,452
Iran	-684	-245	203	544	912	1,297	1,634	1,923	2,204	2,430	2,664
Japan	5,632	5,499	5,508	5,493	5,485	5,488	5,483	5,478	5,465	5,467	5,468
South Korea	3,866	3,781	3,809	3,821	3,802	3,811	3,829	3,850	3,871	3,874	3,871
Mexico	4,282	4,114	3,875	3,747	3,671	3,648	3,663	3,708	3,782	3,873	3,978
Morocco	4,824	5,179	5,072	5,107	5,173	5,263	5,362	5,468	5,574	5,679	5,784
Nigeria	4,707	4,797	4,911	5,035	5,162	5,291	5,423	5,564	5,714	5,871	6,033
Uzbekistan	2,712	3,003	3,111	3,220	3,300	3,411	3,528	3,638	3,725	3,804	3,888
Vietnam	3,246	3,364	3,490	3,571	3,655	3,748	3,847	3,950	4,058	4,172	4,291
Rest of world	82,969	77,168	83,053	84,387	85,350	85,705	85,725	86,824	87,265	87,373	87,483
Total net imports	150,235	147,071	153,513	156,088	158,210	159,908	161,157	163,700	165,396	166,850	168,479
Residual	2,872	2,872	2,872	2,872	2,872	2,872	2,872	2,872	2,872	2,872	2,872
					(Dollars per metric ton)						
US SRW Gulf Port Price	185	193	198	198	202	202	202	201	200	199	197

Rice

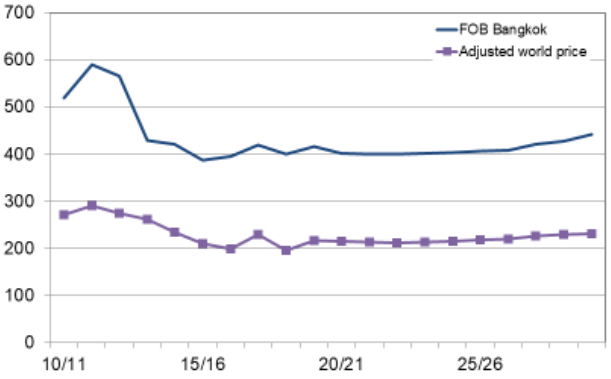
- The U.S. is a relatively small player in world rice markets and therefore has limited impact on prices. Supply and utilization in major Asian rice markets shape prices on the world market.
- While FOB Bangkok prices are expected to increase gradually in dollar terms, prices denominated in many Asian 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 2019, the U.S. dollar gained strength relative to some important Asian rice market currencies, such as those of China, Malaysia, Thailand and South Korea, and is projected to continue at a moderate rate for the next few years.
- Although there will be more currency adjustments in the baseline period, they are not expected to be as substantial as those that occurred in the past several years. This will contribute to the expected stability in rice markets.

- Rice area declined approximately 1.5 mil ha while yields remained nearly identical to those in 2018/19 resulting in slight drop in global production. Despite moderating prices over the projection period, area is expected to gradually increase for several years, then decline 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.

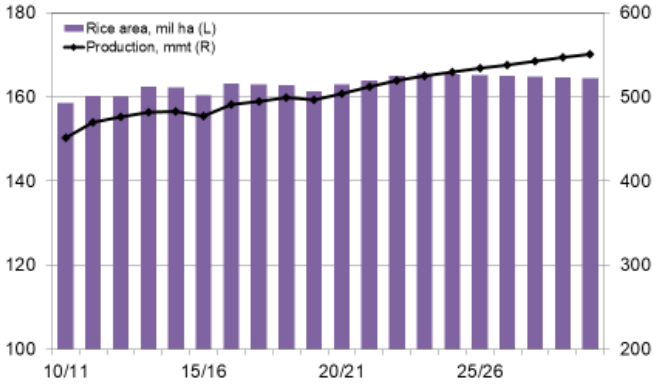
- Rice consumption is expected to increase with global population growth being the primary driver, leaving per capita consumption slightly below the recent historical range. Income impacts on rice in diets are different for different regions and income levels. As the traditional staple of Asia, the main 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. In the U.S., for example, meals away from home are often ethnic cuisine that includes rice. Dining out is an activity that increases with income. Growing populations of Asians and Latin Americans 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

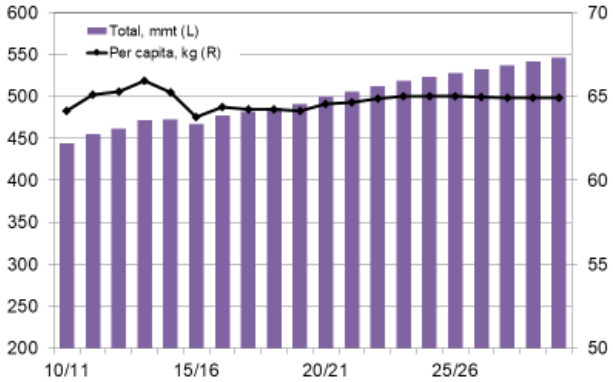


Rice Demand Growth Will Be Met By Productivity



Rice Maintains Importance in Diets

Global rice food use

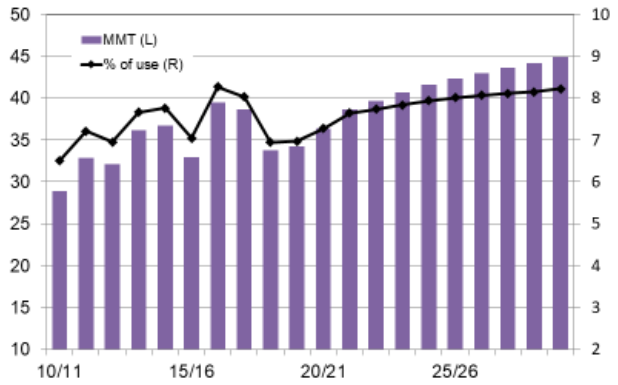


- The level of self-sufficiency in rice consuming nations is high compared to other grains. Even modest changes in production can have relatively large impacts on trade and prices at export points.
- The proportion of the global crop that is traded has been around 7% to 8%. However, with increases in rice demand in non-traditional consuming areas expected over the next ten years, the proportion of trade compared to demand is expected to slowly edge up, outside of the range of recent years.
- Thailand, Vietnam, and India are the dominant rice exporters, accounting for nearly 75% of rice exports. 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. Nigeria is the largest importer followed by the Philippines. Both countries are projected to moderately increase imports through 2029.
- Though China was the largest importer from 2012-2017, they began exporting at very low levels in 2018 are expected to retain this pattern through the end of the current projection period given no adjustments for the Phase 1 agreement are included in this baseline.
- Japan and South Korea are expected to continue importing at their committed tariff rate quota levels throughout the baseline period.

- Global ending stocks and stocks-to-us ratio are both expected to increase in 2019/20, primarily as a result of continued inventory building within China. 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.
- 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.

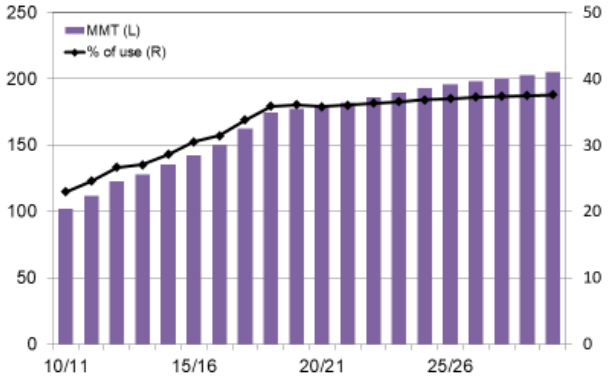
Most Rice Is Consumed in Producing Regions

Rice net exports of exporting countries, mmt



Ample Stocks Reduce Short-Term Upward Price Risks

Global Rice ending stocks, mmt



World Rice Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Area Harvested	158.6	155.9	158.5	160.2	160.0	162.4	162.3	160.3	163.1	163.0	162.7
					(Metric tons per hectare)						
Yield, milled basis	2.84	2.83	2.85	2.93	2.97	2.96	2.97	2.97	3.01	3.04	3.07
					(Million metric tons)						
Supply	552.7	556.9	574.9	600.0	617.2	636.1	644.7	642.6	666.4	682.9	694.9
Production	450.4	441.0	451.6	469.7	475.9	481.3	482.4	476.7	491.0	494.8	499.2
Beginning stocks	81.4	94.2	96.6	101.9	111.8	123.0	127.7	135.1	142.4	149.9	162.6
Net imports	20.9	21.8	26.7	28.4	29.4	31.8	34.6	30.8	33.0	38.1	33.1
Utilization	530.3	532.0	546.0	567.1	585.1	599.9	608.0	609.7	627.0	644.2	661.1
Consumption	436.1	435.5	444.1	455.3	462.1	472.2	472.9	467.3	477.0	481.6	486.7
Ending stocks	94.2	96.6	101.9	111.8	123.0	127.7	135.1	142.4	149.9	162.6	174.4
Net exports	22.4	24.9	28.9	32.8	32.1	36.2	36.7	32.9	39.5	38.7	33.8
Total Demand	552.7	556.9	574.9	600.0	617.2	636.1	644.7	642.6	666.4	682.9	694.9

Rice Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Argentina	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Australia	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0
Brazil	2.9	2.8	2.8	2.4	2.4	2.4	2.3	2.0	2.0	2.0	1.7
Burma (Myanmar)	6.7	7.0	7.1	7.0	7.0	7.1	7.0	6.9	7.0	7.1	7.1
China	29.4	29.8	30.1	30.3	30.5	30.7	30.8	30.8	30.7	30.7	30.2
EU-28	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Indonesia	12.2	12.1	12.1	12.2	12.2	12.1	11.8	12.1	12.2	12.3	12.1
India	45.5	41.9	42.9	44.0	42.8	44.1	44.1	43.5	44.0	43.8	43.8
Japan	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nigeria	2.4	1.8	2.4	2.3	2.9	2.9	3.1	3.1	3.3	3.6	3.6
Pakistan	3.0	2.9	2.4	2.6	2.3	2.8	2.9	2.7	2.7	2.8	2.9
Philippines	4.5	4.4	4.5	4.6	4.7	4.8	4.7	4.5	4.7	4.8	4.7
South Korea	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.7
Taiwan	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Thailand	10.8	10.9	10.7	11.0	10.8	10.9	10.3	9.4	10.2	10.8	10.8
United States	1.2	1.3	1.5	1.1	1.1	1.0	1.2	1.0	1.3	1.0	1.2
Vietnam	7.3	7.4	7.6	7.7	7.9	7.8	7.8	7.7	7.7	7.6	7.6
Rest of world	28.6	29.4	30.2	30.8	31.2	31.5	32.1	32.4	33.1	32.5	33.0
World total	158.6	155.9	158.5	160.2	160.0	162.4	162.3	160.3	163.1	163.0	162.7

World Rice Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Area Harvested	161.3	163.0	163.9	165.0	165.4	165.4	165.1	165.0	164.7	164.6	164.5
					(Metric tons per hectare)						
Yield, milled basis	3.08	3.09	3.12	3.15	3.17	3.20	3.23	3.26	3.29	3.32	3.35
					(Million metric tons)						
Supply	702.8	715.3	726.4	738.4	749.1	758.2	766.3	774.1	781.5	788.8	796.3
Production	496.7	504.1	511.4	519.2	524.9	529.5	533.6	538.1	542.1	546.6	550.9
Beginning stocks	174.4	177.3	178.9	182.0	186.0	189.6	192.9	195.6	198.3	200.6	202.9
Net imports	31.8	33.9	36.1	37.2	38.2	39.1	39.8	40.5	41.1	41.7	42.4
Utilization	668.7	678.9	687.7	698.7	708.4	716.6	723.9	731.0	737.8	744.6	751.2
Consumption	491.4	500.0	505.7	512.7	518.8	523.7	528.4	532.8	537.2	541.7	546.2
Ending stocks	177.3	178.9	182.0	186.0	189.6	192.9	195.6	198.3	200.6	202.9	205.1
Net exports	34.3	36.4	38.6	39.7	40.6	41.6	42.3	43.0	43.6	44.1	44.9
Total Demand	703.0	715.3	726.4	738.4	749.1	758.2	766.2	774.0	781.4	788.7	796.2

Rice Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(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	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Brazil	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Burma (Myanmar)	7.1	7.2	7.2	7.2	7.1	7.1	7.1	7.1	7.1	7.0	7.0
China	29.7	29.6	29.5	29.4	29.1	29.0	28.7	28.6	28.5	28.3	28.1
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	12.0	12.3	12.4	12.4	12.4	12.3	12.3	12.2	12.1	12.0	11.9
India	43.5	43.6	43.8	44.7	45.1	45.1	45.0	45.0	44.9	44.9	44.9
Japan	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	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	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.6	3.6
Pakistan	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.1
Philippines	4.7	4.8	4.8	4.8	4.8	4.7	4.7	4.7	4.6	4.6	4.6
South Korea	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Taiwan	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Thailand	10.0	10.6	11.0	11.2	11.4	11.4	11.5	11.6	11.6	11.7	11.7
United States	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Vietnam	7.7	7.7	7.7	7.7	7.7	7.6	7.6	7.6	7.6	7.6	7.6
Rest of world	33.6	33.9	34.0	34.2	34.3	34.4	34.6	34.7	34.9	35.1	35.4
World total	161.3	163.0	163.9	165.0	165.4	165.4	165.1	165.0	164.7	164.6	164.5

Rice Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Argentina	548	481	698	588	527	461	305	518	338	419	362
Australia	-200	-169	232	324	288	230	151	-27	65	68	-130
Brazil	-106	-186	847	223	199	289	538	-357	216	590	-100
Burma (Myanmar)	1,052	700	1,075	1,357	1,163	1,688	1,724	1,267	3,340	2,740	2,490
India	2,090	2,082	2,774	10,376	10,869	10,619	12,238	10,357	11,710	12,041	10,500
Pakistan	2,910	3,984	3,353	3,402	3,533	3,919	3,770	4,190	3,538	4,011	4,500
Thailand	8,270	8,747	10,447	6,345	6,222	10,669	9,479	9,567	11,365	10,806	7,650
United States	2,422	2,912	2,934	2,585	2,716	2,270	2,295	2,618	2,900	1,890	2,051
Vietnam	5,450	6,334	6,500	7,617	6,600	6,025	6,206	4,788	5,988	6,090	6,450
Total net exports	22,436	24,885	28,860	32,817	32,117	36,170	36,706	32,921	39,460	38,655	33,773
Net importers											
China	-546	-262	40	1,349	2,809	3,740	4,274	4,529	4,495	4,114	-100
EU-28	1,210	1,096	1,153	1,092	1,192	1,288	1,434	1,532	1,522	1,657	1,780
Indonesia	240	1,150	3,098	1,960	650	1,225	1,350	1,048	348	2,348	298
Japan	467	504	611	422	566	599	565	661	659	626	625
Malaysia	1,085	906	1,075	1,006	874	952	978	778	899	780	950
Mexico	578	602	710	645	751	696	707	691	785	711	730
Nigeria	1,750	1,750	2,400	3,200	2,800	2,800	2,600	2,100	2,500	2,000	1,900
Philippines	2,600	2,200	1,300	1,200	1,400	1,200	1,800	1,600	1,100	1,300	3,570
South Korea	253	297	401	377	508	311	463	310	407	334	306
Taiwan	85	145	95	112	99	85	47	17	105	41	70
Rest of world	13,149	13,392	15,819	17,003	17,795	18,942	20,379	17,536	20,193	24,207	22,961
Total net imports	20,871	21,780	26,702	28,366	29,444	31,838	34,597	30,802	33,013	38,118	33,090
Residual	1,565	3,105	2,158	4,451	2,673	4,332	2,109	2,119	6,447	537	683
					(Dollars per metric ton)						
Rice price, FOB Bangkok	609	533	518	590	565	428	420	386	394	418	399

Rice Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Argentina	323	279	340	365	376	382	384	382	379	379	382
Australia	-280	-110	38	117	163	190	204	209	206	198	189
Brazil	-512	-652	-190	-82	65	216	391	527	577	554	630
Burma (Myanmar)	2,545	2,455	2,371	2,266	2,150	2,122	2,066	1,994	1,940	1,881	1,843
India	11,842	11,686	12,005	12,148	12,431	12,729	12,881	13,004	13,119	13,243	13,370
Pakistan	4,347	4,162	4,432	4,555	4,637	4,701	4,769	4,843	4,942	5,052	5,181
Thailand	7,231	9,409	10,364	10,834	11,200	11,478	11,796	12,051	12,315	12,569	12,838
United States	2,157	2,217	2,224	2,315	2,378	2,398	2,392	2,392	2,409	2,416	2,429
Vietnam	6,598	6,933	7,053	7,149	7,245	7,339	7,440	7,551	7,704	7,856	8,062
Total net exports	34,252	36,379	38,637	39,668	40,645	41,556	42,323	42,953	43,592	44,149	44,923
Net importers											
China	-893	-167	-167	-169	-168	-169	-167	-169	-169	-171	-172
EU-28	1,762	1,739	1,723	1,710	1,699	1,685	1,668	1,651	1,618	1,596	1,561
Indonesia	1,026	443	181	97	161	345	563	795	1,000	1,189	1,337
Japan	617	607	607	607	607	607	607	607	607	607	607
Malaysia	978	1,021	1,064	1,104	1,141	1,177	1,213	1,246	1,276	1,308	1,338
Mexico	773	729	776	790	803	816	831	847	866	880	894
Nigeria	1,815	2,610	2,755	2,647	2,781	2,923	3,073	3,233	3,399	3,570	3,743
Philippines	2,745	1,968	2,112	2,170	2,302	2,435	2,571	2,706	2,792	2,878	2,913
South Korea	409	409	409	409	409	409	409	409	409	409	409
Taiwan	74	83	68	57	47	36	23	9	-11	-27	-50
Rest of world	22,452	24,443	26,616	27,752	28,370	28,798	29,040	29,126	29,312	29,416	29,850
Total net imports	31,759	33,886	36,144	37,175	38,152	39,063	39,830	40,460	41,099	41,656	42,430
Residual	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493
					(Dollars per metric ton)						
Rice price, FOB Bangkok	415	400	399	399	401	402	405	408	420	427	441

Feedgrains

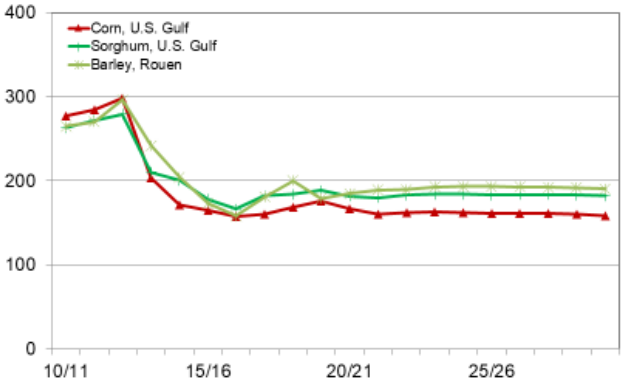
- Global corn production is estimated to be 12 mmt lower in 2019/20 than last year, but new demand for ethanol production in Brazil and China are pushing consumption higher With lower supplies and increased demand, prices are expected to move modestly higher and ending stocks are expected to decline, due in part to a drawdown in China. Corn prices are expected to move lower in the next two years, then stabilize thereafter.
- Barley prices are exhibiting that grain's two distinct markets. The price at Rouen, France, will fall substantially, reflecting the large increase in global production which outpaces growing feed demand. The feed barley price is much lower than the premium price for malting-grade barley. The U.S. price more reflects that higher-priced market, which has risen relative to wheat in recent years.
- Global sorghum feed use will be similar to the low levels of 2018/19, remaining well below the peak reached several years ago. Sorghum prices are being pulled up slightly this year, as corn prices strengthen, then will follow corn down slightly in the next two years. In the long run, grain prices will stabilize and exhibit typical relationships.

- Several years of subdued prices resulted in relatively flat global corn area since 2017/18. As corn prices remain moderate, corn area increases are expected to be moderate over the next ten years, and these expansions will be scattered around the world Corn area is projected to increase around 5% over the next decade.
- Whereas sorghum area will be at a similar level as the past several years, barley will be slightly higher, but both grains will exhibit stability on a global basis. Modest feedgrains prices will limit expansion. Wheat and oilseeds competition will global constrain barley area.
- The restoration of permanent grain export taxes in Argentina, plus perennial competition from soybeans will keep corn area from expanding in that country. The countries that are expected to see most area expansion are Brazil and China, nations that are seeing increased demand for corn ethanol feedstock use.

- Corn-based ethanol is no longer the demand growth factor in the U.S. that it was just a few years ago as the mandate for conventional ethanol blending has been met. Brazil and China have adopted new ethanol policies that will be the largest driver of corn fuel use in the next few years. Argentina will also see modest increase in corn-based ethanol production.
- 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.

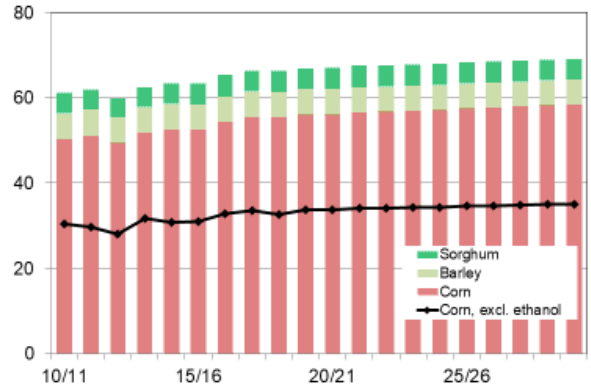
Prices Adjust to Normal Relationships, but Remain Weak

$/metric ton

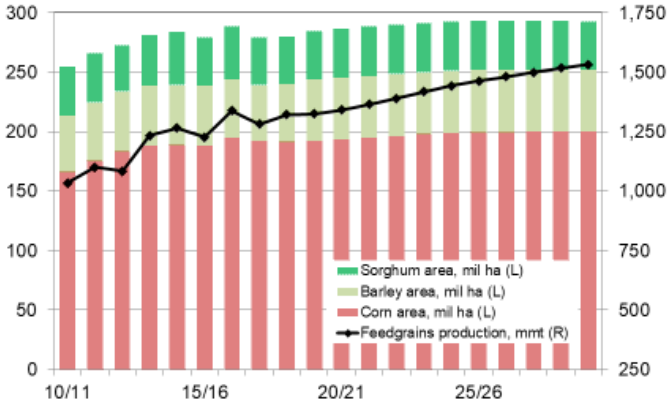


Steady Share of Grains in the Global Diet

Global food, seed & industrial use, kg/capita



Slow Corn Area Expansion For Feed, Ethanol



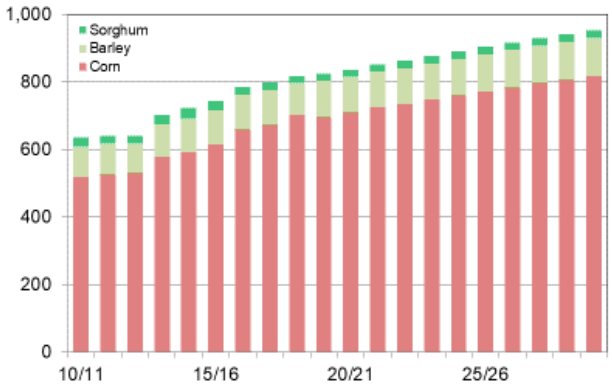
- Rising incomes are boosting meat, poultry, and dairy consumption, especially in developing and emerging regions. Where grazing land is limited or where rapid urbanization is occurring, beef and dairy are moving more to grain feeding.
- The African Swine Fever epidemic in China and other Asian countries has led to a severe reduction in swine herds and feed demand. Chinese hog inventories are expected to begin recovery in 2022. In the longer run, consistently moderate grain prices will boost livestock production around the world.
- Barley feed use is expected to decline this year, partly because of less feeding in China, but also as feed demand in the EU, Russia, and Saudi Arabia decline. However, it will expand going forward as lower wheat prices make barley less competitive with that grain in feed rations.
- Sorghum is fed primarily in producing regions. With little increase in sorghum area expected, production will increase primarily with yield growth and sorghum feed use will remain less than the 2014/15 levels which were at the height of Chinese sorghum feed demand.

- 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 one-quarter, as corn captures most of the growing international feed grains market.
- With persistently low Chinese imports in global trade in sorghum will remain well below levels of 2014/15 and 2015/16, and even below levels of the past several years. Trade will then increase very slowly in the coming ten years. 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. Egypt, the EU, Japan, Korea, Vietnam, and Mexico will remain the largest importers. China is expected to nearly fill its tariff rate quota (TRQ) for corn imports throughout the baseline.

- China held a large percentage of annual corn requirements in inventories in recent years. However, China is now drawing stocks down, and is expected to hold reserves of around 50% of annual corn consumption in the long term. China will drawdown much of its current 200 mmt of corn stocks to meet its new ethanol policy without substantially increasing imports over most of the outlook.
- At around 13%, to 14%, stocks in the rest of the world will be a typical percentage of use, maintaining the market's ability to absorb production shortfalls, demand spikes, and price jumps. However, if production shortfalls are severe or if they span two or more years, 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.

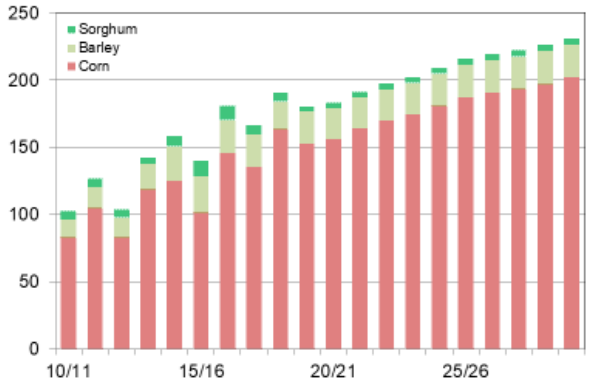
Most Increases in Feed Demand Will Be Met By Corn

Global feed use, mmt



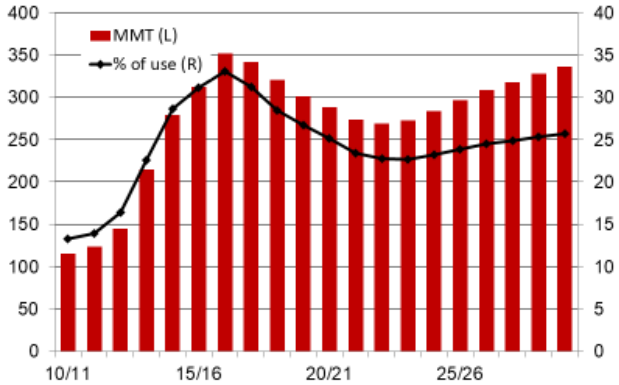
Strong Growth in the Global Feed Markets

Feedgrains net trade of exporting countries, mmt



Stocks As Percent of Use Falls in Medium Term

Global Corn ending stocks



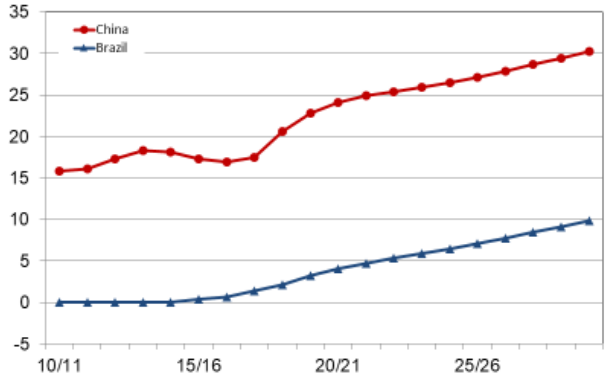
- China announced a new ethanol policy at the end of 2017 that would require 10% ethanol in transportation fuels by 2020. Currently, the blend is far below that percentage. Questions arise about the ability to implement this plan in such a short period of time, and if there will be adequate investment in ethanol plants to reach the stated goal. 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 announced new targets for corn-based ethanol, whereas traditionally ethanol production in that country has been primarily from sugarcane. Between increases in China, Brazil, and Argentina corn feedstock for ethanol is expected to increase nearly 15 mmt over the next ten years.

- China has already begun to reduce its massive corn stocks, but those reserves will be adequate to meet ethanol production goals for many years. FAPRI estimates that even with steady annual drawdowns, stocks can offset the need for increased imports through the baseline period and China will not have to import levels exceeding its TRQ.
- It is assumed that corn inventories will be drawn down to a stocks-to-use ratio of around 50%., well above the levels that existed before the rapid buildup that began in 2011/12. Even, with Chinese corn demand growing rapidly due to livestock and ethanol production, a lower stocks-to-use ratio is possible and will not put the Chinese market in short supply.
- Even with declining stocks-to-use ratio little increased risk will be felt on the Chinese market, and the necessity of opening the domestic market to increased dependence on global supplies is unlikely for a number of years. As such, planned, steady stock reductions will not push increased risk onto the free market.

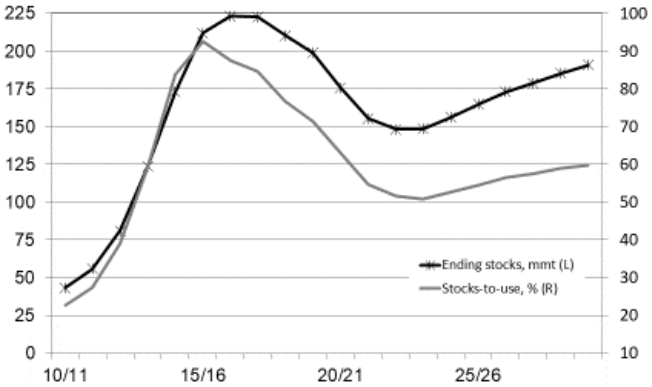
- There has been discussion about China's ability to source the increased corn requirements from domestic supplies. That ability seems to be limited. China formerly increased domestic support prices significantly to induce increases in corn area. However, for the past several years, China has moved away from those high support levels and the result has been a decline in area.
- We take the view that without exorbitant support, China will only be able to increase corn area to well under the maximum of 2015/16. However, the recent impact of ASF on demand has reduced domestic prices that will result in less corn being planted in the medium term.
- The implication of higher corn area and increased use of cassava as a feedstock is that the 50% attainment assumed in this outlook will not push Chinese corn exports beyond the TRQ, or around 6.5 to seven mmt per year over the projection period.

The Ethanol Story: Increasing Feedstocks

Mil tonnes

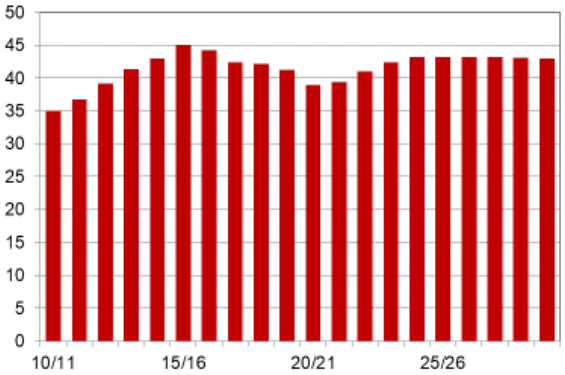


Ethanol Production Will Reduce China's Corn Stocks



AFS Impacts China's Production

China corn area, million hectares



World Corn Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Area Harvested	159.2	158.8	166.5	175.9	183.8	188.0	188.9	187.9	194.9	192.1	191.7
					(Metric tons per hectare)						
Yield	5.06	5.25	5.10	5.18	4.89	5.46	5.60	5.40	5.79	5.62	5.86
					(Million metric tons)						
Supply	1,004.5	1,050.6	1,065.8	1,114.1	1,109.2	1,283.9	1,379.8	1,415.1	1,560.5	1,568.6	1,608.8
Production	806.3	834.1	849.5	910.3	898.9	1,027.0	1,057.8	1,015.0	1,127.6	1,079.9	1,122.5
Beginning stocks	125.5	136.1	131.7	115.4	123.3	144.8	214.5	279.5	311.9	351.8	341.3
Net imports	72.7	80.5	84.7	88.4	87.0	112.1	107.5	120.6	121.0	137.0	145.1
Utilization	930.6	964.0	983.0	1,009.3	1,026.5	1,165.2	1,255.0	1,313.6	1,414.5	1,433.4	1,445.1
Feed and residual	493.9	504.8	517.1	525.4	528.4	576.5	592.1	613.8	656.9	672.3	700.6
Food, seed & industrial	300.7	327.6	350.5	360.6	353.2	374.2	383.4	387.9	405.9	419.8	424.1
Ending stocks	136.1	131.7	115.4	123.3	144.8	214.5	279.5	311.9	351.8	341.3	320.4
Net exports	73.9	86.6	82.8	104.8	82.7	118.7	124.8	101.5	146.0	135.2	163.8
Total Demand	1,004.5	1,050.6	1,065.8	1,114.1	1,109.2	1,283.9	1,379.8	1,415.1	1,560.5	1,568.6	1,608.8

Corn Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Argentina	2.5	3.0	3.8	3.6	4.0	3.4	3.5	3.7	4.9	5.2	6.1
Australia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Brazil	14.1	12.9	13.8	15.2	15.8	15.8	15.8	16.0	17.6	16.6	17.5
Canada	1.2	1.2	1.2	1.3	1.4	1.5	1.2	1.3	1.4	1.4	1.4
Chile	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
China	31.0	32.9	35.0	36.8	39.1	41.3	43.0	45.0	44.2	42.4	42.1
Colombia	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.4
Egypt	0.8	0.8	0.9	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.9
EU-28	9.2	8.7	8.4	9.2	9.8	9.7	9.6	9.3	8.6	8.3	8.3
India	8.2	8.3	8.6	8.8	8.7	9.1	9.2	8.8	9.6	9.4	9.2
Indonesia	3.2	3.1	2.9	3.1	3.0	3.1	3.1	3.3	3.4	3.7	3.7
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	6.3	7.0	6.1	6.9	7.1	7.3	7.2	7.5	7.3	7.2
Nigeria	3.8	3.4	4.1	5.5	5.8	5.8	6.3	6.8	6.6	6.5	6.5
Paraguay	0.5	0.6	0.7	0.9	1.0	0.7	0.8	0.7	0.8	0.8	0.8
Peru	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5
Philippines	2.7	2.5	2.6	2.6	2.6	2.6	2.6	2.4	2.7	2.6	2.5
Russia	1.7	1.1	1.0	1.6	1.9	2.3	2.6	2.7	2.8	2.7	2.4
South Africa	2.9	3.3	2.9	3.1	3.2	3.1	3.0	2.2	3.0	2.6	2.6
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	1.1	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.1	1.3
Ukraine	2.4	2.1	2.6	3.5	4.4	4.8	4.6	4.1	4.2	4.4	4.6
United States	31.8	32.2	33.0	33.9	35.4	35.4	33.6	32.7	35.1	33.5	32.9
Vietnam	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.1	1.0	1.0
Rest of world	32.3	33.1	34.7	36.6	36.6	38.2	38.4	37.7	38.4	40.8	39.7
World total	159.2	158.8	166.5	175.9	183.8	188.0	188.9	187.9	194.9	192.1	191.7

World Corn Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Area Harvested	192.2	193.3	194.9	196.5	198.5	199.8	200.5	201.1	201.4	201.4	201.3
					(Metric tons per hectare)						
Yield	5.78	5.85	5.90	5.98	6.06	6.14	6.22	6.30	6.38	6.46	6.53
					(Million metric tons)						
Supply	1,585.4	1,588.2	1,602.3	1,613.8	1,638.7	1,668.4	1,700.0	1,732.4	1,765.3	1,794.0	1,822.4
Production	1,110.8	1,130.2	1,151.1	1,174.9	1,202.8	1,226.4	1,246.4	1,266.3	1,284.4	1,300.2	1,315.2
Beginning stocks	320.4	300.9	287.5	271.9	265.0	267.0	275.3	284.5	295.5	305.6	315.3
Net imports	154.2	157.2	163.7	167.0	171.0	174.9	178.3	181.7	185.4	188.2	191.9
Utilization	1,428.8	1,433.1	1,441.9	1,450.1	1,470.7	1,496.8	1,524.8	1,553.9	1,582.7	1,608.1	1,632.6
Feed and residual	694.7	708.2	724.1	733.8	746.3	758.3	770.6	782.4	794.6	804.6	815.2
Food, seed & industrial	433.2	437.5	445.8	451.4	457.4	463.2	469.8	476.0	482.5	488.3	493.9
Ending stocks	300.9	287.5	271.9	265.0	267.0	275.3	284.5	295.5	305.6	315.3	323.5
Net exports	152.4	155.4	162.0	165.2	169.2	173.1	176.5	179.9	183.6	186.4	190.2
Total Demand	1,581.2	1,588.5	1,603.8	1,615.3	1,639.9	1,669.9	1,701.4	1,733.8	1,766.3	1,794.5	1,822.8

Corn Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Argentina	6.1	5.8	5.8	5.8	5.7	5.7	5.6	5.6	5.6	5.6	5.7
Australia	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Brazil	18.1	18.8	19.3	19.6	19.9	20.2	20.4	20.6	20.8	20.9	20.9
Canada	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
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	38.9	39.5	41.2	42.8	43.8	44.2	44.5	44.6	44.5	44.4
Colombia	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Egypt	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
EU-28	8.7	8.6	8.5	8.3	8.3	8.3	8.3	8.3	8.4	8.4	8.4
India	9.5	9.4	9.6	9.7	9.8	9.8	9.9	10.0	10.0	10.1	10.2
Indonesia	3.9	3.7	3.7	3.8	3.7	3.7	3.6	3.6	3.6	3.5	3.5
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	6.8	7.2	7.3	7.3	7.3	7.3	7.4	7.4	7.4	7.4	7.4
Nigeria	6.5	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
Paraguay	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Peru	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Philippines	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Russia	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8
South Africa	2.9	3.0	3.0	3.0	2.9	2.9	2.8	2.8	2.8	2.8	2.7
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	1.2	1.2	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	0.9
Ukraine	4.9	4.9	4.9	4.8	4.8	4.8	4.9	4.9	4.9	4.9	4.9
United States	33.0	34.1	33.9	33.6	33.7	33.7	33.6	33.6	33.6	33.6	33.4
Vietnam	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9
Rest of world	39.1	40.5	41.1	41.1	41.2	41.3	41.5	41.6	41.7	41.7	41.8
World total	192.2	193.3	194.9	196.5	198.5	199.8	200.5	201.1	201.4	201.4	201.3

Corn Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Argentina	10,318	16,500	16,342	17,142	18,688	17,100	18,960	21,650	25,975	22,466	35,995
Australia	13	9	45	105	105	57	64	62	66	71	47
Brazil	5,995	11,195	7,613	23,566	24,062	20,178	34,130	10,573	30,750	23,239	40,500
Canada	-1,471	-1,970	750	-380	1,272	1,468	-1,138	719	816	267	-836
India	2,595	1,915	3,507	4,556	4,699	3,864	1,133	275	513	1,061	198
Paraguay	1,405	1,377	1,825	2,484	2,906	2,200	3,479	1,886	1,892	1,727	2,590
Russia	1,280	395	-75	1,984	1,866	4,142	3,167	4,647	5,545	5,485	2,733
South Africa	1,644	2,064	2,025	1,801	1,977	1,891	-1,271	-1,404	2,289	1,897	500
Ukraine	5,485	5,051	4,970	15,159	12,682	19,938	19,633	16,567	21,305	17,997	30,281
United States	46,621	50,058	45,805	38,350	14,482	47,881	46,617	46,512	56,820	61,001	51,747
Total net exports	73,885	86,594	82,807	104,767	82,739	118,719	124,774	101,487	145,971	135,211	163,755
Net importers											
Chile	696	510	634	810	1,100	1,499	1,296	1,468	1,622	2,105	2,275
China	-125	1,145	868	5,140	2,621	3,255	5,503	3,170	2,387	3,437	4,464
Colombia	3,141	3,650	3,511	3,207	3,264	4,433	4,492	4,455	4,753	5,200	6,048
Egypt	5,012	5,819	5,790	7,148	5,056	8,787	7,835	8,716	8,763	9,459	9,364
EU-28	584	1,189	6,289	2,826	9,168	13,610	4,881	12,055	12,784	16,716	21,580
Indonesia	216	1,284	3,029	1,685	2,708	3,501	3,125	1,733	636	258	1,013
Japan	16,531	15,971	15,648	14,888	14,411	15,121	14,657	15,204	15,169	15,668	16,047
South Korea	7,188	8,461	8,107	7,636	8,174	10,406	10,168	10,121	9,181	10,018	10,856
Malaysia	2,447	3,105	2,806	3,345	3,046	3,467	3,239	4,080	3,501	3,615	3,670
Mexico	7,602	7,656	8,165	10,392	5,154	10,448	10,557	12,398	13,075	15,171	15,940
Nigeria	-50	0	0	0	150	100	-50	0	450	100	300
Peru	1,422	1,773	1,931	1,764	2,245	2,223	2,733	2,976	3,261	3,393	3,684
Philippines	430	118	61	203	92	741	623	742	609	724	675
Taiwan	4,532	4,521	4,134	4,354	4,241	4,179	3,810	4,656	4,163	4,410	4,508
Thailand	253	-746	317	93	328	-499	295	233	-129	501	529
Vietnam	1,090	1,500	1,300	1,095	1,495	3,100	4,500	7,500	7,600	8,100	9,700
Rest of world	21,710	24,508	22,096	23,834	23,698	27,707	29,835	31,052	33,156	38,078	34,435
Total net imports	72,679	80,464	84,686	88,420	86,951	112,078	107,499	120,559	120,981	136,953	145,088
Residual	1,206	6,130	-1,879	16,347	-4,212	6,641	17,275	-19,072	24,990	-1,742	18,667
					(Dollars per metric ton)						
US Gulf Port Price	173	163	277	284	298	203	171	165	157	160	169

Corn Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Argentina	33,433	33,262	33,261	32,985	32,804	32,636	32,405	32,395	32,916	33,287	33,827
Australia	48	42	61	66	61	55	49	44	41	37	34
Brazil	34,369	29,893	31,982	32,878	33,947	34,906	35,908	36,760	37,733	38,200	39,069
Canada	336	950	1,194	1,494	1,639	1,580	1,397	1,188	1,030	896	1,472
India	38	99	164	201	232	259	288	317	343	369	401
Paraguay	1,975	2,134	2,213	2,259	2,325	2,391	2,456	2,519	2,580	2,637	2,695
Russia	5,626	4,423	4,596	4,727	4,789	4,820	4,827	4,818	4,793	4,757	4,755
South Africa	1,406	2,412	2,598	2,606	2,538	2,456	2,372	2,302	2,245	2,196	2,142
Ukraine	30,452	26,114	26,394	26,703	27,143	27,639	28,161	28,702	29,257	29,827	30,404
United States	44,726	56,049	59,489	61,285	63,707	66,406	68,687	70,858	72,651	74,197	75,361
Total net exports	152,410	155,377	161,952	165,203	169,186	173,147	176,549	179,905	183,588	186,403	190,159
Net importers											
Chile	2,547	2,569	2,629	2,696	2,761	2,826	2,891	2,951	3,009	3,062	3,114
China	6,549	6,665	6,670	6,627	6,570	6,567	6,575	6,488	6,476	6,495	6,560
Colombia	6,181	6,293	6,456	6,592	6,710	6,820	6,929	7,030	7,132	7,229	7,327
Egypt	9,904	11,152	11,248	11,526	11,903	12,297	12,691	13,075	13,472	13,875	14,285
EU-28	18,565	18,012	21,820	22,661	23,386	24,069	24,730	25,098	25,391	25,655	25,840
Indonesia	685	857	775	626	757	861	948	1,002	1,030	1,057	1,090
Japan	16,046	16,313	16,519	16,612	16,770	16,935	17,061	17,113	17,129	17,127	17,302
South Korea	10,773	10,920	10,990	11,047	11,162	11,285	11,418	11,567	11,716	11,912	12,108
Malaysia	3,966	4,128	4,255	4,357	4,452	4,539	4,613	4,679	4,735	4,786	4,831
Mexico	16,843	19,619	18,884	19,093	19,354	19,617	19,856	20,046	20,204	20,344	20,543
Nigeria	319	273	275	291	310	330	349	367	386	403	421
Peru	3,598	3,642	3,799	3,936	4,057	4,173	4,280	4,381	4,477	4,568	4,653
Philippines	752	714	783	840	902	966	1,028	1,079	1,127	1,172	1,215
Taiwan	4,366	4,443	4,467	4,471	4,475	4,481	4,486	4,488	4,491	4,494	4,499
Thailand	831	625	978	1,287	1,506	1,663	1,781	1,862	1,921	1,980	2,047
Vietnam	10,974	11,656	12,157	12,715	13,312	13,935	14,588	15,266	15,972	16,704	17,462
Rest of world	41,288	39,274	41,025	41,604	42,575	43,562	44,102	45,190	46,697	47,319	48,641
Total net imports	154,188	157,155	163,730	166,981	170,964	174,925	178,327	181,683	185,366	188,181	191,937
Residual	-1,778	-1,778	-1,778	-1,778	-1,778	-1,778	-1,778	-1,778	-1,778	-1,778	-1,778
					(Dollars per metric ton)						
US Gulf Port Price	176	166	161	162	163	162	161	161	161	160	159

World Sorghum Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Area Harvested	44.3	40.2	41.0	41.3	38.9	42.6	44.1	40.6	44.6	39.5	40.1
					(Metric tons per hectare)						
Yield	0.94	0.91	0.91	0.86	0.94	0.91	0.98	0.97	0.93	0.93	0.98
					(Million metric tons)						
Supply	75.3	67.9	72.0	66.3	65.3	72.3	83.3	78.7	75.1	69.9	67.8
Production	63.4	55.9	61.0	56.1	55.0	62.0	65.8	62.5	63.3	58.3	59.8
Beginning stocks	6.2	6.1	4.5	5.5	4.1	4.2	5.6	5.7	5.1	5.5	4.9
Net imports	5.7	5.9	6.4	4.7	6.1	6.1	11.9	10.5	6.7	6.2	3.1
Utilization	69.6	61.6	65.4	60.1	60.3	65.1	71.6	68.5	68.0	64.1	64.7
Feed and residual	27.6	25.8	26.7	23.2	24.2	26.8	30.7	27.6	23.7	23.0	20.8
Food, seed & industrial	36.0	31.3	33.3	32.7	31.9	32.7	35.2	35.8	38.9	36.3	38.4
Ending stocks	6.1	4.5	5.5	4.1	4.2	5.6	5.7	5.1	5.5	4.9	5.5
Net exports	5.7	6.3	6.5	6.2	4.9	7.2	11.7	10.2	7.0	5.8	3.1
Total Demand	75.3	67.9	72.0	66.3	65.3	72.3	83.3	78.7	75.1	69.9	67.8

Sorghum Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Argentina	0.5	0.8	1.0	1.0	1.1	1.0	0.8	0.8	0.7	0.7	0.6
Australia	0.8	0.5	0.6	0.7	0.6	0.5	0.7	0.5	0.4	0.5	0.5
Brazil	0.8	0.7	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.8	0.7
China	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.7
Ethiopia	1.6	1.6	1.9	1.9	1.7	1.7	1.8	1.9	1.9	1.9	1.9
EU-28	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
India	7.5	7.8	7.4	6.2	6.2	5.8	6.2	6.1	5.6	5.0	4.0
Mexico	1.9	1.6	1.9	1.7	1.6	2.1	1.7	1.7	1.5	1.4	1.4
Nigeria	7.6	4.7	5.0	4.7	5.1	5.4	5.7	5.9	6.7	5.8	5.8
Sudan	6.6	6.7	5.6	7.3	4.1	7.1	8.4	5.2	9.2	5.4	7.0
United States	3.0	2.2	1.9	1.6	2.0	2.7	2.6	3.2	2.5	2.0	2.0
Rest of world	13.5	13.1	14.2	14.9	15.0	15.0	14.8	14.3	15.0	15.4	15.3
World total	44.3	40.2	41.0	41.3	38.9	42.6	44.1	40.6	44.6	39.5	40.1

World Sorghum Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Area Harvested	40.8	41.4	41.4	41.3	41.3	41.2	41.2	41.1	41.1	40.9	40.8
					(Metric tons per hectare)						
Yield	0.93	0.96	0.96	0.96	0.97	0.97	0.97	0.98	0.98	0.99	0.99
					(Million metric tons)						
Supply	66.1	69.3	70.6	71.4	72.2	72.8	73.3	73.8	74.3	74.7	75.1
Production	57.5	60.8	61.6	62.0	62.4	62.9	63.3	63.5	63.8	64.1	64.3
Beginning stocks	5.5	5.1	5.4	5.6	5.7	5.8	6.0	6.1	6.2	6.3	6.4
Net imports	3.1	3.4	3.6	3.8	4.0	4.1	4.1	4.2	4.2	4.3	4.3
Utilization	63.3	66.2	67.1	67.7	68.3	68.8	69.3	69.8	70.2	70.5	70.8
Feed and residual	20.4	21.5	21.8	22.0	22.1	22.3	22.5	22.6	22.7	22.8	22.8
Food, seed & industrial	37.7	39.2	39.7	40.0	40.3	40.6	40.8	41.0	41.2	41.3	41.5
Ending stocks	5.1	5.4	5.6	5.7	5.8	6.0	6.1	6.2	6.3	6.4	6.5
Net exports	3.3	3.6	3.8	4.1	4.2	4.3	4.3	4.4	4.5	4.5	4.6
Total Demand	66.6	69.8	70.9	71.8	72.5	73.1	73.7	74.2	74.6	75.0	75.4

Sorghum Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Argentina	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Australia	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Brazil	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
China	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Ethiopia	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1
EU-28	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
India	5.0	5.4	5.4	5.4	5.4	5.3	5.3	5.2	5.0	4.9	4.8
Mexico	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4
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	6.5	6.3	6.2	6.1	6.0	6.0	6.0	5.9	5.9	5.9
United States	1.9	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Rest of world	15.3	15.4	15.4	15.5	15.6	15.7	15.7	15.8	15.9	15.9	16.0
World total	40.8	41.4	41.4	41.3	41.3	41.2	41.2	41.1	41.1	40.9	40.8

Sorghum Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Argentina	1,113	1,771	1,702	3,084	1,783	1,279	931	494	563	36	330
Australia	995	290	865	1,290	1,161	389	1,629	905	280	456	150
Brazil	-2	-4	-1	0	2	10	13	25	1	1	33
Ethiopia	-140	-125	40	45	25	54	-8	51	59	69	55
India	52	127	27	134	228	87	122	74	23	125	51
Nigeria	50	50	60	75	50	50	100	50	94	100	100
United States	3,629	4,169	3,849	1,608	1,695	5,357	8,925	8,566	5,996	5,038	2,350
Total net exports	5,697	6,278	6,542	6,236	4,944	7,226	11,712	10,165	7,016	5,825	3,069
Net importers											
China	-18	42	-64	48	604	4,150	10,153	8,261	5,175	4,393	603
EU-28	351	-1	917	81	314	190	117	115	166	418	752
Japan	1,629	1,649	1,418	1,481	1,897	1,003	903	649	561	594	452
Mexico	2,484	2,486	2,379	1,369	1,793	162	21	661	548	96	596
Sudan	295	395	170	105	155	70	105	195	-80	50	110
Rest of world	1,001	1,375	1,614	1,600	1,383	546	593	614	283	648	594
Total net imports	5,742	5,946	6,434	4,684	6,146	6,121	11,892	10,495	6,653	6,199	3,107
Residual	-45	332	108	1,508	-1,200	1,105	-180	-330	363	-374	-38
					(Dollars per metric ton)						
US Gulf Port Price	158	171	263	272	279	200	191	168	157	172	174

Sorghum Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Argentina	243	344	406	472	509	538	547	551	573	597	625
Australia	36	61	79	89	98	108	116	125	133	140	149
Brazil	32	30	83	131	161	147	130	111	90	66	67
Ethiopia	54	56	57	65	71	77	82	87	91	95	99
India	57	227	252	246	216	220	206	229	235	246	237
Nigeria	99	93	100	103	104	106	108	111	114	117	119
United States	2,819	2,827	2,857	2,993	3,072	3,124	3,150	3,203	3,239	3,262	3,282
Total net exports	3,341	3,637	3,833	4,100	4,232	4,319	4,339	4,416	4,475	4,524	4,579
Net importers											
China	848	959	988	1,015	1,045	1,050	985	986	1,008	1,042	1,080
EU-28	243	298	352	382	399	406	409	406	404	402	398
Japan	495	626	636	638	655	676	700	717	731	738	742
Mexico	638	451	350	363	377	420	466	505	523	520	503
Sudan	187	260	226	239	249	255	260	264	267	270	273
Rest of world	677	790	1,029	1,212	1,254	1,259	1,266	1,286	1,290	1,298	1,330
Total net imports	3,088	3,384	3,580	3,847	3,979	4,066	4,086	4,163	4,222	4,271	4,326
Residual	253	253	253	253	253	253	253	253	253	253	253
					(Dollars per metric ton)						
US Gulf Port Price	179	172	170	173	174	174	173	174	174	173	172

World Barley Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Area Harvested	55.1	54.1	47.0	49.1	50.2	50.6	50.6	50.8	49.3	47.4	48.1
					(Metric tons per hectare)						
Yield	2.81	2.79	2.61	2.71	2.57	2.85	2.80	2.94	2.98	3.02	2.89
					(Million metric tons)						
Supply	192.6	198.1	171.1	173.0	166.9	184.7	193.3	197.8	196.7	190.6	177.7
Production	154.8	150.9	122.7	133.3	129.3	144.4	141.6	149.5	147.1	143.1	138.7
Beginning stocks	20.4	32.1	36.9	23.9	22.0	21.2	24.5	23.7	25.9	22.5	19.4
Net imports	17.3	15.2	11.6	15.8	15.6	19.1	27.2	24.6	23.7	25.1	19.6
Utilization	174.7	182.7	157.8	157.6	151.9	165.9	167.0	171.1	172.0	166.2	157.0
Feed and residual	99.7	102.6	91.1	92.1	87.8	97.8	98.6	100.9	104.7	101.8	94.2
Food, seed & industrial	42.9	43.3	42.8	43.6	42.9	43.7	44.7	44.4	44.8	45.0	45.0
Ending stocks	32.1	36.9	23.9	22.0	21.2	24.5	23.7	25.9	22.5	19.4	17.8
Net exports	17.9	15.4	13.4	15.4	15.0	18.8	26.3	26.7	24.7	24.5	20.7
Total Demand	192.6	198.1	171.1	173.0	166.9	184.7	193.3	197.8	196.7	190.6	177.7

Barley Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Algeria	0.7	1.2	1.0	1.0	1.0	0.9	0.8	1.0	0.9	0.8	1.0
Australia	5.0	4.4	3.7	3.7	3.6	3.8	4.1	4.1	4.8	4.1	3.7
Canada	3.5	2.9	2.4	2.4	2.8	2.7	2.2	2.4	2.3	2.1	2.4
China	0.8	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3
EU-28	14.6	14.0	12.5	11.9	12.5	12.4	12.4	12.2	12.3	12.1	12.3
India	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.6	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	2.0	1.7	1.3	1.5	1.6	1.8	1.9	2.0	1.9	2.1	2.5
Russia	9.4	7.7	5.0	7.7	7.6	8.0	8.8	8.0	8.0	7.7	7.8
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	3.4	3.2	3.3	3.3	3.4	3.4	3.4	3.4	3.6
Ukraine	4.2	5.0	4.3	3.7	3.3	3.2	3.2	3.0	3.0	2.7	2.6
United States	1.5	1.3	1.0	0.9	1.3	1.2	1.0	1.3	1.0	0.8	0.8
Rest of world	9.4	11.1	11.2	11.7	12.0	12.0	11.7	12.2	10.7	10.6	10.4
World total	55.1	54.1	47.0	49.1	50.2	50.6	50.6	50.8	49.3	47.4	48.1

World Barley Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Area Harvested	51.6	52.0	52.1	52.0	52.1	52.1	52.1	52.1	52.1	52.1	52.1
					(Metric tons per hectare)						
Yield	3.02	2.90	2.93	2.96	2.99	3.02	3.04	3.07	3.10	3.12	3.14
					(Million metric tons)						
Supply	198.2	194.4	196.1	197.8	200.4	202.8	205.5	207.8	209.9	212.0	213.8
Production	156.0	151.1	152.7	154.0	155.6	157.1	158.7	160.0	161.2	162.7	163.8
Beginning stocks	17.8	20.2	19.9	20.4	21.2	21.9	22.7	23.4	24.1	24.8	25.4
Net imports	24.4	23.1	23.5	23.3	23.7	23.8	24.1	24.4	24.5	24.6	24.6
Utilization	173.8	171.3	172.7	174.4	176.7	179.0	181.3	183.4	185.4	187.4	189.2
Feed and residual	107.5	105.0	105.5	106.2	107.4	108.7	109.9	110.8	111.7	112.6	113.5
Food, seed & industrial	46.1	46.4	46.8	47.1	47.4	47.6	48.1	48.5	48.9	49.4	49.7
Ending stocks	20.2	19.9	20.4	21.2	21.9	22.7	23.4	24.1	24.8	25.4	26.0
Net exports	24.4	23.1	23.4	23.3	23.6	23.8	24.1	24.3	24.5	24.5	24.6
Total Demand	198.2	194.4	196.1	197.7	200.3	202.8	205.4	207.8	209.8	212.0	213.8

Barley Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Algeria	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2
Australia	4.0	3.8	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.8	3.8
Canada	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.5
China	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4
EU-28	12.4	12.1	12.0	11.9	11.9	11.9	11.9	11.9	11.9	11.8	11.8
India	0.7	0.7	0.7	0.7	0.7	0.7	0.7	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	3.0	2.6	2.6	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.4
Russia	8.4	8.5	8.4	8.4	8.3	8.3	8.3	8.3	8.3	8.3	8.3
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	3.9	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.1	4.1
Ukraine	2.7	3.0	3.1	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.1
United States	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Rest of world	11.9	12.3	12.4	12.5	12.5	12.6	12.6	12.7	12.7	12.8	12.9
World total	51.6	52.0	52.1	52.0	52.1	52.1	52.1	52.1	52.1	52.1	52.1

Barley Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Australia	3,234	3,915	4,664	5,377	4,484	6,217	5,219	5,745	9,190	5,662	3,750
Canada	1,441	1,273	1,163	1,283	1,413	1,552	1,381	1,034	1,482	1,962	2,253
EU-28	3,268	1,022	4,695	2,552	4,900	5,697	9,459	10,542	5,269	5,448	4,759
Kazakhstan	203	337	182	697	155	416	442	799	680	1,316	1,788
Russia	3,379	2,644	-105	3,084	1,907	2,483	5,296	4,164	2,737	5,800	4,647
Ukraine	6,367	6,221	2,757	2,421	2,134	2,462	4,456	4,407	5,346	4,283	3,543
Total net exports	17,892	15,412	13,356	15,414	14,993	18,827	26,253	26,691	24,704	24,471	20,740
Net importers											
Algeria	391	13	89	672	259	511	876	837	636	522	323
China	1,534	2,328	1,647	2,537	2,182	4,891	9,859	5,869	8,104	8,144	5,181
India	-164	-51	-9	-46	-233	-440	-429	-78	199	210	129
Japan	1,346	1,411	1,359	1,257	1,356	1,294	1,097	1,155	1,197	1,253	1,158
Saudi Arabia	7,200	7,300	5,500	8,700	8,500	9,000	8,200	11,200	8,100	8,000	6,500
Turkey	178	-603	34	-64	259	80	783	129	127	753	252
United States	344	238	42	161	314	97	202	170	115	88	21
Rest of world	6,473	4,556	2,936	2,628	2,961	3,715	6,573	5,351	5,231	6,112	6,053
Total net imports	17,302	15,192	11,598	15,845	15,598	19,148	27,161	24,633	23,709	25,082	19,617
Residual	590	220	1,758	-431	-605	-321	-908	2,058	995	-611	1,123

Barley Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Australia	3,782	3,975	4,516	4,598	4,655	4,700	4,733	4,762	4,799	4,836	4,868
Canada	2,562	2,541	2,471	2,455	2,415	2,416	2,380	2,361	2,345	2,306	2,238
EU-28	5,738	4,793	4,366	4,094	4,300	4,373	4,672	4,846	4,962	5,000	5,046
Kazakhstan	1,750	2,040	2,011	2,006	2,008	2,011	2,015	2,017	2,018	2,014	2,007
Russia	5,571	5,217	5,069	4,933	4,904	4,888	4,879	4,920	4,905	4,903	4,937
Ukraine	5,005	4,533	4,996	5,219	5,345	5,400	5,427	5,441	5,460	5,477	5,489
Total net exports	24,408	23,099	23,428	23,305	23,626	23,788	24,105	24,348	24,489	24,535	24,586
Net importers											
Algeria	230	157	190	203	188	178	154	124	158	110	95
China	6,603	6,545	6,533	6,459	6,363	6,244	6,227	6,371	6,469	6,437	6,433
India	245	282	307	326	341	360	375	382	389	399	406
Japan	1,193	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369
Saudi Arabia	8,427	8,375	8,452	8,490	8,654	8,792	8,927	9,042	9,090	9,159	9,293
Turkey	599	471	397	382	418	410	454	473	503	545	587
United States	111	28	9	50	42	46	54	49	45	60	72
Rest of world	7,025	5,898	6,196	6,051	6,275	6,414	6,570	6,562	6,491	6,479	6,356
Total net imports	24,433	23,124	23,453	23,330	23,651	23,813	24,130	24,373	24,514	24,560	24,611
Residual	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25	-25

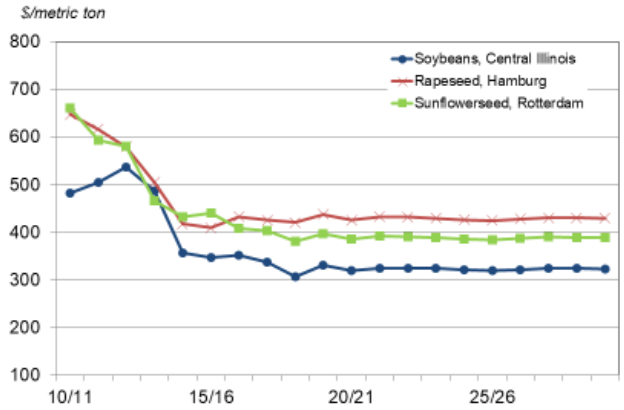
Oilseeds and Products

- In line with soybean prices, other oilseeds also are experiencing an uptick in 2019/20. The impetus is the short U.S. crop stemming from major flooding in the Midwest last spring. Because soybeans are the dominant oilseed, other oilseed prices are heavily influenced by them.
- In the longer term, oilseed prices are expected to have little upside potential. Expanding South American crops will also reduce upward pressure on soybean prices over the projection period. With a steady increase in global area and yields, production is expected to be sufficient to offset global demand growth.
- Despite the signing of the Phase 1 agreement between the U.S. and China, little specific detail has been made available. Therefore, import commitments are not assumed here and retaliatory tariffs are part of this baseline until there is an official policy announcement otherwise.
- 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 in over the baseline period.

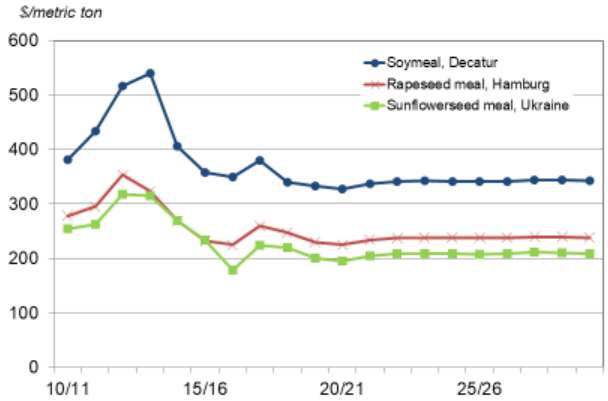
- Soybean, rapeseed, and sunflowerseed meal prices reflect substantial substitution between them and also are influenced by prices of other major livestock feeds. However, in 2019/20, meal prices are expected to dip slightly as the downward impact of ASF on Chinese demand for soymeal will be felt on international markets.
- 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.

- Vegetable oil prices are expected to remain well below previous peaks with the moderate oilseed input costs. 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 in this baseline is below vegetable oil prices, 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.

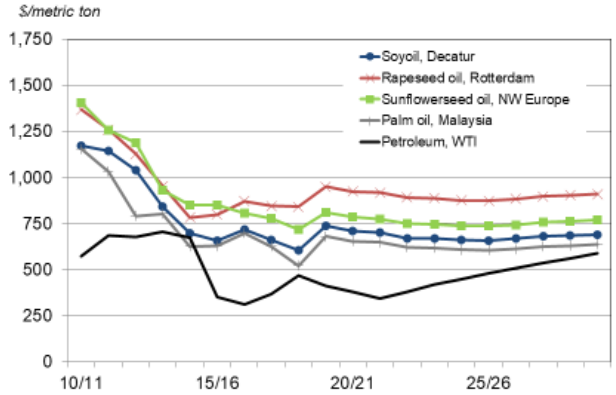
Oilseed Prices Reflect Low U.S. Crop in 2019/20



Meal Prices Reflect Low Prices of Other Feeds



Petroleum Does Not Compete With Vegetable Oils



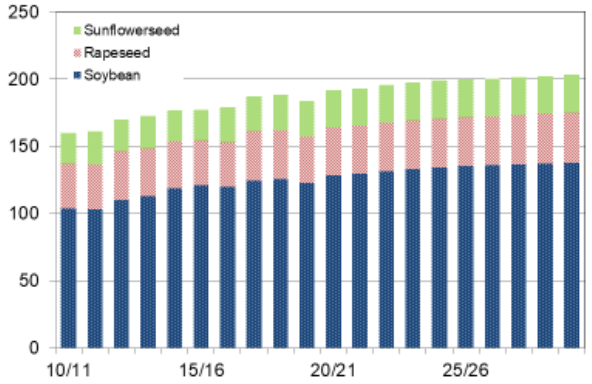
- The long-term increase in oilseed, especially soybean area will continue, but at a slower pace. Moderate prices provide less incentive to expand plantings. Global soybean area is expected to expand 10% from 2018/19 levels through the baseline, while sunflowerseed and rapeseed will see slower growth, at an estimated 7% and 2%, 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 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. Argentina is expected to see some increase in sunflowerseed area.

- 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 also crushes a large percentage of its soybean crop, but is less focused on product exports and more on trade in soybeans. Brazil passed the U.S. as the largest exporter of soybeans in 2015/16. China is by far the world's largest importer.
- Major crushers of rapeseed are Canada, China, the EU, and India, the largest producers. China and the EU also import substantial quantities to boost crush. While Japan produces virtually no rapeseed, it also imports to feed crushing facilities.
- Ukraine, Russia, and the EU are the leading sunflowerseed producers and processors. Argentina and Turkey also have significant crushing capacity.

- Soybeans account for the largest share of global oilseed demand and the U.S., Argentina, and Brazil account for over 80% of global production and 90% of exports. As demand for soybeans and products increased, trade skyrocketed. Over the next ten years, more than one-third of global soybean consumption is expected to be supplied by trade from these three countries.
- Rapeseed and products are much less dependent on global markets as processing and other consumption occur more in producing regions. Slow expansion of trade is expected in the next ten years. Canada sources the majority of rapeseed and products exports.
- Kazakhstan has emerged as the world's largest exporter of sunflowerseed. However, trade is not as important in the sunflowerseed market, with about 2% being traded internationally.

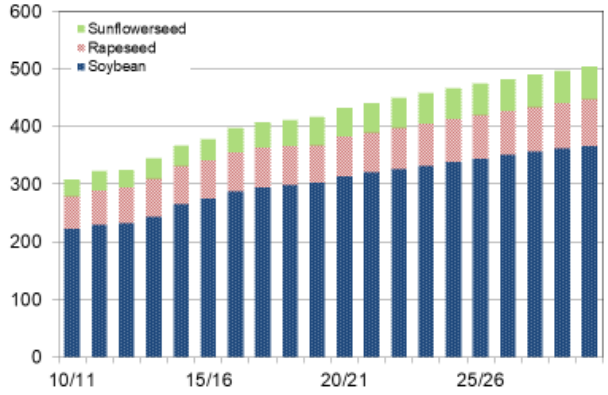
Area Expansion Is Primarily South American Soybeans

World oilseed area harvested, mil ha



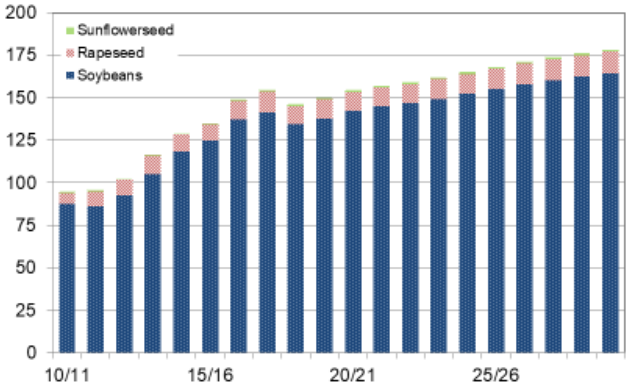
Income Growth Pushed Oil and Protein Demand

World oilseed crush, mmt



Soybeans Dipped in 2018/19 With ASF

Net exports by exporting countries, mmt

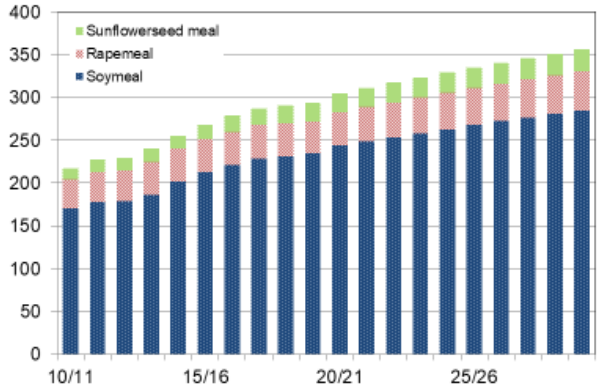


- In combination with population growth, especially in developing and newly emerging regions, per capita incomes are pushing demand for meat, eggs, and dairy products. Increased ability to purchase food allows better diets. As demand for these products increases, so too, does utilization of feed, including 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 intensifying, using improved practices and feeds. Protein meals are being increasingly used in feed concentrates.
- In 2018/19 and for the next two to three years, soymeal consumption in China will be significantly hampered by losses in the swine herd due to ASF. As a result, the global soymeal market will temporarily soften.
- 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 also make poultry attractive for increasing meat in diets in developing regions. Versatility in product lines also has allowed poultry to take 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.
- 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. One-quarter of soymeal and 15% of rapeseed meal global demand will be met through trade.
- While sunflowerseeds are very thinly traded, nearly one-third of sunflowerseed meal consumed is purchased on the international market. Russia and Ukraine are the largest exporters and the EU imports more than any other country or region.

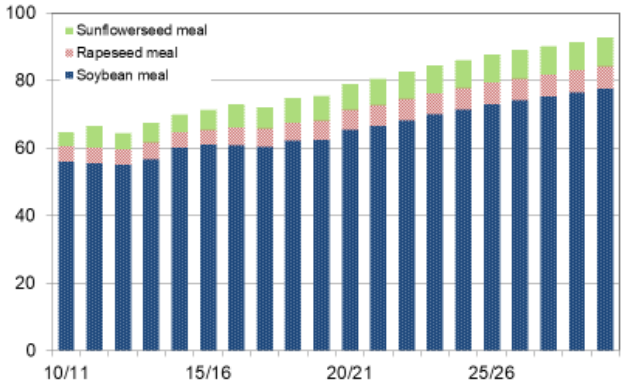
Protein Meals Pushed By Commercial Livestock

World protein meal use, mmt



Soybean Meal Dominates Protein Demand and Trade

Net exports by exporting countries, mmt

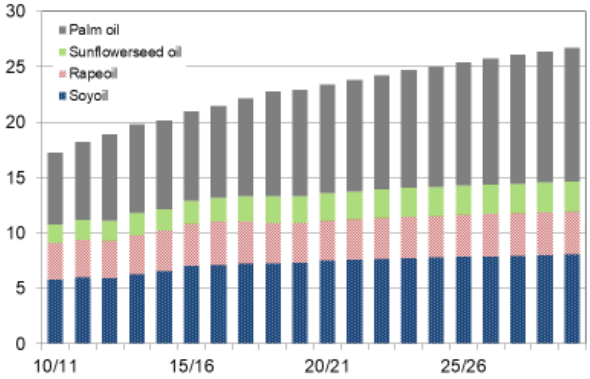


- Vegetable oil consumption is being boosted by population growth, income expansion, and increased industrial uses, including those for biofuels. Particularly soyoil, rapeseed oil, and palm oil contribute to biodiesel supplies. Argentina is a major producer of soy diesel and the EU is the largest consumer of vegetable oil based fuels.
- China is leading global soyoil demand growth, accounting for more than half of consumption increases in the past decade, and is expected to maintain that role in the next ten years. India is also a growing consumer of vegetable oils.
- Palm oil production is dramatically increasing global vegetable oil supplies. Indonesia and Malaysia together accounted for 85% of palm oil production in 2018/19, 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. Rapeseed oil biodiesel production has stalled, and is expected to decline in the EU.
- 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. Nearly two-thirds of palm oil production is traded, primarily from Indonesia and Malaysia. 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. The recent changes to grain, oilseed, and products export taxes will 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.

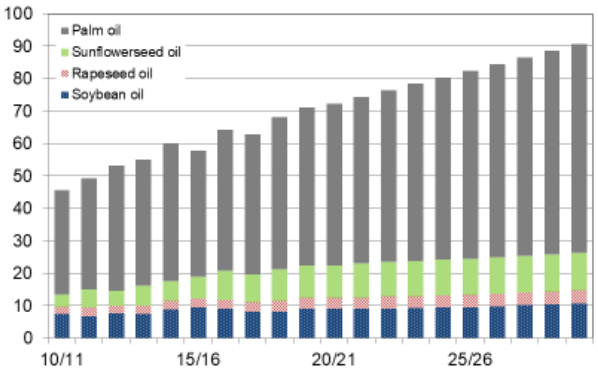
Income-Driven Food and Mandated Biofuels

World vegetable oil use, kg/capita



SE Asian Palm Expansion Fills Global Veg Oil Needs

Net exports by exporting countries, mmt



World Soybean Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Area Harvested	96.6	102.8	103.6	103.1	110.3	112.9	118.9	120.7	119.8	124.5	125.5
					(Metric tons per hectare)						
Yield	2.20	2.54	2.55	2.33	2.44	2.51	2.70	2.62	2.92	2.75	2.85
					(Million metric tons)						
Supply	340.3	390.2	413.0	402.8	415.8	446.5	501.0	521.0	563.6	578.6	588.2
Production	212.2	261.0	264.7	240.8	269.0	283.2	320.7	316.6	349.9	342.0	358.3
Beginning stocks	54.4	45.3	62.6	73.0	57.4	58.1	63.8	78.8	79.9	95.0	98.9
Net imports	73.7	83.9	85.7	88.9	89.5	105.2	116.5	125.6	133.7	141.6	131.0
Utilization	267.8	301.8	325.5	316.6	323.2	341.6	382.7	396.2	426.6	437.2	453.9
Crush	194.9	210.5	222.2	229.1	231.8	242.9	264.8	275.1	287.8	294.9	298.3
Other utilization	27.6	28.7	30.3	30.1	33.3	34.9	39.1	41.1	43.7	43.4	45.3
Ending Stocks	45.3	62.6	73.0	57.4	58.1	63.8	78.8	79.9	95.0	98.9	110.3
Net Exports	72.5	88.4	87.5	86.1	92.6	104.9	118.3	124.9	137.0	141.4	134.3
Total Demand	340.3	390.2	413.0	402.8	415.8	446.5	501.0	521.0	563.6	578.6	588.2

Soybean Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Argentina	16.0	18.6	18.3	17.6	19.8	19.3	19.4	19.4	17.3	16.3	16.6
Brazil	21.7	23.5	24.2	25.0	27.7	30.1	32.1	33.3	33.9	35.2	35.9
Canada	1.2	1.4	1.5	1.6	1.7	1.9	2.3	2.2	2.2	2.9	2.5
China	9.2	9.3	8.7	8.1	7.4	7.1	7.1	6.8	7.6	8.2	8.4
EU-28	0.3	0.4	0.4	0.4	0.4	0.5	0.6	0.9	0.8	0.9	0.9
India	9.5	9.7	9.6	10.1	10.8	11.7	10.9	11.6	11.2	10.4	11.3
Japan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1
Mexico	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.2
Paraguay	2.5	2.7	2.9	3.0	3.2	3.3	3.3	3.3	3.4	3.4	3.7
South Korea	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	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	30.2	30.9	31.0	29.9	30.8	30.9	33.4	33.1	33.5	36.2	35.4
Vietnam	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Rest of world	5.4	5.8	6.5	7.1	8.0	7.9	9.4	9.7	9.4	10.4	10.2
World total	96.6	102.8	103.6	103.1	110.3	112.9	118.9	120.7	119.8	124.5	125.5

World Soybean Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Area Harvested	122.7	128.5	129.4	131.5	132.9	134.3	135.2	135.7	136.5	137.2	137.9
					(Metric tons per hectare)						
Yield	2.75	2.83	2.85	2.88	2.91	2.93	2.96	2.99	3.02	3.05	3.08
					(Million metric tons)						
Supply	584.5	600.7	609.7	621.4	635.1	649.2	662.3	674.5	686.2	697.0	707.7
Production	337.7	363.0	369.1	378.5	386.3	393.8	400.3	406.0	412.0	418.1	424.2
Beginning stocks	110.3	96.7	97.1	97.4	100.7	104.5	108.2	111.9	115.0	117.9	120.6
Net imports	136.5	141.0	143.5	145.4	148.0	150.8	153.8	156.6	159.1	161.1	162.9
Utilization	446.3	459.0	465.7	475.5	486.5	497.3	507.8	517.4	526.7	535.3	543.8
Crush	302.5	314.3	320.1	325.8	332.0	338.5	344.6	350.5	356.4	361.6	366.8
Other utilization	47.1	47.6	48.2	48.9	49.9	50.6	51.3	51.9	52.5	53.1	53.7
Ending Stocks	96.7	97.1	97.4	100.7	104.5	108.2	111.9	115.0	117.9	120.6	123.3
Net Exports	137.7	142.2	144.7	146.6	149.2	152.0	155.0	157.8	160.3	162.3	164.1
Total Demand	584.0	601.1	610.4	622.1	635.7	649.3	662.8	675.2	687.0	697.6	708.0

Soybean Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Argentina	17.5	17.9	18.4	18.9	19.4	19.7	20.1	20.4	20.7	21.0	21.2
Brazil	36.9	37.5	38.3	39.0	39.5	39.9	40.1	40.2	40.2	40.2	40.1
Canada	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
China	9.3	9.2	8.9	8.9	8.9	9.0	9.1	9.0	9.1	9.1	9.2
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	11.3	11.5	11.8	12.1	12.4	12.6	12.7	12.8	12.9	13.0	13.0
Japan	0.2	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	0.2	0.3	0.3	0.3	0.3	0.3	0.3
Paraguay	3.6	3.8	3.9	3.9	4.0	4.1	4.1	4.1	4.1	4.1	4.1
South Korea	0.1	0.1	0.1	0.1	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	30.4	34.5	33.8	33.9	33.9	33.9	33.9	33.9	33.9	34.0	34.2
Vietnam	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Rest of world	10.2	10.5	10.6	10.9	11.2	11.4	11.5	11.7	11.9	12.1	12.4
World total	122.7	128.5	129.4	131.5	132.9	134.3	135.2	135.7	136.5	137.2	137.9

Soybean Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Argentina	4,349	13,087	9,193	7,368	7,736	7,841	10,573	9,246	5,351	-2,571	2,695
Brazil	29,943	28,404	29,914	36,129	41,509	46,224	50,307	53,973	62,885	75,961	74,807
Canada	1,630	1,872	2,693	2,703	3,200	3,129	3,424	3,950	4,106	4,438	4,086
India	55	15	18	38	115	179	223	81	189	51	-7
Paraguay	2,093	4,639	5,073	3,143	5,055	4,837	4,569	5,375	6,117	6,023	5,495
United States	34,456	40,401	40,566	36,747	35,026	42,641	49,232	52,228	58,357	57,477	47,181
Total net exports	72,526	88,418	87,457	86,128	92,641	104,851	118,328	124,853	137,005	141,379	134,257
Net importers											
China	40,698	50,154	52,149	58,956	59,599	70,149	78,207	83,116	93,381	93,961	82,424
EU-28	13,177	12,623	12,377	12,016	12,446	13,236	13,798	14,976	13,221	14,308	14,825
Japan	3,396	3,401	2,917	2,758	2,830	2,894	3,004	3,186	3,175	3,256	3,300
South Korea	1,167	1,197	1,239	1,139	1,113	1,271	1,246	1,248	1,286	1,256	1,365
Mexico	3,327	3,523	3,498	3,606	3,409	3,842	3,819	4,126	4,126	4,873	5,908
Taiwan	2,216	2,469	2,454	2,285	2,286	2,335	2,520	2,476	2,566	2,666	2,730
Vietnam	184	224	932	1,290	1,290	1,564	1,707	1,602	1,646	1,824	1,800
Rest of world	9,558	10,274	10,103	6,856	6,485	9,891	12,162	14,917	14,316	19,435	18,633
Total net imports	73,723	83,865	85,669	88,906	89,458	105,182	116,463	125,647	133,717	141,579	130,985
Residual	-1,197	4,553	1,788	-2,778	3,183	-331	1,865	-794	3,288	-200	3,272
Soybean price, Central IL	365	357	482	505	537	487	356	346	351	337	307

Soybean Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Argentina	4,358	4,133	4,028	4,280	5,134	5,950	6,641	7,243	7,731	8,180	8,553
Brazil	75,761	76,867	78,753	79,712	81,048	82,662	84,181	85,420	86,516	87,338	88,161
Canada	3,791	4,222	4,162	4,118	4,077	4,043	4,013	3,992	3,984	3,986	3,992
India	-42	11	70	94	91	84	71	61	44	20	-19
Paraguay	6,172	5,852	6,041	6,270	6,439	6,573	6,675	6,764	6,838	6,905	6,954
United States	47,675	51,069	51,656	52,137	52,451	52,735	53,400	54,316	55,191	55,877	56,498
Total net exports	137,714	142,154	144,711	146,612	149,239	152,046	154,982	157,797	160,305	162,306	164,138
Net importers											
China	84,869	86,825	89,110	90,700	92,247	93,652	95,050	96,442	97,508	98,688	99,354
EU-28	15,009	15,569	15,621	15,648	15,771	15,879	15,980	16,066	16,184	16,297	16,428
Japan	3,364	3,437	3,467	3,478	3,482	3,472	3,450	3,420	3,394	3,372	3,362
South Korea	1,455	1,452	1,444	1,451	1,454	1,454	1,454	1,453	1,452	1,452	1,452
Mexico	5,980	6,178	6,321	6,413	6,481	6,529	6,562	6,577	6,585	6,589	6,595
Taiwan	2,870	2,784	2,779	2,779	2,781	2,782	2,781	2,779	2,778	2,778	2,778
Vietnam	1,893	2,063	2,153	2,212	2,257	2,293	2,326	2,356	2,386	2,417	2,449
Rest of world	21,078	22,648	22,620	22,732	23,569	24,788	26,182	27,507	28,821	29,517	30,524
Total net imports	136,517	140,957	143,514	145,415	148,042	150,849	153,785	156,600	159,108	161,109	162,941
Residual	1,197	1,197	1,197	1,197	1,197	1,197	1,197	1,197	1,197	1,197	1,197
					(Dollars per metric ton)						
Soybean price, Central IL	330	319	325	324	324	320	320	322	325	324	322

World Soybean Products Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
Soybean Meal											
					(Million metric tons)						
Supply	210.0	222.1	235.9	244.1	243.8	254.1	275.7	287.7	296.2	302.2	305.3
Production	153.1	165.8	175.0	180.9	182.2	190.4	208.5	216.0	225.9	232.7	234.2
Beginning stocks	7.7	5.3	7.0	9.3	10.8	9.8	10.9	14.2	13.6	14.0	13.3
Net imports	49.2	51.1	54.0	53.9	50.7	53.8	56.3	57.6	56.6	55.5	57.9
Utilization	159.2	168.7	180.0	188.5	188.7	197.4	215.6	226.7	235.5	242.0	243.3
Consumption	153.9	161.7	170.7	177.7	178.8	186.5	201.5	213.1	221.5	228.7	230.9
Ending Stocks	5.3	7.0	9.3	10.8	9.8	10.9	14.2	13.6	14.0	13.3	12.3
Net Exports	50.8	53.4	56.0	55.6	55.1	56.7	60.1	61.0	60.7	60.2	62.1
Total Demand	210.0	222.1	235.9	244.1	243.8	254.1	275.7	287.7	296.2	302.2	305.3
Soybean Oil											
Supply	47.3	49.3	52.4	53.6	54.4	56.7	61.1	65.4	66.1	66.2	67.2
Production	36.2	39.0	41.5	42.8	43.3	45.2	49.3	51.6	53.8	55.1	55.8
Beginning stocks	4.0	3.6	3.7	4.5	4.3	4.2	4.0	4.5	3.8	3.8	3.5
Net imports	7.2	6.7	7.2	6.3	6.8	7.2	7.8	9.4	8.6	7.3	7.8
Utilization	39.9	41.9	44.9	46.8	46.8	49.3	52.2	55.9	57.2	58.2	58.9
Consumption	36.3	38.2	40.5	42.5	42.6	45.3	47.7	52.2	53.4	54.7	55.3
Ending Stocks	3.6	3.7	4.5	4.3	4.2	4.0	4.5	3.8	3.8	3.5	3.6
Net Exports	7.4	7.4	7.4	6.8	7.6	7.4	8.9	9.5	9.0	8.0	8.2
Total Demand	47.3	49.3	52.4	53.6	54.4	56.7	61.1	65.4	66.1	66.2	67.2

World Soybean Products Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Soybean Meal											
					(Million metric tons)						
Supply	309.5	321.5	327.3	333.9	340.9	347.8	354.6	360.9	367.0	372.6	378.1
Production	237.9	247.3	251.8	256.3	261.2	266.3	271.2	275.8	280.4	284.6	288.7
Beginning stocks	12.3	12.1	12.2	12.6	13.0	13.4	13.8	14.1	14.5	14.8	15.1
Net imports	59.3	62.1	63.3	64.9	66.7	68.2	69.7	70.9	72.1	73.2	74.4
Utilization	246.8	255.9	261.2	266.0	271.3	276.5	282.0	286.8	291.5	295.7	299.9
Consumption	234.7	243.7	248.6	253.1	257.9	262.7	267.9	272.3	276.7	280.7	284.5
Ending Stocks	12.1	12.2	12.6	13.0	13.4	13.8	14.1	14.5	14.8	15.1	15.4
Net Exports	62.4	65.3	66.5	68.1	69.8	71.4	72.9	74.1	75.2	76.4	77.6
Total Demand	309.2	321.2	327.7	334.1	341.1	347.9	354.9	360.9	366.7	372.1	377.5
Soybean Oil											
Supply	69.0	71.2	72.3	73.7	75.1	76.6	78.1	79.5	81.1	82.4	83.8
Production	56.7	58.9	60.0	61.1	62.2	63.4	64.6	65.7	66.8	67.8	68.7
Beginning stocks	3.6	3.5	3.6	3.7	3.9	4.0	4.2	4.3	4.4	4.5	4.6
Net imports	8.7	8.9	8.7	8.9	9.0	9.1	9.3	9.6	9.9	10.2	10.5
Utilization	60.0	62.2	63.5	64.9	66.1	67.3	68.5	69.6	70.8	71.9	72.9
Consumption	56.6	58.6	59.7	61.0	62.0	63.1	64.2	65.2	66.3	67.3	68.3
Ending Stocks	3.5	3.6	3.7	3.9	4.0	4.2	4.3	4.4	4.5	4.6	4.6
Net Exports	8.9	9.1	8.9	9.1	9.2	9.4	9.6	9.8	10.2	10.5	10.7
Total Demand	69.0	71.3	72.4	74.1	75.3	76.7	78.1	79.4	80.9	82.3	83.7

Soybean Meal Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Argentina	24,021	24,912	27,615	26,043	23,667	24,972	28,574	30,333	31,323	26,265	28,832
Brazil	13,026	12,899	13,929	14,648	13,210	13,922	14,272	15,382	13,727	16,013	15,955
China	802	1,098	178	853	1,349	1,997	1,537	1,885	1,050	1,175	915
India	4,209	3,520	5,161	4,870	4,936	3,245	1,514	363	2,008	1,852	2,150
Paraguay	1,095	1,040	1,018	505	2,018	2,423	2,566	2,560	2,370	2,625	2,550
United States	7,628	9,980	8,075	8,649	9,889	10,157	11,589	10,485	10,192	12,277	11,676
Total net exports	50,781	53,449	55,976	55,568	55,069	56,716	60,052	61,008	60,670	60,207	62,078
Net importers											
Canada	1,170	980	866	965	738	740	721	454	530	665	593
EU-28	20,689	20,408	21,268	19,988	16,405	17,844	19,261	18,909	18,460	17,959	18,325
Japan	1,812	2,106	2,208	2,282	1,765	1,976	1,698	1,720	1,620	1,727	1,624
South Korea	1,697	1,662	1,586	1,533	1,539	1,646	1,639	2,042	1,664	1,805	1,840
Mexico	1,512	1,203	1,493	1,537	1,282	1,391	1,780	2,353	1,978	1,803	1,924
Taiwan	104	17	46	98	26	2	33	8	13	13	15
Vietnam	2,526	2,879	2,718	2,264	2,911	3,263	4,016	4,974	4,825	4,730	5,300
Rest of world	19,672	21,797	23,775	25,214	26,076	26,957	27,124	27,123	27,487	26,786	28,247
Total net imports	49,182	51,052	53,960	53,881	50,742	53,819	56,272	57,583	56,577	55,488	57,868
Residual	1,599	2,397	2,016	1,687	3,927	2,897	3,780	3,425	4,093	4,719	4,210
					(Dollars per metric ton)						
Soymeal price 48%, Decatur	365	343	381	434	516	540	406	358	349	380	340

Soybean Oil Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Argentina	4,704	4,453	4,561	3,794	4,151	4,078	5,072	5,698	5,387	4,164	5,261
Brazil	1,903	1,412	1,668	1,885	1,245	1,378	1,499	1,487	1,181	1,466	1,029
Canada	-7	4	34	44	74	62	90	132	152	136	146
EU-28	-397	-161	-443	356	689	437	757	590	534	618	371
Paraguay	251	250	229	119	515	625	693	703	674	697	704
Taiwan	0	11	3	16	26	4	9	12	13	7	17
United States	954	1,477	1,394	596	892	777	794	887	1,014	956	701
Total net exports	7,408	7,446	7,446	6,810	7,592	7,361	8,914	9,509	8,955	8,044	8,229
Net importers											
China	2,411	1,437	1,267	1,442	1,325	1,259	666	490	593	270	586
India	890	1,353	817	1,180	1,081	1,803	2,812	4,266	3,533	2,977	3,093
Japan	39	26	19	20	38	16	3	7	5	7	9
South Korea	260	305	271	318	284	272	253	246	295	274	298
Mexico	158	190	353	141	190	197	250	279	231	169	129
Vietnam	88	136	60	-24	11	-9	-6	62	-5	10	25
Rest of world	3,359	3,296	4,420	3,205	3,842	3,669	3,854	4,085	3,909	3,623	3,681
Total net imports	7,205	6,743	7,207	6,282	6,771	7,207	7,832	9,435	8,561	7,330	7,821
Residual	203	703	239	528	821	154	1,082	74	394	714	408
					(Dollars per metric ton)						
Soyoil price, Decatur	709	793	1,173	1,144	1,039	843	697	658	718	662	606

Soybean Meal Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Argentina	30,724	30,970	31,222	31,408	31,854	32,408	32,986	33,593	34,258	34,930	35,615
Brazil	15,372	16,313	15,914	17,228	18,359	19,143	19,665	20,090	20,419	20,757	21,131
China	894	1,223	1,542	1,272	1,118	1,135	1,391	1,548	1,653	1,785	1,852
India	1,388	1,452	1,622	1,705	1,741	1,740	1,704	1,643	1,568	1,472	1,363
Paraguay	2,572	2,698	2,836	2,935	3,020	3,089	3,143	3,181	3,218	3,252	3,286
United States	11,473	12,647	13,327	13,550	13,739	13,850	13,985	14,036	14,120	14,195	14,302
Total net exports	62,422	65,303	66,461	68,098	69,831	71,365	72,874	74,091	75,236	76,392	77,550
Net importers											
Canada	764	847	819	804	812	831	857	886	922	967	1,018
EU-28	18,535	19,093	19,182	19,470	19,882	20,400	20,922	21,468	21,968	22,388	22,576
Japan	1,672	1,713	1,753	1,842	1,942	2,044	2,132	2,209	2,272	2,335	2,405
South Korea	1,900	1,881	1,922	1,936	1,943	1,971	2,023	2,093	2,167	2,241	2,309
Mexico	2,011	1,842	1,726	1,692	1,714	1,763	1,817	1,863	1,898	1,927	1,981
Taiwan	33	41	35	36	38	39	38	38	35	34	33
Vietnam	5,328	5,680	5,893	6,055	6,313	6,595	6,891	7,200	7,413	7,647	7,826
Rest of world	29,013	31,037	31,966	33,095	34,022	34,554	35,026	35,167	35,395	35,686	36,236
Total net imports	59,255	62,136	63,294	64,931	66,664	68,198	69,707	70,924	72,069	73,225	74,383
Residual	3,167	3,167	3,167	3,167	3,167	3,167	3,167	3,167	3,167	3,167	3,167
					(Dollars per metric ton)						
Soymeal price 48%, Decatur	332	328	336	341	343	341	341	342	344	344	342

Soybean Oil Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Argentina	5,945	5,731	5,533	5,423	5,507	5,665	5,845	6,037	6,229	6,404	6,577
Brazil	982	1,152	1,179	1,184	1,199	1,195	1,106	1,126	1,202	1,278	1,328
Canada	146	120	140	155	167	176	183	188	191	193	193
EU-28	590	559	562	520	542	546	555	574	594	610	631
Paraguay	711	740	773	795	816	832	845	853	862	869	876
Taiwan	21	18	16	13	11	10	9	8	8	7	7
United States	535	782	729	1,028	984	972	1,037	1,041	1,067	1,093	1,129
Total net exports	8,931	9,103	8,931	9,118	9,227	9,396	9,580	9,828	10,152	10,455	10,742
Net importers											
China	1,061	1,238	1,108	1,170	1,187	1,252	1,345	1,380	1,482	1,578	1,609
India	3,490	3,522	3,408	3,473	3,554	3,651	3,746	3,836	3,930	4,033	4,131
Japan	3	3	5	7	7	8	8	8	8	8	8
South Korea	295	270	273	277	276	276	276	275	274	274	274
Mexico	124	142	152	127	125	130	138	149	162	179	194
Vietnam	25	39	40	45	52	60	69	78	88	98	109
Rest of world	3,681	3,636	3,694	3,766	3,773	3,767	3,745	3,850	3,956	4,032	4,165
Total net imports	8,679	8,851	8,679	8,866	8,975	9,144	9,328	9,576	9,900	10,203	10,490
Residual	252	252	252	252	252	252	252	252	252	252	252
					(Dollars per metric ton)						
Soyoil price, Decatur	736	708	700	669	668	660	658	667	680	685	690

World Rapeseed Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Area Harvested	31.2	30.7	33.6	33.3	35.8	35.7	35.1	33.3	33.4	36.6	36.6
					(Metric tons per hectare)						
Yield	1.86	1.98	1.80	1.84	1.77	1.98	2.01	2.06	2.08	2.05	1.98
					(Million metric tons)						
Supply	71.7	75.2	75.1	79.0	79.6	87.5	87.6	85.5	86.7	91.6	90.3
Production	58.2	60.8	60.5	61.2	63.3	70.6	70.4	68.7	69.5	75.0	72.4
Beginning stocks	4.5	7.7	8.7	8.7	6.8	5.5	7.7	7.3	6.2	5.0	7.6
Net imports	9.0	6.7	5.8	9.0	9.4	11.4	9.4	9.5	11.0	11.6	10.4
Utilization	62.6	68.4	68.5	70.2	70.4	76.6	77.4	75.8	75.4	79.3	79.7
Crush	52.5	56.9	57.4	60.5	62.1	66.2	67.1	66.7	67.4	68.5	67.5
Other utilization	2.5	2.7	2.4	2.9	2.8	2.6	3.0	2.9	3.0	3.2	3.7
Ending Stocks	7.7	8.7	8.7	6.8	5.5	7.7	7.3	6.2	5.0	7.6	8.5
Net Exports	9.1	6.8	6.6	8.8	9.1	11.0	10.2	9.7	11.3	12.3	10.7
Total Demand	71.7	75.2	75.1	79.0	79.6	87.5	87.6	85.5	86.7	91.6	90.3

Rapeseed Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Canada	6.5	6.5	6.9	7.6	8.9	8.2	8.4	8.4	8.3	9.3	9.1
China	6.8	7.2	7.3	7.2	7.2	7.2	7.2	7.0	6.6	6.7	6.6
EU-28	6.2	6.5	7.0	6.7	6.3	6.8	6.7	6.5	6.6	6.8	7.0
India	6.3	5.6	6.9	5.9	6.4	6.6	5.8	5.7	6.1	6.7	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	0.4	0.3	0.6	0.4	0.7	0.5	0.6	0.7	0.7	0.8	0.8
Rest of world	5.0	4.5	4.9	5.5	6.4	6.3	6.3	5.0	5.2	6.3	5.9
World total	31.2	30.7	33.6	33.3	35.8	35.7	35.1	33.3	33.4	36.6	36.6

World Rapeseed Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Area Harvested	34.5	35.4	35.7	36.0	36.2	36.5	36.6	36.7	36.8	37.0	37.2
					(Metric tons per hectare)						
Yield	1.96	2.05	2.08	2.11	2.13	2.16	2.18	2.21	2.23	2.25	2.28
					(Million metric tons)						
Supply	87.1	90.6	92.8	94.9	97.1	99.1	100.8	102.2	103.9	105.6	107.3
Production	67.7	72.5	74.2	75.8	77.3	78.7	79.9	80.9	82.1	83.4	84.7
Beginning stocks	8.5	7.4	7.9	8.1	8.5	8.9	9.3	9.6	9.8	10.0	10.2
Net imports	10.8	10.7	10.8	10.9	11.2	11.5	11.6	11.8	12.0	12.2	12.4
Utilization	76.0	79.7	81.8	83.7	85.7	87.4	88.9	90.2	91.7	93.2	94.7
Crush	65.2	68.4	70.1	71.6	73.1	74.5	75.7	76.6	77.9	79.1	80.5
Other utilization	3.4	3.5	3.5	3.6	3.6	3.7	3.7	3.8	3.8	3.8	3.9
Ending Stocks	7.4	7.9	8.1	8.5	8.9	9.3	9.6	9.8	10.0	10.2	10.3
Net Exports	11.2	11.1	11.1	11.3	11.6	11.8	12.0	12.2	12.4	12.5	12.8
Total Demand	87.2	90.8	92.9	95.0	97.3	99.2	100.9	102.4	104.1	105.7	107.4

Rapeseed Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Canada	8.3	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
China	6.6	6.6	6.5	6.5	6.6	6.6	6.7	6.7	6.7	6.8	6.8
EU-28	5.6	6.0	6.2	6.4	6.5	6.6	6.7	6.7	6.7	6.7	6.8
India	7.3	7.3	7.3	7.2	7.2	7.2	7.1	7.1	7.1	7.0	7.0
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	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Rest of world	5.9	6.2	6.3	6.5	6.6	6.7	6.9	7.0	7.1	7.2	7.4
World total	34.5	35.4	35.7	36.0	36.2	36.5	36.6	36.7	36.8	37.0	37.2

Rapeseed Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Canada	7,777	7,044	6,983	8,598	6,982	9,109	9,139	10,177	10,928	10,741	8,995
India	1	0	1	0	0	1	0	0	0	0	0
Rest of world	1,295	-201	-387	190	2,163	1,852	1,041	-523	363	1,598	1,703
Total net exports	9,073	6,843	6,597	8,788	9,145	10,962	10,180	9,654	11,291	12,339	10,698
Net importers											
China	3,034	2,177	930	2,622	3,421	5,046	4,591	4,010	4,260	4,715	3,486
EU-28	3,231	1,906	2,410	3,603	3,284	3,234	1,729	2,881	3,775	4,019	4,143
Japan	2,123	2,275	2,321	2,350	2,495	2,378	2,489	2,387	2,392	2,384	2,384
United States	634	391	188	469	217	768	617	183	579	497	376
Total net imports	9,022	6,749	5,849	9,044	9,417	11,426	9,426	9,461	11,006	11,615	10,389
Residual	-51	-94	-748	256	272	464	-754	-193	-285	-724	-309
					(Dollars per metric ton)						
Rapeseed price, Hamburg	393	419	647	616	579	505	417	409	432	425	420

Rapeseed Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Canada	9,329	9,477	9,343	9,447	9,599	9,751	9,896	10,068	10,239	10,468	10,667
India	0	0	0	0	0	0	0	0	0	0	0
Rest of world	1,866	1,601	1,792	1,862	2,002	2,091	2,094	2,095	2,132	2,078	2,084
Total net exports	11,195	11,078	11,135	11,309	11,602	11,842	11,990	12,163	12,371	12,546	12,750
Net importers											
China	3,140	3,600	3,873	3,910	4,148	4,274	4,392	4,520	4,702	4,765	4,863
EU-28	4,911	4,384	4,151	4,299	4,362	4,489	4,535	4,596	4,625	4,739	4,846
Japan	2,401	2,450	2,464	2,452	2,442	2,426	2,412	2,401	2,396	2,393	2,390
United States	378	278	282	283	285	287	284	281	282	284	286
Total net imports	10,830	10,713	10,770	10,944	11,237	11,477	11,625	11,798	12,006	12,181	12,385
Residual	-365	-365	-365	-365	-365	-365	-365	-365	-365	-365	-365
					(Dollars per metric ton)						
Rapeseed price, Hamburg	437	425	432	431	429	426	424	427	430	430	429

World Rapeseed Products Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
Rapeseed Meal											
					(Million metric tons)						
Supply	33.8	36.9	39.2	40.5	41.5	44.4	44.2	44.1	45.2	46.1	45.4
Production	30.4	32.9	33.4	34.9	36.0	38.3	38.7	38.6	38.8	39.5	38.9
Beginning stocks	0.6	0.8	1.3	1.1	1.1	1.0	0.9	1.0	1.1	1.1	1.1
Net imports	2.8	3.2	4.5	4.5	4.4	5.1	4.6	4.5	5.2	5.5	5.4
Utilization	31.0	34.0	34.7	36.0	37.0	39.5	39.6	39.6	39.9	40.5	40.0
Consumption	30.2	32.7	33.6	34.9	36.0	38.5	38.6	38.5	38.8	39.4	39.0
Ending Stocks	0.8	1.3	1.1	1.1	1.0	0.9	1.0	1.1	1.1	1.1	1.0
Net Exports	2.8	2.9	4.5	4.5	4.5	4.9	4.6	4.4	5.3	5.6	5.4
Total Demand	33.8	36.9	39.2	40.5	41.5	44.4	44.2	44.1	45.2	46.1	45.4
Rapeseed Oil											
Supply	24.0	26.6	27.7	29.7	31.1	34.4	36.3	36.6	36.0	35.3	34.0
Production	21.3	23.2	23.4	24.7	25.4	27.0	27.4	27.3	27.6	28.1	27.5
Beginning stocks	1.1	1.4	2.1	2.3	3.3	4.9	6.3	6.5	5.6	4.2	3.1
Net imports	1.6	2.0	2.1	2.7	2.4	2.5	2.6	2.7	2.8	3.0	3.4
Utilization	22.4	24.9	25.5	27.1	28.7	31.9	33.6	33.8	33.1	32.2	30.6
Consumption	21.0	22.7	23.2	23.8	23.7	25.7	27.1	28.2	28.9	29.0	28.2
Ending Stocks	1.4	2.1	2.3	3.3	4.9	6.3	6.5	5.6	4.2	3.1	2.4
Net Exports	1.6	1.7	2.2	2.6	2.4	2.5	2.7	2.7	2.9	3.1	3.4
Total Demand	24.0	26.6	27.7	29.7	31.1	34.4	36.3	36.6	36.0	35.3	34.0

World Rapeseed Products Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Rapeseed Meal											
					(Million metric tons)						
Supply	44.2	46.4	47.7	48.8	49.8	50.6	51.3	52.0	52.8	53.6	54.4
Production	37.7	39.6	40.6	41.4	42.3	43.1	43.8	44.3	45.1	45.8	46.6
Beginning stocks	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.4
Net imports	5.6	5.8	6.1	6.3	6.3	6.3	6.3	6.4	6.4	6.5	6.5
Utilization	38.5	40.3	41.4	42.3	43.2	44.1	44.8	45.4	46.1	46.9	47.7
Consumption	37.5	39.2	40.3	41.2	42.0	42.8	43.5	44.1	44.8	45.5	46.3
Ending Stocks	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.4	1.4
Net Exports	5.7	5.9	6.2	6.3	6.4	6.4	6.4	6.4	6.5	6.5	6.6
Total Demand	44.2	46.2	47.6	48.7	49.6	50.5	51.2	51.8	52.6	53.4	54.2
Rapeseed Oil											
Supply	32.7	33.2	34.3	35.1	35.9	36.5	37.1	37.6	38.2	38.8	39.5
Production	26.7	28.0	28.8	29.4	30.0	30.6	31.0	31.4	31.9	32.4	33.0
Beginning stocks	2.4	1.7	1.8	2.0	2.1	2.1	2.2	2.3	2.4	2.4	2.5
Net imports	3.6	3.4	3.7	3.8	3.8	3.8	3.8	3.8	3.9	3.9	4.0
Utilization	29.3	29.9	30.8	31.5	32.3	32.9	33.4	33.9	34.5	35.1	35.7
Consumption	27.6	28.0	28.8	29.5	30.1	30.7	31.1	31.5	32.1	32.6	33.1
Ending Stocks	1.7	1.8	2.0	2.1	2.1	2.2	2.3	2.4	2.4	2.5	2.6
Net Exports	3.5	3.4	3.6	3.7	3.7	3.8	3.8	3.8	3.9	3.9	3.9
Total Demand	32.8	33.3	34.4	35.3	36.0	36.6	37.2	37.7	38.4	39.0	39.6

Rapeseed Meal Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Canada	1,856	1,927	2,965	3,302	3,394	3,414	3,614	4,085	4,604	4,520	4,613
India	915	912	1,480	1,182	1,208	1,594	1,059	288	412	864	900
EU-28	-6	84	18	40	-143	-96	-39	61	292	218	-74
Total net exports	2,765	2,923	4,463	4,524	4,459	4,912	4,634	4,434	5,308	5,602	5,439
Net importers											
China	-8	866	1,408	615	5	277	142	245	863	1,244	1,426
Japan	109	58	25	7	75	74	-42	7	1	6	7
United States	1,626	1,132	1,978	2,722	3,057	3,340	3,466	3,547	3,473	3,208	3,236
Rest of world	1,059	1,122	1,104	1,177	1,239	1,372	1,009	665	893	998	773
Total net imports	2,786	3,178	4,515	4,521	4,376	5,063	4,575	4,464	5,230	5,456	5,442
Residual	21	255	52	-3	-83	151	-59	30	-78	-146	3
					(Dollars per metric ton)						
Rapemeal price, Hamburg	195	221	278	295	353	323	269	232	225	259	247

Rapeseed Oil Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Canada	1,416	1,609	2,296	2,584	2,346	2,265	2,377	2,721	3,050	3,156	3,184
Rest of world	192	136	-105	54	78	224	339	26	-141	-65	180
Total net exports	1,608	1,745	2,191	2,638	2,424	2,489	2,716	2,747	2,909	3,091	3,364
Net importers											
China	444	780	644	1,030	1,592	896	726	765	784	1,051	1,492
EU-28	318	333	278	377	-251	-8	-96	-145	-185	-113	36
India	34	14	3	107	8	152	381	380	314	275	121
Japan	17	8	25	29	20	8	19	15	14	18	19
United States	801	816	1,189	1,191	1,036	1,417	1,565	1,686	1,877	1,747	1,684
Total net imports	1,614	1,951	2,139	2,734	2,405	2,465	2,595	2,701	2,804	2,978	3,352
Residual	-6	-206	52	-96	19	24	121	46	105	113	12
					(Dollars per metric ton)						
Rapeoil price, Rotterdam	868	927	1,367	1,258	1,127	954	782	798	871	844	840

Rapeseed Meal Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Canada	4,769	4,957	5,205	5,281	5,312	5,323	5,330	5,338	5,367	5,376	5,396
India	936	853	845	842	882	849	816	818	843	837	818
EU-28	-36	110	131	223	208	246	247	277	287	318	342
Total net exports	5,669	5,920	6,181	6,345	6,402	6,418	6,393	6,433	6,497	6,531	6,555
Net importers											
China	1,380	1,515	1,718	1,808	1,781	1,717	1,613	1,539	1,510	1,485	1,425
Japan	22	23	37	72	104	134	159	179	194	206	221
United States	3,404	3,490	3,516	3,551	3,575	3,599	3,638	3,686	3,740	3,786	3,832
Rest of world	790	819	836	841	869	895	910	956	980	981	1,004
Total net imports	5,596	5,847	6,108	6,272	6,329	6,345	6,320	6,360	6,424	6,458	6,482
Residual	-73	-73	-73	-73	-73	-73	-73	-73	-73	-73	-73
					(Dollars per metric ton)						
Rapemeal price, Hamburg	230	225	234	237	238	238	238	238	239	240	238

Rapeseed Oil Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Canada	3,430	3,330	3,561	3,640	3,676	3,690	3,699	3,706	3,728	3,703	3,721
Rest of world	114	79	78	83	64	72	89	112	156	192	227
Total net exports	3,544	3,410	3,639	3,723	3,740	3,762	3,788	3,818	3,885	3,894	3,947
Net importers											
China	1,537	1,388	1,729	1,829	1,693	1,589	1,636	1,779	1,845	1,743	1,650
EU-28	187	133	-5	-35	84	176	125	-17	-48	38	158
India	125	119	118	106	111	113	116	120	131	136	140
Japan	21	32	28	27	31	37	41	44	46	47	49
United States	1,701	1,764	1,797	1,822	1,848	1,874	1,897	1,918	1,938	1,957	1,977
Total net imports	3,571	3,437	3,666	3,750	3,767	3,789	3,815	3,845	3,912	3,921	3,974
Residual	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27	-27
					(Dollars per metric ton)						
Rapeoil price, Rotterdam	950	922	916	891	887	875	873	883	897	903	909

World Sunflowerseed Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Area Harvested	23.9	23.0	23.1	24.6	23.6	24.0	23.1	23.5	25.9	25.9	25.9
					(Metric tons per hectare)						
Yield	1.39	1.38	1.42	1.57	1.48	1.71	1.70	1.73	1.86	1.85	1.95
					(Million metric tons)						
Supply	37.2	36.0	35.9	41.7	38.0	44.4	42.9	44.0	51.6	52.0	54.5
Production	33.1	31.6	32.8	38.7	34.9	41.1	39.3	40.7	48.2	47.8	50.6
Beginning stocks	3.7	3.9	2.6	2.3	2.5	2.8	3.2	2.9	2.8	3.5	2.9
Net imports	0.3	0.6	0.6	0.7	0.5	0.5	0.4	0.3	0.5	0.7	1.0
Utilization	36.6	35.5	35.2	40.7	37.4	43.6	42.4	43.5	50.7	51.0	53.1
Crush	28.7	29.1	29.0	34.4	30.8	36.7	35.6	36.6	43.0	43.9	46.2
Other utilization	4.0	3.7	4.0	3.8	3.8	3.6	3.8	4.1	4.2	4.2	4.2
Ending Stocks	3.9	2.6	2.3	2.5	2.8	3.2	2.9	2.8	3.5	2.9	2.8
Net Exports	0.5	0.6	0.7	1.0	0.6	0.8	0.5	0.5	0.8	1.0	1.4
Total Demand	37.2	36.0	35.9	41.7	38.0	44.4	42.9	44.0	51.6	52.0	54.5

Sunflowerseed Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Argentina	1.8	1.5	1.7	1.8	1.6	1.3	1.4	1.4	1.8	1.7	1.9
China	1.0	1.0	1.0	1.0	0.9	0.9	1.0	1.1	1.3	1.2	0.9
EU-28	3.8	3.9	3.7	4.3	4.3	4.6	4.3	4.2	4.1	4.4	4.1
India	1.8	1.5	0.9	0.7	0.8	0.7	0.6	0.5	0.4	0.3	0.3
Kazakhstan	0.5	0.6	0.7	1.0	0.7	0.8	0.8	0.7	0.8	0.9	0.9
Russia	6.0	5.6	5.6	7.2	6.1	6.8	6.4	6.5	7.2	7.1	7.9
Turkey	0.5	0.5	0.5	0.5	0.6	0.7	0.5	0.6	0.6	0.7	0.7
Ukraine	4.5	5.0	5.4	5.4	5.5	5.3	5.3	5.5	6.8	6.8	6.5
United States	1.0	0.8	0.8	0.6	0.7	0.6	0.6	0.7	0.6	0.5	0.5
Rest of world	3.1	2.6	2.7	2.2	2.3	2.4	2.3	2.4	2.3	2.3	2.2
World total	23.9	23.0	23.1	24.6	23.6	24.0	23.1	23.5	25.9	25.9	25.9

World Sunflowerseed Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Area Harvested	26.5	27.7	28.1	28.3	28.4	28.3	28.2	28.1	28.0	27.9	27.8
					(Metric tons per hectare)						
Yield	2.04	1.98	2.00	2.03	2.06	2.09	2.12	2.15	2.18	2.21	2.24
					(Million metric tons)						
Supply	57.6	58.6	60.2	61.8	63.0	64.0	64.8	65.5	66.2	67.0	67.8
Production	54.0	54.7	56.3	57.6	58.5	59.3	59.9	60.5	61.1	61.8	62.4
Beginning stocks	2.8	3.1	3.2	3.4	3.7	3.9	4.1	4.3	4.4	4.5	4.6
Net imports	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.8	0.8
Utilization	56.5	57.4	59.1	60.7	61.9	62.9	63.7	64.4	65.1	65.9	66.6
Crush	49.1	49.9	51.2	52.4	53.4	54.1	54.7	55.2	55.8	56.3	56.9
Other utilization	4.3	4.4	4.4	4.5	4.6	4.7	4.7	4.8	4.9	5.0	5.0
Ending Stocks	3.1	3.2	3.4	3.7	3.9	4.1	4.3	4.4	4.5	4.6	4.7
Net Exports	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Total Demand	57.7	58.6	60.2	61.8	63.1	64.0	64.8	65.5	66.2	67.0	67.8

Sunflowerseed Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Argentina	1.6	2.1	2.3	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.7
China	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
EU-28	4.4	4.4	4.4	4.4	4.5	4.4	4.4	4.4	4.4	4.4	4.4
India	0.2	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Kazakhstan	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8
Russia	8.4	8.5	8.5	8.5	8.5	8.5	8.4	8.4	8.4	8.4	8.3
Turkey	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Ukraine	6.2	6.5	6.5	6.5	6.5	6.4	6.4	6.3	6.3	6.2	6.1
United States	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Rest of world	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
World total	26.5	27.7	28.1	28.3	28.4	28.3	28.2	28.1	28.0	27.9	27.8

Sunflowerseed Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Argentina	-54	51	70	73	77	73	62	308	75	54	150
China	107	125	171	183	156	112	199	212	260	361	219
EU-28	-141	298	218	316	307	393	252	-198	-336	118	64
India	5	4	6	4	3	3	4	1	3	1	-1
Kazakhstan	-72	8	0	35	29	144	117	167	273	319	450
Russia	148	-3	-32	304	10	100	-27	-14	261	51	293
Ukraine	761	346	432	265	107	55	30	61	167	9	82
Rest of world	-207	-257	-147	-221	-92	-53	-136	-66	124	74	155
Total net exports	547	572	718	959	597	827	501	471	827	987	1,412
Net importers											
Turkey	433	716	679	796	590	548	442	354	544	664	976
United States	-114	-133	-119	-62	-82	-55	-41	-27	-10	18	51
Total net imports	319	583	560	734	508	493	401	327	534	682	1,027
Residual	228	-11	158	225	89	334	100	144	293	305	385
					(Dollars per metric ton)						
Sunflowerseed, Rotterdam	364	452	661	593	580	466	432	440	408	403	380

Sunflowerseed Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Argentina	103	150	91	79	78	69	100	191	223	270	299
China	213	208	188	228	210	212	208	173	174	162	165
EU-28	-12	34	47	9	-2	8	35	80	128	180	205
India	3	3	3	3	3	3	3	3	3	3	3
Kazakhstan	335	308	289	275	268	263	262	262	260	260	262
Russia	311	272	348	277	272	238	198	159	116	73	31
Ukraine	121	89	126	184	201	187	170	117	120	109	121
Rest of world	113	117	97	79	94	130	127	119	93	72	50
Total net exports	1,187	1,180	1,189	1,134	1,125	1,110	1,104	1,104	1,118	1,128	1,136
Net importers											
Turkey	670	711	731	693	696	694	701	711	733	748	763
United States	153	105	94	77	66	52	40	29	22	15	9
Total net imports	823	816	825	770	761	746	740	740	754	764	772
Residual	364	364	364	364	364	364	364	364	364	364	364
					(Dollars per metric ton)						
Sunflowerseed, Rotterdam	397	385	391	390	388	386	384	386	390	389	388

World Sunflowerseed Products Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
Sunflowerseed Meal											
					(Million metric tons)						
Supply	17.2	17.6	18.1	22.7	20.4	22.8	22.6	23.7	27.5	27.2	29.4
Production	13.1	13.4	13.3	15.6	14.1	16.7	16.2	16.5	19.3	19.9	20.8
Beginning stocks	0.3	0.8	1.0	1.1	1.7	0.8	1.4	1.7	1.7	1.5	1.6
Net imports	3.8	3.4	3.8	6.0	4.6	5.3	5.0	5.5	6.4	5.8	7.1
Utilization	13.3	13.8	13.8	16.3	15.6	17.0	17.3	17.9	20.6	21.0	22.1
Consumption	12.5	12.8	12.7	14.6	14.8	15.6	15.6	16.2	19.1	19.4	20.7
Ending Stocks	0.8	1.0	1.1	1.7	0.8	1.4	1.7	1.7	1.5	1.6	1.4
Net Exports	3.9	3.8	4.3	6.4	4.8	5.8	5.3	5.8	6.9	6.2	7.3
Total Demand	17.2	17.6	18.1	22.7	20.4	22.8	22.6	23.7	27.5	27.2	29.4
Sunflowerseed Oil											
Supply	13.1	14.1	14.0	16.2	15.9	17.8	17.9	18.0	19.8	20.3	21.3
Production	11.9	12.1	12.1	14.3	12.9	15.5	15.0	15.4	18.2	18.5	19.5
Beginning stocks	1.2	1.9	1.9	1.8	3.0	2.3	2.9	2.6	1.7	1.8	1.8
Net imports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Utilization	12.7	13.4	13.1	15.5	15.5	17.0	16.7	16.9	18.3	18.9	19.8
Consumption	10.8	11.5	11.3	12.5	13.2	14.1	14.1	15.2	16.5	17.1	18.1
Ending Stocks	1.9	1.9	1.8	3.0	2.3	2.9	2.6	1.7	1.8	1.8	1.7
Net Exports	3.7	3.7	3.7	5.5	4.6	6.3	5.8	6.6	8.8	8.4	9.5
Total Demand	16.4	17.0	16.8	21.0	20.1	23.3	22.5	23.5	27.1	27.3	29.3

World Sunflowerseed Products Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
Sunflowerseed Meal											
					(Million metric tons)						
Supply	30.6	31.2	32.0	32.8	33.4	33.9	34.2	34.5	34.9	35.2	35.6
Production	22.0	22.4	23.0	23.6	24.0	24.3	24.6	24.8	25.1	25.3	25.6
Beginning stocks	1.4	1.4	1.4	1.4	1.5	1.6	1.6	1.7	1.7	1.7	1.8
Net imports	7.1	7.4	7.6	7.8	7.9	8.0	8.0	8.0	8.1	8.2	8.2
Utilization	23.1	23.5	24.1	24.7	25.2	25.6	25.9	26.2	26.5	26.8	27.1
Consumption	21.7	22.1	22.7	23.2	23.6	24.0	24.2	24.5	24.7	25.0	25.2
Ending Stocks	1.4	1.4	1.4	1.5	1.6	1.6	1.7	1.7	1.7	1.8	1.8
Net Exports	7.5	7.7	7.9	8.1	8.2	8.3	8.3	8.4	8.4	8.5	8.5
Total Demand	30.6	31.2	32.0	32.8	33.4	33.9	34.2	34.5	34.9	35.2	35.6
Sunflowerseed Oil											
Supply	22.3	22.9	23.6	24.1	24.6	25.0	25.3	25.6	25.8	26.1	26.4
Production	20.6	21.0	21.5	22.1	22.5	22.8	23.0	23.2	23.5	23.7	24.0
Beginning stocks	1.7	1.9	2.0	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.4
Net imports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Utilization	20.7	21.5	22.1	22.6	23.1	23.5	23.8	24.0	24.3	24.6	24.9
Consumption	18.8	19.4	20.0	20.5	20.9	21.2	21.5	21.7	21.9	22.2	22.4
Ending Stocks	1.9	2.0	2.1	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.5
Net Exports	9.9	9.9	10.4	10.7	10.9	11.1	11.2	11.3	11.4	11.5	11.6
Total Demand	30.6	31.4	32.5	33.3	34.0	34.5	35.0	35.3	35.7	36.1	36.4

Sunflowerseed Meal Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Argentina	719	586	740	839	327	363	556	734	789	760	900
Kazakhstan	48	48	48	64	32	39	42	36	41	79	37
Russia	965	658	566	1,681	1,361	1,722	1,330	1,204	1,291	1,164	1,563
Ukraine	2,209	2,516	2,926	3,836	3,050	3,648	3,388	3,816	4,806	4,229	4,803
United States	7	6	3	3	19	-3	-13	-9	-6	5	13
Total net exports	3,948	3,814	4,283	6,423	4,789	5,769	5,303	5,781	6,921	6,237	7,316
Net importers											
China	-6	3	0	-1	-1	1	-10	-23	-32	186	1,262
EU-28	2,438	1,947	2,147	3,734	2,908	3,195	2,911	3,086	3,449	3,079	3,285
India	-18	4	-4	18	90	33	28	180	304	120	148
Turkey	306	427	500	737	431	757	766	797	955	924	887
Rest of world	1,124	1,035	1,129	1,555	1,154	1,322	1,264	1,454	1,769	1,537	1,484
Total net imports	3,844	3,416	3,772	6,043	4,582	5,308	4,959	5,494	6,445	5,846	7,066
Residual	104	398	511	380	207	461	344	287	476	391	250
					(Dollars per metric ton)						
Sunmeal price, Ukraine	178	228	254	263	318	315	269	233	178	224	200

Sunflowerseed Oil Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Argentina	850	578	978	790	353	343	502	605	771	783	825
Russia	765	449	31	1,413	990	1,788	1,453	1,538	2,160	2,280	2,641
Ukraine	2,098	2,644	2,651	3,262	3,244	4,180	3,870	4,499	5,851	5,340	6,063
Total net exports	3,713	3,671	3,660	5,465	4,587	6,311	5,825	6,642	8,782	8,403	9,529
Net importers											
China	124	169	22	121	361	529	532	877	723	783	1,030
EU-28	933	815	652	785	701	667	411	1,044	1,333	1,003	1,481
India	554	567	634	1,071	953	1,514	1,571	1,489	2,136	2,496	2,500
Kazakhstan	93	76	29	-13	46	70	113	106	65	26	47
Turkey	301	116	244	380	368	192	183	103	158	114	97
United States	-61	-76	9	55	4	-2	51	3	22	33	5
Rest of world	1,370	1,309	1,230	2,416	1,749	2,510	1,750	1,943	2,822	2,555	2,901
Total net imports	3,314	2,976	2,820	4,815	4,182	5,480	4,611	5,565	7,259	7,010	8,061
Residual	399	695	840	650	405	831	1,214	1,077	1,523	1,393	1,468
					(Dollars per metric ton)						
Sunoil price, NW Europe	837	956	1,404	1,254	1,189	929	850	849	807	776	811

Sunflowerseed Meal Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Argentina	739	843	968	1,110	1,222	1,291	1,316	1,308	1,306	1,303	1,278
Kazakhstan	38	80	97	106	112	115	118	120	121	123	124
Russia	1,836	1,956	1,861	1,796	1,748	1,696	1,646	1,653	1,664	1,726	1,730
Ukraine	4,846	4,841	5,006	5,096	5,159	5,204	5,236	5,280	5,301	5,328	5,360
United States	4	4	4	4	4	4	4	4	4	4	4
Total net exports	7,463	7,725	7,936	8,112	8,245	8,310	8,319	8,365	8,395	8,483	8,495
Net importers											
China	1,324	1,467	1,515	1,597	1,626	1,650	1,674	1,651	1,654	1,681	1,709
EU-28	3,138	3,181	3,139	3,148	3,152	3,155	3,135	3,157	3,136	3,166	3,175
India	179	196	190	187	187	189	192	195	198	202	206
Turkey	935	995	1,000	1,041	1,069	1,106	1,144	1,183	1,201	1,218	1,225
Rest of world	1,562	1,561	1,768	1,814	1,887	1,885	1,850	1,854	1,883	1,891	1,856
Total net imports	7,139	7,401	7,612	7,788	7,921	7,986	7,995	8,041	8,071	8,159	8,171
Residual	324	324	324	324	324	324	324	324	324	324	324
					(Dollars per metric ton)						
Sunmeal price, Ukraine	195	204	208	209	208	208	209	211	211	209	222

Sunflowerseed Oil Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Argentina	681	874	1,108	1,260	1,368	1,443	1,475	1,462	1,456	1,455	1,460
Russia	2,997	3,077	3,017	3,028	3,048	3,076	3,096	3,116	3,145	3,179	3,216
Ukraine	6,200	5,966	6,291	6,381	6,465	6,541	6,610	6,697	6,763	6,839	6,897
Total net exports	9,877	9,918	10,416	10,669	10,881	11,059	11,181	11,275	11,364	11,473	11,572
Net importers											
China	1,161	1,193	1,323	1,354	1,385	1,414	1,442	1,469	1,492	1,515	1,536
EU-28	1,343	1,238	1,339	1,277	1,250	1,289	1,269	1,297	1,253	1,254	1,216
India	2,623	2,695	2,873	3,025	3,122	3,175	3,209	3,219	3,261	3,303	3,339
Kazakhstan	63	93	74	63	57	54	53	52	53	54	54
Turkey	195	151	144	163	170	177	182	184	179	176	175
United States	-15	-1	7	16	23	28	33	36	37	38	39
Rest of world	2,978	3,020	3,128	3,243	3,345	3,393	3,465	3,490	3,560	3,603	3,684
Total net imports	8,348	8,389	8,887	9,140	9,352	9,530	9,652	9,746	9,835	9,944	10,043
Residual	1,529	1,529	1,529	1,529	1,529	1,529	1,529	1,529	1,529	1,529	1,529
					(Dollars per metric ton)						
Sunoil price, NW Europe	784	775	750	745	738	735	743	757	762	769	769

World Palm Oil Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Area Harvested	15.2	16.0	17.0	18.0	18.5	19.4	20.2	21.1	21.8	22.7	23.2
					(Metric tons per hectare)						
Yield	2.93	2.90	2.89	2.92	3.04	3.05	3.06	2.79	2.99	3.11	3.19
					(Million metric tons)						
Supply	79.5	82.9	86.2	94.0	103.3	106.0	110.6	106.7	114.2	120.7	130.0
Production	44.5	46.4	49.2	52.5	56.4	59.3	61.8	58.9	65.3	70.6	73.9
Beginning stocks	6.0	6.3	6.7	8.4	9.6	9.2	9.1	10.1	8.3	9.0	11.0
Net imports	29.0	30.2	30.3	33.1	37.4	37.6	39.7	37.8	40.6	41.1	45.1
Utilization	48.5	50.9	53.9	59.6	64.9	67.2	68.3	68.0	70.6	77.5	83.0
Consumption	42.2	44.2	45.6	50.0	55.7	58.1	58.2	59.7	61.6	66.5	72.6
Ending Stocks	6.3	6.7	8.4	9.6	9.2	9.1	10.1	8.3	9.0	11.0	10.4
Net Exports	31.0	32.0	32.3	34.4	38.5	38.9	42.3	38.8	43.6	43.2	47.0
Total Demand	79.5	82.9	86.2	94.0	103.3	106.0	110.6	106.7	114.2	120.7	130.0

Palm Oil Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
India	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Indonesia	6.1	6.5	7.3	8.1	8.4	9.0	9.5	10.2	10.6	11.0	11.3
Malaysia	3.9	4.1	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.2	5.3
Nigeria	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Thailand	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8
Rest of world	2.1	2.3	2.4	2.5	2.6	2.7	2.7	2.8	3.0	3.2	3.2
World total	15.2	16.0	17.0	18.0	18.5	19.4	20.2	21.1	21.8	22.7	23.2

World Palm Oil Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Area Harvested	23.7	24.7	25.1	25.7	26.4	26.9	27.4	27.9	28.3	28.8	29.2
					(Metric tons per hectare)						
Yield	3.19	3.22	3.26	3.30	3.35	3.39	3.43	3.48	3.52	3.56	3.60
					(Million metric tons)						
Supply	132.8	137.2	141.7	147.0	152.7	157.8	163.2	168.3	173.3	178.2	183.3
Production	75.8	79.4	81.8	84.8	88.2	91.2	94.1	96.8	99.6	102.4	105.3
Beginning stocks	10.4	10.1	10.8	11.3	12.0	12.7	13.4	14.1	14.7	15.2	15.8
Net imports	46.6	47.7	49.2	50.8	52.4	53.9	55.7	57.4	59.0	60.6	62.2
Utilization	84.0	87.3	90.4	94.0	98.1	101.7	105.3	108.7	112.0	115.4	118.9
Consumption	73.9	76.6	79.1	82.0	85.3	88.3	91.2	94.0	96.8	99.6	102.5
Ending Stocks	10.1	10.8	11.3	12.0	12.7	13.4	14.1	14.7	15.2	15.8	16.4
Net Exports	48.7	49.8	51.2	52.9	54.5	56.0	57.7	59.4	61.1	62.7	64.3
Total Demand	132.7	137.1	141.6	146.9	152.5	157.7	163.0	168.1	173.1	178.1	183.2

Palm Oil Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
India	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Indonesia	11.8	12.4	12.7	13.1	13.6	14.0	14.3	14.7	15.0	15.4	15.7
Malaysia	5.4	5.5	5.6	5.7	5.7	5.8	5.9	5.9	5.9	6.0	6.0
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	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0
Rest of world	3.2	3.4	3.4	3.5	3.6	3.7	3.7	3.8	3.8	3.9	3.9
World total	23.7	24.7	25.1	25.7	26.4	26.9	27.4	27.9	28.3	28.8	29.2

Palm Oil Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand metric tons)						
Net exporters											
Indonesia	15,943	16,524	16,400	18,453	20,335	21,692	25,956	22,906	27,628	26,966	29,200
Malaysia	14,943	15,327	15,558	15,734	17,567	16,986	16,412	15,851	15,715	15,937	17,400
Thailand	113	120	316	249	549	198	-24	11	298	345	398
Total net exports	30,999	31,971	32,274	34,436	38,451	38,876	42,344	38,768	43,641	43,248	46,998
Net importers											
Bangladesh	699	951	996	982	1,030	1,232	1,280	1,511	1,347	1,637	1,650
China	6,117	5,759	5,710	5,840	6,588	5,571	5,695	4,684	4,868	5,288	6,764
Egypt	1,017	1,155	1,256	1,184	957	1,065	1,480	1,033	1,318	1,090	1,220
EU-28	5,378	5,298	4,744	5,538	6,677	6,807	6,819	6,569	7,085	6,911	7,155
India	6,090	5,674	5,584	7,201	8,364	7,820	9,139	8,860	9,341	8,608	9,700
Nigeria	392	407	417	422	452	500	488	245	280	284	312
Pakistan	1,956	1,987	2,062	2,214	2,245	2,725	2,824	2,720	3,075	3,095	3,500
United States	1,016	978	953	1,014	1,256	1,207	1,121	1,293	1,350	1,511	1,525
Rest of world	6,365	8,034	8,566	8,701	9,814	10,643	10,896	10,855	11,980	12,706	13,268
Total net imports	29,030	30,243	30,288	33,096	37,383	37,570	39,742	37,770	40,644	41,130	45,094
Residual	1,969	1,728	1,986	1,340	1,068	1,306	2,602	998	2,997	2,118	1,904
					(Dollars per metric ton)						
Palm oil price, Malaysia	633	793	1,154	1,032	791	803	626	628	699	626	521

Palm Oil Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand metric tons)						
Net exporters											
Indonesia	30,567	32,135	32,819	34,000	35,186	36,306	37,624	38,944	40,226	41,430	42,660
Malaysia	17,683	17,257	18,156	18,493	18,818	19,137	19,501	19,848	20,164	20,451	20,775
Thailand	454	395	257	409	486	537	598	657	718	774	834
Total net exports	48,704	49,787	51,232	52,902	54,490	55,979	57,722	59,450	61,108	62,655	64,269
Net importers											
Bangladesh	1,750	1,808	1,861	1,914	1,964	2,016	2,066	2,115	2,161	2,209	2,255
China	7,161	7,367	7,650	8,065	8,503	8,937	9,361	9,789	10,201	10,504	10,791
Egypt	1,200	1,199	1,263	1,306	1,357	1,396	1,439	1,480	1,518	1,555	1,596
EU-28	7,338	7,254	7,342	7,411	7,452	7,487	7,506	7,519	7,519	7,524	7,520
India	9,999	9,831	10,230	10,638	11,016	11,023	11,311	11,565	11,797	12,045	12,261
Nigeria	370	371	395	418	439	459	479	502	528	557	588
Pakistan	3,500	3,650	3,791	3,965	4,115	4,290	4,462	4,627	4,790	4,965	5,129
United States	1,491	1,506	1,524	1,547	1,568	1,591	1,613	1,633	1,651	1,670	1,689
Rest of world	13,832	14,736	15,112	15,575	16,010	16,715	17,421	18,156	18,878	19,562	20,375
Total net imports	46,640	47,723	49,168	50,838	52,426	53,915	55,658	57,386	59,044	60,591	62,205
Residual	2,064	2,064	2,064	2,064	2,064	2,064	2,064	2,064	2,064	2,064	2,064
					(Dollars per metric ton)						
Palm oil price, Malaysia	680	654	647	621	618	607	605	612	626	631	638

Cotton

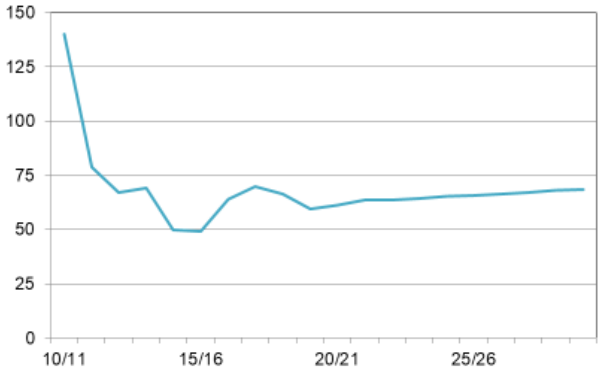
- Cotton prices edged marginally downward in 2019/20 for the second year in a row, despite a slight uptick in production and steady mill use. Moderate improvements in production in the remainder of the projection period along with mild gains in mill use will be accompanied by prices edging slowly higher over the next ten years.
- Stock accumulation by China has reversed, and that country's imports have dropped, returning global cotton markets to a more-typical balance, resulting in moderate price levels.
- It is anticipated that China will draw down inventories further over the next few years, leading to steady import levels and little 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 increased in 2019/20 an estimated one million hectares above last year's levels. Despite global average yields decreasing for the second year in a row, cotton production increased by approximately two million bales. Modest area increases occurred primarily in India, Pakistan, and the U.S..
- Global cotton area is expected to decrease in 2020/21 and remain fairly constant through 2029. 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 million hectares. However, they remain a relatively small exporter, averaging just over two million bales since 2016/17. Expectations for their production and trade remain fairly constant throughout the projection period.

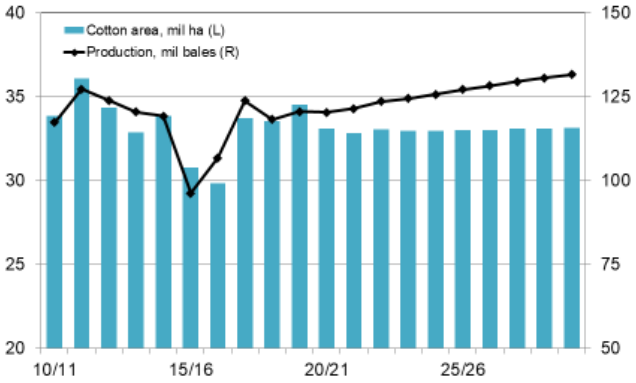
- Global cotton mill use is increasing, following a substantial decline from the high point in 2006/07 to the recent low in 2011/12. Declining mill use by China is the primary factor behind the previous decline, which regained strength by 2017/18, but has been on a gradual decline since and is expected to continue through the end of the projection period.
- Cotton demand will increase in other countries, as well. India, Pakistan, and especially Bangladesh are projected to be significant sources of demand growth. Textiles industries are shifting from developed nations to developing regions with cheaper labor, and the U.S. textile industry is undergoing a long-term decline.
- The outlook is for a barely increasing per capita cotton consumption, an indication that a consistently expanding global population, and especially population growth in developing regions, will be the primary driver of clothing and textile demand.

Stable World Markets Keep Cotton Prices in Check

Cotton adjusted world price, cents/lb

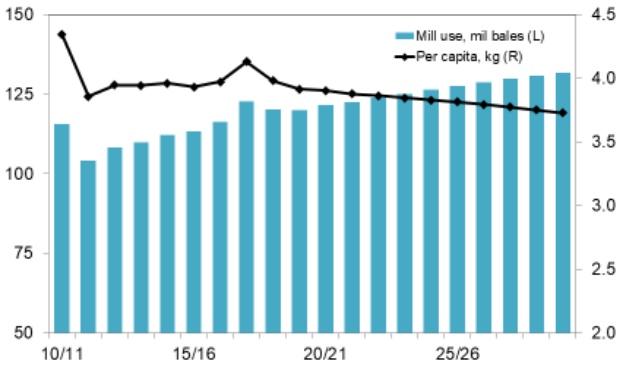


New Varieties Boost Yields, Production



Cotton Demand Will Be Primarily Population Driven

Global cotton mill use

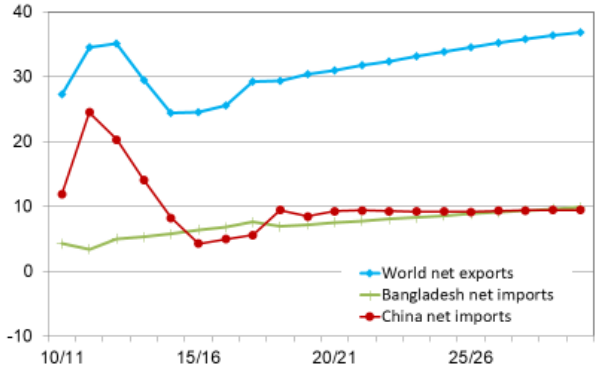


- In 2014/15, China ended its massive cotton stocks buildup, also bringing to an end its outright domination of the global cotton trade. Stocks are being drawn down and the high cotton imports of 2011/12 through 2013/14 have not been sustained. This trend combined with steady expansion of textile and garment manufacturing in Bangladesh has propelled that country to the spot of the top cotton importer.
- Pakistan, Turkey, Indonesia, and Bangladesh will account for a large proportion of the expected increase in cotton imports as they grow their domestic textiles industries.
- At least one-quarter of global cotton production was sold on the world market in 2019/20 and expected to mildly increase over the next ten years.
- The largest sources of cotton exports are Australia, Brazil, and the U.S, which together account for approximately 90% of global sales. The U.S. will remain the largest exporter over the projection period but the growth in trade will also be met by Australia and Brazil.

- Nearly all inventory declines since 2014/15 occurred in China. But that country can still buffer short-term supply shortages that might occur. There is the potential for increased volatility within the Chinese market, but unless the causal shock is sustained beyond the short-term, Chinese stocks should still be able to mitigate impacts on its domestic market, thereby buffering the rest of the world from increased volatility.
- Although China will continue reducing its cotton inventories for several years, it is still expected to hold approximately one-third of global stocks throughout the projection period. Nevertheless, a moderate supply shock in China will 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 similar as it has been historically and inventories will still 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.

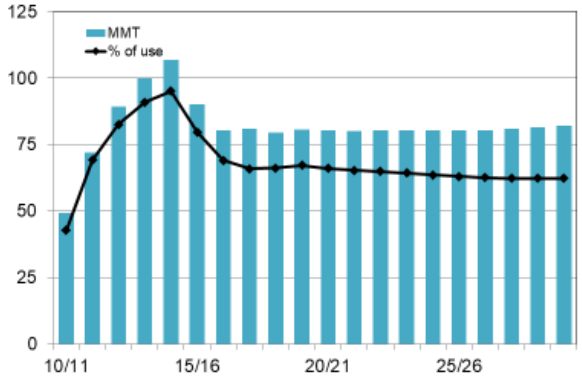
Bangladesh Rivals China as Manufacturing Shifts

Cotton net trade, mil. bales



Stocks Will Be Adequate Even After China Adjusts

Global Cotton ending stocks



World Cotton Supply & Utilization

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Area Harvested	30.6	30.2	33.8	36.1	34.3	32.9	33.9	30.8	29.8	33.7	33.5
					(Kilograms per hectare)						
Yield	768	743	755	768	786	798	766	681	779	799	767
					(Million bales)						
Supply	192.1	191.6	190.7	211.0	231.0	239.2	243.5	227.4	222.4	233.3	228.3
Production	108.1	103.1	117.3	127.2	123.9	120.4	119.2	96.2	106.7	123.8	118.1
Beginning stocks	61.9	61.5	46.2	49.3	72.1	89.3	99.9	106.7	90.1	80.3	80.8
Net imports	22.2	27.0	27.3	34.5	35.1	29.5	24.3	24.5	25.5	29.2	29.3
Utilization	171.7	165.7	164.8	176.2	197.6	209.8	219.0	203.4	196.5	203.6	199.7
Mill & other	110.3	119.5	115.5	104.1	108.2	109.9	112.2	113.2	116.2	122.8	120.2
Ending stocks	61.5	46.2	49.3	72.1	89.3	99.9	106.7	90.1	80.3	80.8	79.5
Net exports	21.8	25.9	25.8	35.1	33.8	29.3	24.2	23.8	25.7	29.6	28.5
Unaccounted	-1.4	0.0	0.1	-0.2	-0.3	0.1	0.3	0.3	0.2	0.1	-0.7
Total Demand	192.1	191.6	190.7	211.0	231.0	239.2	243.5	227.4	222.4	233.3	227.5

Cotton Area Harvested

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Million hectares)						
Argentina	0.3	0.4	0.6	0.5	0.4	0.5	0.5	0.4	0.2	0.3	0.4
Australia	0.2	0.2	0.6	0.7	0.4	0.4	0.2	0.3	0.6	0.5	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	0.8	0.8	1.4	1.4	0.9	1.1	1.0	1.0	0.9	1.2	1.6
China	6.1	5.3	5.3	5.5	5.3	4.8	4.4	3.1	2.9	3.4	3.5
EU-28	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3
India	9.4	10.3	11.3	12.2	12.0	12.0	12.8	12.3	10.9	12.6	12.6
Indonesia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pakistan	2.9	3.0	2.8	3.0	3.0	2.9	3.0	2.9	2.5	2.7	2.3
Turkey	0.3	0.3	0.3	0.5	0.4	0.3	0.4	0.4	0.4	0.5	0.5
United States	3.1	3.0	4.3	3.8	3.8	3.1	3.8	3.3	3.8	4.5	4.1
Uzbekistan	1.4	1.3	1.4	1.4	1.4	1.3	1.3	1.3	1.2	1.3	1.1
Rest of world	5.8	5.1	5.6	6.7	6.4	6.1	6.2	5.6	6.1	6.4	6.7
World total	30.6	30.2	33.8	36.1	34.3	32.9	33.9	30.8	29.8	33.7	33.5

World Cotton Supply & Utilization

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Area Harvested	34.5	33.1	32.8	33.1	32.9	33.0	33.0	33.0	33.1	33.1	33.1
					(Kilograms per hectare)						
Yield	760	791	805	813	822	830	838	845	852	859	865
					(Million bales)						
Supply	230.4	231.8	233.3	235.8	237.9	239.8	241.8	243.6	245.7	247.7	249.8
Production	120.5	120.2	121.4	123.5	124.4	125.6	127.0	128.2	129.5	130.6	131.6
Beginning stocks	79.5	80.6	80.2	80.0	80.4	80.3	80.3	80.3	80.5	80.9	81.4
Net imports	30.4	31.0	31.7	32.3	33.1	33.8	34.4	35.1	35.7	36.3	36.8
Utilization	200.6	201.7	202.5	204.2	205.4	206.6	207.9	209.1	210.6	212.1	213.7
Mill & other	120.0	121.5	122.5	123.8	125.1	126.3	127.6	128.7	129.7	130.7	131.6
Ending stocks	80.6	80.2	80.0	80.4	80.3	80.3	80.3	80.5	80.9	81.4	82.0
Net exports	30.4	31.0	31.7	32.3	33.1	33.9	34.5	35.2	35.7	36.3	36.9
Unaccounted	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7
Total Demand	230.2	232.0	233.5	235.8	237.9	239.7	241.7	243.6	245.6	247.7	249.8

Cotton Area Harvested

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Million hectares)						
Argentina	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Australia	0.1	0.1	0.2	0.3	0.3	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	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5
China	3.5	3.4	3.4	3.3	3.2	3.2	3.2	3.1	3.1	3.0	3.0
EU-28	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
India	13.0	12.5	12.3	12.3	12.3	12.3	12.3	12.4	12.5	12.6	12.6
Indonesia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pakistan	2.5	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1
Turkey	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
United States	4.8	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.3	4.3	4.3
Uzbekistan	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1
Rest of world	6.7	6.5	6.4	6.6	6.6	6.6	6.6	6.6	6.7	6.6	6.7
World total	34.5	33.1	32.8	33.1	32.9	33.0	33.0	33.0	33.1	33.1	33.1

Cotton Trade

	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19
					(Thousand bales)						
Net exporters											
Argentina	-46	-21	288	376	223	187	375	210	250	156	540
Australia	1,201	2,112	2,500	4,640	6,168	4,852	2,404	2,828	3,731	3,915	3,632
Brazil	2,689	1,839	1,297	4,763	4,242	2,083	3,886	4,223	2,600	4,092	6,001
EU-28	156	53	-56	632	552	731	758	504	633	638	1,077
India	1,560	6,070	4,800	10,480	6,574	8,586	2,973	4,692	1,814	3,505	1,711
United States	13,261	12,037	14,367	11,695	13,016	10,517	11,234	9,120	14,910	16,276	14,760
Uzbekistan	3,000	3,800	2,650	2,500	3,000	2,300	2,600	2,200	1,750	1,000	750
Total net exports	21,821	25,890	25,846	35,086	33,775	29,256	24,230	23,777	25,688	29,582	28,471
Net importers											
Bangladesh	3,800	4,000	4,250	3,400	5,000	5,300	5,750	6,375	6,800	7,600	6,900
China	6,912	10,880	11,857	24,478	20,280	14,096	8,213	4,278	4,971	5,574	9,427
Indonesia	2,380	2,685	2,490	2,495	3,132	2,984	3,338	2,926	3,386	3,512	3,045
Pakistan	1,560	849	763	-260	1,350	690	440	3,050	2,325	3,240	2,790
Turkey	2,783	4,244	3,204	2,082	3,474	4,042	3,439	3,987	3,345	3,699	3,017
Rest of world	4,752	4,356	4,704	2,320	1,819	2,351	3,167	3,904	4,706	5,603	4,152
Total net imports	22,187	27,014	27,268	34,515	35,055	29,463	24,347	24,520	25,533	29,228	29,331
Residual	-366	-1,124	-1,422	571	-1,280	-207	-117	-743	155	354	-860

Cotton Trade

	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30
					(Thousand bales)						
Net exporters											
Argentina	485	261	282	321	365	405	438	472	511	552	592
Australia	1,352	1,207	1,472	2,158	2,707	3,053	3,266	3,401	3,485	3,541	3,579
Brazil	8,735	7,973	8,090	8,006	8,249	8,542	8,855	9,233	9,618	10,017	10,405
EU-28	1,207	833	846	878	893	913	933	951	967	980	994
India	1,569	2,332	2,584	2,696	2,581	2,482	2,385	2,301	2,170	2,037	1,938
United States	16,738	18,034	18,061	17,939	18,048	18,194	18,354	18,582	18,792	18,995	19,177
Uzbekistan	309	346	373	291	295	262	231	213	193	180	168
Total net exports	30,395	30,986	31,707	32,289	33,140	33,850	34,462	35,152	35,736	36,302	36,853
Net importers											
Bangladesh	7,190	7,503	7,770	8,038	8,303	8,568	8,832	9,096	9,359	9,623	9,886
China	8,475	9,239	9,353	9,251	9,181	9,204	9,144	9,303	9,383	9,414	9,415
Indonesia	3,087	3,230	3,264	3,311	3,333	3,350	3,364	3,373	3,382	3,389	3,396
Pakistan	4,197	2,866	2,989	3,155	3,277	3,392	3,506	3,605	3,699	3,789	3,879
Turkey	3,764	3,314	3,053	3,024	3,119	3,198	3,277	3,350	3,436	3,556	3,682
Rest of world	3,667	4,818	5,263	5,496	5,912	6,122	6,324	6,409	6,462	6,516	6,581
Total net imports	30,380	30,971	31,692	32,274	33,125	33,835	34,447	35,137	35,721	36,287	36,838
Residual	15	15	15	15	15	15	15	15	15	15	15