



Economic Research Service | Situation and Outlook Report

OCS-19e | May 14, 2019

Next release is June 13, 2019

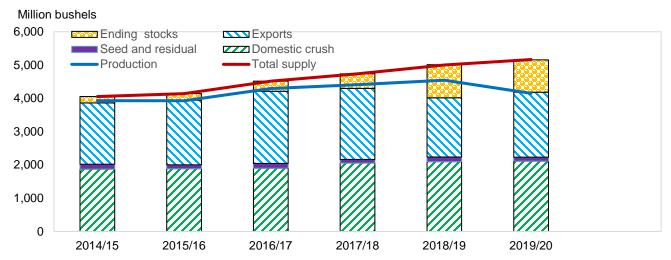
Oil Crops Outlook

Mark Ash Mariana Matias Susan Proper

Rebound for 2019/20 U.S. Soybean Exports May Not Erase Burdensome Stocks

USDA forecasts a 2019/20 soybean crop of 4.15 billion bushels—394 million bushels below the 2018/19 record. However, total supplies in 2019/20 would still eclipse the 2018/19 high by 166 million bushels due to an unprecedented level of beginning stocks. A rebound is expected for U.S. soybean exports in 2019/20 to 1.95 billion bushels after falling sharply this season. Coupled with a higher crush, USDA forecasts a modest reduction in season-ending soybean stocks for 2019/20 to 970 million bushels from a revised 2018/19 forecast of 995 million. USDA forecasts the U.S. 2019/20 average farm price at \$8.10 per bushel, compared to \$8.55 for 2018/19.

Large soybean stocks carryout will persist despite a demand recovery



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

Domestic Outlook

2019/20 Soybean Crop May Fall If Lower Acreage Intentions Are Realized

The fate of U.S. soybean production in 2019/20 could be largely decided by how well crop planting progresses in May. In USDA's March planting intentions report, farmers indicated that they would sow 84.6 million acres of soybeans this year. USDA forecasts a 2019/20 soybean crop of 4.15 billion bushels based on a typical harvest ratio of the intended acreage and an estimated trend yield of 49.5 bushels per acre. If realized, this would put this year's projected crop 394 million bushels below the 2018/19 record. Notwithstanding such a production decline, total supplies in 2019/20 would still eclipse the 2018/19 high by 166 million bushels due to an unprecedented level of beginning stocks.

A final level for this year's sown soybean area is still undetermined as only 6 percent had been sown so far. In late April, crop planting was stalled by a band of snow that fell across northern lowa, northern Illinois, southern Minnesota, and southern Wisconsin. Other parts of the Midwest also remain excessively wet, lengthening delays. As of May 5, corn planting was 23 percent behind its 5-year average. Likewise, spring wheat seeding in the Northern Plains was 27 percent behind average. The odds for a sudden improvement in soil drying recently dimmed when the National Weather Service issued a 30-day forecast for above-average precipitation throughout the Midwest. If conditions prevent a timely completion of grain planting, many farmers could be left with no alternative but to shift more acreage into soybeans than first intended.

Scant Tightening Seen for U.S. Soybean Carryout Even With Higher Use

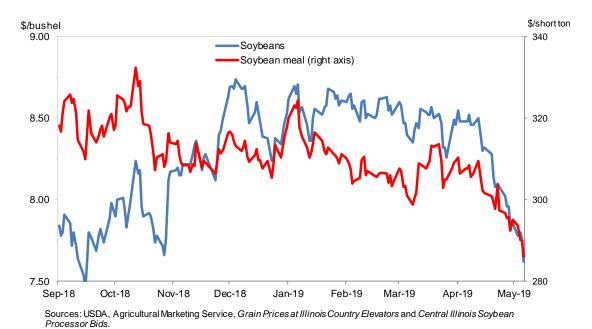
In 2019/20, a rebound is expected for U.S. soybean exports to 1.95 billion bushels after falling sharply this season. By next fall, shippers of U.S. soybeans will have the benefit of a record supply and reduced competition from Brazil. In contrast, the 2018/19 export forecast was revised down by 100 million bushels this month to 1.775 billion. High river levels in April slowed barge shipments to Gulf ports, while U.S. exports have lost competitiveness in some markets.

Abundant U.S. supplies in 2019/20 will support the domestic soybean crush, as well, although a more modest year-to-year gain is anticipated. While the meal extraction rate fell to a historically

low level this season, it should revert to its long-term average in 2019/20. If so, it would take not as much crushing to satisfy demand for soybean meal. Given the overall demand gains anticipated for soybean meal, the 2019/20 crush is forecast increasing by 15 million bushels to 2.115 billion. The 2019/20 gains would stem from a nearly 2-percent expansion of domestic soybean meal use to 36.6 million short tons. Stronger U.S. export markets for meat would buoy the number of domestic livestock and poultry (and the feed they consume) this year. Export opportunities for meat could develop in China, where its pork sector is seeking to recover. In contrast, an expected revival of competition for U.S. soybean meal exports could partly offset a growing domestic market. USDA's 2019/20 export forecast for soybean meal is down 1 percent to 13.6 million short tons.

The return to a soybean market equilibrium could remain elusive until demand for the crop catches up with supplies. An adjustment is likely to take more than a single year. In 2019/20, even a reduced U.S. crop and modestly higher use may only slightly shrink the current glut in soybean inventories. USDA forecasts a modest reduction in season-ending soybean stocks for 2019/20 to 970 million bushels from a revised 2018/19 forecast of 995 million.

Central Illinois cash prices weaken as spring planting delays lengthen



Soybean prices will stay depressed, weighed down by large old-crop stocks. Barring major summer yield losses, no imminent and strong rally for soybean prices appears likely. Earlier this year, farmers had an opportunity to forward contract soybeans for fall delivery at \$8.75-\$9.00 per bushel. Those sales prices have now plunged by nearly a dollar with the possibility that

new-crop acreage may not contract as much as intended. USDA forecasts the U.S. 2019/20 average farm price at \$8.10 per bushel, compared to \$8.55 for 2018/19. Soybean meal prices will face strong upward resistance, as well. The 2019/20 average price is forecast at \$290 per short ton, compared to \$305 for 2018/19.

Soybean oil prices tumbled in April as domestic output picked up and the South American soybean harvest neared completion. Despite an outlook for a higher 2019/20 soybean crush, soybean oil output might stagnate if the high 2018/19 oil extraction rate settles back to a trend level. Domestic use of soybean oil is also set to remain brisk. Particularly noteworthy is the rising use of soybean oil by producers of biodiesel and renewable diesel. Momentum for that market was sustained in November, when EPA proposed an increase in its 2020 U.S. volume requirement for biomass-based diesel to 2.43 billion gallons from 2.1 billion for 2019. In contrast, U.S. soybean oil exports may be held back by robust domestic use and renewed Argentine competition. U.S. soybean oil shipments abroad are seen declining by 16 percent in 2019/20 to 1.8 billion pounds, so that overall demand might realize a marginal increase. Stocks of soybean oil would gradually tighten in 2019/20 to a 6-year low of 1.45 billion pounds. But this is not alarming considering that the massive soybean stocks represent the equivalent of billions of pounds of oil. Soybean oil prices—which are forecast at 29.5 cents per pound, versus 28 cents for 2018/19—would be buoyed by lower supplies and higher use.

U.S. Canola Imports May Expand Sharply With Lower Crop

Lower acreage is expected to reduce U.S. canola production 2019/20 by 10 percent to 3.3 billion pounds. U.S. planting intentions for canola are down 4 percent from last year to 1.9 million acres. Based on normal prevented planting and abandonment, 2019/20 harvested acreage is expected at 1.8 million acres. Assuming normal weather, a trend yield is forecast at 1,775 pounds per acre (versus 1,861 pounds last year). However, weather conditions in North Dakota are already unusually wet this spring. U.S. imports of canola in 2019/20 are predicted to swell 46 percent to 1.7 billion pounds as crushing demand accelerates. Large Canadian supplies will pressure the canola price, which is forecast declining to \$15.35 per hundredweight from \$16 in 2018/19. Canola oil prices may stabilize near 36.50 cents per pound, while meal prices are forecast down to \$240 per short ton, based on competition from other protein meals.

Oil-type sunflowerseed production is forecast at 1.9 billion pounds, nearly unchanged from last year. Slightly higher planted acreage would be countered by a return to a lower trend yield. A 30-percent decline in March 1 stocks (at 676 million pounds) compared to a year earlier will encourage planting. Most of the crop will be crushed domestically, as the U.S. is neither a major

importer nor exporter of oil-type sunflowerseed. Exports of sunflowerseed oil are predicted down slightly, to 85 million pounds, while imports may stay flat at 150 million pounds. The price of oil-type sunflowerseed is forecast down slightly, at \$16.10 per hundredweight. The sunflower oil price is forecast slightly higher, at 54 cents per pound, while the price of sunflower meal may fall in alignment with other protein meals to \$160 per short ton.

Confection sunflowerseed production for 2019/20 is projected up on an increase in intended acreage and a modest increase in yield. The NASS *Prospective Plantings* report showed an increase in non-oil sunflowerseed acreage in North Dakota and Kansas. Exports in 2018/19 have lagged the 2017/18 pace, although with last year's smaller crop, ending stocks could still be relatively tight, with only slightly higher beginning stocks in 2019/20. Canada and South Korea remain the largest importers of U.S. shelled sunflowerseed for human use, while Spain, Mexico, and Israel are the largest importers of U.S. in-shell human use.

USDA's *Grain Stocks* reported, as of March 1, 2019, inventories of non-oil-type sunflowerseed were 152 million pounds, down from 191 million a year earlier. The relatively tight stocks for the 2018/19 crop should prompt price-competitive contracts for the new crop. The 2018/19 crop price premium for non-oil type versus oil-type sunflowerseed is forecast at \$5.65 per hundredweight—nearly \$2 higher than the premium of the previous 2 years, and a premium of \$5.50 is forecast in 2019/20.

The forecast 2019/20 price of \$21.60 per hundredweight for confection-type sunflowerseed is slightly lower than the 2018/19 forecast of \$22.30. Despite this, in many U.S. counties the crop still provides a higher return per acre than many competing crops. A wet spring in Kansas, Nebraska, and the Dakotas could provide an opportunity for more acreage in confection sunflowerseed if current premiums persist. Depending on the State, USDA's Risk Management Agency final planting dates for sunflowerseed range from June 10 to June 25, so it is premature to determine how much acreage could be added.

Cottonseed production is forecast 23 percent higher in 2019/20 to 6.9 million short tons. Despite lower prospective plantings for upland cotton, higher yield and forecast harvested acres would raise the crop. Demand for cottonseed and meal for feed and cottonseed oil for domestic use remains steady. Cottonseed exports are forecast to be slightly higher in 2019/20, reflecting the larger crop. Following the lead of the soybean complex, prices are forecast higher for cottonseed oil and lower for cottonseed meal, at 34 cents per pound and \$222 per short ton, respectively. The cottonseed price is forecast slightly lower at \$145 per short ton, reflecting relatively lower prices for competing protein meals in 2019/20.

U.S. production for peanuts in 2019/20 is projected up 3 percent to 5.6 billion pounds based on modest increases in intended planting and yield. The NASS *Prospective Plantings* report showed most peanut acreage gains are expected for Texas, where cotton and sorghum acreage intentions fell, and Florida, where cotton acreage is down 23 percent. With moderate growth in production, higher use of peanuts is expected to continue to shrink ending stocks from their high 2017/18 level. Increases are expected for food use, crushing, and exports, with prices remaining relatively flat at 21 cents per pounds.

Flaxseed production for 2019/20 is forecast at 7.7 million bushels, up from 4.5 million bushels in 2018. Acreage is forecast at 345,000 acres, based on NASS *Prospective Plantings* report, and up from 208,000 acres in 2018, but only slightly higher than 2017 acres. Acreage tends to vary widely for flaxseed year to year, based on expected revenue of competing crops, particularly pulses and wheat. The 2019/20 price is forecast at \$9.00 per bushel (based on larger supply in both the United States and Canada), down from the 2018/19 price of \$9.80 per bushel. Imports for 2019/20 are forecast down, based on ample domestic supply and relatively flat domestic demand, and ending stocks are forecast up. Most of the U.S. trade in flaxseed and products is with Canada, except for raw flax fiber imported from France.

The NASS *Crop Values*—2018 *Summary* report provided a preliminary estimate of the 2018/19 price for safflowerseed of \$20.30 per hundredweight. Safflowerseed prices are expected to be lower in 2019/20, at \$19.50 per hundredweight. Sown safflowerseed acreage is forecast at 170,000 acres, slightly above the 5-year average, as safflowerseed is expected to be relatively competitive with wheat and pulses on returns per acre. Production is forecast down based on a return to average yield. Trade is not expected to have much impact on either price or acreage, since most of the U.S. safflowerseed crop is crushed domestically. A substantial portion of U.S. safflowerseed oil is exported, primarily to Canada and Mexico for refined oil and to Japan for crude oil.

International Outlook

Limited Easing of Global Soybean Supplies Seen With Poor China Demand

Low soybean prices are a deterrent for production throughout the world this year. USDA forecasts global soybean output for 2019/20 down 2 percent to 355.8 million metric tons. Prospects for a smaller U.S. soybean harvest may be only partly offset by moderate gains in South America. Nevertheless, the global supply of soybeans could be larger than ever in 2019/20 with a large accumulation of U.S. beginning stocks. Patterns of international soybean trade may re-adjust. That U.S. surplus would help its exports to regain market share—mostly at the expense of Brazil. Global soybean demand would benefit from minimal increases for other oilseed supplies. Even so, global imports of soybeans may expand only 1 percent to 150.8 million tons. Overall ending stocks for 2019/20 may decline only 90,000 tons as gains in consumption virtually match the increase in global supplies. In contrast, 2019/20 global soybean meal trade may expand by 4 percent to 68.8 million tons with enlarged Argentine supplies.

Brazilian farmers could be eyeing modest gains in soybean area and yields for 2019/20 that would boost the country's total harvest by 5 percent to 123 million tons. Brazilian soybean area is forecast to edge up 2 percent to 36.9 million hectares. Yet, beginning soybean supplies in Brazil will start off sharply lower than a year earlier. By October, a reduced 2018/19 soybean harvest—accompanied by robust export gains to China—may slash the Brazilian stocks carryover by as much as 6.7 million tons. Brazilian soybean shipments in the first half of 2019/20 could unfold at a considerably slower pace than the previous year. Even though Brazilian soybean exports in 2019/20 are projected to retreat to 75 million tons from 78.5 million in 2018/19, it will remain the top exporting country.

The value of soybeans in the international market has weakened, but its price in Argentina has been supported by depreciation of the exchange rate. Now at 45 pesos per dollar, the Argentine peso has dropped to an all-time low. The input costs to grow soybeans in Argentina remain comparatively low, a consideration that would increase the 2019/20 soybean area to 17.5 million hectares. The Argentine trend yield for soybeans is projected minimally below this year's near-record, which would trim 2019/20 production to 53 million tons from 56 million in 2018/19.

With respect to Argentine soybean demand, the cheaper peso should aid its export shares. But the composition of its exports could depend on the status of trade relations next year between China and the United States. If China's import tariffs continue to stall U.S. soybean sales,

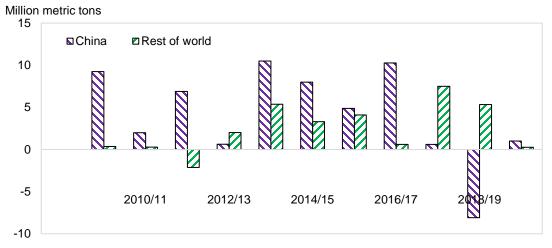
limited Brazilian supplies this fall may then encourage more Argentine exports. Conversely, that could deprive Argentine processors of domestic supplies to crush, which would curtail the capacity of processors to export soybean meal and oil unless they again heavily import soybeans from both Paraguay and the United States. For 2019/20, growth in the Argentine domestic crush is seen resuming—up 7 percent to 45 million. A renewal of crushing activity would help restore the level of Argentine soybean meal exports in 2019/20 to 31 million tons from 28.1 million in 2018/19. Meanwhile, Argentine soybean exports are projected up 11 percent to 7 million tons.

Unlike Argentina, Indian export prospects for soybean meal are more influenced by the strength of domestic use. Although Indian soybean area may expand in 2019/20, the crop is expected to decline by 5 percent to 10.9 million tons due to a lower yield trend. A reduction in the country's soybean stocks could allow a steady crush rate, however. Domestic use of soybean meal for 2019/20 is forecast up 3 percent to 5.75 million tons. But a matching supply increase would preclude any gains in Indian soybean meal exports for 2019/20, which are forecast unchanged at 1.85 million tons.

Over the last two decades, dynamic growth for China's imports has been the main engine of global soybean demand. For 2019/20, though, that steady expansion of China's soybean consumption is threatened. Currently unknown parameters are apt to shape the 2019/20 outlook for soybean imports, including a resolution of China's import tariff hikes with the United States. Even if a breakthrough in bilateral negotiations over soybean tariffs does emerge, protein feed demand in China has been acutely disrupted by an extensive outbreak of African swine fever (ASF). So the response of the sector to ASF is a crucial factor for global growth in soybean demand. After a 4-percent decline in 2018/19, USDA forecasts no increase for 2019/20 soybean meal consumption in China (at 67.3 million tons). That would then require no increase in the soybean crush, either, at 86 million tons.

At the same time, import demand for soybeans in China could also be constrained by an expansion in domestic output. China continues to provide a higher price subsidy for soybeans than corn. A soybean area increase this year is projected to boost China's 2019/20 domestic production by 7 percent to 17 million tons. It would be China's largest crop since 2004/05. Each of these factors would lead to a meager 1-million-ton increase in China's 2019/20 soybean imports to 87 million.

Year-to-year changes in China soybean imports usually dominate global trade



Source: USDA, Foreign Agricultural Service, Oilseeds: World Markets and Trade.

Aside from China, little growth for soybean imports is anticipated elsewhere. For comparison, 2019/20 projected gains for the rest of the world's imports are only 260,000 tons. In 2019/20, EU soybean imports will be tempered by a rekindled import demand for Argentine soybean meal. USDA forecasts a 3-percent decline in EU soybean imports to 15 million tons. Meanwhile, EU soybean meal imports are forecast to rise 2 percent in 2019/20 to 19 million tons. Other countries may similarly realize bigger gains for imports of soybean meal than for soybeans.

Lower Sown Area May Stall a Rapeseed Output Recovery

USDA projects global rapeseed production in 2019/20 to increase 3 percent to 74.8 million tons. A continuation of trade conflicts may also disrupt the usual direction and pace of international rapeseed trade.

Last summer's drought in Europe lingered well into autumn. Deficient September-October rainfall compelled many EU farmers to put off rapeseed planting in favor of wheat, which can be sown later. For 2019/20, EU rapeseed area is estimated down 18 percent to 5.8 million hectares. The year-to-year area losses are steep for Germany (-25 percent), France (-20 percent), and Romania (-60 percent), with smaller losses in other countries. Since planting, though, much of northern Europe had a mild winter and has seen good improvement in soil moisture. Warmer spring weather is advancing crop development earlier than usual and flowering is underway in some locations. Provided that spring rains resume at a normal frequency, EU rapeseed yields in 2019/20 are likely to recover well. Yield improvement may preclude a larger reduction in the EU rapeseed crop to 19.7 million tons versus 20.1 million in

2018/19. Still, if realized, the harvest would fall to a 7-year low. Extension of the domestic supply deficit into 2019/20 is likely to draw in more EU rapeseed imports, which are projected up 7 percent to 4.8 million tons.

In contrast, other countries may reap larger rapeseed crops that would counter a decline in Western Europe. Ukraine had favorable sowing conditions that allowed its predominantly fall-sown rapeseed area to swell by 30 percent to 1.3 million hectares. Rapeseed losses from winterkill were also minimal. Higher rapeseed area for Ukraine may spark a 37-percent production surge to a record 3.9 million tons. A bigger projected crop for Ukraine could boost its rapeseed exports (to 3.5 million tons from 2.5 million in 2018/19) and mitigate the EU supply deficit. Ukraine has now surpassed Australia as the world's second-largest rapeseed exporting country after Canada.

As of March 31, Canadian old-crop stocks of canola had soared to an all-time high. The usual decline in stocks has slowed since the largest Canadian export market was closed off by a trade dispute with China. Lost demand has depressed the Winnipeg canola futures contract by 12 percent since January and 17 percent from a year ago. Also, recent flare ups of two canola diseases—clubroot and blackleg—may be encouraging some alterations of crop rotations. Farmers may want to lengthen the number of seasons between canola crops with more frequent planting of wheat. These adjustments help explain the decline in planting intentions for canola this year and increases for both spring wheat and barley. Soil preparation may get an earlier start this spring after a below-average snowfall for the Canadian Prairies last winter. Crop sowing may advance faster than usual this year. A higher trend yield could offset the loss of canola acreage in Canada. USDA forecasts that 2019/20 production will match last year's canola crop of 21.1 million tons.

In Canada, few other import markets can fully replace the void left by the stalled canola trade with China. One alternative could be additional shipments to the EU, where a wider price discount for Canadian supplies could facilitate trade. Overall, Canadian exports are expected to shrink 5 percent in 2019/20 to 10.1 million tons. A drawn out conclusion of the trade dispute could steer some additional supplies toward domestic crushing plants. Despite their access to abundant supplies of low-cost canola, Canadian crushing plants are nearing their maximum processing capacity. An increase in the Canadian 2019/20 canola crush may be tempered to 9.5 million tons (up 1 percent). Season-ending canola stocks may swell to a record 4.4 million tons.

Australian canola yields were slashed by a severe drought in 2018/19, but a rebound for the 2019/20 crop is likely. Australian canola prices have not strengthened enough to encourage a major increase in sown area this year. More normal weather, however, could sharply reduce abandonment and the harvested area could swell by as much as 42 percent to 2.7 million hectares. Provided that better weather conditions support a resurgence in canola yields, the 2019/20 Australian crop could bulge 68 percent to 3.7 million tons. An improved harvest would let Australian exports regain market share in Europe, where they earn a price premium for being free of biotech varieties. An opportunity to expand shipments to China could develop, too. In 2018/19, Australian canola exports plunged 22 percent to 1.9 million tons but 2019/20 shipments are projected to bounce back to 2.3 million tons.

China's domestic rapeseed harvest may inch up 2 percent in 2019/20 to 13.1 million tons based on a marginal increase in area. But a heightened competition for non-Canadian supplies could constrain the ability of Chinese processors to acquire imports. Provided that China grants regulatory approval, they could pick up some rapeseed exports from Ukraine, although the EU market may still have the best claim on those shipments. Rapeseed imports by China for 2019/20 are projected at 4.1 million tons—up from 4 million in 2018/19 but below the 4.7 million imported in 2017/18. A decline is seen for China's rapeseed crushers (by 1 percent to 16.6 million tons) as processing margins have been pressured by the low cost of imported palm oil.

Slowing Production Gains Anticipated for Sunflowerseed

For 2019/20, global sunflowerseed output is projected down 1 percent to 51 million tons. In Ukraine the sunflowerseed industry has grown impressively over the last decade after a doubling of its crop production and use. Yet, Ukraine sunflowerseed production may slip 1 percent to 14.8 million tons in 2019/20 as an area decline offsets a rising yield trend. Nearly all of Ukraine's sunflowerseed harvest is crushed domestically due to the low cost of sunflowerseed. Ukraine favors its domestic processors by imposing a 10-percent export tax on sunflowerseed (although a trade agreement sets a lower rate for EU countries). At the same time, the exports of oil and meal are untaxed. A smaller harvest would thereby scale back the 2019/20 sunflowerseed crush by 2 percent to 14.5 million tons.

The sunflowerseed area sown In Russia for 2019/20 could remain steady. The unharvested area, though, could be higher than its unusually low 2018/19 level. If last year's high crop yields can be repeated, the 2019/20 Russian sunflowerseed harvest may decline by only 2 percent to

12.5 million tons. A reduction in carryout stocks might even allow the Russian sunflowerseed crush to increase to 12.4 million tons.

Planting of the sunflowerseed crop is now underway throughout Europe. In 2019/20, EU sunflowerseed area is seen increasing 4 percent to 4.3 million hectares. The average yield may not duplicate last year's all-time high, though, so EU sunflowerseed production might only match the 2018/19 harvest of 9.7 million tons. An expansion of the domestic crush may be limited by competition from higher EU imports of sunflowerseed oil.

Slightly lower Argentine sunflowerseed production is seen for 2019/20 based on a trend yield just below last season's superb crop. After an improved 2018/19 global harvest for sunflowerseed, the Argentine area—at 1.8 million hectares—could be constrained by a weakened price. The attractiveness of sunflowerseed is also diminished due to a reintroduction of Argentine export taxes on sunflowerseed last year. With lower production, domestic crush is lowered slightly to 3.4 million tons.

Bigger Crops Are Expanding Cottonseed Use

USDA estimates 2019/20 global cottonseed production will increase 5 percent to 45.8 million tons. India and the United States would account for nearly all of the 2-million-ton increase, although smaller gains are also expected for Pakistan and several African countries. Production incentives and export opportunities for some countries have been enhanced by slow production growth in China and its higher tariffs imposed on U.S. cotton imports last year.

Indian cotton area may expand 1 percent to 12.4 million hectares as market prices have strengthened by 12 percent from a year ago. Assuming normal monsoon rainfall, improved yields are projected to raise Indian cottonseed production for 2019/20 by 12 percent to 12.1 million tons. Similarly, a higher area is expected to raise Pakistan's production of cottonseed—by 4 percent in 2019/20 to 3.5 million tons.

The decline in China's cotton area over the last decade may have bottomed, with overall new-crop area this year projected nearly unchanged at 3.45 million hectares. China's cottonseed production in 2019/20 is projected unchanged at 10.9 million tons as the estimated trend yield is slightly above a year ago. Slightly higher imports of cottonseed would also help to maintain the level of domestic use.

Cotton prices in Brazil have stayed elevated this year after continuing weakness of the country's exchange rate. Brazil is now also one of the few alternative sources for the high-quality cotton

fiber that China typically imports from the United States, which have been imposed a higher duty. An enhanced export market may maintain the high level of Brazilian cotton area for 2019/20 at a 28-year high of 1.65 million hectares. The trend yield in Brazil is likely below last year's record, which is projected to reduce Brazilian cottonseed production by 6 percent in 2019/20 to 3.9 million tons. The output of Pakistan's cottonseed—its top oilseed crop—could be raised 4 percent in 2019/20 to 3.5 million tons.

Minor Changes Likely for Global Peanut Trade

For 2018/19, global peanut production is projected down 2 percent to 44.9 million tons. Crop increases for India and China are more than offset by reductions for several African countries. Over half of the production in India and China is crushed domestically for the production of oil and meal. The global import growth of confectionery peanuts are projected at 1 percent for 2019/20, with the EU market being the top destination for imports.

Poor rainfall last year helped to slash India's peanut crop by 29 percent. For 2019/20, Indian peanut area may bounce back by 6 percent to 5 million hectares. Provided the summer monsoon season is less erratic, peanut yields could rebound too. Indian peanut production in 2019/20 could then recover to 5.8 million tons from 4.7 million in 2018/19. A better Indian peanut crop would also provide a boost for its exports.

In China, market conditions for growing peanuts are stable. Although peanut prices in China are modestly higher than a year ago, the 2019/20 area is expected to rise only 1 percent to 4.6 million hectares. Slow growth for area and yields is projected to raise China's 2019/20 peanut production by 3 percent to 17.5 million tons. Domestic consumption may nearly match the output growth so peanut exports from China may expand minimally in 2019/20.

India and China To Dominate Global Trade in Vegetable Oil

Following 2 highly productive years, the growth in Indonesian palm oil production for 2019/20 could slow. A steady decline in prices could also lead producers to cut back on fertilizer use this year. For 2019/20, USDA projects Indonesian palm oil production to rise 4 percent to 43 million tons. Demand gains for Indonesian palm oil will primarily stem from exports and its domestic biodiesel market. Low-cost Indonesian palm oil is forecast to boost 2019/20 exports by 3 percent to 30 million tons.

In recent years, a volatile export market for Indonesian biodiesel has forced its industry to focus inward for demand growth. Indonesian officials have often touted higher domestic consumption of biodiesel as a way to conserve the foreign exchange spent on crude oil imports. Last year's plunge in the rupiah only reinforced that initiative and accelerated the schedule of the Government's mandated biodiesel blending rate. By 2020, the national blend rate will be raised from 20 percent to 30 percent. After several years of robust growth, the use of palm oil by the domestic biodiesel industry may increase marginally in 2019/20 to 6.7 million tons.

Compared to Indonesia, Malaysian palm oil output may expand less rapidly due to an older age profile for its trees. Conversely, an improvement in the availability of labor for harvesting is contributing to less waste. Malaysian palm oil production may edge only 1 percent higher in 2019/20 to 20.7 million tons. Palm oil exports are seen increasing to 18 million tons from 17.2 million in 2018/19. Still, Malaysian palm oil stocks have been accumulating. Next year, the Malaysian Government is set to double its required blending rate for biodiesel to 20 percent. By 2019/20, palm oil stocks could be drawn back down by the steady growth in exports and industrial use.

Indian domestic production of oilseeds for 2019/20 is expected to increase 4 percent to 37.4 million tons, which will raise vegetable oil production accordingly. Nevertheless, India's status as the leading import market will be preserved by strong growth for Indian vegetable oil consumption (up 3 percent to 24.5 million tons). Indian palm oil imports for 2019/20 are forecast rising 2 percent to 10.8 million tons while soybean oil imports could increase 3 percent to 3.5 million. At 2.45 million tons, India will remain a top global buyer of sunflowerseed oil as well.

Even as its protein meal demand falters, vegetable oil consumption in China will keep rising steadily in 2019/20. A slackening pace for soybean oil production in China in 2019/20 may limit its consumption. However, an increase in palm oil imports to a record 6.7 million tons would help to compensate.

Tight supplies may continue to constrain EU demand for rapeseed oil, particularly by the biodiesel industry. EU imports of sunflowerseed oil may also be tempered by fewer Ukrainian supplies. And in a stark contrast to the expected import gains by many developing countries, little change is seen for EU palm oil imports. This may happen despite a widening price discount for palm oil with other vegetable oils and with diesel fuel. Earlier this year, the European Commission concluded that the expansion of palm oil production causes deforestation. If EU member governments ultimately concur with that determination, the EU could soon enact an

update to its Renewable Energy Directive (RED). Through 2023, the new RED would cap palm
oil use for EU biofuels at the 2019 level and then entirely phase it out by 2030.

Table 1--Soybeans: Annual U.S. supply and disappearance

Table 1Soybeans: A	Area		Yield		Supply					Use		
Year beginning	Planted	Harvested		Beginning				Crush	Seed &			Ending
September 1					Production	Imports	Total		residual	Exports	Total	stocks
	Million acre		Bu./acre					bushels				
2017/18 ²	90.2	89.5	49.3	302	4,412	22	4,735	2,055	113	2,129	4,297	438
2018/19 ²	89.2	88.1	51.6	438	4,544	17	4,999	2,100	129	1,775	4,004	995
2019/20 ²	84.6	83.9	49.5	995	4,150	20	5,165	2,115	130	1,950	4,195	970
Soybeans: Quarterly	U.S. supply a	and disappea	rance									
2017/18												
September						1.4		145.4		164.1		
October						2.8		175.9		354.4		
November						1.4		173.3		337.6		
September-November	er			301.6	4,411.6	5.6	4,718.8	494.6	207.4	856.1	1,558.2	3,160.7
December						2.3		176.3		228.6		
January						1.5		174.7		211.7		
February						1.2		165.0		154.8		
December-February				3,160.7		5.0	3,165.7	516.0	-54.8	595.2	1,056.3	2,109.3
March						2.1		182.2		119.0		
April						2.4		171.6		79.6		
May						1.9		172.5		109.9		
March-May				2,109.3		6.4	2,115.7	526.3	61.6	308.5	896.4	1,219.3
June						1.9		169.6		119.6		
July						2.2		178.9		125.9		
August						0.8		169.6		123.7		
June-August				1,219.3		4.8	1,224.1	518.1	-101.3	369.3	786.0	438.1
Total					4,411.6	21.8	4,735.0	2,054.9	112.9	2,129.1	4,296.9	
2018/19												
September						1.0		169.6		119.0		
October						0.8		183.6		205.0		
November						1.8		178.1		186.2		
September-November	er			438.1	4,543.9	3.6	4,985.6	531.3	198.3	510.2	1,239.8	3,745.8
December						1.1		183.8		150.9		
January						1.0		183.1		177.4		
February						1.5		162.8		168.2		
December-February				3,745.8		3.6	3,749.4	529.6	7.8	496.5	1,033.9	2,715.6
March						1.5	•	179.4		136.2	•	•
Total to date					4,543.9	8.7		1,240.4		1,142.8	2,273.7	

¹ Estimated. ² Forecast. Note: 1 metric ton equals 36.744 bushels and 1 hectare equals 2.471 acres. NA: Not available.

Sources: USDA, National Agricultural Statistics Service, Crop Production and Grain Stocks and U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics.

Table 2--Soybean meal: U.S. supply and disappearance

		S	upply		С	isappearar	nce	
Year beginning	Beginning							Ending
October 1	stocks	Production	n Imports		Domestic	Exports	Total	stocks
				1,00	0 short tons-			
2017/18 ¹	401	49,226	495	50,121	35,509	14,057	49,566	555
2018/19 ²	555	49,097	500	50,152	35,952	13,750	49,702	450
2019/20 ²	450	49,800	350	50,600	36,600	13,600	50,200	400
2017/18								
October	400.6	4,123.8	29.5	4,554.0	3,378.7	782.0	4,160.7	393.3
November	393.3	4,101.7	34.4	4,529.4	3,025.7	1,114.5	4,140.3	389.1
December	389.1	4,173.0	32.3	4,594.4	2,850.6	1,188.9	4,039.5	554.9
January	554.9	4,128.3	47.4	4,730.6	3,137.9	1,182.7	4,320.6	410.0
February	410.0	3,899.6	48.2	4,357.7	2,658.7	1,243.3	3,901.9	455.8
March	455.8	4,306.5	56.8	4,819.1	2,938.5	1,336.4	4,274.9	544.2
April	544.2	4,079.9	40.1	4,664.2	2,988.4	1,223.7	4,212.1	452.1
May	452.1	4,109.3	44.4	4,605.8	2,890.0	1,282.7	4,172.7	433.1
June	433.1	4,032.3	42.6	4,508.1	2,723.6	1,386.0	4,109.5	398.5
July	398.5	4,244.7	39.9	4,683.1	3,070.4	1,100.3	4,170.7	512.4
August	512.4	4,030.8	45.6	4,588.8	3,017.9	1,169.9	4,187.8	401.1
September	401.1	3,995.6	33.9	4,430.6	2,828.5	1,046.7	3,875.2	555.4
Total		49,225.6	495.1	50,121.4	35,508.9	14,057.0	49,566.0	
2018/19								
October	555.4	4,291.0	53.3	4,899.8	3,347.3	1,107.6	4,454.9	444.9
November	444.9	4,155.1	38.3	4,638.3	3,143.5	1,159.4	4,302.9	335.5
December	335.5	4,295.7	59.5	4,690.7	3,062.2	1,193.4	4,255.5	435.1
January	435.1	4,269.5	63.1	4,767.7	2,820.1	1,527.8	4,347.9	419.8
February	419.8	3,836.6	59.0	4,315.4	2,922.5	1,098.1	4,020.6	294.9
March	294.9	4,200.8	73.5	4,569.2	2,875.2	1,183.9	4,059.1	510.1
Total to date		25,048.8	346.8	25,951.0	18,170.7	7,270.2	25,440.9	

¹ Estimated. ² Forecast. Note: 1 metric ton equals 1.10231 short tons. NA: Not available.

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

Table 3--Soybean oil: U.S. supply and disappearance

		S	Supply			Disappeara	nce			_
Year beginning	Beginning	Production	Imports	Total	Domestic			Exports	Total	Ending
October 1	stocks				Total	Biodiesel	Food & Other	r		stocks
					Million po	ounds				
2047/402	4 744	22.772	225	25.040	24.270	7.404	* 44.040	0.447	22.022	4.005
2017/18 ²	1,711	23,772	335	25,819	21,376	7,134	14,243	2,447	23,823	1,995
2018/19 ²	1,995	24,570	400	26,965	22,950	8,350	14,600	2,150	25,100	1,865
2019/20 ²	1,865	24,535	450	26,850	23,600	8,700	14,900	1,800	25,400	1,450
2017/18										
October	1,711.0	2,016.9	32.2	3,760.0	1,921.2	577.4	1,343.7	212.6	2,133.8	1,626.2
November	1,626.2	1,977.0	22.0	3,625.3	1,802.5	590.8	1,211.7	132.1	1,934.7	1,690.6
December	1,690.6	2,015.3	31.2	3,737.0	1,613.4	594.0	1,019.5	172.9	1,786.4	1,950.7
January	1,950.7	1,995.6	22.1	3,968.4	1,547.9	462.1	1,085.8	180.7	1,728.6	2,239.8
February	2,239.8	1,889.8	41.1	4,170.8	1,564.3	495.6	1,068.7	181.1	1,745.4	2,425.4
March	2,425.4	2,079.1	21.1	4,525.6	1,879.6	624.2	1,255.4	201.5	2,081.1	2,444.5
April	2,444.5	1,964.9	28.7	4,438.1	1,537.0	519.6	1,017.4	212.3	1,749.3	2,688.8
May	2,688.8	1,966.5	34.1	4,689.4	1,883.9	581.3	1,302.6	431.4	2,315.3	2,374.1
June	2,374.1	1,936.9	31.8	4,342.7	1,809.6	623.6	1,186.0	228.3	2,037.9	2,304.8
July	2,304.8	2,043.3	32.7	4,380.8	1,822.5	671.3	1,151.2	174.7	1,997.2	2,383.6
August	2,383.6	1,945.0	23.7	4,352.3	1,939.9	705.1	1,234.8	197.6	2,137.5	2,214.8
September	2,214.8	1,942.1	14.7	4,171.6	2,054.5	688.7	1,365.8	121.7	2,176.1	1,995.4
Total		23,772.4	335.4	25,818.8	21,376.3	7,133.7	14,242.6	2,447.1	23,823.4	
2018/19										
October	1,995.4	2,134.6	35.4	4,165.4	1,971.7	698.9	1,272.9	146.1	2,117.8	2,047.6
November	2,047.6	2,060.6	35.3	4,143.5	2,027.3	703.8	1,323.5	215.8	2,243.2	1,900.3
December	1,900.3	2,135.4	45.6	4,081.3	1,964.9	767.8	1,197.2	170.5	2,135.4	1,945.8
January	1,945.8	2,115.8	31.0	4,092.7	1,866.9	622.8	1,244.1	221.1	2,088.0	2,004.7
February	2,004.7	1,899.2	29.3	3,933.3	1,692.4	559.6	1,132.8	91.7	1,784.1	2,149.1
March	2,149.1	2,094.4	30.4	4,273.9	NA	NA	NA	271.8	2,041.0	2,232.
Total to date		12,439.9	207.1	14,642.5	9,523.3	3,352.8	6,170.5	1,117.1	12,409.5	

Total to date
 12,439.9
 207.1
 14,642.5
 9,523.3
 3,352.8

 1 Estimated.
 2 Forecast. Note: 1 metric ton equals 2,204.622 pounds. NA: Not available.

Source: USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*. Last update: 5/13/2019

Table 4--Cottonseed: U.S. supply and disappearance

		5	Supply			Disappearance					
Year beginning	Beginning	9							Ending		
August 1	stocks	Production	Imports	Total	Crush	Exports	Other	Total	stocks		
					1,000 short tons						
2017/18 ¹	400	6,422	0	6,822	1,854	478	4,040	6,372	450		
2018/19 ²	450	5,631	2	6,083	1,900	425	3,458	5,783	300		
2019/20 ²	300	6,930	2	7,232	2,100	450	4,296	6,846	386		

¹ Estimated. ² Forecast.

Sources: USDA, National Agricultural Statistics Service, *Crop Production* and U.S. Department of Commerce, U.S. Census Bureau, *Foreign Trade Statistics*.

Table 5--Cottonseed meal: U.S. supply and disappearance

		5	Supply		Disappearance			
Year beginning October 1	Beginning stocks	Production	Imports	Total	Domestic	Exports	Total	Ending stocks
			·	1,000 short tons		·		
2017/18 ¹	28	845	0	873	708	119	828	45
2018/19 ²	45	855	0	900	750	110	860	40
2019/20 ²	40	945	0	985	835	110	945	40

¹ Estimated. ² Forecast.

Source: USDA, Foreign Agricultural Service, PS&D Online.

Table 6--Cottonseed oil: U.S. supply and disappearance

		5	Supply			Dis			
Year beginning	Beginning								Ending
October 1	stocks	Production	Imports	Total		Domestic	Exports	Total	stocks
				Million	pounds				
2017/18 ¹	44	561	0	605		461	112	573	32
2017/10 2018/19 ²	32	530	1	563		406	125	531	32
2019/20 ²	32	610	1	643		478	125	603	40

¹ Estimated. ² Forecast.

Source: USDA, Foreign Agricultural Service, Production, Supply, and Distribution Online.

Table 7--Peanuts: U.S. supply and disappearance

_	A	rea	Yield		Supp	oly			D	isappear	ance		_
Year beginning	Planted	Harvested	1	Beginning				Domesti	С	Seed an	d		Ending
August 1				stocks	Production	Imports	Total	food	Crush	residual	Exports	Total	stocks
	1,000	acres	Pounds/acre					Million pounds					
2017/18 ¹	1,872	1,776	4,007	1,442	7,115	171	8,728	3,149	705	885	1,273	6,011	2,717
2018/19 ²	1,426	1,369	3,991	2,717	5,462	110	8,289	3,078	650	882	1,250	5,860	2,429
2019/20 ²	1,449	1,391	4,051	2,429	5,635	100	8,164	3,128	704	804	1,275	5,911	2,253

¹ Estimated. ² Forecast.

Sources: USDA, National Agricultural Statistics Service, Crop Production and Peanut Stocks and Processing, and U.S. Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics.

Table 8--Oilseed prices received by U.S. farmers

Marketing		Cottonseed ²	Sunflowerseed ¹	Canola ¹	Peanuts ²	Flaxseed ³
year	•					
	\$/bushel	\$/short ton	\$/cwt	\$/cwt.	Cents/pound	\$/bushel
2009/10	9.59	158.00	15.10	16.20	21.70	8.15
2010/11	11.30	161.00	23.30	19.30	22.50	12.20
2011/12	12.50	260.00	29.10	24.00	31.80	13.90
2012/13	14.40	252.00	25.40	26.50	30.10	13.80
2013/14	13.00	246.00	21.40	20.60	24.90	13.80
2014/15	10.10	194.00	21.70	16.90	22.00	11.80
2015/16	8.95	227.00	19.60	15.60	19.30	8.95
2016/17	9.47	195.00	17.40	16.60	19.70	8.00
2017/18	9.33	142.00	17.20	17.50	22.90	9.53
2018/19 ¹	8.55	152.00	17.25	16.00	21.30	9.80
2019/20 ¹	8.10	145.00	16.75	15.35	21.00	9.00
2017/18						
September	9.35	127.00	17.40	17.30	23.00	9.55
October	9.18	141.00	16.80	16.60	23.20	9.23
November	9.22	144.00	16.60	17.20	22.70	9.21
December	9.30	143.00	17.00	16.70	23.00	9.34
January	9.30	139.00	17.60	17.70	22.90	9.39
February	9.50	156.00	17.70	18.30	22.70	9.81
March	9.81	NA	17.30	18.20	24.40	9.76
April	9.85	NA	18.00	17.50	23.30	9.92
May	9.84	NA	17.90	18.50	22.70	10.10
June	9.55	NA	17.70	17.20	22.70	9.98
July	9.08	NA	17.40	17.10	22.40	9.96
August	8.59	134.00	16.90	15.30	22.00	10.20
2018/19						
September	8.77	141.00	16.70	15.20	22.20	9.79
October	8.58	146.00	16.70	15.60	22.10	9.79
November	8.37	152.00	17.00	16.00	21.20	9.76
December	8.57	163.00	16.40	16.30	17.80	9.66
January	8.63	165.00	17.40	16.70	22.20	9.75
February	8.52	174.00	18.00	16.20	21.50	9.79
March	8.52	NA	17.80	15.80	16.00	10.10

¹ September-August. ² August-July. ³ July-June. NA = Not available. cwt=hundredweight.

Source: USDA, National Agricultural Statistics Service, Agricultural Prices.

Table 9--U.S. vegetable oil and fats prices

Marketing	Soybean		Sunflowerseed	Canola	Peanut	Corn	Lard ⁶	Edible
year	oil ²	oil ³	oil ⁴	oil ⁴	oil ⁵	oil ⁶		tallow ⁶
-				Cents/	pound			
2009/10	35.95	40.27	52.80	42.88	59.62	39.29	31.99	32.26
2010/11	53.20	54.50	86.12	58.68	77.24	60.76	51.52	51.34
2011/12	51.90	53.22	83.20	57.19	100.15	56.09	48.11	50.33
2012/13	47.13	48.60	65.87	56.17	91.83	46.66	51.80	43.24
2013/14	38.23	60.66	59.12	43.70	68.23	39.43	43.93	39.76
2014/15	31.60	45.74	66.72	37.81	57.96	37.48	33.43	31.36
2015/16	29.86	45.87	57.81	35.27	58.26	39.25	32.23	30.07
2016/17	32.55	40.92	53.54	38.73	66.73	37.43	33.07	34.75
2017/18	30.04	31.87	54.57	38.27	66.72	30.35	34.16	31.21
2018/19 ¹	28.00	33.50	53.00	36.50	64.50	27.00	31.50	31.50
2019/20 ¹	29.50	34.00	54.00	36.50	66.50	31.50	32.50	32.00
2017/18								
October	32.35	37.06	56.00	39.06	65.44	34.96	36.00	32.06
November	33.43	37.00	55.50	39.69	65.00	34.46	38.17	33.44
December	32.27	34.25	54.80	38.65	65.20	33.96	37.00	31.63
January	31.61	32.75	55.50	38.31	66.13	30.68	32.08	NA
February	30.63	31.44	55.00	37.44	66.63	29.72	32.20	31.00
March	30.28	31.35	54.00	37.10	67.00	29.66	NA	NA
April	29.70	31.19	54.00	37.31	66.88	29.50	NA	29.50
May	29.40	31.25	54.00	38.25	66.50	29.65	NA	29.00
June	28.30	29.90	54.00	37.75	67.70	29.54	32.50	30.00
July	27.21	28.75	54.00	38.69	68.00	28.76	NA	32.47
August	27.60	28.60	54.00	38.75	68.00	26.80	32.38	32.00
September	27.73	28.88	54.00	38.19	67.63	26.46	32.93	31.00
2018/19								
October	28.89	30.56	54.00	38.94	66.63	27.18	33.00	31.29
November	27.49	31.45	52.80	37.45	64.80	26.37	34.33	35.00
December	28.14	32.06	53.50	36.75	62.25	26.46	31.00	32.50
January	28.44	33.94	53.50	37.13	61.88	26.21	NA	33.13
February	29.58	36.44	53.00	37.75	61.13	25.65	NA	33.00
March	28.62	35.70	53.20	36.15	61.00	26.72	NA	32.15
April	27.86	37.13	54.00	35.44	65.25	27.94	28.25	31.86

¹ Preliminary. ² Decatur, IL. ³ Prime bleached summer yellow, Greenwood, MS. ⁴ Midwest.

Sources: USDA, Agricultural Marketing Service, *Monthly Feedstuff Prices* and *Milling and Baking News*. Last update: 5/13/2019

⁵ Southeast mills. ⁶ Chicago. NA = Not available.

Table 10--U.S. oilseed meal prices

Marketing	Soybean	Cottonseed	Sunflowerseed	Peanut	Canola	Linseed
year	meal ²	meal ³	meal ⁴	meal ⁵	meal ⁶	meal ⁷
			\$/sho	rt ton		
2009/10	311.27	220.90	151.04	NA	224.92	209.23
2010/11	345.52	273.84	219.72	NA	263.63	240.65
2011/12	393.53	275.13	246.75	NA	307.59	265.68
2012/13	468.11	331.52	241.57	NA	354.22	329.31
2013/14	489.94	377.71	238.87	NA	359.70	337.23
2014/15	368.49	304.27	209.97	NA	301.20	256.58
2015/16	324.56	261.19	153.17	NA	262.20	260.23
2016/17	316.88	208.61	145.10	NA	267.94	282.49
2017/18	345.02	260.88	173.53	NA	291.15	239.15
2018/19 ¹	305.00	230.00	175.00	NA	275.00	220.00
2019/20 ¹	290.00	222.00	160.00	NA	240.00	205.00
2017/18						
October	315.23	229.00	153.00	NA	257.73	214.00
November	313.52	228.75	165.00	NA	255.74	205.00
December	319.22	232.50	185.00	NA	266.53	209.17
January	322.60	259.00	178.00	NA	270.20	215.50
February	362.85	303.13	185.63	NA	315.95	233.13
March	379.85	323.13	187.50	NA	334.58	237.50
April	385.84	263.13	191.88	NA	332.16	238.13
May	393.55	262.50	201.50	NA	336.93	267.50
June	355.71	257.50	175.63	NA	302.75	271.25
July	341.08	253.13	155.50	NA	279.84	278.00
August	332.50	260.00	153.13	NA	274.55	265.63
September	318.32	258.75	150.63	NA	266.86	235.00
2018/19						
October	319.15	249.00	164.00	NA	279.40	196.50
November	310.62	240.00	171.25	NA	279.16	209.38
December	311.70	243.75	187.50	NA	291.42	225.83
January	314.92	247.50	190.50	NA	NA	219.00
February	306.83	235.00	187.50	NA	NA	225.00
March	306.38	226.25	189.38	NA	NA	235.63
April	304.26	216.50	166.50	NA	NA	241.50

¹ Preliminary. ² High-protein Decatur, IL. ³ 41-percent Memphis. ⁴ 34-percent North Dakota-Minnesota.

NA= Not available.

Source: USDA, Agricultural Marketing Service, Monthly Feedstuff Prices.

 $^{^{5}}$ 50-percent Southeast mills. 6 36-percent Pacific Northwest. 7 34-percent Minneapolis.

Suggested Citation

Mark Ash, Mariana Matias, and Susan Proper, *Oil Crops Outlook*, OCS-19e, U.S. Department of Agriculture, Economic Research Service, May 14, 2019

Use of commercial and trade names does not imply approval or constitute endorsement by USDA.

To ensure the quality of its research reports and satisfy government-wide standards, ERS requires that all research reports with substantively new material be reviewed by qualified technical research peers. This technical peer review process, coordinated by ERS' Peer Review Coordinating Council, allows experts who possess the technical background, perspective, and expertise to provide an objective and meaningful assessment of the output's substantive content and clarity of communication during the publication's review.

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.