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Oil Crops Outlook: May 2022

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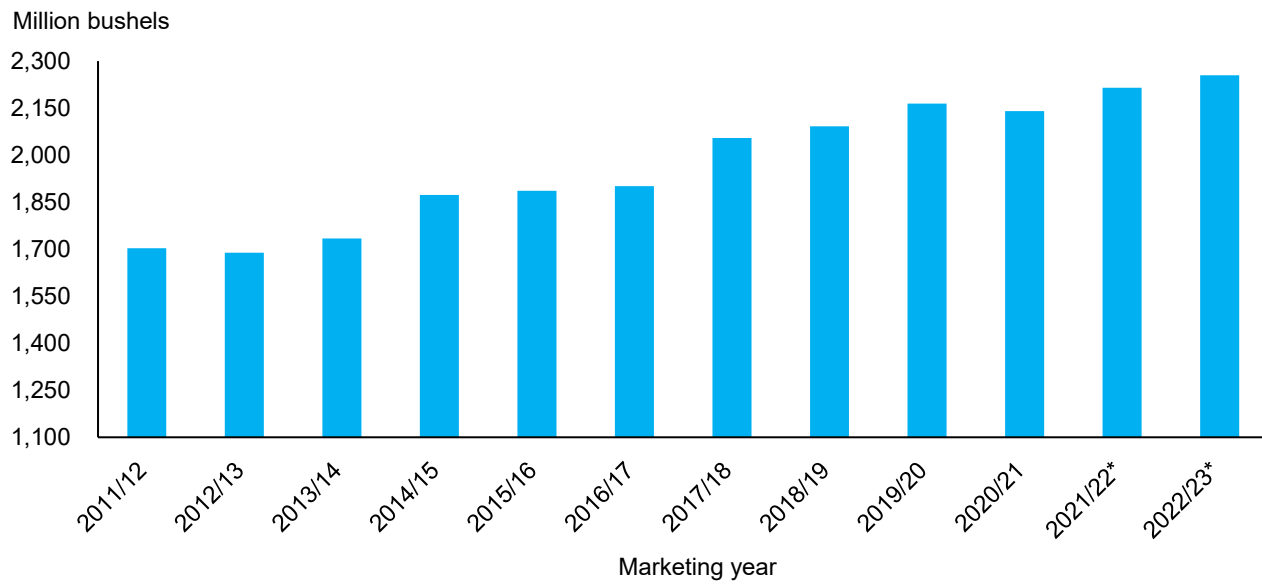
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Record Soybean Crush Volume Predicted in 2022/23 as Demand for Products Expands

Driven by anticipated increasing meal and oil demand, high crush margins are expected to cool but remain historically strong. As a result, the 2022/23 U.S. soybean crush forecast is raised 1.8 percent from the 2021/22 projection to 2,255 million bushels. The season-average soybean price forecast is \$14.40 per bushel, up from \$13.25 in 2021/22. Soybean meal prices are forecast at \$400 per short ton and soybean oil at \$0.70 per pound. The soybean oil value of the crush value remains high.

Figure 1

U.S. soybean crush volume



Note: Asterisk (*) denotes forecasts.

Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*.

Domestic Outlook

Strong Soybean Demand Growth Continues in 2022/23

Reported outstanding soybean sales for 2021/22 suggest the United States will maintain a healthy export program through the end of the marketing year. As a result, the 2021/22 soybean export forecast was raised by 25 million bushels this month to 2,140 million. With increased domestic soybean meal disappearance offset by a reduction in soybean meal exports, the crush forecast remains unchanged at 2,215 million bushels. Tight soybean stocks, ending at 235 million bushels, are anticipated to close out the 2021/22 marketing year.

As outlined in last month's report, the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS) released farmers' planting intentions in their *Prospective Plantings* report. Of the 91 million acres intended for planting soybeans, a projected 90.1 million will be harvested. Combined with a slight improvement in yield, 51.5 bushels per acre, 2022/23 soybean production is forecast to reach 4,640 million bushels. If realized, this would be 205 million bushels higher than in 2021/22. This bump in production will boost 2022/23 supply to 4,890 million bushels.

Although still considered strong by historical standards, gross soybean crush margins are projected to cool in 2022/23. Such crush margins will contribute to the spur in soybean crushing volumes, expected to reach 2,255 million bushels in 2022/23—up 40 million bushels from 2021/22, as will planned expansions in soybean crushing capacity. In addition to increased domestic soybean use, exports are anticipated to eclipse the 2021/22 estimate by 60 million bushels at 2,200 million.

Given the soybean crush forecast, the 2022/23 soybean oil production forecast is raised by 225 million pounds from 2021/22 to 26,430 million. Soybean oil used in biofuel production is projected to increase—up 1.3 billion pounds from 2021/22 to 12 billion in 2022/23. This increase more than offsets the 585-million-pound year-over-year reduction in food, feed, and other industrial uses of soybean oil, which is forecast at 13.8 billion pounds, and lifts the 2022/23 soybean oil domestic disappearance estimate to 25.8 billion pounds. Soybean oil exports are also lowered.

Much like soybean oil, the 2022/23 soybean meal production forecast is higher than 2021/22, settling at 53.05 million short tons. Given the nearly 1.2-million-short ton production increase, the soybean meal import forecast is slightly lower than this year at 0.45 million short tons. Along

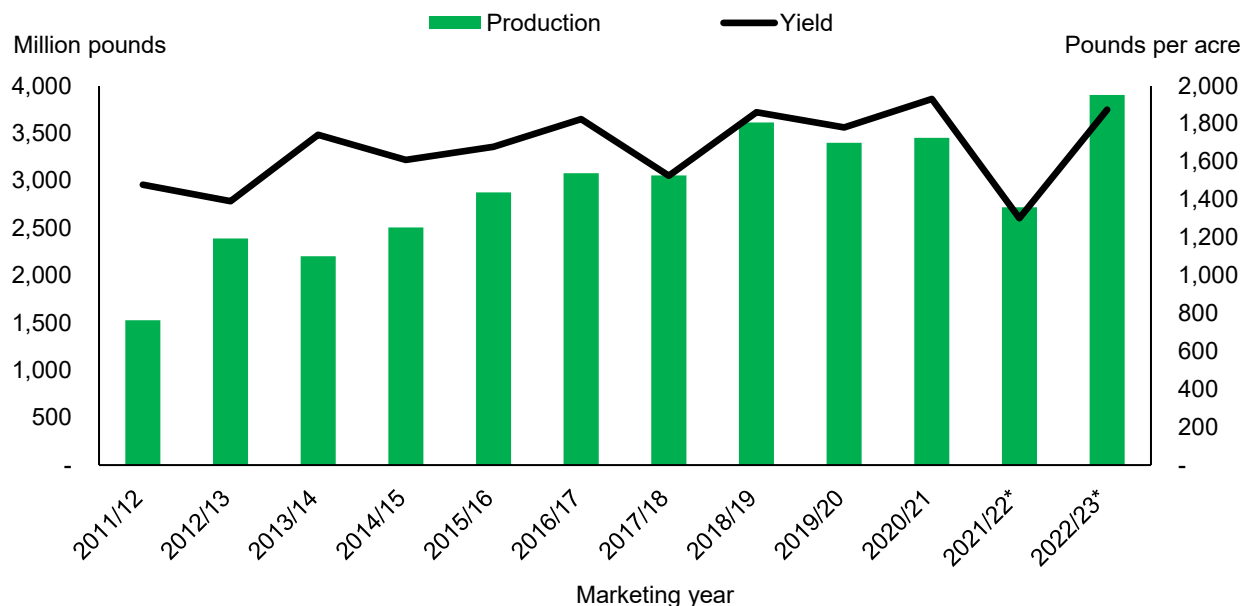
these same lines, the 2022/23 soybean meal export forecast is raised by 0.4 million short tons from 2021/22 to 14.4 million. In tandem with the 2022/23 pork and poultry meat production forecast, and competitive soybean meal prices compared with other feed ingredients, the soybean meal domestic disappearance forecast is raised to 39 million short tons from 38.30 million in 2021/22.

Canola Production Expected To Rebound With Higher Yields in 2022/23

Not much changed from 2021/22 to 2022/23 regarding U.S. canola planting intentions; however, yield prospects are expected to recover from the dry conditions that impacted last year's crop. Assuming normal weather conditions, the 2022/23 canola yield forecast is projected at 1,875 pounds per acre. This 573-pound per acre yield increase would boost domestic canola production by nearly 1,185 million pounds from the previous year to 3,905 million. Canola production in Canada is also expected to improve in 2022/23, allowing the U.S. to replenish the lower-than-average supply by increasing canola imports. The U.S. is expected to ramp up canola imports in 2022/23 by 260 million pounds to 1,157 million.

Figure 2

U.S. canola yields and production



Note: Asterisk (*) denotes forecasts.

Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*.

Approximately 85 percent of total canola supply is expected to be crushed in 2022/23, totaling roughly 4,460 million pounds. It is important to consider the impacts on canola oil and meal

production and the resulting uses of these products. The 2022/23 canola oil production estimate is 1,923 million pounds, slightly 400 million pounds above 2021/22. Combined with a 230-million-pound increase in canola oil imports, domestic supply is projected to reach nearly 6,600 million pounds. The largest disbursement of the increased domestic canola oil supply is expected to increase use of canola oil for food use by close to 400 million pounds. Thus, canola oil will supplement a large portion of the aforementioned reduction in soybean oil for food, feed, and industrial use.

A pathway for canola oil use in renewable diesel, jet fuel, naphtha, liquefied petroleum gas (LPG), and heating oil via a hydrotreating process has been proposed. Comments for the Environmental Protection Agency (EPA) proposal are due May 18, 2022. The USDA does not assume the policy in its forecast until it is in place. Canola oil in biofuel use is increased 200 million pounds in 2022/23 to 1,250 million, below 2019/20 levels of 1,318 million.

Canola meal production is forecast to reach 1.311 million short tons in 2022/23, nearly 0.21 million short tons above 2021/22. Combined with higher imports, domestic use is up over 13 percent to nearly 5 million short tons that will be used in feed.

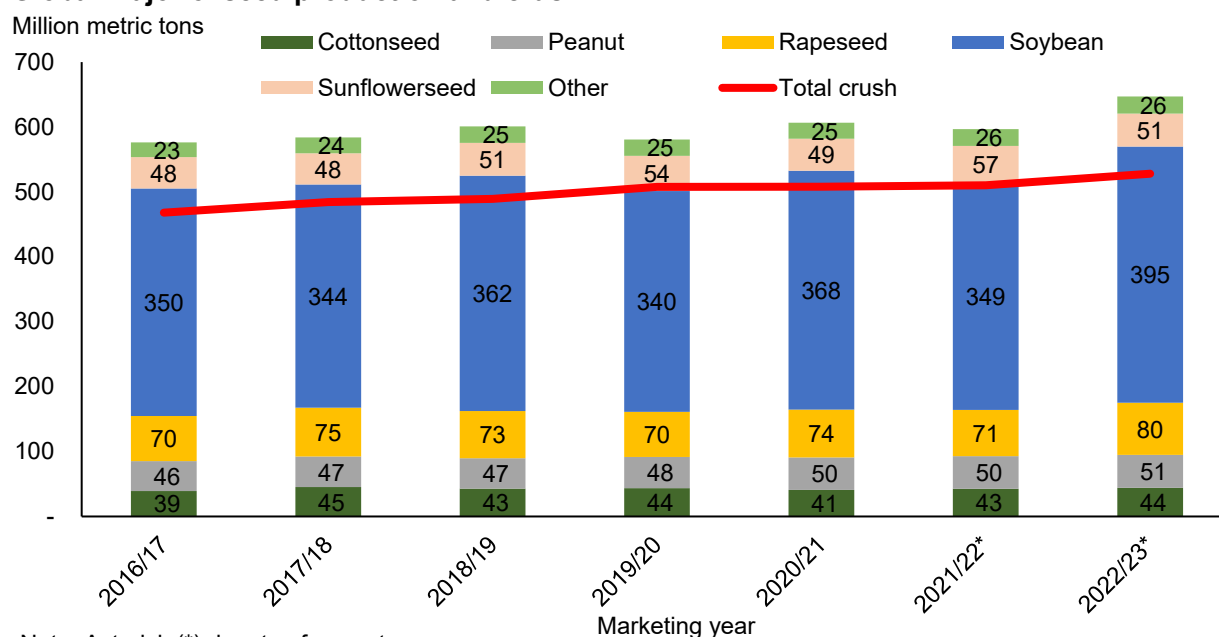
International Outlook

Global Oilseeds Production To Rebound in 2022/23

Global oilseed production for 2022/23, is projected at 647.15 million metric tons, up 8 percent from 2021/22, on expected higher prices and recovery from drought in several countries. Higher soybean production, which is expected to reach 394.69 million tons, accounts for most of the gain.

Figure 3

Global major oilseed production and crush



Global production of other oilseed crops is also forecast higher. Specifically, global canola production is expected to recover by 9.14 million tons—reaching 80.32 million tons—and cottonseed production is forecast up 1.33 million tons to 44.07 million. The global sunflowerseed output is expected to decline by 6.66 million to 50.72 million tons on lower Ukrainian production. The global oilseed crush volume is expected to increase by 17.74 million tons to 528.05 million tons with soybean accounting for 74 percent of that increase. Despite the growth in demand led by China, global oilseed ending stocks are expected to settle at 119.06 million tons, or 15.9 million tons higher than the 2021/22 ending stocks forecast. Global protein meal consumption is projected to increase nearly 3 percent in 2022/23, reaching 354.91 million tons with major

contributions from China. Global vegetable oil consumption is projected to increase over 2 percent in 2022/23, led by increases for China and India.

Soybean Production To Reach a Record in 2022/23

Global soybean harvested acreage is expected to increase by 4.75 million hectares, or 3.6 percent, reaching a record level of 134.93 million hectares. In addition to a 4.4-percent increase for the United States, harvested area for Argentina and Brazil are expected to increase by 1 million and 1.2 million hectares, respectively, reaching 17 million and 42 million hectares. With normal weather and trend yields, Argentina soybean production is forecast to reach 51 million tons and 149 million tons in Brazil. Soybean production is also expected to increase in Paraguay, reaching 10 million tons. Additionally, China is expected to increase soybean production by 1.1 million tons and Russia by 0.54 million tons.

For 2022/23, global soybean imports are expected to increase by 12.65 million metric tons to 167.12 million, with China accounting for nearly half of that gain. China's soybean import forecast is up by 7 million metric tons from 2021/22 at 99 million tons. With South American inventory expected to tighten by the U.S. harvest, importers will be heavily dependent on U.S. exports this fall until early 2023 when new-crop supplies from South America would become available. The U.S. market share of global soybean exports in 2022/23 marketing year is expected to decline by 2 percentage points from 2021/22 to 35 percent. By September 2023, global soybean inventories could recover to 99.6 million metric tons (up almost 17 percent) with the projected improvement in world crops.

By comparison, the increase for global imports in soybean meal for 2022/23 is forecasted up 2.5 percent to 65.10 million metric tons. The European Union (EU) is one of the top soybean meal importers and accounts for 26 percent of global soybean meal imports. The EU is expected to import 16.65 million metric tons of soybean meal in 2022/23, marginally higher than 2021/22. However, the EU is expected to increase soybean imports to 15 million metric tons in 2022/23. This will accommodate a higher forecasted soybean crush at 16.1 million tons. In addition to the EU, Southeast Asian countries (Indonesia, Malaysia, Philippines, Thailand, and Vietnam) are expected to increase soybean meal imports by 0.65 million metric tons or 3.8 percent as their domestic meal demand recovers.

Despite lower carryin, the aforementioned gain in Brazilian soybean production would increase total domestic supply for 2022/23. Hence, demand for Brazilian soybeans in the 2022/23 marketing year would grow moderately with domestic crush rising 2.6 percent to 48.75 million

tons, driven by meal and oil demand. In addition to the increase in crush, 2022/23 Brazilian exports are expected to increase by 5.75 million tons to 88.5 million. Exports of soybean meal from Brazil could also increase to 17.50 million tons from 17.35 million in 2022/23. In addition to the export growth, domestic soybean meal consumption is expected to grow 3 percent, driven by higher poultry output.

In Argentina, the unfavorable weather conditions during the 2021/22 growing season impacted soybean yield, reducing the soybean output projection to 42 million metric tons this month, the lowest level since 2017/18. Like Brazil, attractive soybean prices might incentivize farmers in Argentina to plant more soybeans. With the growth in production, Argentine soybean supply is expected to total 75.1 million metric tons in 2022/23. With a higher supply, Argentine soybean exports could recover in 2022/23 to 4.7 million metric tons versus 2.75 million this season. The domestic crushers should further benefit from soybean meal and oil demand by increasing soybean crush by 1 million tons to 41 million. Moreover, Argentine soybean meal exports are expected to rebound 1.78 percent to 28.5 million metric tons in 2022/23, accounting for over 40 percent of world soybean meal trade.

In India, the record high soybean prices this year will encourage a minor increase in soybean area which is expected to increase 1.7 percent in 2022/23 to 12.7 million hectares. Provided India's summer monsoon deposits a normal amount of precipitation on the crop, soybean production could reach 11.5 million metric tons, slightly below last year's record level of 11.9 million. Crush is expected to maintain a similar level as this year at 10.2 million tons. In recent years, the growth in domestic soybean meal consumption has curtailed India's soybean meal exports, which is forecasted to decline to 1.9 million metric tons in the 2022/23 marketing year.

In China, soybean crush is expected to increase by 6 million metric tons to 95 million metric tons in anticipation of a recovery in domestic soybean meal demand. With the higher crush volume, soybean imports are forecasted at 99 million metric tons from a revised 2021/22 forecast of 92 million tons.

While soybean meal consumption in China may continue to grow 6 percent in 2022/23, the other importing countries are expecting steady growth in domestic soybean meal demand. In particular, the higher costs of feed grains would constrain EU demand for soybean meal. In addition, an economic stagnation in several EU countries would also temper demand for protein meal. Southeast Asia countries like South Korea, Taiwan, Thailand, and Vietnam might experience better growth in soybean meal consumption and trade.

World Rapeseed Production Contributes To Increase in the Oils Supply

Global rapeseed production in 2022/23 is expected to increase by 9.14 million metric tons to 80.32 million metric tons with Europe harvesting close to a record crop of 18.5 million tons. Canadian farmers are expected to produce 20 million metric tons of canola with higher yields. Australia is expected to produce 4.7 million metric tons of rapeseed on slightly lower acreage than 2021/22 and a normal yield. With the higher global rapeseed production, overall rapeseed consumption is expected to increase and allow global stocks to rebound after a decline to the tightest level in recent history. Global rapeseed stocks are forecast at 5.56 million metric tons in 2022/23, up 1.3 million from 2021/22.

In the fall of 2021, farmers in the EU (particularly France, Germany, Romania, Sweden, Spain, and the Czech Republic) planted over 7 percent more hectares of rapeseed compared with the previous season and are expected to harvest 5.8 million hectares in June 2022. By May 2022, soil moisture conditions in Europe are suitable, following average precipitation throughout the fall and winter which allowed for the rapeseed crop to establish a yield of 3.19 tons per hectare and production of 18.5 million metric tons. 2022/23 EU rapeseed imports are expected to increase to 5.2 million metric tons. With the higher supply of rapeseed and good demand for rapeseed oil, the European crushers are expected to increase rapeseed crush by 0.9 million metric tons to a record level of 22.5 million metric tons. At the same time, ending stocks for the 2022/23 marketing year are expected to slightly rebound to 0.59 million metric tons. These are still relatively tight ending rapeseed stocks in Europe.

Similarly, winter rapeseed enjoyed relatively stable weather during the growing season in Russia and Ukraine. Respectively, 2022/23 Russian and Ukrainian rapeseed production is forecasted at 2.8 and 3.2 million metric tons, respectively. With a higher Russian crop, their crush is forecasted to increase to a record level of 2.35 million metric tons. In contrast, Ukraine traditionally exports most of its rapeseed crop (to the EU) which is forecast at 2.75 million metric tons.

After the 2021/22 drought in Canada, lingering effects of low soil moisture levels are a concern—particularly in the southern and central portions of the Western Prairies. Timely precipitation throughout the 2022/23 growing season will be needed to achieve trend yield. Assuming yields return to normal levels, 2022/23 Canadian canola production could reach 20 million metric tons. Despite a reduction in harvested area and record low beginning stocks of 0.69 million metric tons, the 2022/23 Canadian canola supply estimate is up 6.4 million metric

tons on a 7.4 million metric ton increase in production to 20.82 million metric tons. Both canola export and crush volumes are expected to increase by 3.5 million metric tons and 1.6 million, respectively, to reach 8.8 and 9.9 million metric tons. This will allow for a slight increase in Canada's 2022/23 season-ending canola stocks at 1.7 million tons, aligning with levels obtained in 2019/20.

Australian canola acreage is expected to slightly decline in 2022/23 from 2021/22 to 3 million hectares. With the trend yield and normal weather, Australian canola production is forecasted at 4.75 million metric tons. This is 1.65 million metric tons less than this year's bumper crop that benefited from excellent weather and a record yield. Driven by expectations of strong canola demand from China and the EU, Australia is projected to export 3.7 million metric tons of canola in 2022/23.

China's domestic production of rapeseed is anticipated to increase by 4 percent to 14.7 million metric tons due to higher harvested area and a normal yield projection. Canola imports are expected to increase by 0.7 million metric tons to 2.5 million metric tons. Driven by higher domestic demand for oils, China's canola crush volume is expected to increase by 0.7 million metric tons and reach 16.6 million metric tons.

Global Sunflowerseed Production Decline Due to Lower Output in Ukraine

Global sunflowerseed production for 2022/23 is expected to decline by 6.66 million metric tons from 2021/22 to 50.72 million metric tons as harvested acreage is down 2.3 million hectares. Ukraine is expected to account for the largest portion of this decrease with a 1.8-million-hectare reduction expected in harvested area to the lowest level since 2015 at 5.3 million hectares. In addition to the conflict, hybrid seed imports and fuel availability add additional uncertainty to the outlook of this region. Nevertheless, Ukraine's Ministry of Agriculture has reported that sunflowerseed planting is underway. A record level of beginning stocks, projected at 4.55 million metric tons, will help offset the anticipated reduction in 2022/23 sunflowerseed production and lower total supply by 2 million metric tons to 15.56 million tons. With the lower sunflowerseed supply, 2022/23 Ukraine sunflowerseed crush is forecasted at 9.75 million metric tons versus 12 million metric tons this marketing year. Ukraine is expected to export 0.75 million tons of sunflowerseed, primarily to neighboring countries for crush, as the demand for sunflower oil remains strong. Ending sunflowerseed stocks will be higher than normal at 4.46 million tons.

In the EU, sunflowerseed area is seen up 1 percent in 2022/23 to 4.55 million hectares. With normal weather and yield, the production of sunflowerseed is expected to reach 10.5 million metric tons, a slight uptick from last year's crop of 10.43 million. High sunflower oil prices in the EU are expected to drive domestic crush. With higher sunflowerseed imports of 1.15 million metric tons, EU processors are projected to increase sunflowerseed crush by 0.4 million metric tons to 9.9 million metric tons.

In Argentina, the 2022/23 sunflowerseed crop is projected to increase by 0.85 million metric tons to 4.2 million on 20-percent higher acreage and normal yield. Argentina tends to crush most of the sunflowerseed they produce; 2022/23 is no exception. Argentine processors are expected to increase sunflowerseed crush volumes by 0.2 million metric tons from 2021/22 to 3.4 million metric tons in 2022/23. Sunflower oil and meal exports are forecasted at 0.85 million tons and 0.92 million tons for 2022/23, respectively.

Global Vegetable Oils Stocks To Increase in 2022/23 Due to Higher Palm Oil Production and Oilseeds Crush

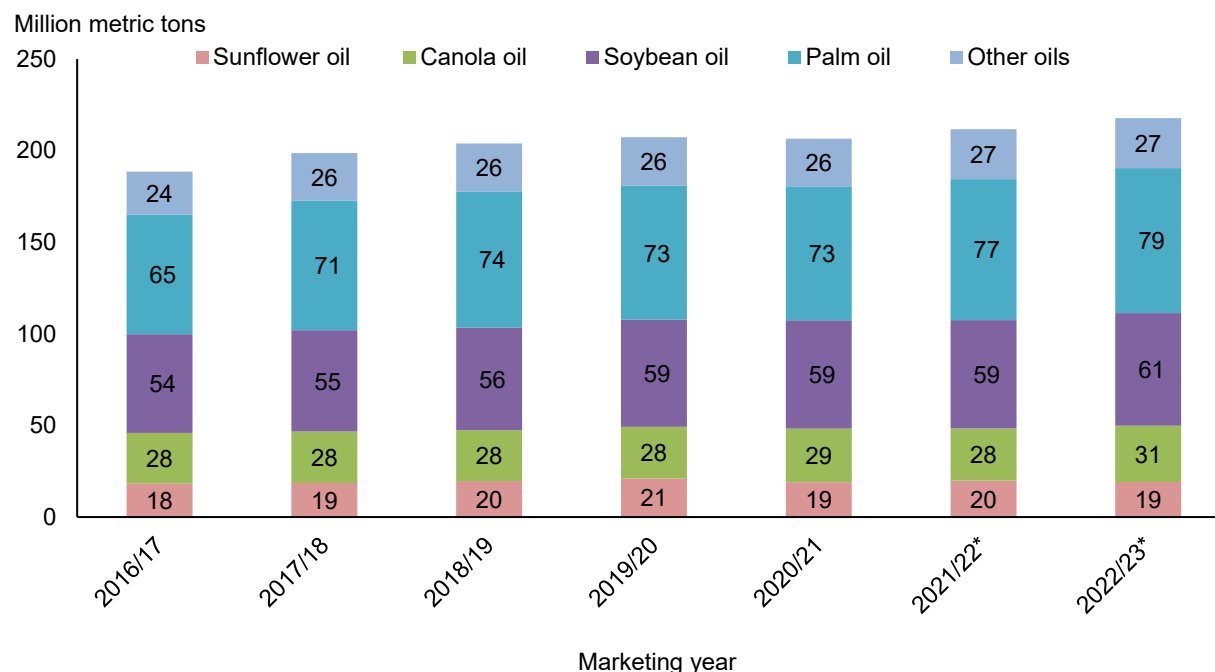
In 2022/23, global palm oil production is forecasted to increase by 2.18 million metric tons, or 2.8 percent, to a total of 79.13 million metric tons. Indonesia and Malaysia are expected to contribute 46.5 and 19.8 million metric tons to this total, respectively. With more palm oil available, global consumption of palm oil is expected to increase in 2022/23 by 1.9 million metric tons, or 2 percent, to 76.48 million metric tons. As a result, global palm oil exports are projected to be 4 percent higher next season, up to 51.33 million metric tons, with Indonesia accounting for 90 percent of the trade growth. Higher palm oil demand is not expected to exceed the anticipated growth in supply, hence global palm oil stocks are projected to increase by 1.6 million metric tons to 16.5 million metric tons by the end of the 2022/23 marketing year.

2021/22 Indonesia palm oil exports are lowered 3 million tons this month on slow export pace through the first half of the marketing year (October–March) and government-imposed export policies aimed at cooling high domestic oil prices. Most recently, the Indonesian government announced a palm oil export ban on April 28, 2022, to curb the export. However, storage

capacity concerns suggest the policy may be short-lived.

Figure 4

Global major vegetable oils production



Note: Asterisk (*) denotes forecast.

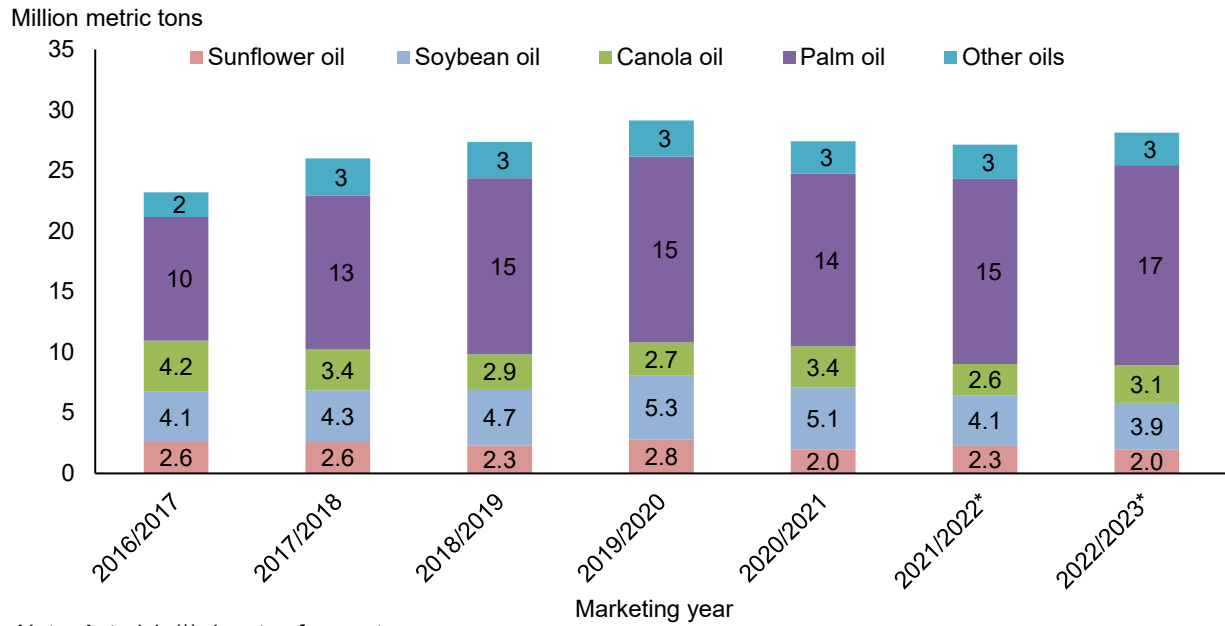
Source: USDA, Economic Research Service using data from USDA, Foreign Agricultural Service, *Production, Supply, and Distribution* database, May 2022.

In addition to higher supply of palm oil in 2022/23, production of global canola and soybean oil is expected to increase, which will satisfy growing demand. The global soybean oil production is expected to reach 61.43 million tons, or 2.32 million more tons than last year. The global rapeseed oil production is forecasted at 30.74 million tons, up 2.3 million tons from last year. On the other hand, sunflower oil production will be down 0.77 million tons, to 19.14 million tons. Combined, global production of the four major vegetable oils is expected to reach 190.44 million tons, up 6 million tons (or 3.25 percent growth), from the 2021/22 marketing year.

The global vegetable oils consumption is forecasted to reach 212.92 million metric tons with an increase in global food consumption of 3.48 million metric tons and 2.47 million metric tons in industrial use, biofuels included. Stocks of major vegetable oils are expected to increase from the lowest level in 2021/22 to 28.13 million tons.

Figure 5

Global major vegetable oils stocks as of October 1



Note: Asterisk (*) denotes forecast.

Source: USDA, Economic Research Service using data from USDA, Foreign Agricultural Service, *Production, Supply, and Distribution* database, May 2022.

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