United States Department of Agriculture

Economic Research Service | Situation and Outlook Report

FDS-20k | November 13, 2020

Next release is December 14, 2020

Feed Outlook

Michael McConnell, coordinator

Olga Liefert

David Olson

Tom Capehart

In this report:

Corn Prices Rise in 2020/21 as Production Outlook Lowered and Exports Raised

The U.S. season-average farm price of corn is raised to $4.00 per bushel—a 40 cent increase from the previous month's projection. U.S. corn production in 2020/21 is lowered 215 million bushels in the November *Crop Production* report, to 14.507 billion bushels. Exports are raised 325 million bushels, based on higher foreign demand and lower foreign production. Feed and residual use is lowered 75 million bushels, offsetting some of the changes in production and exports. Ending stocks are projected to be 1.702 billion bushels—a 465 million bushel decrease from the previous month.

U.S. corn exports got an exceptional boost to a record-high 66.0 million tons. Two main developments, one on the supply side and one on the demand side, combined this month to generate that outcome. On the supply side, Ukrainian corn production and exports both plunged, creating a world export supply gap and enhancing U.S. corn export opportunities. On the demand side, Chinese corn imports increased substantially. As these two developments boost U.S. corn exports, a reduction of Ukrainian exports is fully offsetting, leaving global corn trade virtually unchanged.

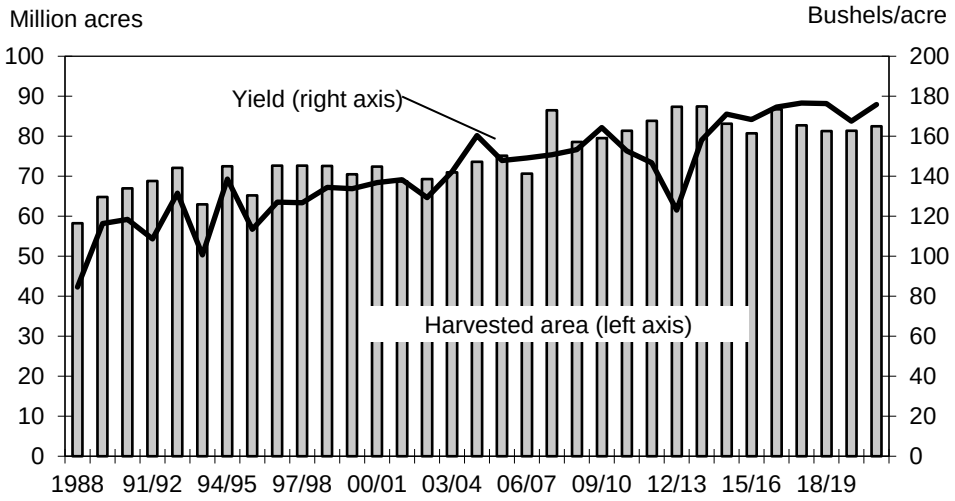
Domestic Outlook

Michael McConnell
David Olson

U.S. Corn Production Projections Reduced for 2020/21

In its November *Crop Production* report, the USDA's National Agricultural Statistics Service (NASS) lowered its national forecast corn production, based on lower national corn yields. U.S. corn production for 2020/21 is projected to be 14.507 billion bushels, a 215-million bushel decrease from the previous month. The forecast national yield for corn harvested for grain is reduced from 178.4 bushels per acre in October to 175.8 in the latest report's forecast. The harvested area forecast remains unchanged from the previous month at 82.5 million acres. The current forecast is larger than 2019/20 corn production of 13.620 billion bushels from a 167.5 bushels per acre crop.

Figure 1
U.S. corn harvested area and yield

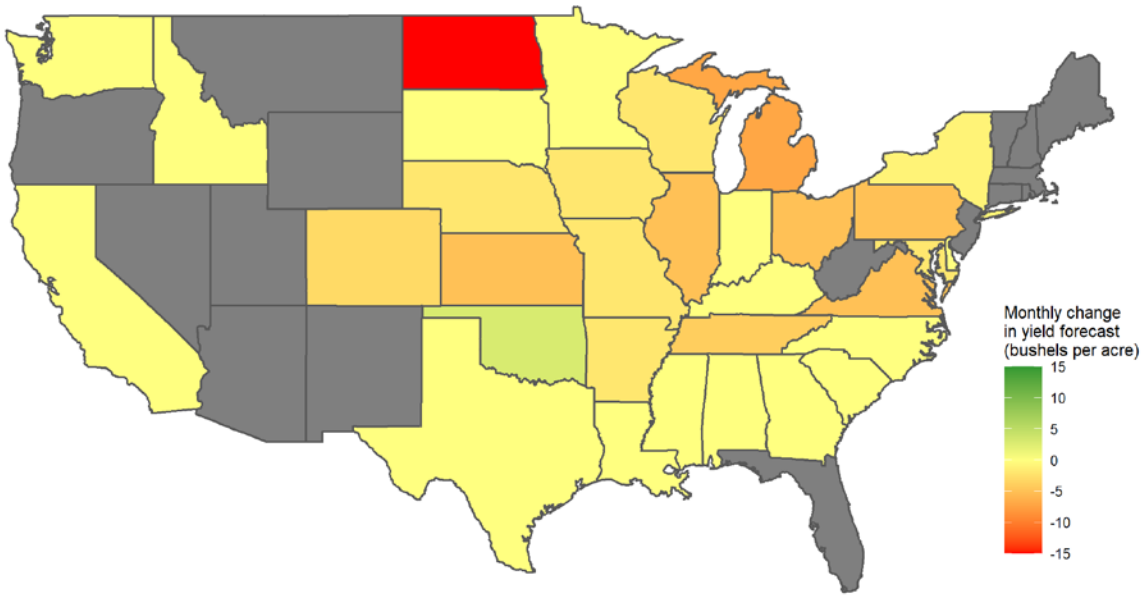


Note: Marketing years 2019/20 and 2020/21 are projected.
Source: USDA, Economic Research Service with data from National Agricultural Statistics Service, QuickStats, and USDA, World Agricultural Outlook Board.

By State, most yield forecasts are reduced from their October levels. The production outlook was reduced for the largest corn-producing states—including Iowa (2 bushel per acre reduction in yield), Illinois (5 bushel per acre reduction), and Nebraska (2 bushel per acre reduction). The largest reduction of yield, in absolute terms, is in North Dakota where NASS reduced its yield forecast 15 bushels per acre to 145 bushels.

Figure 2

U.S. corn forecast yield changes between October and November, 2020/21 crop marketing year

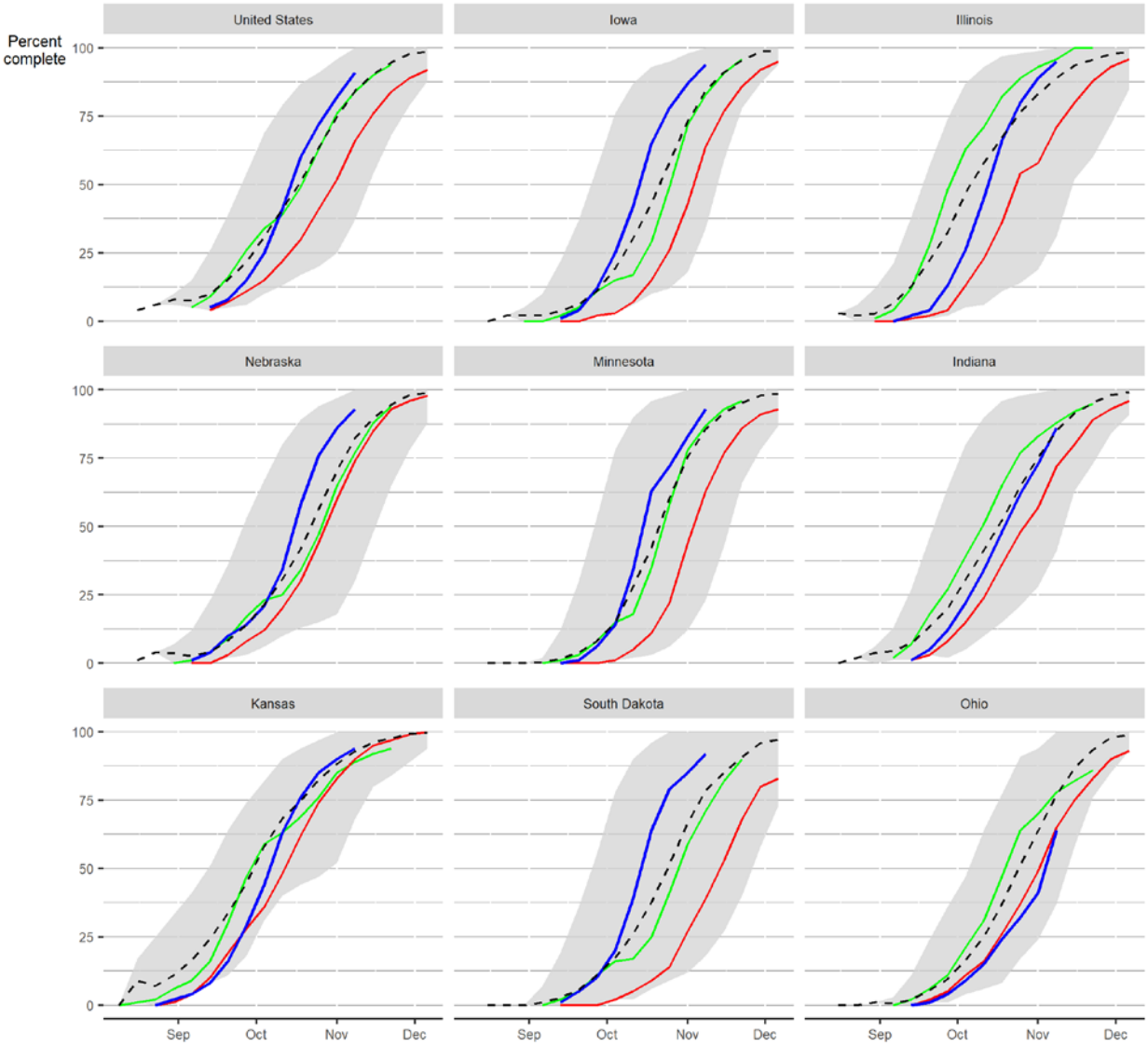


Source: National Agricultural Statistics Service, USDA.

Through November 8, the U.S. corn harvest was estimated to be about 91 percent complete at the national level, according to NASS's *Crop Progress* report. This puts the harvest well ahead of last year's pace of just 66 percent and the 15-year average of 84 percent. Most of the top corn-producing states are ahead of the average pace—including Iowa (94 percent complete), Illinois (95 percent), Nebraska (93 percent), and Minnesota (93 percent).

Figure 3

Corn harvesting progress by State, 2018 (green), 2019 (red), 2020 (blue), average (dash), and range (gray), since 2005



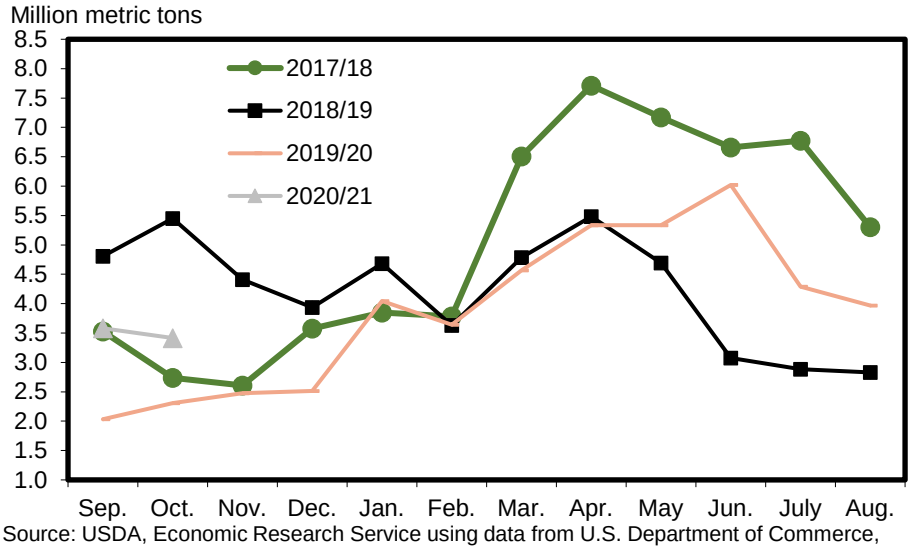
Source: National Agricultural Statistics Service, USDA.

Record Corn Exports Projected for 2020/21, as Global Demand Increases and Supplies Reduced

The United States is projected to export 2.650 billion bushels of corn in 2020/21—a 325 million bushel increase from the October report. If realized, this would be a record export total for the United States. The increase in exports is due to two major global market developments. First, China has been increasing its pace of grain imports to meet increasing feed demand, as its livestock inventories and meat production have increased. Additionally, while China has a tariff-rate quota (TRQ) in place for corn imports, it appears that it will exceed that amount for the 2020

calendar year. Second, corn production in Ukraine for 2020/21 has been reduced substantially due to hot, dry conditions in some regions of the country. This has reduced national yields, as Ukraine nears the completion of its fall harvest. In recent years, Ukraine has been the 4th largest corn exporter in the world. With fewer global supplies, the United States is expected to capture a larger share of global exports in 2020/21. For the analysis of this month's developments in global grain markets, see the International Outlook section of this report.

Figure 3
Monthly U.S. corn exports



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, October 2020 Grain Inspections.

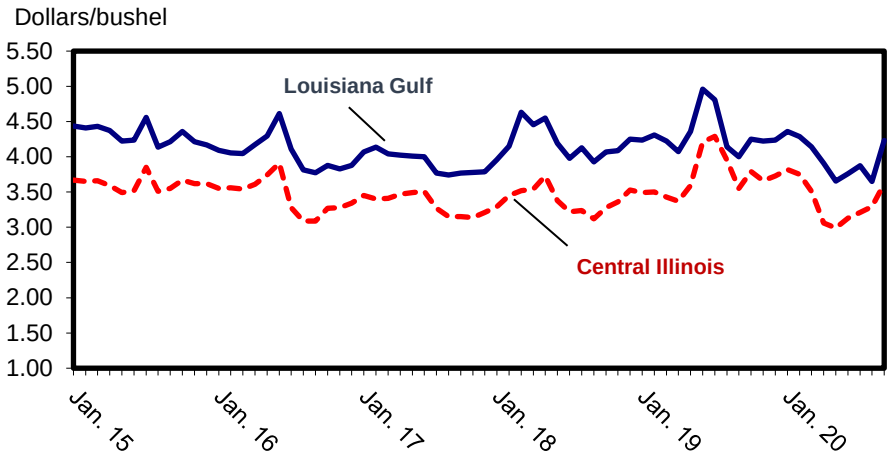
Corn Prices Increase on Tighter Supplies and Strong Foreign Demand

Lower supplies and higher exports are resulting in a tighter U.S. corn balance sheet for 2020/21. This is raising the projected season-average farm price of corn to $4.00 per bushel, up from the previous month's projection of $3.60 and the 2019/20 estimate of $3.56. The season-average farm price for the month of September was $3.41, as reported by NASS. If realized, the current projection would be the highest farm price for corn since 2013/14. In that year, the season average farm price was $4.46 per bushel, coming on the heals consecutive weather-impacted crops in 2012/13 and 2013/14.

Cash prices in the corn market have been steadily increasing the past several weeks. The Agricultural Marketing Service's (AMS) Central Illinois cash corn price averaged $3.97 per bushel in October 2020, compared with an average of $3.29 in August. Likewise, the Louisiana Gulf price, also published by AMS, averaged $4.74 per bushel in October—up from $3.65 in

August. The upward trend in both prices may be reflecting the tightening supply outlook within the United States. The widening premium between the Gulf and Central Illinois cash prices is more likely the result of stronger export demand, particularly as the market responds to developments in the Black Sea region.

Figure 4
Monthly corn (yellow #2) prices for Central Illinois and Louisiana Gulf



Sources: USDA, Economic Research Service, *Feed Grains Database* and USDA, Agricultural Marketing Service.

Grain Feed Demand Down Slightly in 2020/21, Remains High Relative to 5-Year Average

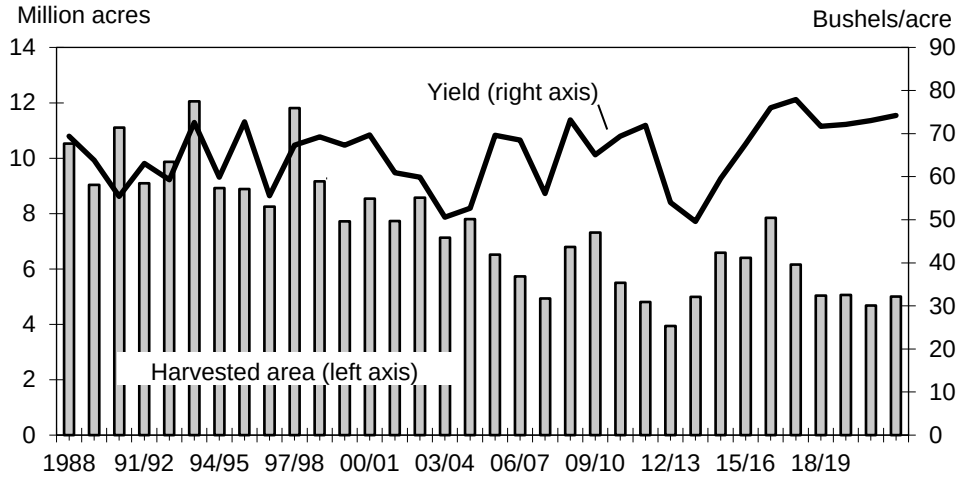
Grain consuming animal units (GCAUs) in 2020/21 are projected to be 0.3 million units lower than 2019/20—down to 102.4 million units. The year-over-year decrease in the index is due to slightly lower cattle on feed and hog units, which outweigh an increase in dairy. GCAUs in 2019/20 and 2020/21 are at higher levels than recent years, however, as 2017/18 and 2018/19 levels were at 98.8 million and 100.6 million units, respectively.

Feed and residual use for energy feeds (corn, sorghum, barley, oats, and wheat) are projected to fall from 155.9 million metric tons in 2019/20 to 150.8 million metric tons in 2020/21. The year-over-year reduction is primarily the result of less corn available, although annual declines are also projected for sorghum, barley, and wheat.

Sorghum Production in 2020/21 Marginally Higher

Sorghum area in 2020/21 remains unchanged from the previous month's forecast at 5.000 million acres. Yield projections from NASS are up 0.1 bushels per acre from the October forecast, totaling 74.2 bushels per acre. With this change, production is marginally increased by 0.2 million bushels to 370.8 million bushels for the year. There are no changes to export or domestic use projections this month, leaving total use unchanged at 370.0 million bushels.

Figure 5
U.S. sorghum harvested area and yield



Source: USDA, Economic Research Service with data from USDA, National Agricultural Statistics Service, *Quick Stats* and USDA, World Agricultural Outlook Board*, World Agricultural Supply and Demand Estimates.*

The season average farm price is up $0.45 per bushel from the October projection, at $4.05 per bushel in 2020/21. Through November 8, the sorghum harvest continues, with the national average reporting a completed harvest of 90 percent, slightly ahead of the 88 percent reported at same time last year.

International

Olga Liefert

Supply and Demand Shocks Boost U.S. Corn Exports to Record-High

U.S. corn exports for the international October-September trade year got an exceptional 8.0-million-ton boost to a record-high 66.0 million. Two main developments, one on the supply side and one on the demand side, combine this month to generate that outcome. On the supply side, ***Ukrainian*** corn production and exports both plunged, creating a world export supply gap and enhancing U.S. corn export opportunities. On the demand side, ***Chinese*** corn imports are increased substantially. As these two developments boost U.S. corn exports, a reduction of Ukrainian exports is fully offsetting, leaving global corn trade virtually unchanged.

Ukraine's corn production prospects are cut by a whopping 8.0 million tons this month to 28.5 million, based on harvest reports showing the lowest corn yield in the last 8 years. An extreme mid- to late-summer drought across the Black Sea region dramatically reduced corn yields in the Ukrainian south and east, though generally good conditions in the north and west were expected to keep total national output comparatively high. With 75 percent of corn harvested, the reports indicate much lower than expected yields, not only in the problem areas, but also in the parts of the country with better growing conditions that are turning out to be insufficiently high to offset losses elsewhere. It is not fully clear why yields went so low in the areas with average and even good weather, but it might be at least partly attributable to the low availability of quality hybrid seeds, due to both the low level of quality seed imports and the insufficient quality of domestically produced seeds.

Ukrainian corn prices are rallying high above other exporters and Ukrainian corn exports are reduced by the same amount as production, down 8.0 million tons to 22.5 million. This is the lowest export volume since 2017/18, when the country's corn output dropped.

Although Ukraine exports its corn all over the world, its three major destinations are ***China***, the ***European Union (EU)***, and ***Iran—***and the Ukraine is now expected to reduce corn exports to these destinations. However, while projected EU and Iranian corn feed use is considerably reduced this month, Chinese demand for feed continues to be robust and requires large additional imports.

China's dynamic growth in demand for imported feed – corn, barley, sorghum, DDGS, and even dry peas – is expected to accelerate as the country is rebuilding its pig sector, while the whole livestock sector is booming. As the country's grain feed deficit grows (various estimates of this shortfall reach several tens of million tons), China is importing all types of feedstocks based on price and availability. The country is sweeping in virtually all globally available sorghum, it is importing barley on par with the world's largest importer—Saudi Arabia, and its dry pea imports, a good source of starch and protein in pig rations, have tripled in the last 5 years. Wheat feeding is also projected higher in China because of the high internal market prices for corn relative to wheat. Imports of corn substitutes are large because, in essence, the market is bifurcated. State owned enterprises (such as COFCO) are being granted a monopoly on a large share of corn imports—in contrast to private companies that utilize substitutes such as sorghum, barley, or peas. This is still happening despite a recent WTO case that ruled against China for lack of transparency in China's use of the tariff-rate quota (TRQ).

Although corn imports could conceivably plug the Chinese feed gap, the corn tariff-rate quota (TRQ) of 7.2 million tons per **calendar year** still exists and has previously restricted corn imports. However, by the end of October of calendar year 2020, China had already imported a record amount of corn that runs above the tariff quota volume. China's customs data indicate 2020 calendar year corn imports through September reaching 6.7 million tons. In addition to that, shipment data for exporting countries through early November indicate China has already well exceeded its World Trade Organization committed level of 7.2 million tons. At this point, although no new policy announcement was made by Chinese authorities, the TRQ is no longer considered a constraining factor in determining the size of Chinese corn imports.

The overwhelming shipment data also indicate substantially higher corn imports in the October-September international trade year of 2020/21, more than double the previous record for Chinese corn imports of 5.5 million tons in 2014/15. This month, corn imports for China are boosted 6.0 million tons to reach 13.0 million. In addition, the country's barley imports are projected 1.2 million tons higher to 6.5 million tons, while imports of sorghum are up 0.1 million tons from ***Argentina***, reflecting slightly higher production prospects there. China's total coarse grain imports are boosted 7.3 million tons this month to 26.1 million, which is slightly higher than the 25.8 million tons imported in 2014/15.

The world corn supply gap (or alternatively corn excess demand), created by the drop in ***Ukrainian*** corn production and the rise in ***Chinese*** corn import demand, has pushed world corn prices higher. This in turn is expected to reduce global corn consumption to eliminate the excess demand for corn, and thereby rebalance the market.

Higher corn prices motivate corn-importing countries to limit their domestic consumption and imports, shrinking the domestic excess demand. Corn consumption for the world, excluding China (whose growing feed grain consumption is discussed above), is projected 9.1 million tons down this month. Although global corn imports are almost unchanged, imports are projected down 5.6 million tons if China is excluded from the equation. The largest decline in corn feed use and imports is projected to be by the ***European Union*** (***EU)***. Lower corn production, the lackluster growth of the EU livestock sector that limits demand for grain feeding, and high relative prices for corn combine to reduce EU corn feeding by 5.5 million tons, or 8.5 percent. The reduced corn feeding in the EU is expected to be partially offset by the region using more wheat and other small coarse grains. EU corn imports are expected 4.0 million tons lower this month to reach 20.0 million tons, still 1.0 million higher than a year ago.

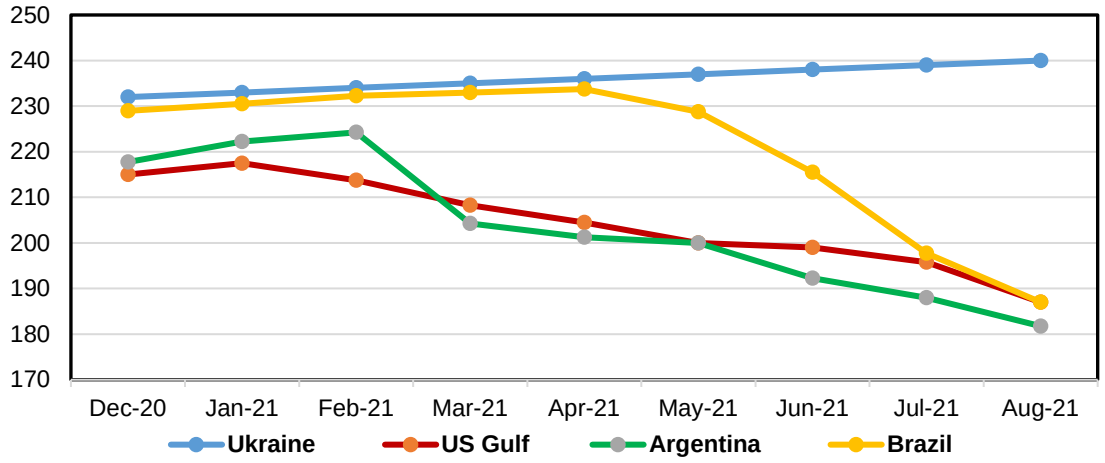
Corn feed use and imports are also reduced for ***Mexico***, down 1.0 million tons. This decrease is driven by reduced feed demand from its pork and beef sectors, where the recovery from a Covid-19 decline appears to be slower than expected. The low pace of Iran's corn imports (from Brazil and Ukraine) generates a reduction this month, down 1.0 million tons.

For exporting countries, higher corn prices motivate further export growth, by either reducing domestic corn consumption that would leave more corn available for export, or exporting out of stocks, or both. The ***United States*** is currently the only major corn exporter that holds sufficiently large corn stocks available for export and is well positioned to fill the world trade gap created by the fall in ***Ukrainian*** exports. The additional 8.0 million tons in U.S. exports are expected to come out of stocks that are projected to fall by 11.8 million tons to the lowest level since 2013/14. Despite recent production cuts, the United States is currently the most price competitive corn exporter, and this advantage is projected to last through May of 2021, see figure 6 below.

Figure 6

Corn Free On Board (FOB) forward prices

$U.S. per metric ton



Source: ArgiCensus.

U.S. corn exports to ***China*** have been growing. In the current calendar year, the United States has already contributed almost 4.0 million tons to total Chinese imports. The rest of Chinese imports are coming mostly from Ukraine, which in previous years provided the bulk of China's imports. Beginning July 2020, Chinese corn imports began to shift away from Ukraine, its main supplier, to the United States, and beginning in August 2020, the United States was exporting monthly more than 1.0 million tons of corn to China. At the end of October, current U.S. outstanding corn sales to China stand at 8.6 million tons, while grain inspections data confirm that another 1.2 million tons of corn had already been shipped to China in October, or 36 percent of U.S. October shipments.

The previous discussion has identified how major supply and demand shocks that originated in ***Ukraine*** and ***China*** have affected the world corn market and trade, how the United States is expected to benefit from them, and how these shocks have affected several selected countries. We next discuss corn market developments with more focus on individual countries, often linking these country-specific changes to the key world corn market events just examined.

World Corn Projected Output Reduced Sharply

World coarse grain production is projected at 1.45 billion tons in 2020/21, down 11.1 million this month, with the decline in foreign production being almost exactly the same as in the United States. Table A1 gives changes in global, foreign, and U.S coarse grain production by type of grain, while table A2 presents changes in coarse grain production by country.

Table A1 - World and U.S. coarse grain production at a glance (2020/21), November 2020					
	Region or country	Production	Change from previous month[1]	YoY Change[2]	Comments
		Million tons			
Coarse grain production (total)					
↓	**World**	**1,447.8**	**-11.1**	**+36.4**	
↓	**Foreign**	**1065.0**	**-5.6**	**+13.1**	Partly offsetting changes are made for a number of countries and commodities. See table A2.
↓	**United States**	**382.8**	**-5.5**	**+23.3**	See section on U.S. domestic output.
World production of coarse grains by type of grain					
CORN					
↓	**World**	**1,144.6**	**-14.2**	**+28.4**	
↓	**Foreign**	**776.1**	**-8.7**	**+5.9**	Production cuts in Ukraine, EU, Russia, and Moldova are partly offset by higher prospects in South Africa and Laos. See table A2.
↓	**United States**	**368.5**	**-5.5**	**+22.5**	See section on U.S. domestic output.
BARLEY					
↓	**World**	**156.4**	**-0.4**	**-0.5**	
↓	**Foreign**	**152.8**	**-0.4**	**-0.4**	Lower output projected in the EU[3] and Turkey. See table A2.
	United States	**3.6**	**No change**	**-0.2**	See section on U.S. domestic output.
SORGHUM					
↑	**World**	**61.8**	**+0.4**	**+3.8**	
↑	**Foreign**	**51.9**	**+0.4**	**+3.1**	Higher output projected for Argentina. See table A2.
	United States	**9.4**	**Fractional**	**+0.7**	See section on U.S. domestic output.
OATS					
↑	**World**	**25.3**	**+1.1**	**+2.2**	
↑	**Foreign**	**23.2**	**+1.1**	**+2.0**	Higher production projected for the EU[3]. See table A2.
	United States	**0.9**	**No change**	**+0.2**	See section on U.S. domestic output.
RYE					
↑	**World**	**13.6**	**+0.5**	**+1.5**	
↑	**Foreign**	**13.4**	**+0.5**	**+1.5**	Higher production projected for the EU[3]. See table A2.
	United States	**0.3**	**No change**	**Fractional**	See section on U.S. domestic output.
MILLET					
↑	**World/Foreign**	**30.3**	**+0.3**	**+0.2**	Higher output projected for Sudan. See table A2.
MIXED GRAIN					
↑	**World/Foreign**	**15.8**	**+1.3**	**+0.9**	Higher production projected for the EU[3]. See table A2.
[1]Change from previous month. [2]YoY: year-over-year changes. [3]EU: European Union.					
For changes and notes by country, see table A2.					
Source: USDA, Foreign Agricultural Service, Production, Supply and Distribution online database.					

Table A2 - Coarse grain foreign production by country at a glance for 2020/21, November 2021						
	Type of crop	Crop year	Production	Change in forecast[1]	YoY[2] change	Comments
			Million tons			
Coarse grain production by country and by type of grain						
			UKRAINE			
↓	**Corn**	*Oct-Sep*	**28.5**	**-8.0**	**-7.4**	With more than 70 percent of corn harvested, reports indicate much lower than expected yields in the parts of the country with better growing conditions. These lower yields are turning out to be insufficient to offset losses elsewhere. See also report text.
			RUSSIA			
↓	**Corn**	*Oct-Sep*	**14.0**	**-1.0**	**-0.3**	Harvest reports indicate lower-than-expected yields.
			MOLDOVA			
↓	**Corn**	*Oct-Sep*	**1.3**	**-0.4**	**-0.8**	Moldova borders the Ukrainian regions hard hit by drought. Harvest reports indicate lower-than-expected yields.
			SOUTH AFRICA			
↑	**Corn**	*Aug-Jul*	**16.0**	**+2.0**	**Unchanged**	High corn prices are expected to boost planting area. This increase is supported by the CEC estimates (Crop Estimates Committee).
			LAOS			
↑	**Corn**	*Jul-Jun*	**1.2**	**+0.4**	**+0.4**	Corn area is recovering from major flooding after a dam failure in 2018/19. Corn yields are expected to return to trend values.
			EUROPEAN UNIION (EU)			
↓	**Corn**	*Oct-Sep*	**64.2**	**-1.9**	**-2.5**	Harvest results indicate lower **French**, **Romanian**, **Polish**, and **Italian** production, partly offset by a higher crop in **Hungary**.
↓	**Barley**	*Jul-Jun*	**63.5**	**-0.2**	**+0.3**	Virtually a washout adjustment. Lower-than-projected output in **France**, **Germany**, and **Ireland** is almost offset by higher projected output in Spain, Poland, and the **Baltic** countries.
↑	**Oats**	*Jul-Jun*	**9.3**	**+1.1**	**+1.2**	Official reports indicate better-than-expected results in the northern part of the EU region, with increases for **Poland**, **Sweden**, and **Germany. Spain's** output is also projected larger.
↑	**Rye**	*Jul-Jun*	**9.2**	**+0.5**	**+0.8**	The largest adjustment is made for **Poland** on higher area.
↑	**Mixed grain**	*Jul-Jun*	**15.4**	**+1.1**	**+0.9**	The largest adjustments are made for **Poland** and **Spain**.
			ARGENTINA			
↑	**Sorghum**	*Mar-Feb*	**2.8**	**+0.4**	**+0.3**	Area is projected higher. Argentina doubled its exports to China.
			TURKEY			
↓	**Barley**	*Jun-May*	**8.1**	**-0.2**	**+0.2**	Yields are projected lower in the dry non-irrigated areas.
			SUDAN			
↑	**Millet**	*Oct-Sep*	**1.5**	**+0.3**	**+0.4**	Good precipitation is expected to improve yields.

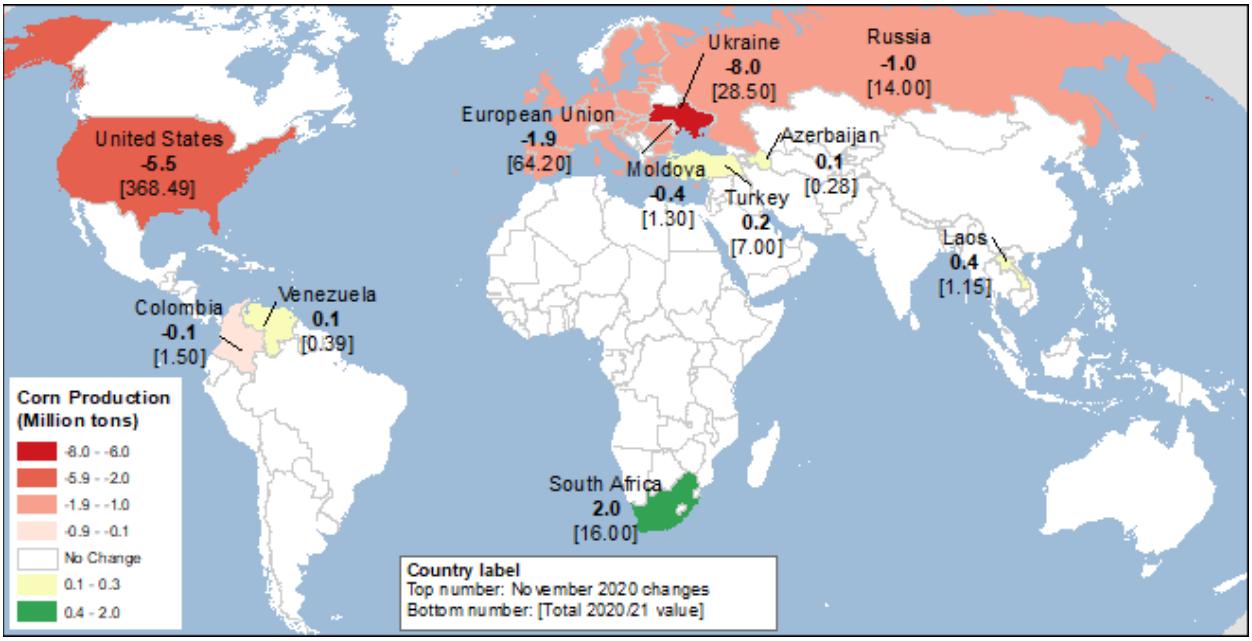
[1]Change from previous month. Smaller changes are made for several countries, see map A for changes in ***corn***.

[2] YoY: year-over-year changes.

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

For a visual display of production changes for corn production, see map A.

Map A – Corn production changes for 2020/21, November 2020



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

Global Coarse Grain Use Projected Slightly Lower, Corn Consumption Down

Global coarse grain consumption in 2020/21 is projected slightly lower, down 2.7 million tons at 1,458.0 million, with a decline of less than a million tons in foreign use that is down just 0.8 million tons. These relatively small changes mask the larger changes made this month for individual countries and specific types of grain consumption. As consumption of corn dropped following the supply (***Ukrainian*** production cut) and demand (***Chinese*** booming consumption) shocks and the ensuing increase in corn prices, projections for use for other small coarse grains—as well as for wheat use—are getting larger.

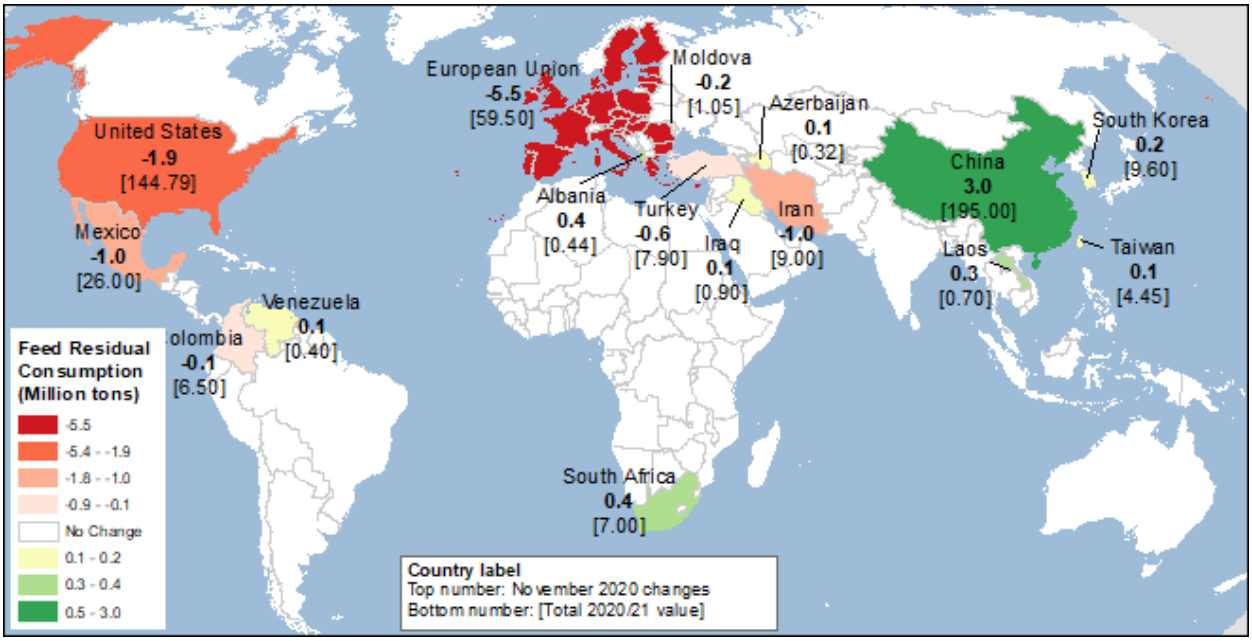
Global corn consumption is projected down 6.1 million tons, though for the world (less China) the consumption decline is 9.1 million tons, or 1 percent. The main individual country reductions in corn consumption – for the ***European Union***, ***Mexico***, and ***Iran*** – are discussed above. Partly offsetting the reductions is an increase of corn use in ***South Africa***, due to higher projected output. Smaller changes in corn feed domestic consumption are presented in map B.

Barley feed use in ***China*** is up 1.1 million tons this month, as the country is accelerating its purchases of the least expensive available feed grain whose imports are not restricted by the tariff-rate quota (see above). A partly offsetting decline is made for ***Saudi Arabia*** barley feed use, mostly following a change in its import projection in lieu of data for feed demand.

The largest partly offsetting increases in feed use coming from other grains, for countries apart from China, involve the ***European Union*** and the three small coarse grains—oats, rye, and mixed grain. For the EU region, both production and use of these crops are projected higher, partly offsetting a 5.5-million-ton cut in corn feed use this month (see above).

See a visual display of this month's country changes in corn feed use in map B.

Map B – Corn feed and residual use changes for 2020/21, November 2020



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

Coarse Grain Stocks Reduced this Month

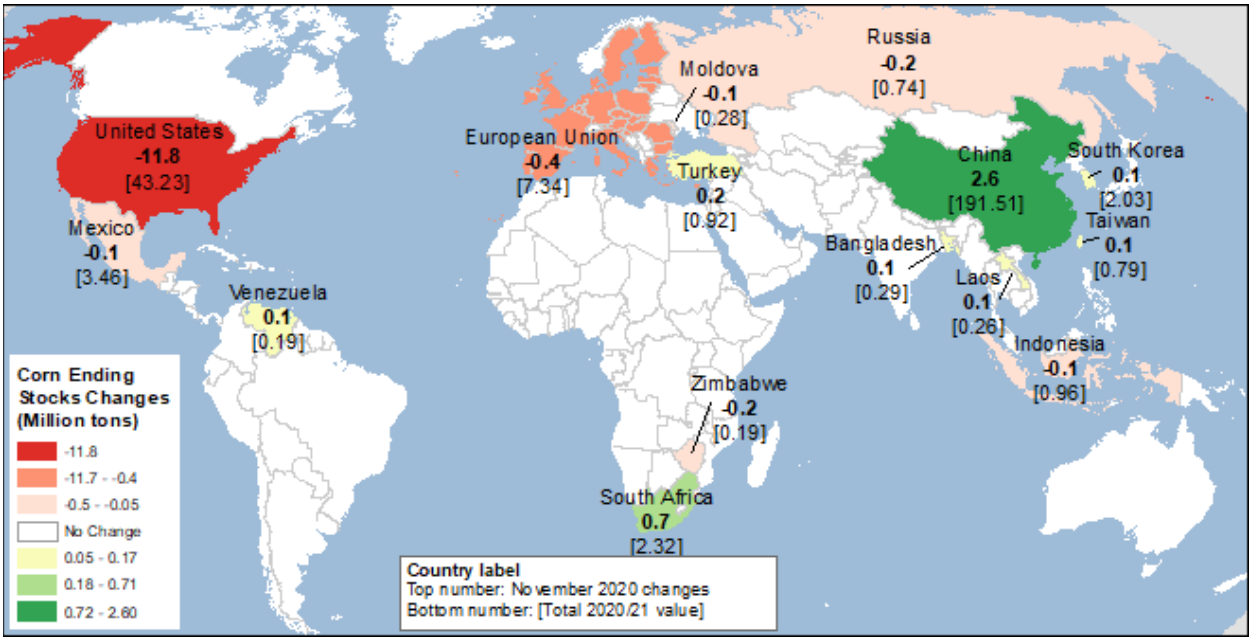
Global **coarse grain** stocks took an almost 3-percent, or 9.2 million ton, reduction this month. This is driven almost solely by an 11.8 million ton, or 20.3 percent, decline for the ***U.S.*** corn stocks following lower projected corn yield in the country (see a discussion in the domestic section above) and a sharp increase in projected exports. As discussed above, the United States is the only country currently expected to fill the void in world corn supply, and has enough stocks to replenish the export pool.

This month, changes in the balances for global and foreign (global minus U.S.) coarse grain (largely for corn) are different. Lower global supplies and higher U.S. exports that more than offset export reductions elsewhere are pushing ending stocks down. For the foreign coarse grain balance, supplies drop less without the U.S. decline—but most importantly, exports are projected lower, which slightly increases foreign coarse grain and corn stocks.

Foreign coarse grain stocks are expected to increase by 2.6 million tons this month to 275.1 million. This increase is mainly because of higher projected stocks in ***China*** (higher projected imports only partly offset by increased feed use) and ***South Africa*** (production increase is projected to be only partly used domestically and exported). These increases are partly offset by lower ***EU*** and ***Russian*** stocks.

See a visual display of this month's country changes in corn ending stocks in map C.

Map C – Corn ending stocks' changes for 2020/21, November 2020



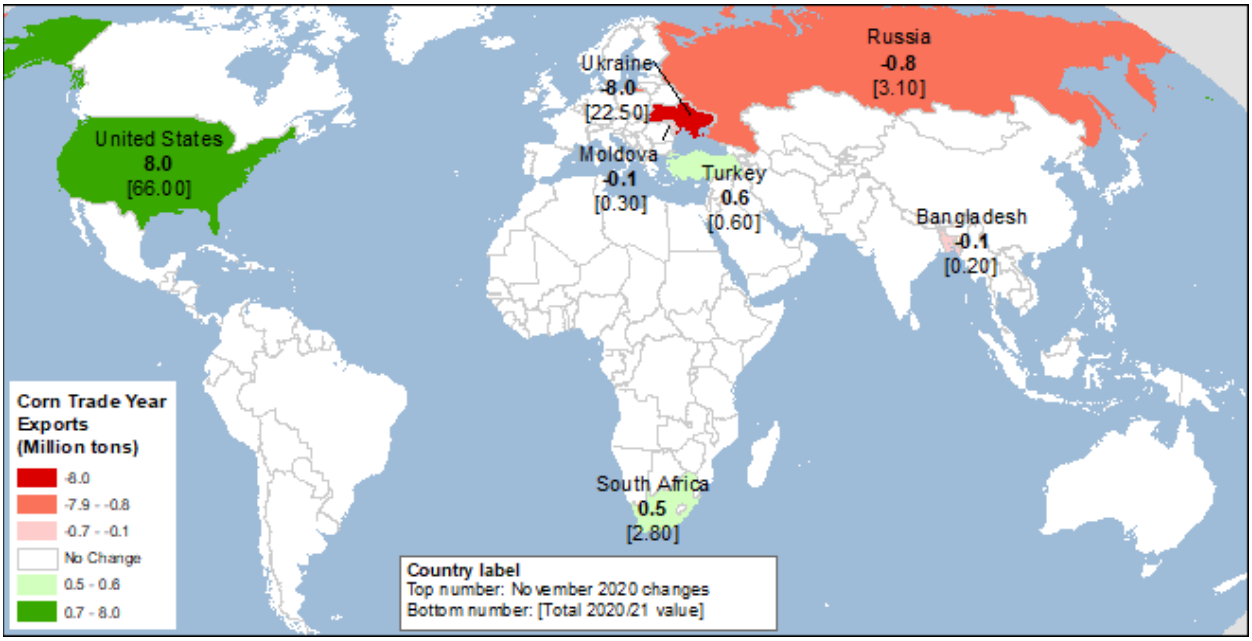
Source: USDA, Foreign Agricultural Service, Production, Supply, and Distribution online database.

A Large Shift in Corn Trade Prospects Projected

World corn trade for the October-September international trade year projected for 2020/21 is virtually unchanged this month at a record-high 183.4 million tons, with a huge shift of 8.0 million tons from ***Ukraine*** to the ***United States***. U.S. exports are projected at the record-high of 66.0 million tons. Other much smaller changes for corn exports are fully offsetting and include reductions for ***Russia*** and ***Moldova*** because of lower production prospects, while exports from South Africa (higher output) and ***Turkey*** (revised customs data, where large shipments end up in Iraq and ***Syria*)** are projected higher. A larger picture of this month's developments in grain trade, caused by the plunge in Ukrainian corn output which created a supply shock for the world, is addressed in the first part of the international section see above.

For a visual display of the changes in corn trade year exports and imports, see map D1 below.

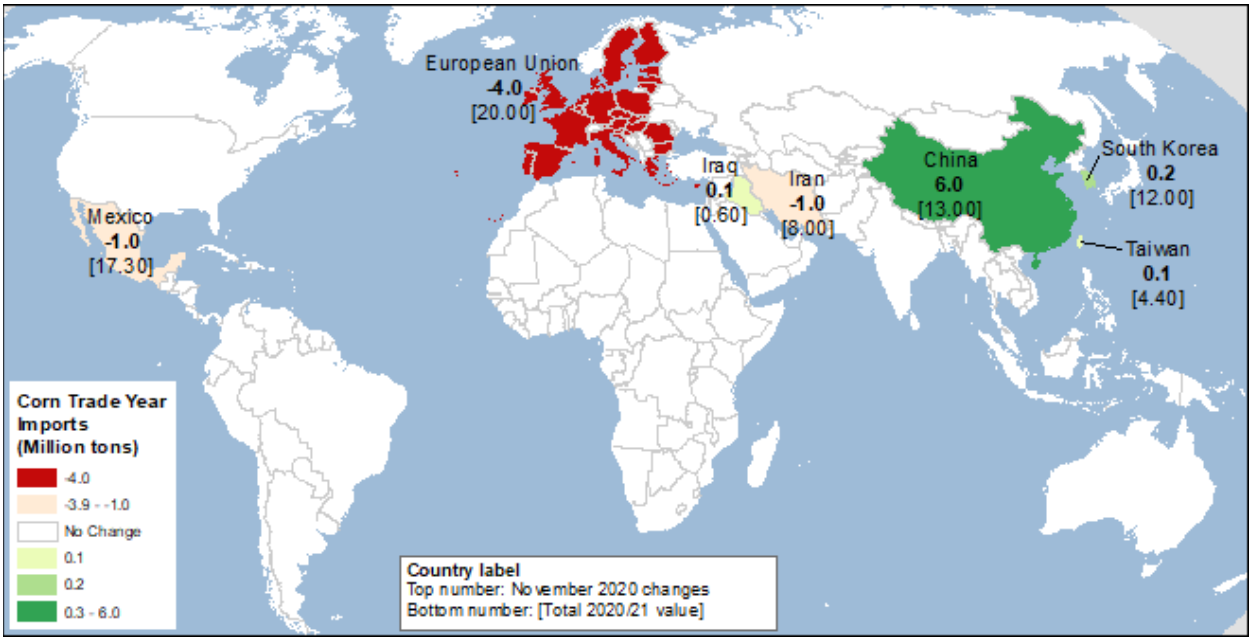
Map D1 – Corn trade year exports changes for 2020/21, November 2020



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

An expansion of ***China's*** coarse grain imports and the way the world is projected to adjust to this global demand shock are also discussed above in the first part of the international section (see the link). For a visual display of the changes in corn trade year imports, see map D2 below.

Map D2 – Corn trade year imports changes for 2020/21, November 2020



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

Suggested Citation

McConnell, Michael, Olga Liefert, David Olson, and Tom Capehart, *Feed Outlook*, FDS-20k, U.S. Department of Agriculture, Economic Research Service, November 13, 2020.