



# Oil Crops Outlook: July 2024

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## U.S. Soybean Supply To Rebound in Marketing Year 2024/25

The U.S. soybean supply for marketing year (MY) 2024/25 is forecast at 4.8 billion bushels, 8 percent higher than MY 2023/24 but down 20.0 million bushels from last month's forecast. According to the USDA's National Agricultural Statistics Service (NASS) *Acreage* report released on June 28, 2024, 86.1 million acres of soybeans were planted in the United States for MY 2024/25, up 3 percent from last year. The U.S. soybean yield forecast remains unchanged this month at 52.0 bushels per acre. Crop conditions as of July 7, 2024, are better than the same time last year with 68 percent of the crop rated in good-to-excellent condition, compared with 51 percent last year. U.S. soybean production for MY 2024/25 is forecast at 4.4 billion bushels, down 15.0 million bushels from last month but 270.3 million bushels higher than production in MY 2023/24. With a lower production forecast and unchanged soybean crush and exports forecasts, U.S. ending soybean stocks for MY 2024/25 are projected at 435.0 million bushels for MY 2024/25, down 20 million bushels from last month's forecast. The U.S. season average soybean price forecast for MY 2024/25 is lowered 10 cents this month to \$11.10 per bushel.

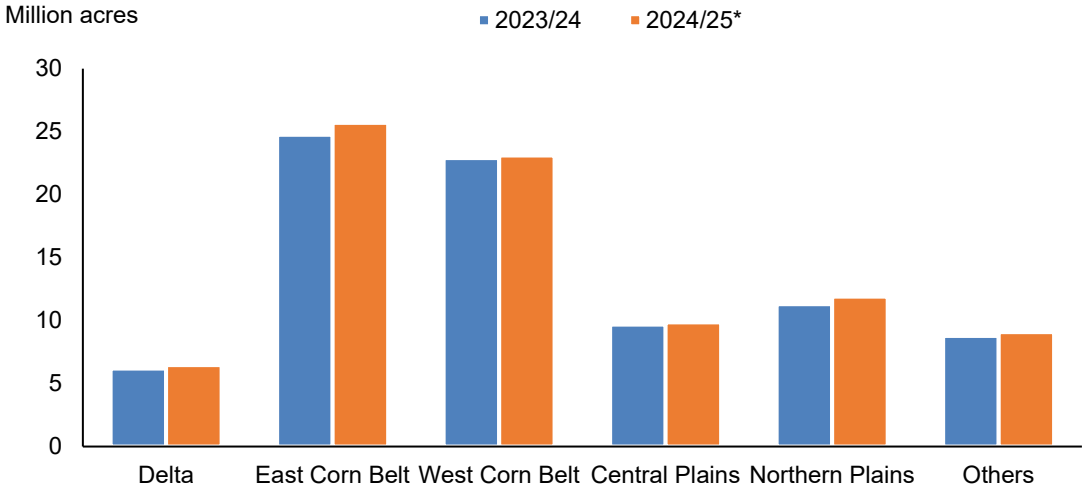
The global rapeseed production forecast for MY 2024/25 is raised this month by 0.8 million metric tons to 87.9 million metric tons on higher production in Canada, the European Union (EU), and the United States. Canada's rapeseed production is increased to 20.0 million metric tons and the EU's rapeseed production is increased to 18.9 million metric tons. The United States is expected to produce a record-high crop of 2.2 million metric tons on record-high acreage. With a higher supply of rapeseed, global rapeseed crush is projected at 83.6 million metric tons, 0.6 million metric tons higher than last month but 0.4 million metric tons lower than crush in MY 2023/24.

# Domestic Outlook

## U.S. Soybean Acreage on the Rise

USDA, NASS estimates the U.S. soybean planted acreage at 86.1 million acres and harvested acreage at 85.3 million acres. The U.S. soybean planted acreage was up in all soybean growing regions with the Corn Belt and Northern Plains regions gaining the most acreage, up 1.2 million acres and 0.6 million acres, respectively (figure 1). The Delta and Central Plains regions increased their planted acreage by 0.3 million acres and 0.2 million acres, respectively. USDA, NASS' *Acreage* report noted that the acreage estimates were based on data provided by respondents who were surveyed between May 30 and June 16, 2024. Nationally, the soybean acreage left to be planted in the United States totaled 12.8 million acres, and corn 3.36 million acres.

Figure 1  
**U.S. soybean planted acreage, by regions**



Delta = Arkansas, Louisiana, and Mississippi. East Corn Belt = Illinois, Indiana, Ohio, Michigan, and Wisconsin. West Corn Belt = Iowa, Minnesota, and Missouri. Central Plains = Kansas and Nebraska. Northern Plains = North Dakota and South Dakota.  
 Note: Asterisk (\*) denotes USDA, National Agricultural Statistics Service June *Acreage* report.  
 Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, Quick Stats.

According to USDA, NASS' weekly *Crop Progress* report, on July 7, 2024, 34 percent of U.S. soybeans were blooming, which is 1 percent below the same time last year and 6 percent above the average for 2019–23. The pod setting was reported at 9 percent compared with 8 percent last year and the 5-year average of 5 percent. Arkansas, Mississippi, Louisiana, and Tennessee had the highest percentage of acreage in the pod setting stage.

According to the USDA, NASS *Grain Stocks* report, as of June 1, U.S. soybean stocks totaled 970.0 million bushels, up 22 percent from last year. Onfarm stocks accounted for 48 percent of the total compared with 41 percent at the same time last year. The total use of soybeans for the first three-quarters of 2023/24 has been below last year's total use on lower exports. Cumulative exports through May totaled 1.5 billion bushels, or 312.0 million bushels lower than last year and the lowest since MY 2019/20. In contrast, the cumulative soybean crush for September 2023–May 2024 was up 59.0 million bushels and totaled 1.7 billion bushels, which is a record-high pace. With unchanged domestic soybean usage and lower imports, season-ending stocks for MY 2023/24 are reduced 5 million bushels to 345.0 million bushels. With lower carry over soybean stocks from MY 2023/24, U.S. soybean production forecast at 4.4 billion bushels and imports forecast at 15.0 million bushels, U.S. soybean supply for MY 2024/25 stands at 4.8 billion bushels, down 20.0 million bushels from last month's forecast. U.S. soybean crush and exports are unchanged this month at 2.4 billion bushels and 1.8 billion bushels, respectively. The U.S. soybean carry out for MY 2024/25 is reduced this month by 20.0 million bushels to 435 million bushels.

For soybean oil, USDA raised its 2023/24 export forecast this month by 100 million pounds to 550 million pounds. Higher shipments and sales in May and June prompted an increase in the soybean oil forecast. In addition, soybean oil imports are raised this month by 50 million pounds to 600 million pounds on higher arrivals. If realized, the United States will be a net importer of soybean oil. With unchanged domestic soybean oil production and demand, soybean oil ending stocks are projected to decline to 1.6 billion pounds for MY 2023/24. In addition, with lower carry over and unchanged supply and demand for MY 2024/25, soybean oil ending stocks for MY 2024/24 are projected lower than last month, and forecast at 1.8 billion pounds, up 165 million pounds from MY 2023/24.

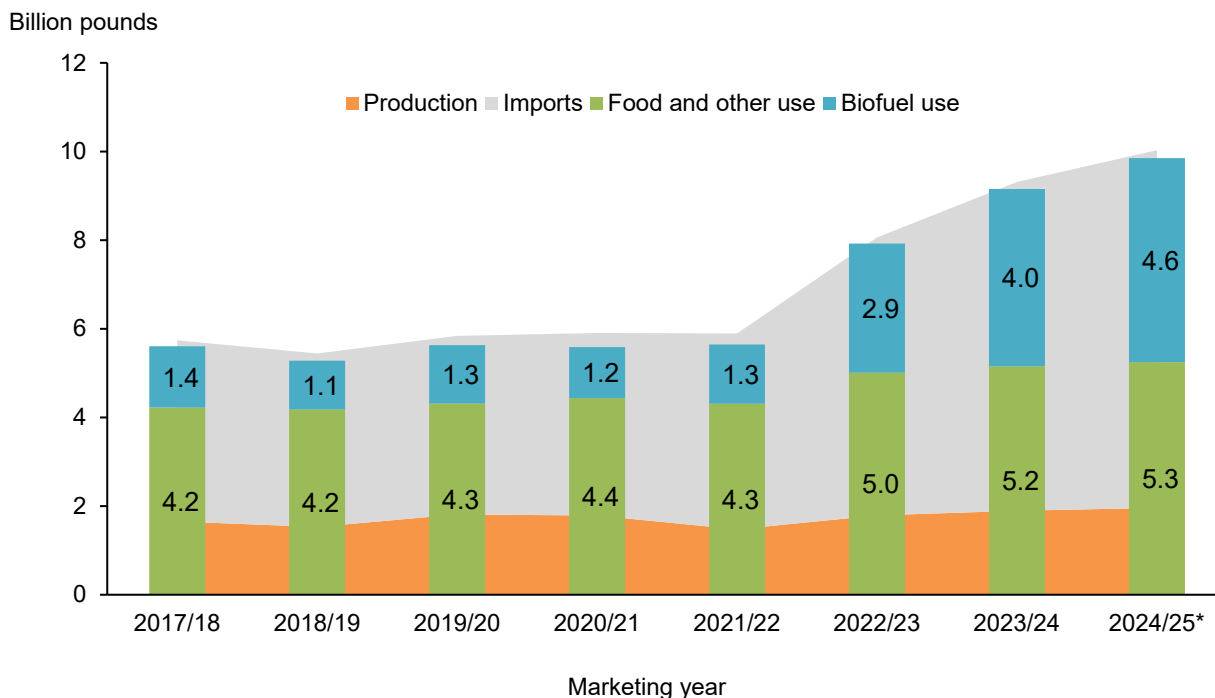
## U.S. Canola Production Forecast to Increase on Higher Acreage

In the June *Acreage* report, USDA, NASS forecasted canola planted acreage to increase nearly 14 percent year-over-year to 2.7 million acres in MY 2024/25. Most of the canola acreage increase occurred in North Dakota, Washington, and Montana. To note, USDA, NASS added Idaho in the 2024 survey, which accounted for 0.1 million acres of the total canola acreage. Canola production in MY 2024/25 is forecast at a record-high level of 4.7 billion pounds. Canola imports are forecast down 0.2 billion pounds to 0.8 billion pounds on larger domestic production. According to USDA, NASS's *Grain Stocks* report from late June, U.S. canola ending stocks in

MY 2023/24 totaled 499.8 million pounds, with 51 percent stored onfarm. With stronger production and larger carry-in stocks only partially offset by lower imports, the total domestic supply is up to a record-high 6.0 billion pounds. With ample supplies, the canola crush is forecast at a record high of 4.9 billion pounds, up 5 percent from the finalized MY 2023/24 crush.

With a strong canola crush, canola oil production is raised 0.1 billion pounds to 2.0 billion pounds. Canola oil imports remain unchanged from last month at a record-high 8.1 billion pounds, but up 0.7 billion pounds from MY 2023/24 on stronger biofuel use (figure 2). Biofuel use remains unchanged at 4.6 billion pounds, up 15 percent from MY 2023/24, while food and other use is forecast to grow 2 percent to cover for lower sunflowerseed oil supply.

Figure 2  
**U.S. canola oil supply and domestic use**



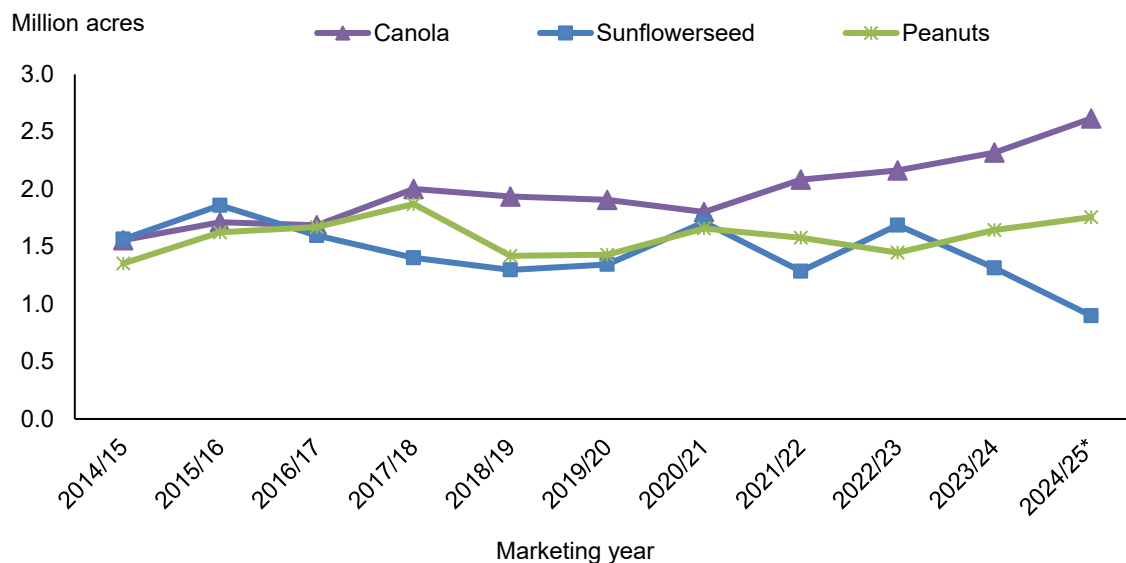
Source: USDA, Economic Research Service using data from USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*, July 2024.

## Summary For Other Minor Oilseeds

Contrary to the increase in canola acres in MY 2024/25, sunflowerseed acres declined to 898,500 acres, the smallest since MY 1975/76 (figure 3). Most of the acreage decline came from the oil type sunflowerseed with a smaller decline in confection sunflowerseed. The sunflowerseed crush forecast is lowered by 59 million pounds to 855 million pounds on lower

production. The other use category (nonoil use and residual) is lowered to 1.2 billion pounds, the lowest since MY 2019/20. Ending stocks are forecast to decline to 228 million pounds, a 200-million-pound decrease from MY 2023/24. With lower supplies, the season-average farm price forecast increased to \$21.15 per hundredweight.

Figure 3  
**Select U.S. minor oilseed planted acres**



Note: Asterisk(\*) denotes a forecast.  
 Source: USDA, Economic Research Service using data from USDA, National Agricultural Statistics Service, Quick Stats.

In addition to higher canola acreage, USDA, NASS' June *Acreage* report indicated higher peanut acres for MY 2024/25. Peanut acreage is up 0.1 million acres from the *March Prospective Plantings* estimates, which brings the total peanut planted area to 1.8 million acres. The increased acreage was largely in Georgia, which is now forecast at 850,000 acres, the highest since MY 1950/51. With higher area and trend yields, peanut production is forecast at 6.8 billion pounds. With larger supplies, domestic food use is forecast to grow to 3.3 billion pounds, up 7 percent from the revised MY 2023/24 estimate. This increase in domestic food use is driven by a decline in prices as global peanut production is forecast to recover. With ample supplies, peanut exports are forecast up from last month to 1.5 billion pounds, even with the MY 2023/24 estimate. Peanut stocks are forecast to increase to 2.5 billion pounds.

Cotton acreage is raised in the *Acreage* report, pushing cottonseed production to 5.3 million short tons, up 1.7 million short tons from MY 2023/24. With higher production, crush and other use are raised this month. Cottonseed ending stocks for MY 2024/25 are forecast up from MY 2023/24, at 0.4 million short tons.

# International Outlook

## Global Rapeseed Supply on the Rise

Global rapeseed production for MY 2024/25 is forecast at 87.9 million metric tons, up 0.8 million metric tons this month based on higher crop estimates for Canada, the United States, and the European Union (EU). Global rapeseed trade is forecast at 17.3 million metric tons for MY 2024/25, 0.4 million metric tons higher than last month's forecast with more exports from Canada. China's rapeseed imports are raised to 3.7 million metric tons. Global rapeseed crush for MY 2024/25 is increased by 0.6 million tons to 83.6 million metric tons on higher crush in the EU, the United States, and China. The global 2024/25 rapeseed ending stocks are raised this month to 7.8 million metric tons on higher ending stocks in China, the United States, and the EU.

Canada's rapeseed production forecast for 2024/25 is increased this month by 0.4 million metric tons to 20.0 million metric tons on higher acreage and marginally higher yields. The harvested acreage is forecast at 8.8 million hectares, 0.1 million hectares higher than last month's forecast but marginally lower than acreage in MY 2023/24. Canadian farmers reported planting more soybean, lentils, dry beans, and oats than MY 2023/24. Farmers in Alberta and Manitoba reported a year-over-year increase in the canola planted area, whereas farmers in Saskatchewan reported a slight decline. Canada's rapeseed yield is forecast at 2.27 tons per hectare, marginally higher than last month and up 7 percent from last year. Canada's prairies received substantial rainfall in April that delayed seeding. Provincial reports indicated slower seeding progress compared with the 5-year average, but most areas had been planted by the first week of June. In Eastern Canada, temperatures were above normal in the early growing season. Ontario received above normal rainfall that resulted in delayed planting.

With higher supplies, Canada's rapeseed exports forecast for MY 2024/25 is increased this month by 0.4 million metric tons to 7.5 million metric tons. Rapeseed crush for 2024/25 is unchanged this month and projected at a record high level of 11.8 million metric tons. Canada's ending stocks are expected to decline to 2.0 million metric tons from 2.2 million metric tons in MY 2023/24.

The EU's rapeseed production is projected at 18.9 million metric tons, 0.2 million metric tons higher than last month's forecast on higher yields. Rapeseed yields are raised this month in Poland on improved weather conditions as the crop was reaching maturity. The EU's higher

rapeseed output for 2024/25 is expected to be crushed, raising the forecast to 24.2 million metric tons.

## Dry Weather Impacts Russia's Sunflowerseed Production

Russia's sunflowerseed production forecast is reduced this month by 0.5 million metric tons to 16.5 million metric tons on lower yield. The yield stands at 1.74 tons per hectare, down 3 percent from last month's forecast and 6 percent below last year's record-high yield. Insufficient precipitation and record-high temperatures in May, June, and the beginning of July resulted in declining crop conditions for sunflowerseed crops in Russia's southern oblasts, especially the Rostov and Krasnodar oblasts. As the sunflowerseed crop began to bloom, the temperatures reached a record high of over 38°C (100°F) and were sustained for a few consecutive days at the beginning of July. These areas have had low soil moisture in the last 60 days, with the total rainfall in the range of 25–50 percent of normal.

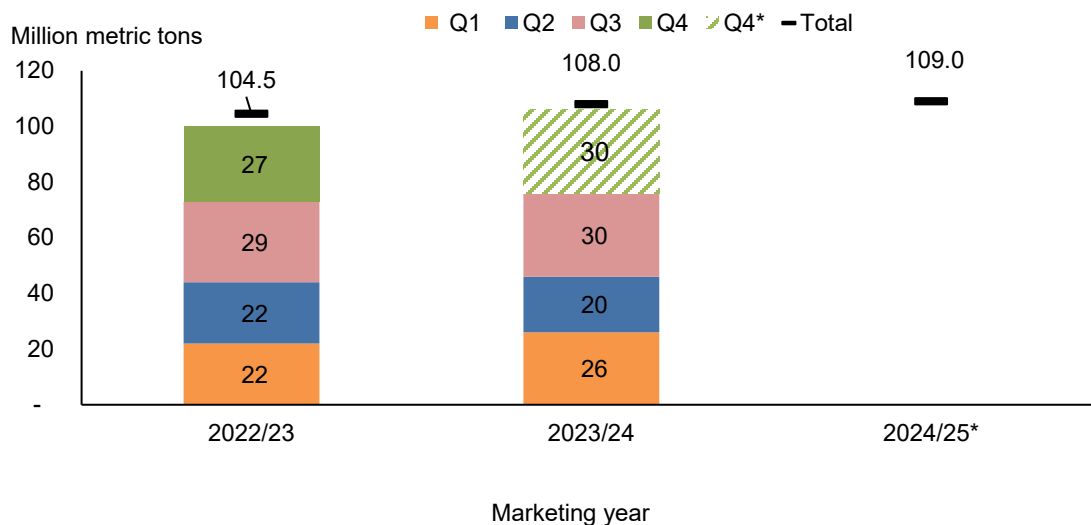
With lower domestic supply, Russia's MY 2024/25 sunflowerseed crush forecast is reduced this month by 0.5 million metric tons to 16.2 million metric tons. Consequently, sunflowerseed oil production is reduced by 0.2 million metric tons to 6.7 million metric tons this month. With lower sunflowerseed supply, both the sunflowerseed oil and sunflowerseed meal exports forecast are reduced this month by 0.2 million metric tons and 0.1 million metric tons, respectively. As a result of lower exportable sunflowerseed oil and sunflowerseed meal supply, China, a major importer of Russia's sunflowerseed oil and meal, is projected to import less. China's sunflowerseed oil and meal imports are reduced this month. Consequently, China's sunflowerseed oil and sunflowerseed meal consumption is expected to decline, whereas an increase in China's rapeseed crush is expected to supply additional rapeseed oil and rapeseed meal to be consumed domestically.

## Global Soybean Trade for MY 2023/24 Increased on Higher South American Shipments

Global soybean trade for MY 2024/25 is forecast at 180.2 million metric tons, unchanged this month, but up 5.1 million metric tons from the revised global soybean trade estimates for MY 2023/24. Global soybean trade for MY 2023/24 is increased to 175.1 million metric tons on higher exports from Brazil, Argentina, Paraguay, Benin, and Canada. Brazil's soybean exports forecast for MY 2023/24 is raised to 103.0 million metric tons, while Brazil's exports forecast for MY 2024/25 is unchanged at 105.0 million metric tons. Argentina's soybean exports for MY

2023/24 also are increased this month to 5.6 million metric tons. China has been the main destination for Brazil's and Argentina's soybean exports. As a result of the higher-than-expected shipments and estimates for June loadings, China's soybean imports forecast for MY 2023/24 is increased this month to 108.0 million metric tons (figure 4).

Figure 4  
**China's imports from soybean major exporters, 2022/23–2024/25**



Q=Quarter.

Note: Asterisk (\*) denotes a forecast for Q4 using monthly lineups and historical shipment pace. Soybean shipments from major exporters (i.e. Brazil, the United States, and Argentina) lagged to account for the time of delivery.

Source: USDA, Economic Research Service using Trade Data Monitor LLC data.

With higher soybean imports forecast and unchanged domestic soybean use, China's soybean carry over stocks for MY 2023/24 are increased by the same amount. China's soybean imports forecast for MY 2024/25 is unchanged this month at 109.0 million metric tons.



# Special Article: Animal Fats and Processed Oil Imports Expanding Under Current U.S. Biofuel Policies

## Introduction

U.S. biofuel policies at the Federal and State levels created new demand for feedstocks, pushed vegetable oils and animal fats prices to record highs, reduced the vegetable and fats exports, and incentivized imports. The U.S. imports of animal fats (e.g., edible tallow, inedible tallow, lard, and poultry fats) and greases, including used cooking oil, skyrocketed to nearly 5.0 billion pounds in calendar year (CY) 2023 compared with 2.2 billion pounds in CY 2022. A large portion of those imports were likely used as biofuel feedstocks. The U.S. Department of Energy's Energy Information Administration (EIA) reported total use of animal fats, waste oils and greases at 11.9 billion pounds for biofuel production in 2023. The share of animal fats in biofuels increased relative to vegetable oils. The soybean oil share as feedstocks for biomass-based diesel production in CY 2023 declined to nearly 40 percent from 44 percent in CY 2022. As biofuel use continues growing, this structural shift in the U.S. feedstocks use for biomass-based diesel production and import markets is likely to continue affecting domestic use and trade flows of animal fats and vegetable oils. This special article analyzes the expansion of animal fats and processed oil imports and the implication for U.S. domestic vegetable oil markets.

## Increased Production of Biomass-Based Diesel

Government programs aiming to reduce greenhouse gas emissions and incentivize the use of lower carbon fuels in the transportation pool are driving growth in biomass-based diesel demand, which includes both renewable diesel and biodiesel. Renewable diesel capacity and production has grown significantly since 2020, supported by the U.S. Environmental Protection Agency (EPA) Renewable Fuel Standard (RFS) Program as well as State programs, such as California's Low Carbon Fuel Standard (LCFS), Oregon's Clean Fuels Program, Washington State's Clean Fuels Program.

Renewable diesel annual capacity increased to 3.86 billion gallons in CY 2023 from 0.8 billion gallons at the end of 2020. Consequently, renewable diesel production more than doubled, which resulted in biomass-based feedstock demand growing by more than one-third from CY

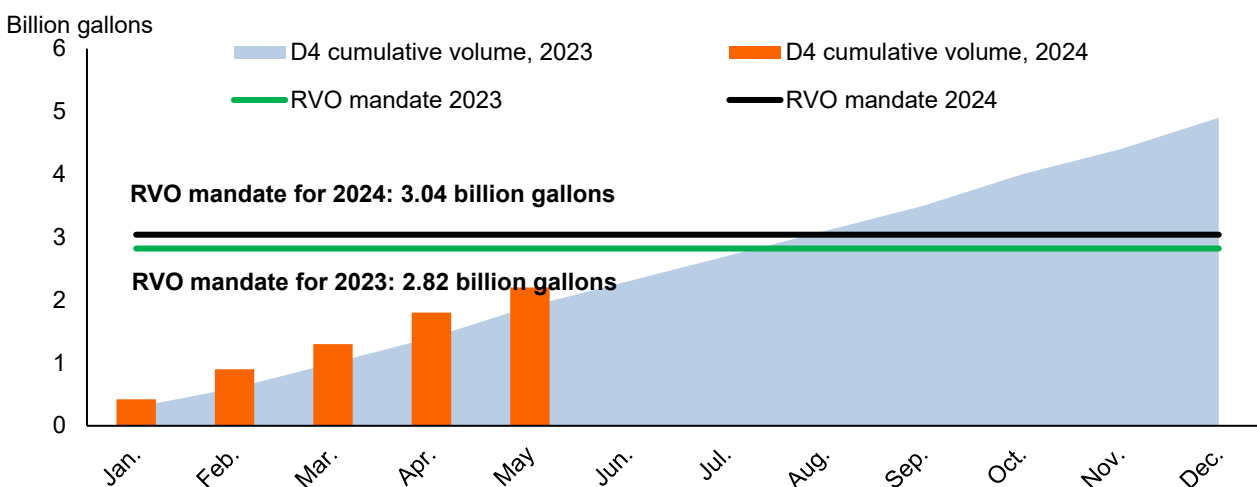
2021 to 32.0 billion pounds in CY 2023. Strong demand for animal fats mainly came from increased renewable diesel production as biodiesel production stayed steady. Surging renewable diesel production in 2023 contributed to declining Renewable Identification Numbers (RIN) prices and LCFS carbon credit prices.

## Renewable Identification Numbers and LCFS Credit Prices

A Renewable Identification Number (RIN) is a unique electronic certificate that is generated when a gallon of biofuel is produced and then separated from biofuel when it is blended with petroleum fuel. The RIN can be traded when it is assigned (i.e. directly associated with a batch of fuel) or separated. This enables obligated parties (e.g., refiners, importers of gasoline or diesel) and renewable fuel exporters to purchase and retire RINs for compliance based on their Renewable Volume Obligation (RVO) under the Renewable Fuel Standard program. RIN prices serve to equate supply and demand of renewable fuel blended and consumed compared with the U.S. Environmental Protection Agency’s (EPA) annual renewable volume obligations.<sup>1</sup> RIN prices were strong in 2020 and 2021, which contributed to the ramp up of renewable diesel capacity expansion. Following the biofuels industry’s expansion—especially renewable diesel expansion—RIN prices began to fall as supply quickly grew in summer 2023 (figure 1sa).

Figure 1sa

### Cumulative biomass-based diesel (D4) volume vs. renewable volume obligations (RVO) mandate, 2023 and 2024



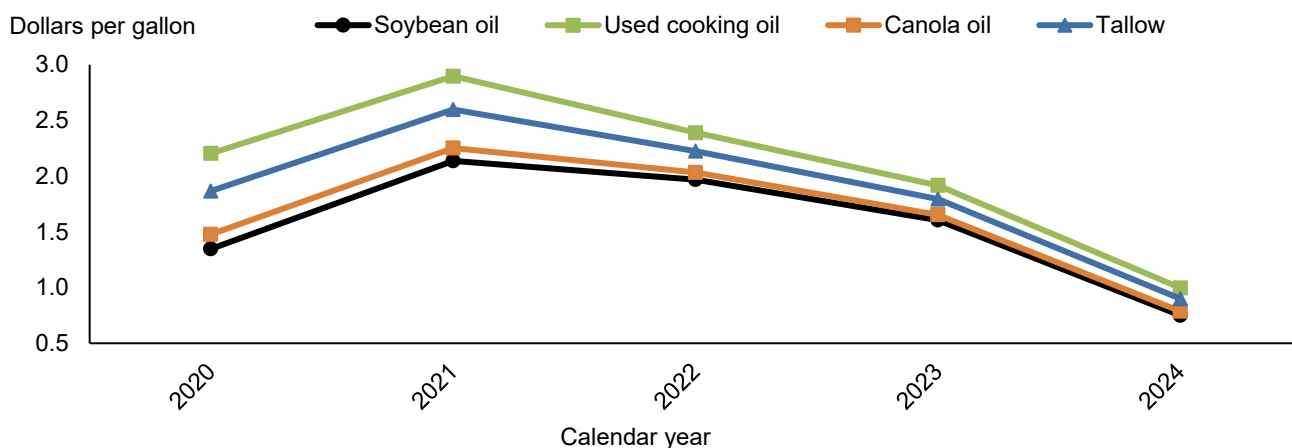
Note: D4 is a code assigned for advanced biomass-based diesel under the Renewable Fuel Standard (RFS) program. Source: USDA, Economic Research Service using U.S. Environmental Protection Agency (EPA) data.

<sup>1</sup> Gerveni, M., Hubbs, T., & Irwin, S. (2023, May). Overview of the RIN compliance system and pricing of RINs for the U.S. renewable fuel standard. *Farmdoc daily* (13), 95, U.S. Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign.

The biomass-based diesel production (D4) represents a variety of biofuels, including Fatty Acid Methyl Ester (FAME) biodiesel, renewable diesel, renewable jet fuel, and renewable heating oil. According to EPA, D4 (biomass-based diesel) prices declined from \$1.69 per gallon beginning in January 2023 to \$0.81 per gallon in December 2023. Furthermore, D4 prices declined into the first quarter of 2024 and averaged \$0.55 per gallon in June 2024. Along with the lower RIN values, the LCFS value per ton of carbon has declined with the ramp up of renewable diesel production. With declining RIN and LCFS values, the estimated policy payout from those two programs for a renewable diesel producer in California have declined since 2021 (figure 2sa).

Figure 2sa

**Estimated renewable identification number and low carbon fuel standard carbon credit payout for renewable diesel in California by feedstock, 2020–24**



Note: Assumes an average D4 (advanced biomass-based diesel) renewable identification number price each year, a 1.7 energy equivalence factor for renewable diesel, average feedstock carbon intensity score in California across all locations, a 89.37 diesel carbon intensity score, and a 129.65 energy density of renewable diesel.

Source: USDA, Economic Research Service using Fastmarkets, Oil Price Information Service data; and California Air Resource Board data.

There are two parts to the policy payout estimate in figure 2sa; the first part is the estimated RIN value. To make this calculation, we assumed an average D4 RIN price each year and an energy equivalence factor of 1.7 for renewable diesel. The second part is the carbon credit payout through the LCFS program. This payout is dependent on the carbon

Table 1sa

**Average low carbon fuel standard carbon intensity score for feedstocks used in production of biomass-based diesel in California**

Feedstock	Carbon intensity score
Soybean oil	62
Used cooking oil	29
Canola oil	57
Tallow	42

Note: Carbon intensity score is an average across all locations, individual plants have different scores.

Source: USDA, Economic Research Service using California Air Resource Board data.

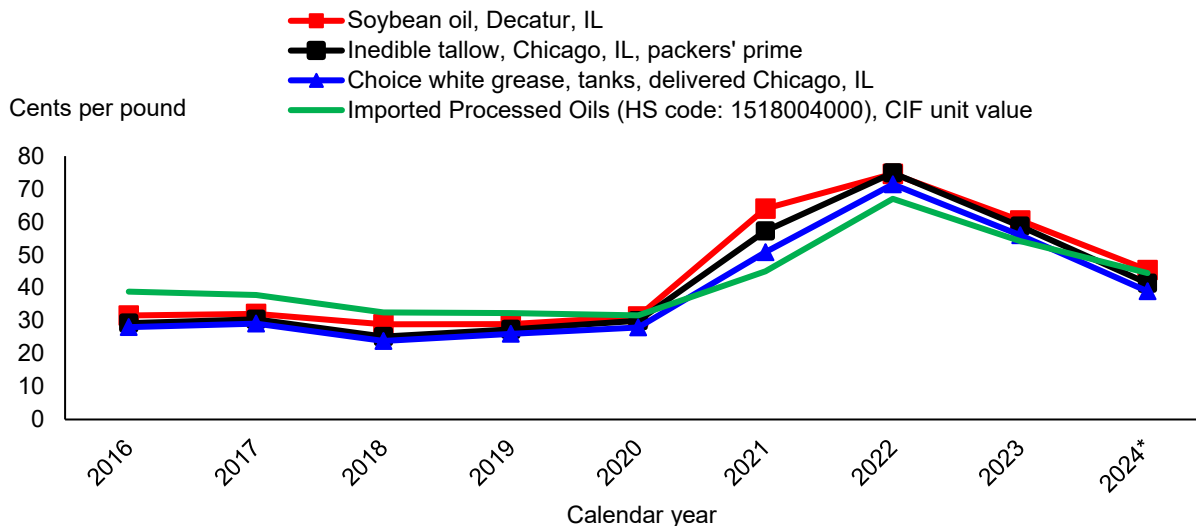
intensity (CI) score for each feedstock and location of the renewable diesel plant as outlined in the approved pathways through the California Air Resource Board. For simplicity of this calculation, we used an average of CI scores across all locations (although individual renewable

diesel plants have different scores). Used cooking oil has the lowest average CI score, followed by tallow, and then the other vegetable oils (table 1sa).

Across all feedstocks, the total payout with the blenders credit and the carbon credit payment has declined and used cooking oil continued to provide the larger payout. Along with changes in profitability, the input prices for raw vegetable oils and fats have increased since 2020 on strong demand from the biofuel industry, reaching a peak in 2022 (figure 3sa).

Figure 3sa

**U.S. animal fats prices and imported processed oils, CY 2016–24**



CY = Calendar year. HS = Harmonized System. CIF = Cost, insurance, and freight.

Note: Asterisk (\*) denotes January through May average.

Source: USDA, Economic Research Service using data from USDA, Agricultural Marketing Service; and USDA, Foreign Agricultural Service, Global Agricultural Trade System.

Animal fats prices historically moved in tandem with soybean oil prices and usually were at a discount to soybean oil prices. Starting in 2020, the spread between soybean oil and animal fats widened, which incentivized a switch to the cheaper feedstocks in addition to the higher policy payout. Soybean oil has a less favorable carbon intensity score compared with yellow grease, used cooking oil, corn oil, and inedible tallow that makes fats and other greases more attractive feedstocks for renewable diesel production. Another factor renewable diesel producers consider are transportation costs to get the domestically produced vegetable oils to major renewable diesel facilities, many of which are located closer to ports and have access to imported feedstocks that receive a higher policy payout.

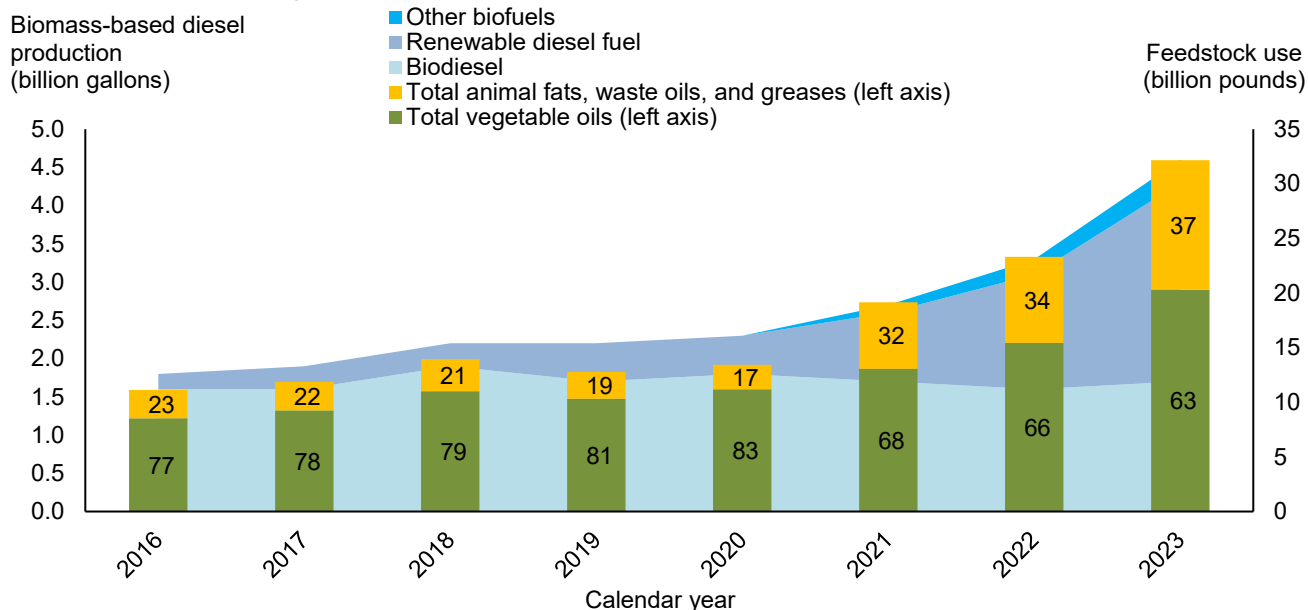
## Policy Incentivizes Use of Animal Fats and Processed Oils

Driven by the Federal mandate under the RFS and State policies, total demand for animal fats and vegetable oils as a feedstock for biomass-based production increased from 19.2 billion

pounds CY 2021 to more than 32.0 billion pounds in CY 2023. The share of animal fats and processed oils has increased from 32 percent to 37 percent, and at the same time, the share of vegetable oils (i.e., soybean oil, canola oil, and corn oil) declined from 68 percent to 63 percent (figure 4sa).

Figure 4sa

**Biomass-based diesel production and estimated use of vegetable oils, animal fats, waste oils, and greases**

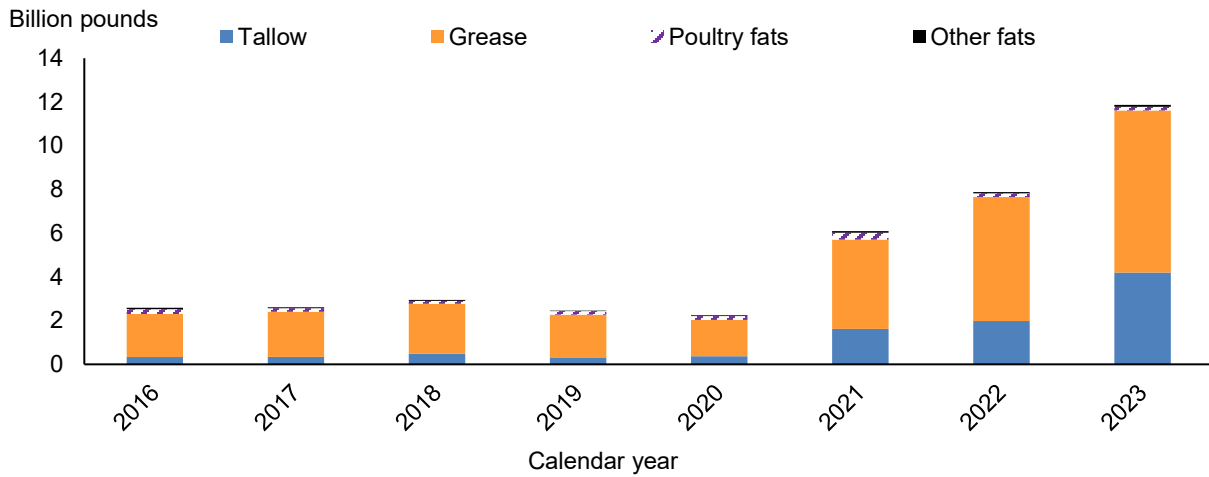


Note: Label is percent share of feedstock use. EIA started reporting renewable diesel feedstock use in 2021, prior years are just biodiesel. Source: USDA, Economic Research Service using data from U.S. Department of Energy, U.S. Energy Information Administration, *Monthly Energy Review* and *Feedstocks consumed for production of biofuels*. January, 2024.

Animal fats used for biodiesel through 2020 were steady and averaged about 2.6 billion pounds, annually. In CY 2021, EIA started to report on feedstocks used for both biodiesel and renewable diesel. The use of fats as feedstocks for biofuels skyrocketed in CY 2023 due to expanding renewable diesel production and reached nearly 12.0 billion pounds (figure 5sa). Grease, as defined by EIA, includes used cooking oil and accounted for 62 percent of total use of animal fats, waste oils, and greases for biofuels, followed by tallow that accounted for 35 percent of total fats used in biofuels production. Grease used in biofuels production surged from 4.1 billion pounds in CY 2021 to a record high of 7.4 billion pounds in CY 2023.

Figure 5sa

**Animal fats, waste oils, and grease usage in biomass-based diesel production**



Note: The U.S. Energy Information Administration started reporting feedstock usage in renewable diesel in 2021, prior years include only biodiesel.  
 Source: USDA, Economic Research Service using data from U.S. Department of Energy, U.S. Energy Information Administration, *Monthly Energy Review* and *Feedstocks consumed for production of biofuels*, January 2024.

Total tallow (edible and inedible) used for biofuel production climbed from 1.6 billion pounds in CY 2021 to 4.2 billion pounds in CY 2023, while domestic production stayed steady around 6.2 billion pounds. The surge in demand from the biofuel industry created by the U.S. biofuels policy most likely shifted the use of tallow and grease from traditional markets like the manufacturing of soap, fatty acid, and feed manufacturing to use as a feedstock for biofuel production. Furthermore, the manufacturers likely sought substitutes for their inputs.

## U.S. Animal Fats Trade and Processed Oil Imports

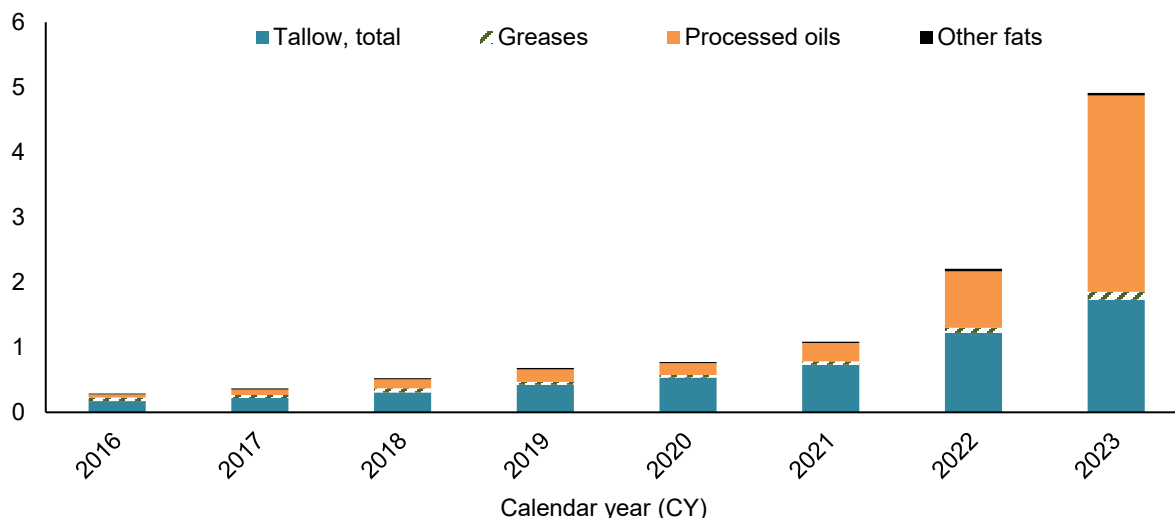
Despite the strong domestic demand from the biofuel industry, U.S. animal fats production has remained relatively steady as growth is constrained by livestock slaughter numbers. Domestic supply of processed oils that includes used cooking oils has been driven by the collection from food processing and frying entities and potential developments in the supply chain’s infrastructure. With a strong demand and steady production, fats and processed oil trade was impacted. In CY 2022, the United States became a net importer of animal fats and processed oils and continued into CY 2023. Total animal fat exports in CY 2023 declined to a historically low level of 0.4 billion pounds compared with the 5-year average of 1.4 billion pounds. In contrast, U.S. imports of animal fats and greases including used cooking oil skyrocketed to

nearly 5.0 billion pounds in 2023 compared with the 5-year average of 1.0 billion pounds (figure 6sa).

Figure 6sa

**U.S. imports of animal fats, greases, and processed oils**

Billion pounds



Other fats=Poultry fats and lard.

Note: Harmonized System (HS) codes are as follows: Tallow = 1502100040 and 1502100020; Greases = 1501200060 and 1501200040; Processed oils = 1518004000; Other fats = 1501100000 and 1501900000.

Source: USDA, Economic Research Service using USDA, Foreign Agricultural Service, Global Agricultural Trade System data.

Inedible tallow import volume has doubled since 2020 and totaled more than 1.7 billion pounds in CY 2023. U.S. importers sourced the tallow mainly from Australia, Canada, Brazil, Uruguay, and Argentina. These five countries accounted for 92 percent of U.S. inedible tallow imports in CY 2023. Brazil and Uruguay emerged as new suppliers of tallow to the U.S. fats market since 2020.

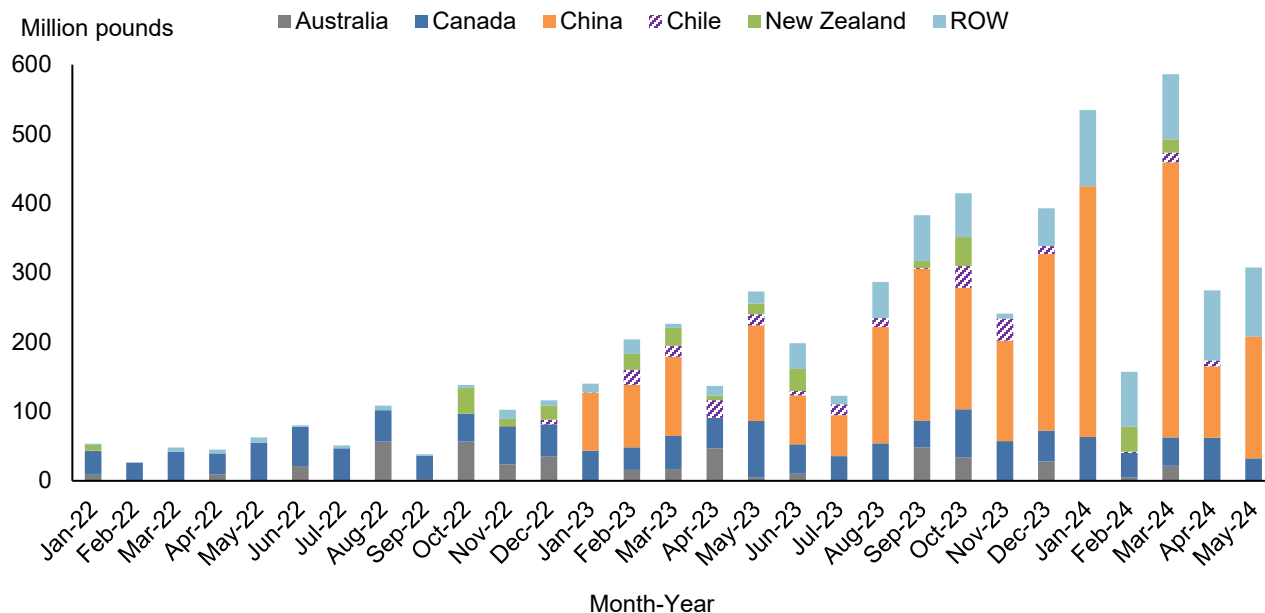
Processed oil imports are reported by U.S. Department of Commerce, Bureau of the Census under the Harmonized System (HS) code 1518004000, which is defined as animal and vegetable fats and oils and their fraction that have been boiled, oxidized, dehydrated, or otherwise chemically modified. This HS code includes used cooking oil and used fats that have a lower carbon intensity score compared with the other vegetable oils.

In CY 2022, U.S. Department of Commerce, Bureau of the Census' trade data indicated that 83 percent of processed oils originated from Canada and Australia (figure 7sa). In CY 2023, China emerged as a supplier of processed oils shipping 1.5 billion pounds to the United States, which accounted for over 50 percent of total U.S. processed oil imports. The imported processed oils CIF (Cost, Insurance, Freight) value per unit was \$1,195.00 in CY 2023, while soybean oil prices in Decatur, Illinois, totaled \$1,333.00 per metric ton. There are limitations to compare the prices of imported processed oils at the U.S. ports of entry with the soybean oil quote in

Decatur, Illinois, as the costs of transportation of the feedstock to the renewable diesel facilities is not included.

Figure 7sa

**U.S. imports of processed oils by origin**



ROW=Rest of world.

Note: Harmonized System Code 1518004000 defined as: animal and vegetable fats and oils and their fractions, boiled, oxidized, dehydrated, sulfurized, etc. or otherwise chemically modified excluding harmonized system heading 1516.

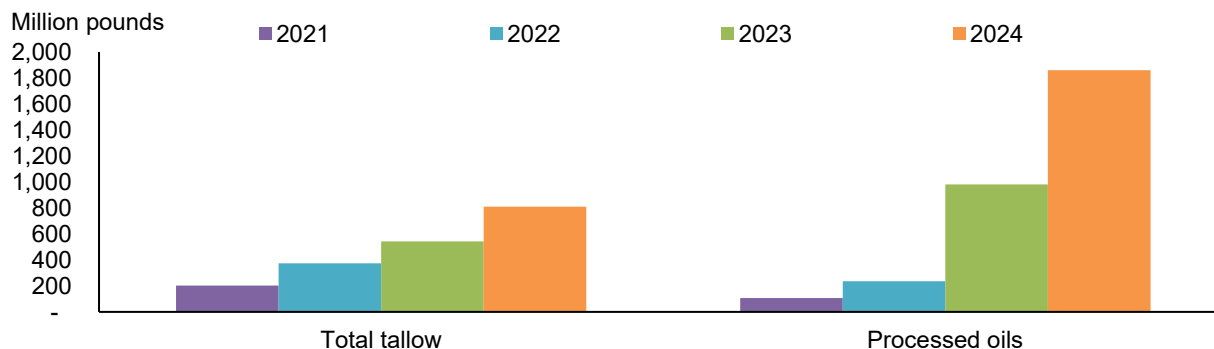
Source: USDA, Economic Research Service using USDA, Foreign Agricultural Service, Global Agricultural Trade System data.

In 2023, the processed oils were imported mainly through the New Orleans, Louisiana’s customs district and likely supplied feedstocks to new or existing renewable diesel facilities that had pathways for imported used cooking oil. In the first 5 months of 2024, processed oils imports reached 1.86 billion pounds, more than double the same period the previous year (figure 8sa). Imports from China accounted for 56 percent of total processed oil imports followed by Canada and Australia.



Figure 8sa

**January through May imports by feedstock, 2021–24**



Note: Tallow trade Harmonized System (HS) codes are 1502100040 and 1502100020. Processed oils are the HS 1518004000 code.

Source: USDA, Economic Research Service using USDA, Foreign Agricultural Service, Global Agricultural Trade System data.

## Implications for the Domestic Vegetable Oils Market

With the stronger tallow and processed oil imports feeding demand for renewable diesel production, the share of soybean oil in biofuel production has declined to nearly 33 percent in the first 4 months of 2024. Along with stronger fats and processed oils usage, canola oil use in biofuels has grown along with corn oil pushing the share of soybean oil lower. For more information, see USDA, Economic Research Service’s *December 2023 Oil Crops Outlook*. As a result, soybean oil prices declined and the spread between U.S. Gulf soybean oil prices and Argentina (Up River) narrowed to almost equal in May 2024. U.S. domestic soybean oil is likely to continue competing with the imports of fats and processed oils as feedstocks for biomass-based diesel production. Soybean oil has been the largest feedstock used by volume in the production of biomass-based diesel but will likely continue to face competition with low carbon-intensity feedstocks like yellow grease, used cooking oil, and tallow. For 2024/25, the U.S. supply of soybean oil is forecast to increase on higher domestic soybean supply and expansion in crush capacity to meet growing demand for soybean oil from the biofuels industry. Soybean oil prices in MY 2024/25 are projected to continue to fall on higher domestic supply, while U.S. soybean oil exports will recover slightly but are projected to remain well below historical volumes before the renewable diesel boom.

## Suggested Citation

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