Staff Report No. 2022-09 **January 21, 2022**

January Market Update
Corn, Soybeans, Rice, and Cotton

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WASDE Summary

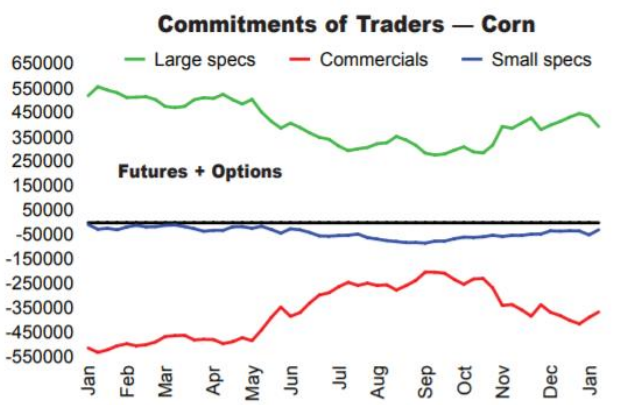
This month's 2021/22 U.S. corn outlook is for higher production, greater food, seed, and industrial use (FSI), lower exports, and larger ending stocks. Corn production is estimated at 15.115 billion bushels, up 53 million on a 0.3-million acre increase in harvested area. Total corn use remains virtually unchanged at 14.835 billion. Exports are lowered by 75 million bushels to 2.425 billion on the specter of increased competition. FSI use is raised 80 million bushels. Corn used for ethanol is raised 75 million bushels to 5.325 billion, based on data through November from the *Grain Crushings and Co-Products Production* report and weekly ethanol production data as reported by the Energy Information Administration for the month of December. The projected amount of corn used for glucose and dextrose is raised 5 million bushels. Feed and residual use is unchanged at 5.650 billion, based on indicated disappearance during the period of September-November as reflected by the *Grain Stocks* report. With use essentially unchanged and supply rising, corn stocks are raised 47 million bushels. **The season-average corn price received by producers is unchanged at $5.45 per bushel.**

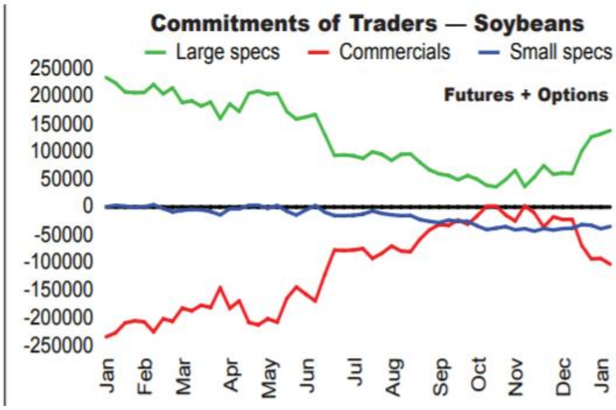
Soybean production in 2021/22 is estimated at 4.44 billion bushels, up 10 million with gains for Iowa and Indiana. Harvested area is estimated at 86.3 million acres, down slightly from the previous report. Yield is estimated at 51.4 bushels per acre, up 0.2 bushels. Soybean supplies are raised 11 million bushels on higher production and slightly higher beginning stocks. With crush and export forecasts unchanged, ending stocks are projected at 350 million bushels. **The U.S. season-average soybean price for 2021/22 is forecast at $12.60 per bushel, up 50 cents, reflecting tighter global soybean stocks and lower production forecasts for Brazil, Argentina, and Paraguay.** The price for soybean meal is projected at $375 per short ton, up 45 dollars. The soybean oil price forecast is unchanged at 65.0 cents per pound.

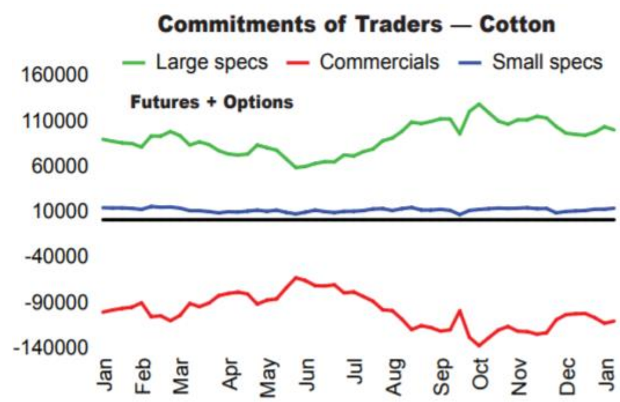
The outlook for 2021/22 U.S. rice this month is for smaller supplies, lower domestic use, decreased exports, and reduced ending stocks. Supplies are reduced on a lower production estimate and decreased imports. All rice 2021/22 production is estimated at 191.8 million cwt, 2.0 million down from the previous estimate. The all-rice average yield is estimated at 7,709 pounds per acre, down 47 pounds from the prior estimate but still a record. Imports are lowered 2.5 million cwt to 31.0 million with reductions in both long-grain and medium- and short-grain on a continued sluggish pace. All rice domestic and residual use is lowered 2.0 million cwt to 145.5 million on reduced production and imports. Exports are lowered by 1.0 million cwt to 88.0 million; the decline is all for medium- and short-grain on the continued weak pace of sales and shipments. Projected 2021/22 all rice ending stocks are 33.0 million cwt, down 1.5 million from last month and down 24 percent from last year. **The projected 2021/22 long grain rice season-average farm price is estimated to be $13.20 per cwt, a $0.10 increase month-over-month. The projected 2021/22 southern medium grain rice season-average farm price is estimated to be $13.80 per cwt, also a $0.10 increase month-over-month.**

U.S. 2021/22 cotton ending stocks are projected lower this month with lower production and a slight increase in domestic consumption more than offsetting lower exports. Production is lower, largely due to revised Texas yields, by 660,000 bales for a total of 17.6 million bales. Some good news is that U.S. mill use is 50,000 bales higher, at 2.55 million bales, based on faster than expected gains through November. Exports are reduced with a lower U.S. crop, continuing logistical issues in the United States and elsewhere, and a decline in projected world trade. Exports are reduced 500,000 bales to 15.0 million, and 2021/22 ending stocks are 200,000 bales lower relative to last month, at 3.2 million bales or 18 percent of use. **The projected upland season-average price received by U.S. farmers is unchanged this month, at 90 cents per pound.**

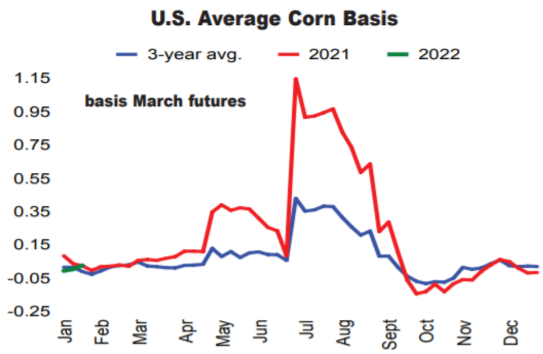
<u>Commitment of Traders Report, Tuesday, January 18, 2022</u>

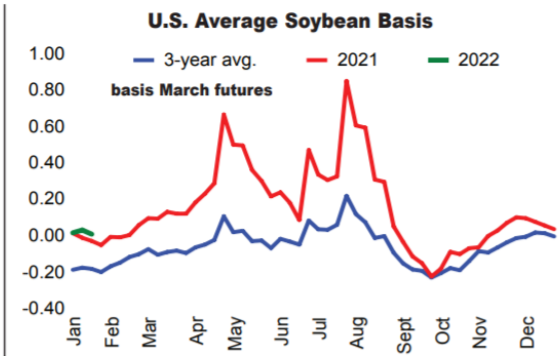


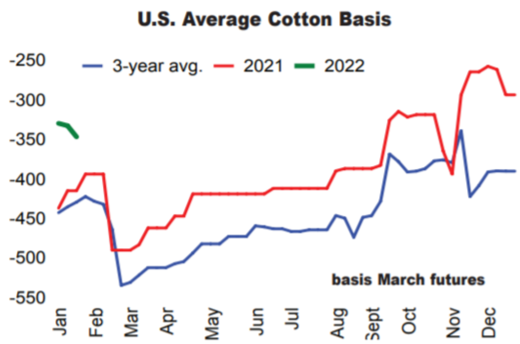




Cash Market Basis Charts, Wednesday, January 19, 2022







Corn

The USDA's January *World Agricultural Supply and Demand Estimates* (WASDE) report projects higher supplies in the U.S. corn market, along with slightly higher use. On January 12, 2022, the National Agricultural Statistics Service (NASS) released its *Crop Production 2021 Summary* report and the latest *Grain Stocks* report, with inventory data through December 1, 2021. Based on NASS data, January's 2022 WASDE projects total corn supplies at 16,375 million bushels for 2021/22—52-million-bushels higher than the December projection. The change from is primarily due to changes in the outlook for production, with a minor adjustment of 1 million bushels to September 1st corn stocks.

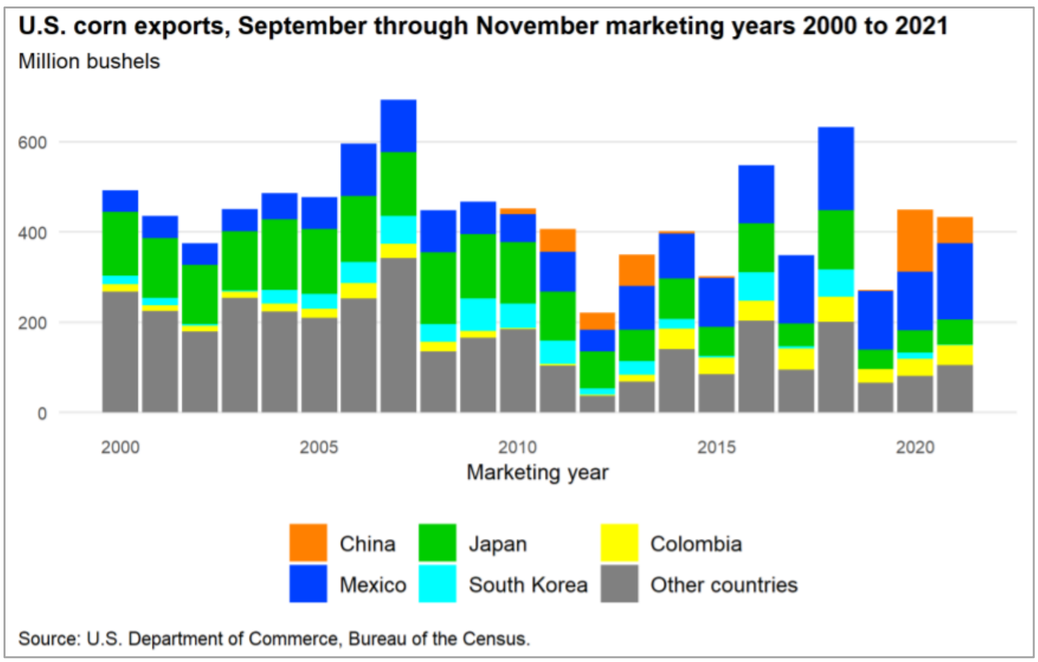
The 2021/22 U.S. corn crop is projected to total 15,115 million bushels—a 53-million-bushel increase from the December projection. Larger production is due to higher projected area harvested (85.4 million acres) versus December's forecast (85.1 million acres) harvested in the December forecast to 85.4 million acres in January. The national yield for the crop remains unchanged at 177.0 bushels per acre. The 2021/22 corn crop represents a record yield (compared with the previous record of 176.6 bushels per acre in 2017/18) and the second-largest corn crop on record (behind the 2016/17 production of 15,148 million bushels).

U.S. corn used for food, seed, and industrial use for 2021/22 is projected at 6,760 million bushels—an 80-million-bushel increase from the December forecast. The increase is mainly due to a 75-million-bushel increase in corn used for fuel ethanol, currently totaling 5,325 million bushels. In addition to higher fuel ethanol production, corn used for glucose and dextrose production is raised 5-million-bushels to 365 million bushels for 2021/22, based on the pace of use during the first 3 months of the marketing year.

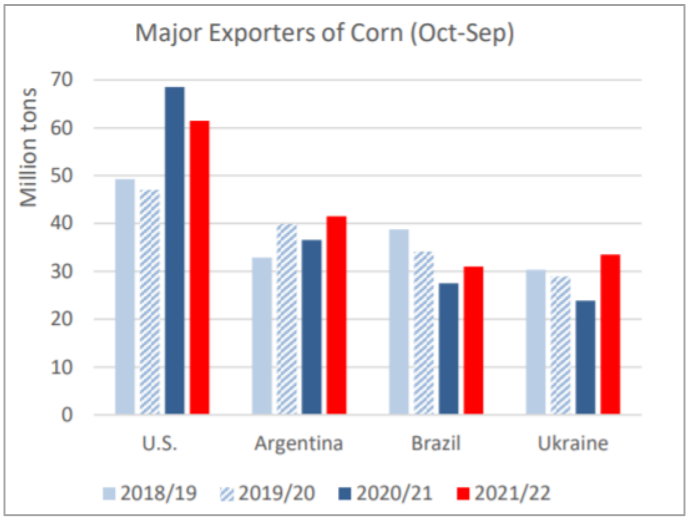
According to the *Grain Crushings and Co-Products Production* report, 1,344 million bushels of corn was used for fuel ethanol in the first 3 months of 2021/22. This number was the highest first-quarter total since 2018/19 and a 6-percent increase from 2020/21.

Since October 2021, the U.S. Department of Energy's Energy Information Administration (EIA) has been reporting strong weekly ethanol production totals. This production is likely in response to healthy spot-price-margins for ethanol producers since the onset of the current marketing year. Additionally, the U.S. Bureau of the Census data shows relatively strong levels of ethanol exports for November 2021, particularly to Canada and Brazil. The outlook for the remainder of 2021/22 is expected to largely hinge on the outlook for domestic motor gasoline market, which constitutes the overwhelming majority of U.S. ethanol use.

U.S. corn exports are projected to total 2,425 million bushels for 2021/22, a 75-million-bushel reduction from December's estimate. This is primarily due to increased global competition. In the first 3 months of the marketing year, U.S. corn exports totaled 433 million bushels. This marketing year's first-quarter exports fell below 2020/21's levels of 449 million bushels. The current pace of corn exports is still strong, historically. Additionally, while 2020/21 corn exports were largely defined by numerous shipments to China, 2021/22 shipments have been destined for a wider customer base—particularly, more shipments to the North American markets of Mexico and Canada. Corn export shipments are typically at their highest levels during the period of March-May. As a result, future market events could have important implications for the outlook of U.S. corn exports and if realized, the current export forecast would represent the third-highest corn export total ever, only coming in behind 2020/21 and 2017/18.

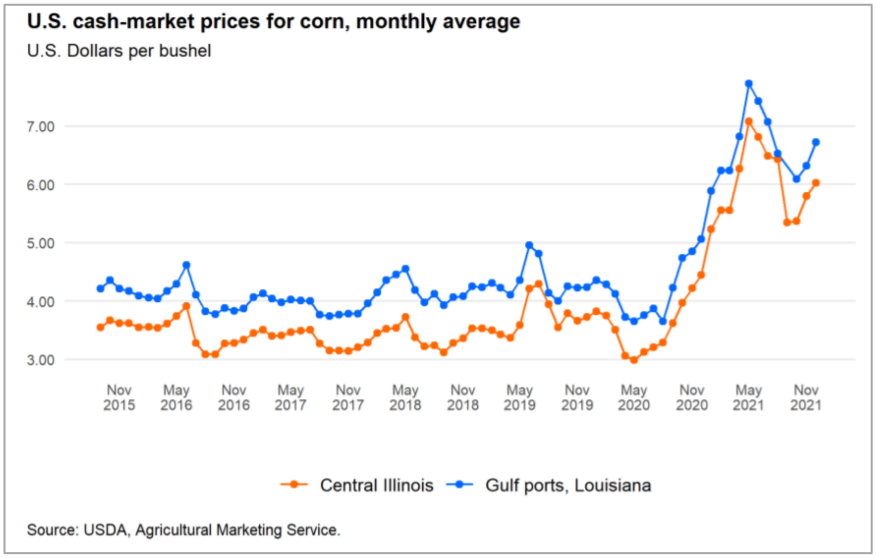


Strong exports from Ukraine, Argentina, and Brazil are expected to dampen global demand for U.S. corn. There have been unconfirmed accounts of large Chinese purchases of Ukrainian corn. Moreover, South American exports have been stronger than anticipated even though its marketing season is nearing the end. Despite sluggish foreign demand, the price for U.S. corn remains higher than Ukrainian and Argentine corn, as supported by U.S. domestic demand for fuel ethanol.



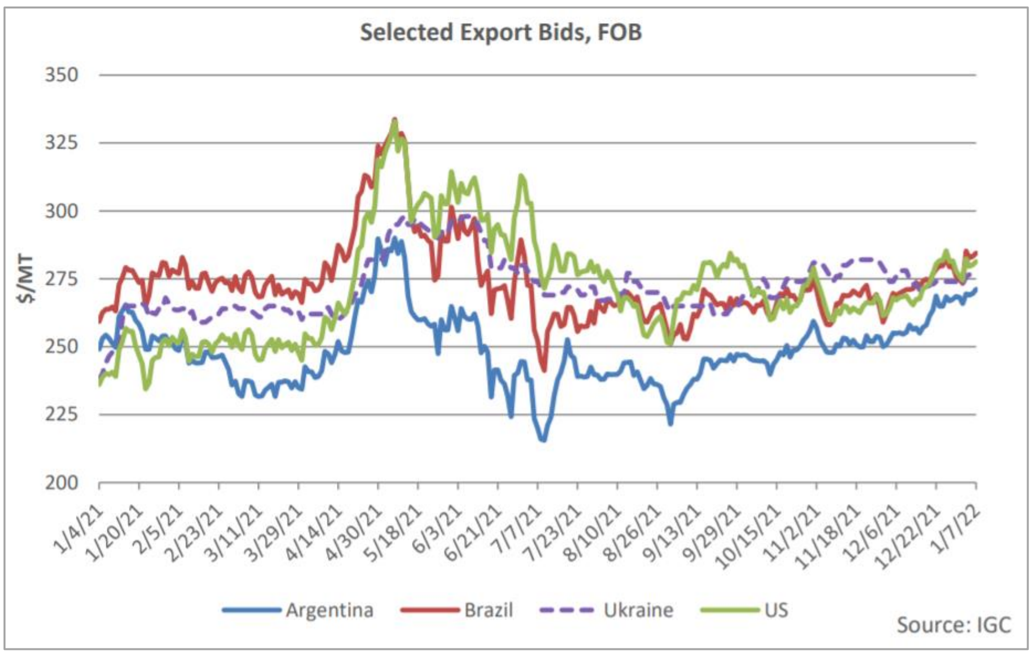
With additional supplies projected from higher production and largely offsetting changes to use, projected ending stocks for 2021/22 are increased from 1,493 million bushels to 1,540 million bushels. Current projections suggest a stocks-to-use ratio of 10.4 percent—higher than 2020/21's ratio of 8.3 percent but still relatively tight by historical standards. Season-average farm price remains at $5.45 per bushel for 2021/22. According to NASS's most recent Agricultural Prices report, the November 2021 national average price received by producers totaled $5.27 per bushel. Based on the 5-year average for marketing weights, the cumulative weighted price through the first 3 months of 2021/22 would be $5.22 per bushel. Cash and futures contract prices have continued to increase steadily since this year's harvest began in earnest in September. Historically, the majority of corn is marketed by producers between September and January. This means that monthly prices in the spring and summer will have less of an influence on the marketing year average than the prices reported up through January.

Spot cash prices for corn continued to trend upward throughout the United States in December 2021 and remain well above the price levels reported during 2020/21. The Central Illinois average cash price was $6.03 for the month, compared with $5.80 in November 2021 and $4.45 in December 2020. Likewise, in the Gulf export terminal markets, spot cash prices were $6.72 in December 2021, compared with $6.32 in November and $5.06 in December 2020.



Much of the fundamental focus in the corn market remains on South American weather, though traders have been much more responsive in the soybean market, which is typical. Recent rains improved soil moisture in Argentina, but not crop condition ratings. Meanwhile, the extreme heat that moved out of Argentina has pushed into southern Brazil. That's hurting first crop corn prospects in that area, though three-quarters of Brazil's total production will come from the safrinha crop that will be planted after soybeans are harvested. Extended weather forecasts suggest conditions may improve for safrinha corn that's primarily produced in central and south-central Brazil. March corn futures remain near the top of the recent sideways-to-higher price range. Key near-term resistance is at the December high at $6.17 3/4. Bulls must clear that level to build new upside momentum. Near-term support is layered from $6.00 1/2 to $5.91, with the short- and intermediate-term moving averages all residing in the range. More critical support is the Jan. 3 low at $5.84 3/4, which held on two tests last week.

Since the December WASDE, exporters' bids moved up for Argentina, Brazil, and the United States. Argentine bids were up $16/ton to $271 and Brazilian bids were up $15/ton to $285 on late season export demand as well as ongoing dryness impacting the new crop corn in both countries. U.S. bids rose $13/ton to $281 supported by the potential impact of dryness in South America and relatively strong demand for fuel ethanol in the domestic market. In contrast, Ukrainian bids were down $2/ton to $276 reflecting record exportable supplies.



World corn production is projected down 1.8 million tons from last month's forecast. With corn output in the United States up 1.4 million tons, foreign corn production is lowered by 3.1 million tons this month, with several partly offsetting changes. The largest increase for foreign corn production this month is for Ukraine, an increase of 2.0 million tons to 42.0 million, a record-high output by a wide margin.

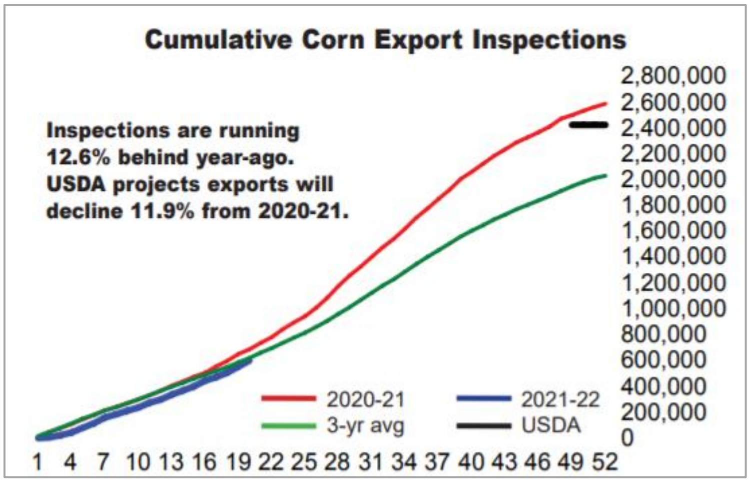
The increase is based on corn yield estimates reported by the State Statistical Service of Ukraine. Weather conditions in Ukraine throughout the growing period were not universally favorable. However, while the regions in the south and east of the country suffered from dryness and heat, the northwestern part of Ukraine enjoyed excellent corn-growing conditions, pushing yields to unprecedented highs for the non-GMO non-irrigated corn.

Hot and dry weather stressed corn yields in southern Brazil, particularly in the two states that produce first-crop corn—the western part of Parana (where most corn is grown) and Rio Grande do Sul, that combined, normally produce about one-third of the country's first-crop corn. A large share of the first-crop corn in these states is now going through the reproductive stage of crop development and is vulnerable to heat and lack of moisture. The region has gone through the driest 2 months (November and December) in 30 years, the lack of precipitation being further exacerbated by the heat. The Vegetation Health Index (VHI) (a proxy that is used to estimate crop condition and illustrates the severity of drought, based on the vegetation health and the influence of temperature on plant conditions) is recorded at the lowest level in many years. The assessment of the first-crop corn conditions has been worsening, with the share of crops rated "good" steeply declining. The first-corn crop represents only about a quarter of Brazilian total corn output, with the rest being produced as a second-crop (safrinha) corn and is usually planted after the soybean harvest in January-March. Corn prices are running high in Brazil and are expected to boost safrinha corn area by a non-trivial amount relative to last year. Area and yield assumptions for safrinha corn are unchanged this month. This month, all-crop corn yields for 2021/22 are projected 2.5 percent lower than a month ago, with corn production down 3.0 million tons to a still record-high of 115.0 million tons, and 28.0 million tons ahead of last year.

The same weather that hurt Brazil's South also affected parts of Argentina, where corn output is now reduced by 0.5 million tons to 54.0 million. Two months ago, in October 2021, the projection for Argentine corn was increased resulting from higher projected area, while this month persistent dryness is projected to limit yields prospects of the early-planted corn. The dryness and heat occurred throughout the critical stages of the reproductive period of crop development in parts of the main corn-growing regions of the eastern areas of the country— Santa Fe, Entre Rios, and northern Buenos Aires. However, the share of early-planted corn is expected to be lower than average this year. Late-planted corn (that is still being planted) could compensate for the potential yield losses in early-planted corn. Consequently, with the larger share of late-planted corn, precipitation through the end of January and February will be critical for the crop. The current yield forecast assumes normal weather going forward. The projected corn production is still the highest on record.

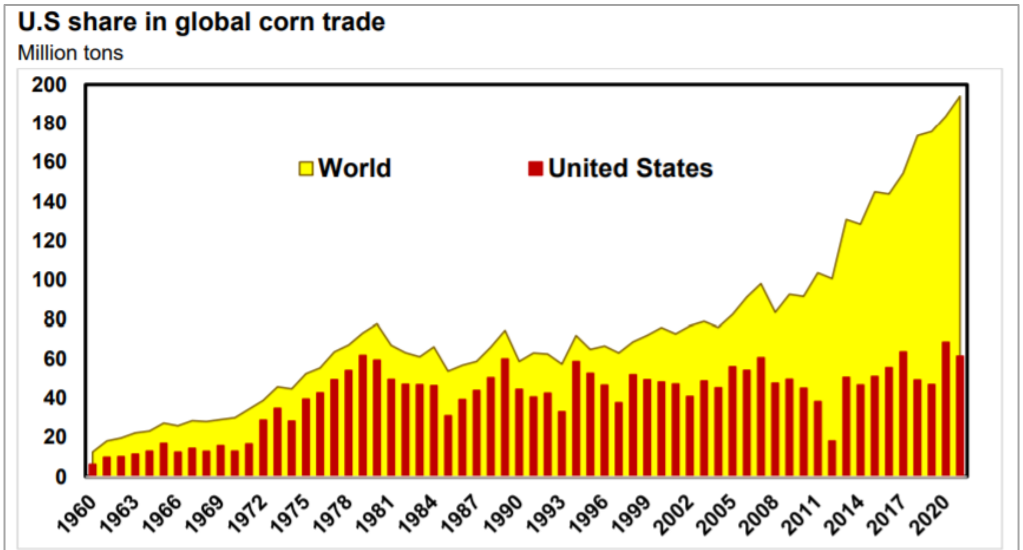
World 2021/22 corn trade for the October-September international trade year is projected up 1.3 million tons this month to 194.0 million, a rise of 10.3 million tons from the previous year.

Projected U.S. corn exports for 2021/22 are reduced this month, despite modestly higher projected output, due to increased competition from the major competitor countries—Brazil, Argentina, and Ukraine—combined with a strong U.S. domestic demand for ethanol that pulls corn away from exports (for a discussion on higher ethanol consumption, see the domestic section of the report). U.S. corn exports are projected down 1.5 million tons this month for the October-September international trade year to 61.5 million tons (down 75 million bushels to 2,425 million bushels for the September-August local marketing year).



A reduction in U.S. exports is projected for this month, despite increased global corn trade. Although the United States continues to be (by far) the world's top corn producer and exporter, U.S. shares in both world output and exports have been declining. U.S. market share in global corn exports went from 80 percent up until the mid-1990s, to just above 30 percent recently. Competition from Brazil, Argentina, and Ukraine is driving down the U.S. corn export share as the higher surplus-generating grain production in these countries has reduced the U.S. share in global output. Since 2010, these three countries have captured a major share in the continuous growth in world corn trade, that is driven by rising consumer incomes and demand for livestock products that require feed for expanding livestock herds.

The U.S. global market share has become highly dependent on the crop size and price competitiveness of these three countries, as larger crops and the depreciation of their currencies against the U.S. dollar boost these countries' price competitiveness, that tends to limit U.S. exports. In 2021/22, the combined corn output for Brazil, Argentina, and Ukraine is projected to be 41.2 million tons higher than last year, while corn output in the United States is up year over year by 25.5 million. The currencies of all three U.S. competitor countries have depreciated since November 2021.



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

In the last 2 months (November and December), the pace of Brazilian corn exports accelerated, partially making up for the lackluster performance earlier in 2021. The ship lineup data (vessels that are scheduled to ship in the near future) suggest that January exports will be also above average. Despite the 2020/21 mediocre corn harvest, Brazil does not appear to be short of exportable corn supplies, exhibiting a high pace of exports in the tail end of the local crop season, before the start of the new corn harvest. Corn exports are expected to dwindle in February and revive in June-September 2022, with the harvest of second-crop corn. The higher recent pace of shipments boosts Brazilian corn exports by 1.0 million tons for both the local March-February 2020/21 (to 19.5 million tons) and the October-September trade year of 2021/22 (to 31.0 million tons).

Brazilian exports are projected higher, despite a 3.0-million-ton reduction in its corn output this month. The reason is that the Brazilian corn economy has two essentially separate regions: The South, with a large and well-developed livestock sector, with feeding supplies coming from local (or imported—when local supplies are inadequate) corn; and the export-oriented Center-West, where most of the second-crop corn is produced. Although corn output is reduced for Brazil's South, the projections for the Center-West remain unchanged, as planting of second-crop corn has not yet started, thus, expectations of Brazilian export potential are unchanged relative to last month. However, because of lower first-crop corn production, Brazil will need additional corn for its livestock before the safrinha corn in the South comes up in July. The vast distances in Brazil and sometimes inadequate transportation system between the two regions, make it economically unviable to move corn from the Center-West to the South. Hence, the reduction in output is expected to boost the country's corn import demand up 0.3 million tons to 3.0 million. Brazil's South imports corn mainly from Paraguay and Argentina.

Argentine corn exports are forecast up 1.0 million tons this month for both the local March-February 2020/21 (to 39.5 million) and the October-September trade year of 2021/22 (to 41.5 million). Argentine corn prices are currently the most competitive in the world and are expected to remain as such for at least several more months. Exports are projected higher, despite a small production reduction this month, as corn sales and shipments picked up in recent weeks. However, until the new crop harvest becomes available (mostly in April), corn exports will be constrained by old crop supplies.

Corn supplies are projected higher this month in Ukraine, and 1.0 million tons of additional corn is expected to be shipped out, with exports reaching 33.5 million tons, on par with Brazil. Ukrainian corn exports in December 2021—according to port data—exceeded 5.0 million tons, indicating an all-time monthly record and a million tons higher than the previous record in December 2019.

Soybeans

This month, USDA NASS includes an estimate of the 2021/22 U.S. soybean crop which is up 10.29 million bushels from the previous forecast to a record of 4.44 billion bushels on 86.3 million acres harvested. New-crop soybean production exceeds last year's output by 219 million bushels and is comprised of record yields and productions achieved in several States. Namely, record yields of 64 bushels per acre were achieved in Illinois, 62 in Iowa, 63 in Nebraska, 56.5 in Ohio, 55 in Wisconsin, 51 in Michigan, 56 in Kentucky, and 46 in both Georgia and Alabama. Production records, in millions of bushels, are as follows: 673 in Illinois, 622 in Iowa, 351 in Nebraska, and 114 in Wisconsin. Output in Illinois and Iowa is up from the prior 5-year average nearly 2 percentage points to 29 percent of total production. The average U.S. soybean yield of 51.4 bushels per acre is the second highest in history—after 2016/17. Nevertheless, the record soybean output is countered by a lower level of beginning stocks. As a result, the expected supply for this season is 53 million bushels lower than 2020/21 at 4.7 billion bushels.

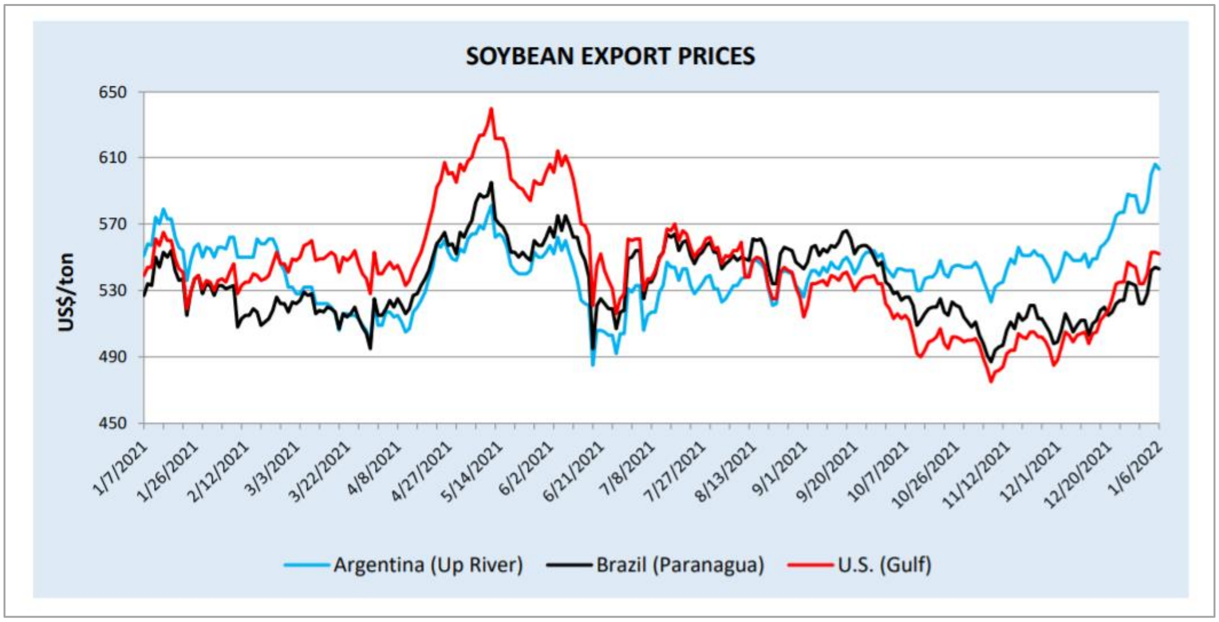
The USDA NASS January *Grain Stocks* reported the December 1 soybean inventory totaled 3.15 billion bushels; 7 percent higher than the same period last year. On-farm stocks of 1.52 billion bushels are 48 percent of total stocks, compared with 44 percent a year ago. The report implies the September–November disappearance was 1.54 billion bushels, down 14 percent from the first quarter of 2020/21. This outcome was precipitated by the sluggish start for the 2021/22 U.S. soybean export program. Not only did Hurricane Ida create issues at the onset of the marketing year that have since been resolved, but competition with Brazil has remained strong in the global soybean export market as they have been offloading a high supply of soybeans in anticipation of a timely soybean crop. The 2021/22 U.S. soybean crush and export forecasts remain unchanged at 2.19 billion and 2.05 million bushels, respectively. Based on crop production and demand forecasts discussed above, 2021/22 season-ending stocks are forecast to rise by 10 million bushels to 350 million.

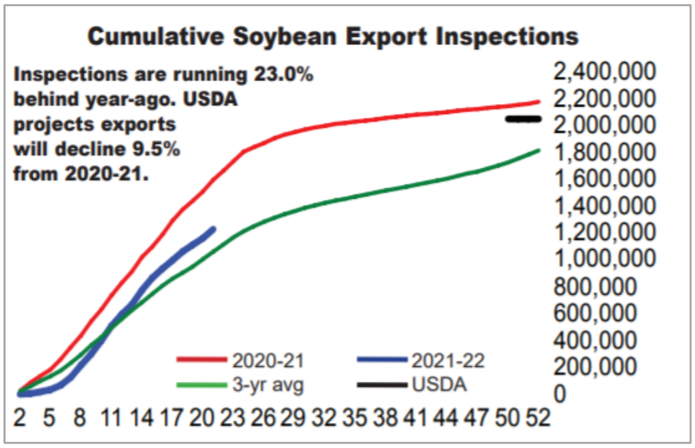
Tighter soybean stocks in the global market have placed upward pressure on soybean prices. In fact, the average price received for soybeans by U.S. farmers increased $0.30 per bushel in November to $12.20 per bushel. Additionally, a large jump in average U.S. soybean meal prices occurred in December 2021, up nearly $41.00 to $399.50 per short ton. These factors have influenced 2021/22 soybean and soybean meal price forecasts. Specifically, the season average price forecast for U.S. soybeans is raised by $0.50 per bushel to $12.60 and $45.00 per short ton for soybean meal to $375.00.

Soybean futures extended their rally and closed at a seven-month high on technical strength, concern over dryness in South America and export optimism. Soyoil futures surged in the wake of a record close in Malaysian palm oil prices. Hot, dry conditions persisted from northern Argentina through Paraguay and neighboring areas of southern Brazil, with highs of 100 to 108 degrees Fahrenheit from northwestern Rio Grande do Sul through all of Paraguay. Little rain of significance is expected in Paraguay and far southern Brazil through Saturday, World Weather Inc. said. “Crop stress will increase as moisture from recent rain is lost to evaporation while areas that missed out on rain see further declines in yields,” the forecaster said. The soybean bulls have a solid near-term technical advantage and gained more power today, with prices in a 10-week uptrend. The next near-term upside objective for bulls is closing March futures above solid resistance at the contract high of $14.45 1/2. The next downside price objective for bears is closing prices below solid support at this week’s low of $13.49 3/4. First resistance is seen at the recent high of $14.29 1/2, then at $13.49 3/4. First support is seen at $14.00, then at a low of $13.87 1/2.

China’s soybean imports in December from the U.S. almost doubled compared to November as more cargoes arrived after delays due to Hurricane Ida. China imported 6.09 MMT U.S. soybeans in December, up 68% from 3.63 MMT in November and up 4.0% from December 2020, according to customs data. USDA tomorrow is expected to report weekly net U.S. soybean export sales ranging from 600,000 MT to 1.2 MMT for the 2021-22 marketing year and net sales of 100,000 to 300,000 MT for 2022-23.

December prices for U.S. soybeans were up on unfavorable South American weather. However, a slower export pace from the United States helped to reign in price increases. Argentine and Brazilian soybean prices were also up on tightening supplies and reluctant farmer selling in Argentina. Price gains in Brazil were less than the others as its harvest approaches.





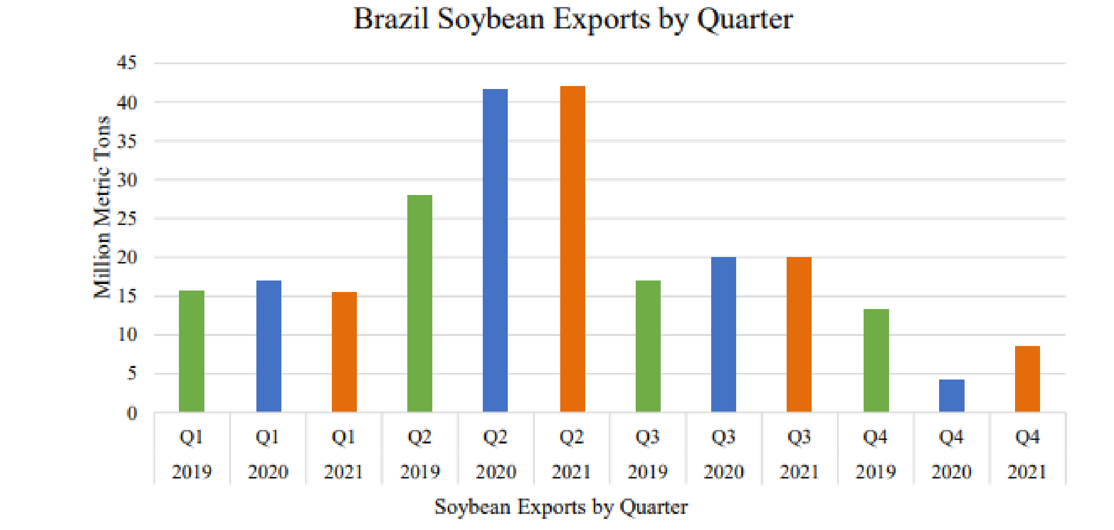
Brazilian soybean production has been reduced this month by 5 million metric tons to 139 million. Precipitation throughout southern Brazil during November and December 2021 was about half of the normal amount. Farmers in Paraná were among the first to plant their 2021/22 soybean crop in Brazil and these crops are, thus, the most developed. As a result, the focus is on the severity of weather-induced yield damage for this production region. After recording the lowest rainfall totals in recent history during December 2021, the degree of yield loss will depend on the distribution of rainfall across southern Brazilian states throughout January and February.

In contrast, states in northern Brazil have received better weather conditions after the early soybean plantings. Very good growing conditions in Mato Grosso, Goias, and Bahia are expected to produce yields that will partly offset anticipated losses in the southern Brazil. Despite expectations of a smaller-than-anticipated crop, Brazil is still expected to lead global soybean trade with exports for the 2021/22 marketing year (October 2021–September 2022O) forecast unchanged at 94 million metric tons, 12.35 million tons higher than last year. In contrast, due to lower supplies, USDA reduces exports for Brazil's local year (ending in 2023) by 4.3 million tons to 90 million, allowing for increased competition for the United States in the fall of 2022. Continued dry weather conditions in Argentina and Paraguay may further support that export program. In response to this lower crop projection, the Brazilian soybean crush estimate has been reduced by 0.5 million metric tons to 47.2 million metric tons, which is still 450,000 tons higher than in 2020/21.

Like in southern Brazil, dry weather in major producing provinces of Argentina is slowing the planting progress while also reducing crop yields in areas that planted early. According to Argentina's Ministry of Agriculture, 93 percent of the expected soybean area was sown by January 4, 2022, compared with 97 percent a year earlier. Within a couple of weeks, the planting window will close, and second-crop soybeans will account for much of the remaining unsown area. As such, further planting is conditional on the development of late-season rainfall that can deposit enough moisture for crop germination. Recently, some light rains improved conditions for northern and western Argentina but missed the core soybean crop areas in Cordoba, Santa Fe, and Entre Rios. As a result, Argentine soybean production was reduced by 3 million metric tons from last month's estimate to 46.5 million. The harvested acreage was adjusted to 16.2 million hectares—200,000 less than last month—and soybean yield declined from 3 tons per hectare to 2.87, or 5 percent down from last month. With a lower output, both soybean exports and crush have been reduced, down by 0.5 million metric tons to 4.85 million and by 0.8 million metric tons to 41.2 million, respectively.

China is expected to remain the top importer of Brazilian soybeans. There are already reports of China booking Brazilian soybeans in December 2022, for March of 2023 delivery. However, given the lower-than-expected Brazilian harvest forecast for 2021/22, China may look to increase purchases of soybeans from the United States. Should that occur, the Post export forecast for Brazil may be revised downward.

In 2020/21, Brazilian soybean exports are estimated at a record volume of 88.5 million tons, nearly nine percent higher than in 2019/20. China was the destination of more than 70 percent of exports in 2020/21, totaling 60.47 million tons throughout the year. Brazil also sold a record volume in 2020/21 to 12 other countries (Thailand, Pakistan, Mexico, Taiwan, Bangladesh, Vietnam, Algeria, Tunisia, Ukraine, Canada, Angola and Marshall Islands). During the last week of December 2021, Brazil shipped 467,000 metric tons of soybeans, of which 82 percent was destined for China. Export commitments are 10 percent above a year ago. Of the total 2020/21 soy exports, nearly 60 million tons were destined for China.



Source: SECEX trade data, OAA Brasilia chart.

So far this season, almost three-quarters of Brazil's soybean shipments were destined for China. Post believes that Brazil has solidified its status as the main soybean supplier to China, with outstanding export performance in the first eight months of the marketing year. As the data shows, Brazil's ports delivered in a big way, shipping unprecedented volumes on the monthly basis, which helped to cement its trade relationship with Chinese buyers.

Rice

This month, the USDA NASS reported its yearend estimate of the U.S. 2021/22 rice crop at 191.8 million cwt, 2.0 million cwt below the previous forecast and 16 percent below a year earlier. This month's downward revision was based on slightly lower estimates for both harvested area and average yield reported in the NASS Crop Production 2021 Summary that was released on January 12th.

Harvested area was lowered 11,000 acres to 2.49 million, almost 17 percent below a year earlier. Texas harvested area was lowered 7,000 acres, Arkansas harvested area was reduced 4,000 acres, and Mississippi harvested area was decreased 1,000 acres. These reductions more than offset a 1,000-acre increase in Louisiana harvested area. The U.S. average yield was reduced 47 pounds per acre to 7,709 pounds, 90 pounds above a year earlier and the highest on record. This month, USDA lowered its yield estimates for Texas, California, Louisiana, and Missouri, but raised its yield estimates for Arkansas and Mississippi.

These harvested area and yield revisions resulted in lower 2021/22 production estimates for all six reported rice-producing States except for Arkansas, which was raised fractionally. The Texas 2021/22 production estimate was lowered 1.3 million cwt and the California estimate was reduced 0.6 million cwt. Crop reductions for Louisiana, Mississippi, and Missouri were much smaller.

By class, the U.S. long-grain production estimate was lowered 2.1 million cwt to 144.6 million, 15 percent below a year earlier. Long-grain harvested area is estimated at 1.936 million acres, 16 percent below a year earlier. The long-grain average yield of 7,471 pounds per acre is 49 pounds above a year earlier and the second-highest on record. Combined medium- and short grain harvested area is estimated at 552,000 acres, more than 19 percent below a year earlier and the lowest since 1985/86. The medium- and short-grain average yield is estimated at 8,543 pounds per acre, 3 percent above a year earlier and the highest on record.

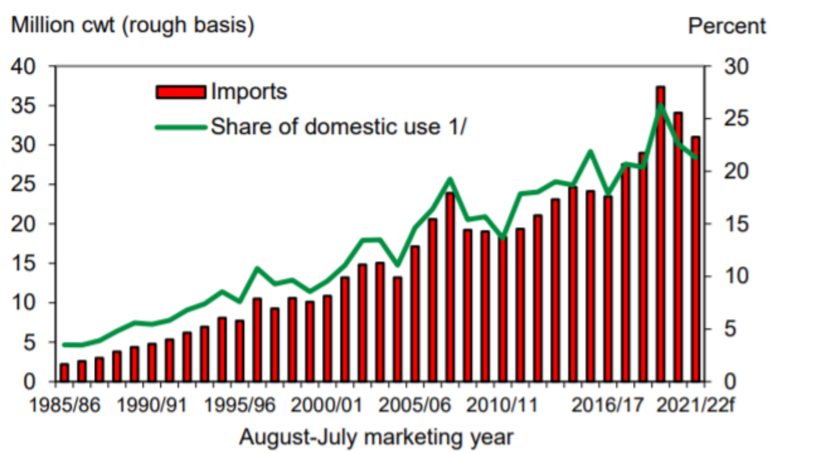
Harvested area is estimated below a year earlier in all reported States except Texas. In the Delta, harvested area in Arkansas is reported at 1.19 million acres, 17 percent below a year earlier. Long-grain, the dominant class of rice grown in Arkansas, accounts for the bulk of the harvested area decline. Mississippi's 2021/22 rice harvested area is reported at 100,000 acres—all long-grain—more than 39 percent below a year earlier and the smallest since 1973/74. In Missouri, 2021/22 harvested area is reported at 194,000 acres, down more than 9 percent from a year earlier. Long-grain accounts for most of Missouri's rice area and all of this year's decline.

On the Gulf Coast, Louisiana's harvested area is reported at 414,000 acres, almost 13 percent below a year earlier. Long-grain, the dominant class of rice grown in Louisiana, accounts for the bulk of the decline in harvested area. In Texas, 2021/22 harvested area is reported at 181,000 acres, up 1 percent from a year earlier. Long-grain accounts for all of the Texas expansion in harvested area in 2021/22 and almost all of the State's rice acreage. In much of the South, persistent rainfall nearly all spring prevented and delayed plantings. In March, growers in the South had already indicated they intended to plant less rice in 2021/22 than a year earlier due to higher expected returns for corn and soybeans. Finally, in California, 2021/22 rice harvested area is reported at just 405,000 acres, 21 percent below a year earlier and the smallest since 1992/93. The sharp decline in California harvested area this year is the result of severe drought and abnormally low reservoir levels in northern California. Medium- and short-grain accounts for almost all of California's rice acreage.

Production is estimated below a year earlier in all reported States except Missouri. The Arkansas 2021/22 rice crop is estimated at 91.1 million cwt, down 16 percent from a year earlier, a result of smaller area. Mississippi's production is estimated at 7.54 million cwt, down more than 38 percent from a year earlier and the smallest since 1983/84, due entirely to reduced plantings. Missouri's rice crop is estimated at 15.6 million cwt, up 0.5 percent from a year earlier as a record yield more than offset an area decline. Louisiana's production is estimated at 28.4 million cwt, 12 percent below a year earlier, a result of smaller plantings. Texas rice production is estimated at 12.4 million cwt, a decline of 15 percent from 2020/21, a result of a much weaker yield; harvested area actually expanded this year in Texas. Finally, California's production is estimated at 36.7 million cwt, 18 percent below a year earlier, a result of a sharp drop in area caused by the severe drought in the State. This is the smallest California rice crop since 1998/99.

The U.S. 2021/22 all-rice import forecast was lowered 2.5 million cwt to 31.0 million, 9 percent below a year earlier and the smallest since 2018/19, the last full market year prior to the onset of the COVID-19 pandemic. Import forecasts were lowered this month for both classes of rice, with long-grain accounting for the bulk of the downward revision.

U.S. rice imports in 2021/22 projected to decline for the second consecutive year



Cwt = Hundredweight. 2021/22f = forecasts. 1/ Does not include seed use.
Sources: USDA, Economic Research Service, *Rice Yearbook* dataset 1985/86-2018/19; USDA, World Agricultural Outlook Board, *World Agricultural Supply*

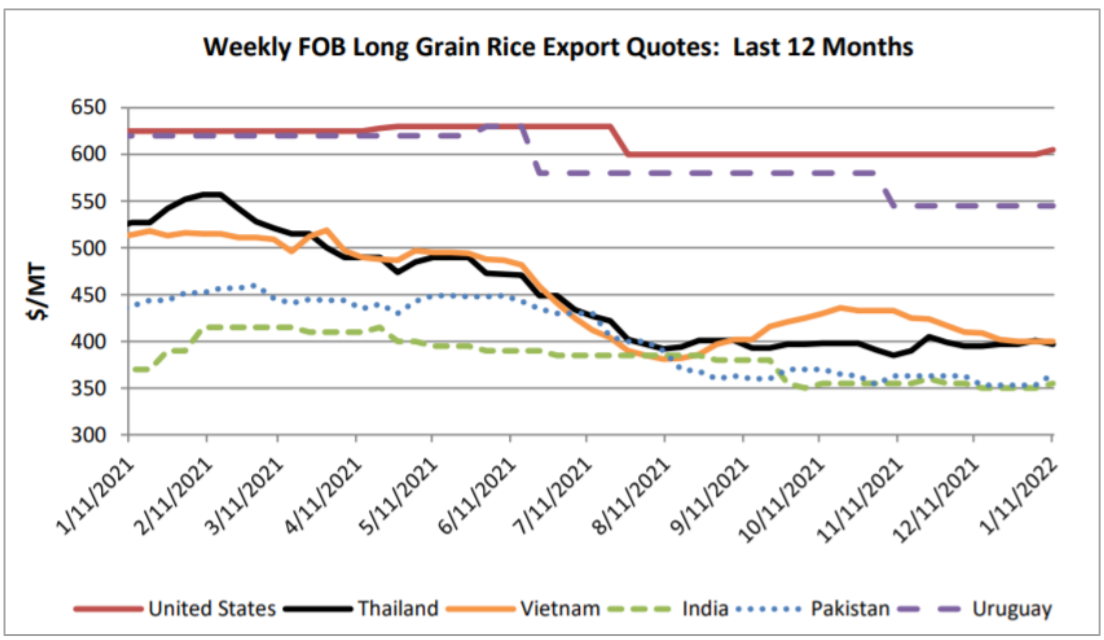
At 24.0 million cwt, the U.S. 2021/22 long-grain import forecast is down 2.0 million cwt from the previous forecast, 12 percent below a year earlier and the lowest since 2018/19. The reduced forecast was based on a slower-than-expected pace of imports through November and expectations regarding imports the remaining 8 months of the market year. Through November, the United States imported 240,909 tons (actual shipment weight) of long-grain rice, down 21 percent from a year earlier. In November, the United States imported 63,169 tons of long-grain rice, down fractionally from a year earlier but little changed from September and October.

From August-November 2021, Thailand shipped 155,238 tons of long-grain rice to the United States, 1 percent above a year earlier but 3 percent below the pre-pandemic August-November 2019 level.

Thailand remains the largest supplier of long-grain rice to the United States. Almost all of this rice was Thailand's premium jasmine rice, an aromatic. In contrast, number two long grain supplier India shipped just 53,051 tons to the United States from August-November 2021, down more than 39 percent from a year earlier. Almost all U.S. imports from India are its premium basmati rice, also an aromatic. Like most exporting countries, India's agricultural export sector is facing reduced availability of containers and ships that has resulted in a dramatic rise in shipping rates, as well as leading to port congestion and increased processing time for shipping. This effect is largely global, impacting most aspects of trade. Number three U.S. long-grain supplier Pakistan shipped 9,183 tons of rice to the United States from August-November 2021, down 17 percent from a year earlier. Almost all of Pakistan's exports to the United States are its premium basmati rice. Although the United States produces and markets several aromatic rice varieties, these are not the same varieties grown in Asia, with somewhat different consumer qualities.

China shipped 21,285 tons of medium- and short-grain rice to the United States for August-November 2021, virtually unchanged from a year earlier. Virtually all of China's shipments go to Puerto Rico, a U.S. territory. In recent years, Puerto Rico has imported three or four shipments of 21,000 tons annually from China, a result of extremely low prices for purchases of older Government-held stocks of rice. In September 2021, Puerto Rico imported 21,000 tons of rice from China, but imported no rice from China in October or November. China is expected to make two or three more 21,000-ton sales of medium- and short-grain rice to Puerto Rico in the 2021/22 market year. Italy is the next- largest supplier of medium- and short-grain rice to the United States, typically supplying 3,500-4,000 tons of arborio rice each year. Italy has been a consistent long-term supplier of medium- and short-grain rice to the United States.

U.S. prices increased $5 to $605/ton amid tight domestic stocks. Uruguayan prices remained at $545. Thai quotes continued to rise slightly by $2 to $397/ton, reflecting a strengthening Thai baht. Vietnamese prices slid $10 to $400/ton following muted demand from the Philippines due to a pause in issuing new phytosanitary import permits. Pakistani prices were little changed at $365/ton, and Indian prices remained unchanged at $355/ton amid substantial supplies and steady demand.



U.S. rice exports in 2021/22 are projected at 88.0 million cwt, 1.0 million cwt below the previous forecast, 6 percent below a year earlier and the smallest since 2017/18. This month's downward revision was largely based on monthly U.S. Bureau of the Census trade data through November, shipment and outstanding sales data through December 30th reported in the weekly U.S. Export Sales report, and expectations regarding shipments and sales the remainder of the 2021/22 market year.

Long-grain exports in 2021/22 are projected at 64.0 million cwt, unchanged from the previous forecast but nearly 2 percent smaller than a year earlier. The year-to-year decline is primarily based on smaller supplies and higher U.S. prices. Through November, the United States exported 903,650 tons of long-grain rice in 2021/22, up 29 percent from the year-earlier abnormally low level, but still 4 percent below the first 4 months of the 2019/20 market year. In November, the United States exported 318,676 tons of long-grain rice, up 107 percent from October and the largest since December 2020.

Through November 2021, U.S. long-grain exports were well ahead of a year earlier to Mexico and sharply ahead to Central America. In fact, U.S. long-grain shipments to Central America through November 2021 of about 265,000 tons were the second-highest on record, with the U.S. shipping about 153,000 tons to Central America in November. These two top markets take mostly long-grain rough-rice.

By spring, the United States is expected to face stronger competition from South American long grain suppliers in these key Latin American markets. Most South American exporters are expected to harvest larger crops this spring compared with their 2020/21 crops, which in several countries were adversely impacted by drought. For more than a decade, South American exporters have been increasing sales and market shares in Mexico, Central America, and northern South America.

Shipments to Haiti, the top market for U.S. long-grain milled rice exports, were reported at 125,843 tons through November 2021, 8 percent below a year earlier and lowest for this date since 2013. As of December 30, U.S. Export Sales reported just 22,450 tons of remaining outstanding sales to Haiti for the 2021/22 marketing year, which is 64 percent lower than outstanding sales at this point in the marketing year in 2020/21. Political instability, increased gang violence, and a magnitude 7.2 earthquake in mid-August have all hindered trade with Haiti. In late July 2021, the United States sold 120,000 tons of long-grain milled-rice to Iraq, with all of this rice shipped September-November 2021. There have been no additional sales of U.S. rice to Iraq in 2021/22.

Combined medium- and short-grain exports in 2021/22 are projected at 24.0 million cwt, down 1.0 million cwt from the previous forecast and 17 percent below 2020/21. This month's downward revision was based on U.S. Bureau of the Census shipment data through November, shipments and sales reported in the weekly U.S. Export Sales report through December 30th, and expectations regarding shipments and sales the remainder of the market year. According to U.S. Export Sales, through December 30th, shipments of medium- and short-grain rice were almost 24 percent behind a year-earlier pace, and outstanding sales were down 26 percent. Combined shipments and outstanding sales through December 30 were 9 percent behind a year earlier to Japan and more than 39 percent behind to South Korea. These are the two largest markets for U.S. medium- and short-grain rice.

The all-rice stocks-to-use ratio is projected at 14.2 percent, down from 17.7 percent a year earlier. Long-grain ending stocks are projected at 21.4 million cwt, down 2.1 million from the previous forecast and 28 percent below a year earlier. The long-grain stocks-to-use ratio is projected at 12.1 percent, down from 16.0 percent a year earlier. Combined medium- and short grain ending stocks are projected at 9.1 million cwt, up 0.6 million cwt from the previous forecast but more than 20 percent smaller than a year earlier. The 2021/22 medium- and short-grain stocks-to-use ratio is projected at 16.1 percent, down from 18.7 percent a year earlier.

There were several upward revisions this month to the 2021/22 season-average farm price (SAFP) forecasts. The revisions were based on USDA's National Agricultural Statistics Service's monthly reported cash prices and marketings through November and expectations regarding prices and marketings the remainder of the market year. The 2021/22 long-grain SAFP was raised 10 cents to $13.20 per cwt, up 60 cents from a year earlier. The southern medium- and short-grain SAFP forecast was raised 10 cents to $13.80 per cwt, up $0.70 from 2020/21 and the highest since 2014/15. The California medium- and short-grain 2021/22 SAFP is forecast at $24.00, up $1.00 from the previous forecast and up $3.10 from 2020/21, the highest since the 2008/09 record of $27.40 per cwt. The U.S. 2021/22 medium- and short-grain SAFP forecast was raised 70 cents to $20.70 per cwt, $1.90 higher than a year earlier. The 2021/22 U.S. all-rice SAFP is forecast at $15.10 per cwt, up 30 cents from the previous forecast and $1.10 above a year earlier.

Cotton

The latest USDA report featured slight decreases to world production (-608,000 bales to 121.0 million) and mill-use (-30,000 bales to 124.2 million bales). Revisions to historical estimates lowered 2021/22 beginning stocks -163,000 bales (to 88.4 million). The net result for 2021/22 ending stocks was a -726,000-bale decrease (to 85.0 million).

At the country-level, the largest changes for harvest expectations included those for the U.S. (-660,000 bales to 17.6 million), India (-500,000 bales to 27.5 million), Pakistan (+100,000 bales to 5.8 million), Australia (+200,000 bales to 5.5 million), and China (+250,000 bales to 27.0 million). For mill-use, the largest country-level changes were for China (-500,000 bales to 39.5 million), Mexico (+100,000 bales to 1.9 million), Pakistan (+100,000 bales to 11.2 million), and India (+200,000 bales to 26.0 million).

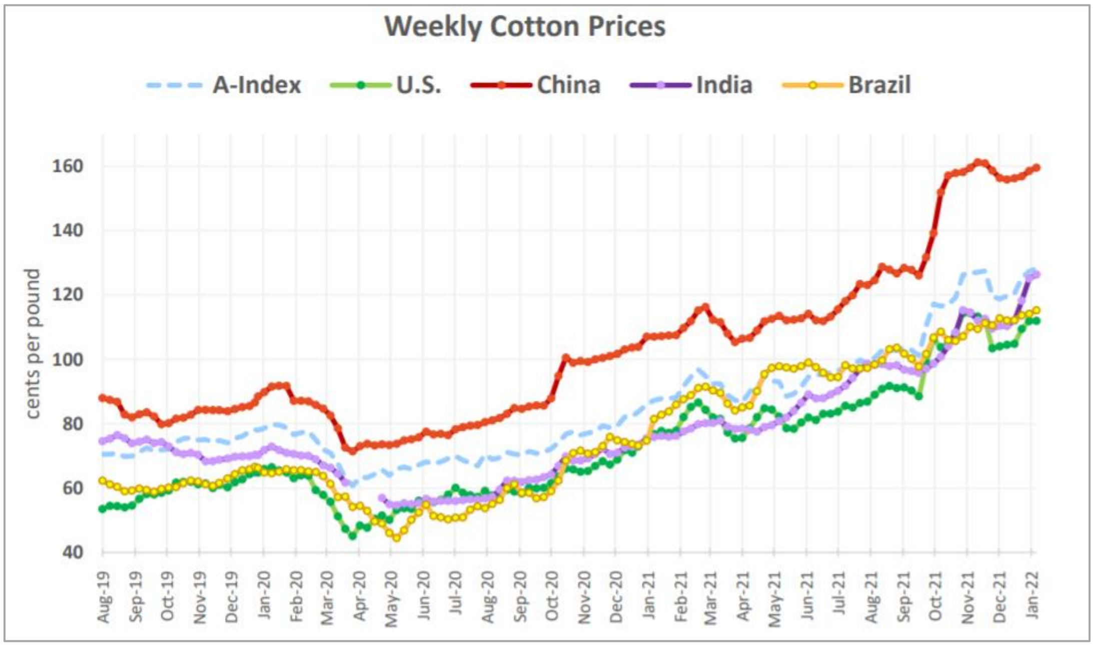
The global trade forecast was lowered -380,000 bales to 46.6 million. In terms of imports, the largest changes included those for China (-500,000 bales to 9.8 million), Malaysia (-100,000 bales to 0.7 million), and Pakistan (+200,000 bales to 5.5 million). In terms of exports, the largest changes included those for the U.S. (-500,000 bales to 15.0 million), Burkina Faso (-100,000 bales to 0.9 million), and Australia (+100,000 bales to 4.0 million).

Global cotton prices rose since last month's WASDE following strong global demand amidst constrained supplies available for nearby delivery. Speculators liquidated contracts after last month's onset of the Omicron COVID-19 variant, however, open interest has edged back up on the Intercontinental Commodity Exchange as speculators have registered greater long positions. India witnessed the most significant rise this month, climbing over 15 cents owing to resilient domestic demand. Strong export sales and logistical constraints continue to support prices in the United States. Spot prices in China and Brazil were marginally higher from the previous report. Nonetheless, a significant margin between prices in China relative to the rest of the world remains. The A-index is roughly 30 cents lower than domestic prices in China compared with 20 cents at this period last year; imports are expected to rise significantly in the coming months.

The March NY/ICE futures fell as low as 104 cents/lb in early December. After trading sideways in the first half of that month, values rose in the second half of December. Current prices are over 116 cents/lb and are even with the highs for the contract registered in mid-November. The December 2022 NY/ICE contract, which reflects price expectations after the next harvest (2022/23 crop year), has been able to break through resistance around 92 cents/lb and has marked new life of contract highs. Current values for the December contract are over 95 cents/lb.

The A Index increased from 119 to 129 cents/lb. Current values are the highest reached during the 2021/22 surge in prices.

The China Cotton Index (CC 3128B) increased, but the change was smaller than for NY/ICE futures or the A Index. In international terms, the CC Index rose from 157 and 160 cents/lb. In domestic terms, values climbed from 21,950 to 22,500 RMB/ton. The RMB was steady against the dollar over the past month, near 6.37 RMB/USD. Indian spot prices (Shankar-6 quality) surged from 109 to 126 cents/lb or from 64,900 to 72,700 INR/candy. Over the past month, the INR strengthened against the dollar, from 76 to 74 INR/USD. Pakistani spot prices climbed from 114 to 127 cents/lb. In domestic terms, prices climbed from 16,700 to 18,300 PKR/maund. The PKR traded between 176 and 178 PKR/USD over the past month.



With shipping logistics presenting new challenges to global trade, the inability to reliably deliver fiber to mills within timeframes established in recent decades has likely distorted traditional relationships between stocks and prices. U.S. Weekly shipment data from the USDA indicate that U.S. exports this far into the crop year are 46% behind the level from one year ago (August 1 through December 30). U.S. shipments to China are 70% lower than one year ago. The size of these year-over-year declines may cause the USDA to make further reductions to its forecast for U.S. exports.

Cotton futures seemed to have extended a steep rally to decade-plus highs behind general commodity market strength and optimism over global demand. However, cotton futures fell amid corrective pressure and profit taking following the market's surged to a 10-year high on January 19th. A two-week slide in the U.S. stock market dampened buyers' enthusiasm in the cotton market, mitigated to some extent by crude oil's rally to seven-year highs. In last week's export report, USDA listed net U.S. cotton sales for the week ended January 6th at 401,000 running bales (RB) for 2021/22, up 85% from the average for the previous four weeks. Exports of 167,600 RB were up 60% from the previous week and up 27% from the prior four-week average.

From a technical perspective, the cotton bulls still have a strong near-term advantage, with prices in a six-week uptrend. The next upside objective for cotton bulls is closing March futures above solid resistance at

140.00 cents. The next downside objective for bears is closing prices below solid support at 118.50 cents. First resistance is seen at 124.00 cents, then at today's contract high of 124.78 cents. First support is seen at yesterday's low of 120.91 cents, then at 120.00 cents.

In normal times, additions to U.S. stocks that correspond with decreases in exports could put downward pressure on prices. However, the market is not in a normal situation. If the U.S. builds stocks because of delivery-driven challenges, the market signal is more aligned with a scarcity of available supply than with surplus. Over time, such an interpretation could evolve as strategic adjustments are made to address logistical problems. In the meantime, if supply has trouble meeting demand, it could support prices.

Import demand during December was relatively broad-based and concentrated mainly on lots available to cover first and second quarter requirements. However, the capacity of the trade to accommodate buyers continued to be limited by execution constraints. Further forward, sporadic price testing enquiry was in evidence, but the volume of business concluded was modest, influenced by uncertainty regarding the direction of prices and the potential for further volatility in shipping rates.

The approach of the year-end brought into clearer focus the severe shortage of supply, in Bangladesh particularly. Spinners' inventories were understood to be running very low and the situation may worsen, should deliveries scheduled for the first quarter once again fail to materialize. Some mills would in that instance be forced to curtail their operations. Bangladesh's garment export earnings, meanwhile, remain strong, as the most recent data continue to demonstrate.

Generally, import purchasing from China was subdued and most traders anticipate that a stronger demand will be forthcoming from spinners once they receive allocations of this year's tariff-rated import quotas (typically from mid to late January). State-owned trading enterprises were actively testing prices during December, predominantly for US lint, but the intentions of the State Reserve, which will at some point be required to replenish its stocks, for the moment remain difficult to discern. Chinese prices remained substantially higher than those on the international market towards the end of the year, but the differential narrowed considerably from that in evidence a few months ago.

From the production side, the first major question for 2022/23 relates to planted acreage. High cotton prices unambiguously suggest an increase in plantings, but the volume and quality of additional acreage are uncertain. Input costs, notably those for fertilizer, have risen sharply in recent months. The weather is always unknown until it is experienced. There is time for moisture levels to change, but much of the U.S. cotton belt, including all of West Texas, is currently experiencing a level of drought.

PLC Farm Program Payment Projections – 2021/22 CY and 'early' 2022/23 CY

The table below projects the national marketing year average prices for purposes of the Price Loss Coverage (PLC) program. A PLC program payment is triggered when the national Marketing Year Average (MYA) price for a commodity falls below that commodity's effective reference price. The payment rate is then multiplied by the farm's program yield and made on 85% of base acres.

Covered Commodity	***2021/22 MYA Price****	*Effective Reference Price*	***2021/22 CY PLC Payment Rate***
Corn	$5.45	$3.70	--
Grain Sorghum	$5.45	$3.95	--
Long Grain Rice	$13.20	$14.00	$0.80
Medium Grain Rice	$13.80	$14.00	$0.20
Seed Cotton	$0.4608	$0.3670	--
Soybeans	$12.60	$8.40	--
Wheat	$7.15	$5.50	--

*national marketing year average (MYA) prices reflect the midpoint price level from the January 12, 2022 WASDE report.

Covered Commodity	***2022/23 MYA Price****	*Effective Reference Price*	***2022/23 CY PLC Payment Rate***
Corn	$4.80	$3.70	--
Grain Sorghum	$4.70	$3.95	--
Long Grain Rice	$12.50	$14.00	$1.50
Medium Grain Rice	$12.70	$14.00	$1.30
Seed Cotton	$0.4047	$0.3670	--
Soybeans	$10.50	$8.40	--
Wheat	$6.50	$5.50	--

**national marketing year average (MYA) prices reflect the prices contained in the USDA Baseline Projections to 2031 report, released November 2021.

Sources: USDA Agriculture Market Service (AMS), USDA Foreign Agriculture Service (FAS), USDA Farm Service Agency (FSA), USDA National Agriculture Statistics Service (NASS), USDA Economic Research Service (ERS), USDA FAS GAIN Report, USDA Office of Communications, USDA World Supply Demand Estimates (WASDE), AgDay, Ag Fax Media, Ag Market Network, Agri-Pulse, Ag Resource Company, Ag Web, Agricultural Market Information System (AMIS), Allendale, American Farm Bureau Federation, Bloomberg News, Brock Report, CME Group, Cotton Grower, Cotton Incorporated, Cotton Outlook, Creed Rice Report, Daniels Trading, Delta Farm Press, DTN Progressive Farmer, Farm Futures, Fiber 2 Fashion, Intercontinental Exchange, International Grains Council, Iowa State University, Lakefront Futures and Options, LSU AgCenter, Mississippi State University, National Cotton Council, Peterson Institute of International Economics, Plexus Cotton, Pro Farmer, Refinitiv, Reuters, Rice Market Letter, Southeast Farm Press, StoneX, Successful Farming, Texas A&M University, University of Arkansas, University of Georgia, University of Illinois, University of Tennessee, U.S. Grains Council, USA Rice Federation, U.S. Soybean Export Council, and the Wall Street Journal.

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