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Outlook

Oil Crops Outlook: June 2021

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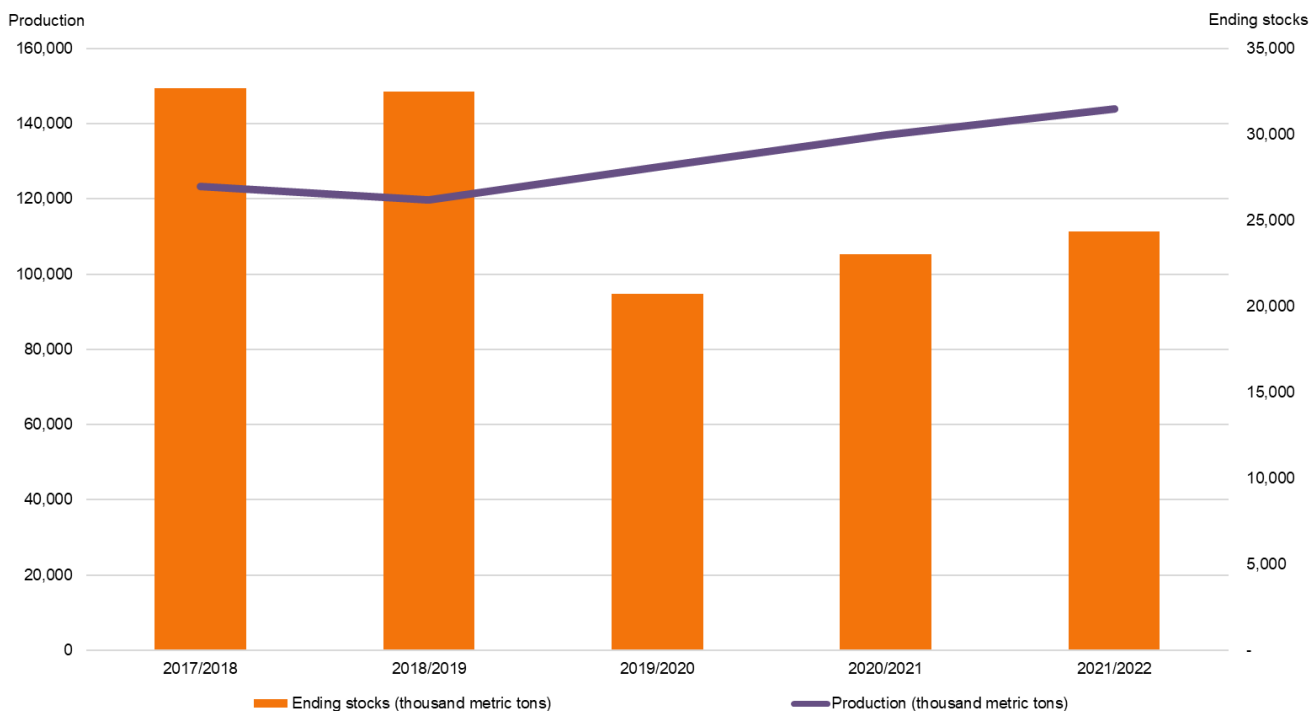
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2020/21 Brazilian Soy: Higher Production and Stocks

With harvest drawing to a close, USDA has increased its forecast for Brazilian soybean production by 1 million metric tons to a record 137 million. The increase reflects higher yields in Mato Grosso do Sul, the fifth largest soybean producing state. With exports and crush unchanged, 2020/21 (October-September) ending stocks are raised to 23 million tons.

Brazilian soybean ending stocks increase on higher production



Source: USDA, Economic Research Service using data from USDA, Foreign Agricultural Service, *Oilseeds Markets and Trade*.

Domestic Outlook

2020/21 Soy Crush Lowered: Domestic Vegetable Oil Price Forecasts Increase on Strong Demand

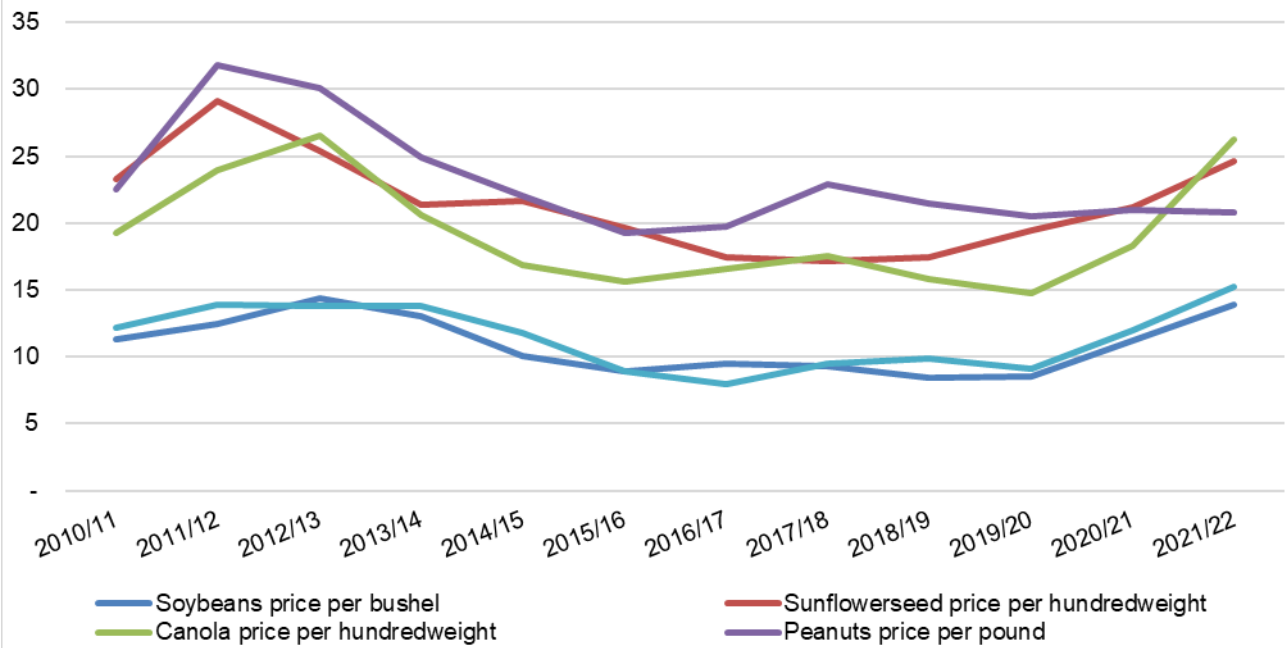
The soybean crush pace has slowed from its torrid start to the marketing year in recent months. The lower crush levels shown in the National Agricultural Statistics Service (NASS) *Fats and Oils: Oilseed Crushings, Production, Consumption and Stocks* report saw daily crush rates drop to 5.7 million bushels a day in April. Thus, USDA has revised the crush estimate for soybeans down 15 million bushels to 2,175 million bushels. The reduced crush forecast reflects stagnant demand for animal feed, leading to a 150-thousand-ton reduction in domestic soybean meal disappearance to 37.95 million tons. Additionally, USDA's change to soybean crush has led to a downward revision in soybean oil production, declining 135 million pounds to 25.4 billion pounds. With soybean exports unchanged at 2.28 billion bushels, the anticipated decline in crush has led to an increase in soybean stocks of 15 million bushels to 135 million bushels. Although there are no changes to the new crop use, the increase in stocks to the current marketing year have increased projected ending stocks for 21/22 to 155 million bushels.

Despite reduced crush volumes, domestic demand for vegetable oils and other oilseeds continues to remain high. Food, feed, and other industrial use for soybean oil has been increased by 225 million pounds to 14.3 billion pounds. As COVID restrictions are lifted, increased restaurant dining has likely increased demand for cooking oil. Accompanying this anticipated increase in demand and continued strong demand for soybean oil for biofuel use, the season average price for soybean oil has been increased by \$0.04 to \$0.59 per pound. This increase in price for soybean oil has led to a dramatic decline in soybean oil exports. The 130 million pounds of soybean oil exported in the month of April are the lowest volume since January 2020. Argentinian and Brazilian soybean oil exports are expected to remain price competitive through the end of the marketing year as strong domestic demand drives high U.S. soybean oil prices. Given this pricing disparity and increased domestic demand for soybean oil, USDA anticipates soybean oil exports will total 1.9 billion pounds, a 400-million-pound decrease from last month's estimate. However, the increase in domestic use for soybean oil offsets lower exports thereby leaving ending stocks relatively unchanged at 1.81 billion pounds.

Although USDA has maintained its season-average price forecast of \$11.25 per bushel for soybeans, other oilseeds have been buoyed by strong soy oil prices. The season-average price forecast for sunflower seed has been drastically increased by \$1.05 per bushel to \$21.15, whereas sunflower seed meal was increased by \$15 to \$260 per short ton. Strong demand for vegetable oil has also led to an increase in forecasted canola crush volumes to 4.6 million pounds. Season-average prices for canola seed and oil were increased in line with gains in pricing for other oilseeds in addition to concerns over drought in key canola producing regions: canola seed season-average price forecast was increased by \$0.45 to \$18.75, whereas canola oil pricing increased by \$0.08 to \$0.69 per pound.

Prices continue to rise for major oilseeds into 2021/22

Season-average price,
dollars



Source: USDA, Economic Research Service using data from World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*.

International Outlook

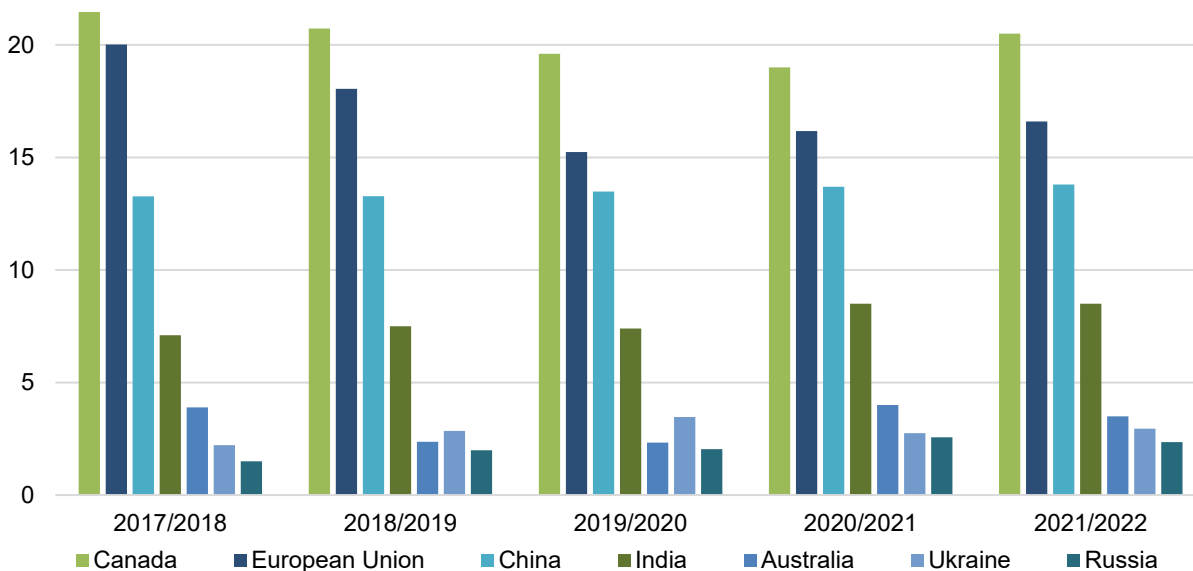
Favorable Production Conditions and Strong Demand Boost Global Rapeseed Production into 2021/22 Marketing Year

As global demand for oilseeds and vegetable oils continues to increase, global rapeseed production is expected to expand in the 2021/22 marketing year on higher prices. Despite earlier concerns in the EU over frost conditions and lower-than-average precipitation, confidence is growing that yields for new crop rapeseed will be higher than initially expected. To reflect this expectation, EU rapeseed production for 2021/22 has been increased by 600 thousand metric tons to 17.2 million metric tons. New crop rapeseed in Ukraine has seen increased rainfall in mid-May, which is expected to increase 50 thousand metric tons in anticipated higher yield. In Australia, high prices and decent soil moisture have increased USDA's expectation for planted area and yield. As a result, production for the 2021/22 marketing year has been revised upward to 3.7 million metric tons.

Chinese demand continues to impact oilseeds and vegetable oil markets and the rapeseed market is no exception. USDA has increased Chinese rapeseed oil imports for the current marketing year by 250 thousand metric tons to 2.35 million metric tons. For 2021/22, rapeseed oil imports have also been revised up to 2.05 million metric tons. One country that is working to fill demand for vegetable oil in China is the United Arab Emirates (UAE). USDA expects UAE to import 100 thousand additional tons of rapeseed for a yearly record 1.2 million metric tons to increase crush and thus, exports of rapeseed meal and oil to China. Overall, global rapeseed demand for 2020/21 and 2021/22 is forecast at 73.3 and 73.9 million metric tons, respectively. Despite the increased production prospects, strong global demand for oilseeds will offset most of the production gains. Rapeseed ending stocks for 2021/22 are expected to hit 5.72 million metric tons, a slight increase from the low stocks of 5.66 million metric tons forecasted for this marketing year.

Global rapeseed production strong through 2021/22 marketing year

Million metric tons



Source: USDA, Economic Research Service using data from USDA, Foreign Agricultural Service, *Oilseeds Markets and Trade*.

Labor Shortages and Higher Rainfall Lower Forecasted Malaysian Palm Oil Production

Due to travel restrictions put in place as a result of the COVID-19 pandemic, Malaysia is currently facing a labor shortage that has negatively impacted palm plantations in the country. With palm oil producers relying on foreign labor to supply the majority of its workforce, lockdowns enforced to stymie the spread of COVID-19 have severely impacted productivity. Malaysia's implementation of a new two-week lockdown looks to further hamper production. Additionally, higher than normal levels of precipitation have continued to impact top palm producing regions. As such, USDA has reduced Malaysia's 2020/21 palm oil production forecast down by 500 thousand metric tons to 18.5 million metric tons. As a result of the expected decrease in production, Malaysian palm oil exports are also expected to decline by 480 thousand metric tons to 16.4 million metric tons. With Malaysia's exports decreasing, USDA forecasts greater utilization by Indonesia of its current stock levels to make up the shortfall in Malaysian exports. As such, Indonesian palm oil exports have been increased 480 thousand metric tons to 28.5 million metric tons. World palm oil ending stocks are expected to finish the year at 11.8 million metric tons.

2020 Soybean Cost of Production Estimate Updates

Commodity Costs and Returns Projections Updated in May: Vary by Region and Over Time

The USDA, Economic Research Service Commodity Costs and Returns data product provides estimates of the costs and returns associated with the production of 12 U.S. commodities. They are developed using data from the Agricultural Resource Management Survey (ARMS), which collects detailed information from farmers on their production practices, yields, and costs. ARMS targets a few commodities each year, on a rotation. For soybeans, the two most recent survey years were 2012 and 2018. In non-survey years, ERS's Commodity Cost and Return estimates are based on the most recent survey-year estimates and are updated using price indices and other data.

For the May 3, 2021, release of the most recent Commodity Costs and Returns estimates, the 2018 survey-year estimates for soybeans were completed and the estimates for 2019 and 2020 were updated. The soybean estimates include the value of production, or returns, which are equal to the yield times the price of soybeans. All estimates are provided on a per-planted-acre basis. In 2020, the estimate of returns to one acre of soybeans was \$515.40, nationally. Returns were highest in the Heartland region, which includes Iowa, Illinois, Indiana, and parts of several surrounding states, at \$560.50 per acre. The lowest returns were in the Northern Great Plains region (\$355.78 per acre), which includes North Dakota and parts of South Dakota, Nebraska, and Minnesota. This is mainly because these are the regions with the highest (58 bushels per acre in the Heartland) and lowest (38 bushels per acre in the Northern Great Plains) yields, respectively.

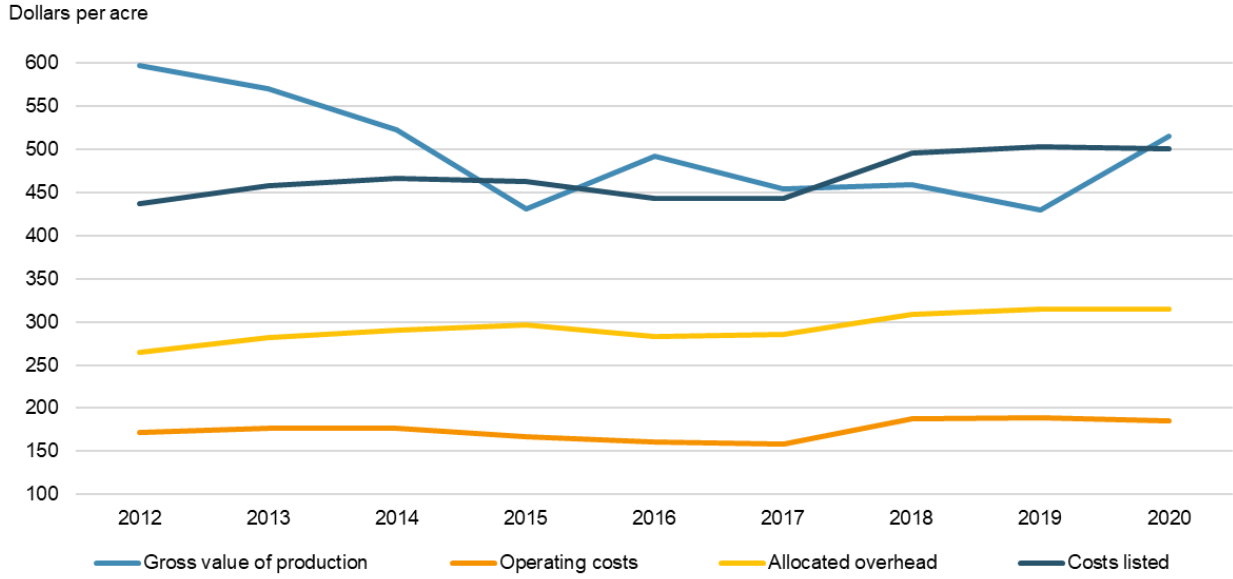
Total costs include operating costs and allocated overhead costs. In 2020, the total estimated operating cost per acre of soybeans in the U.S. was \$185.12. Operating costs include the costs for seed; fertilizer; chemicals; custom operations; fuel, lube and electricity; repairs; purchased irrigation water; and interest on operating capital. The largest of these cost categories was seed, at \$59.51 per acre. This was followed by chemicals (\$35.77 per acre), fertilizer (\$31.92 per acre), and repairs (\$29.20 per acre). Total operating costs were highest in the Mississippi Portal region, which includes parts of Louisiana, Mississippi, Arkansas and Tennessee, at \$250.66 per acre. The Northern Great Plains had the lowest operating costs, at \$149.02 per acre.

The total estimated allocated overhead cost was \$315.26 per acre in 2020. The largest allocated overhead cost categories were the opportunity cost of land (\$151.45 per acre) and capital recovery of machinery and equipment (\$110.56 per acre). The other allocated overhead cost categories were under \$20.00 per acre each; these included hired labor, opportunity cost of unpaid labor, taxes and insurance, and general farm overhead. The Heartland region had the highest total allocated overhead costs at \$345.19 per acre. The Southern Seaboard, which includes parts of North Carolina and Virginia and small parts of Louisiana and Mississippi, had the lowest allocated overhead costs (\$216.13 per acre).

Over time, the nominal cost of producing soybeans has increased (see Costs and Returns to U.S. Soybean Production, 2012-2020, below). At the time of the previous survey year estimates, 2012, average U.S. operating costs were \$172.29 per acre and allocated overhead costs were \$265.30 per acre. By 2020, these had increased by \$12.83 and \$49.96, respectively. Returns fell from \$596.82 per acre in 2012 to \$430.56 in 2015 due to a fall in the price of soybeans. As the price rebounded and fluctuated after 2015, so did returns. Soybean yields rose during this period, from 42 bushels per acre in 2012 to 53 bushels per acre in 2020.

The costs and returns associated with soybean production vary widely by region and have changed over time. This has important implications for the production and profitability of soybeans throughout the U.S. The ERS Commodity Cost and Returns data product found on the USDA, ERS website provides estimates that can be used by stakeholders such as policy makers and researchers, to better understand the trends in costs and returns affecting U.S. commodity producers.

Costs and returns of U.S. Soybean Production, 2012–2020



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