United States Department of Agriculture

Economic Research Service | Situation and Outlook Report

FDS-25c | March 13, 2025

Next release is April 14, 2025

Feed Outlook: March 2025

Aaron M. Ates, coordinator

Claire Hutchins, contributor

In this report:

Domestic Outlook

International Outlook

Global Coarse Grains Production Prospects Are Raised for 2024/25

This month's 2024/25 U.S. coarse grains outlook is for a slight reduction in supplies, with greater declines in use—ultimately, lifting ending stocks by nearly 0.5 million tons. Based on recorded import volumes to date, the 2024/25 barley and oats import forecasts are lowered by 1 and 5 million bushels, respectively. Thus, offsetting changes to barley feed and residual and food, seed, and industrial use place downward pressure on ending stocks. The reduction in oats supply is expected to impact feed and residual use, leaving ending stocks unchanged.

Foreign 2024/25 coarse grains production is projected up this month, with gains expected across the complex. The largest increase is for corn production—particularly India. Complemented by higher corn production prospects in Russia, Ukraine, and Turkey—reductions for South Africa and Mexico are largely offset. Anticipated gains in 2024/25 barley production are driven by higher expected output in Australia, partly offset by reduced barley output in Argentina and Ukraine. Lower beginning stocks, stemming from back-year revisions to corn, partly offset coarse grains production gains. Regardless, these impacts are expected to spur domestic coarse grains consumption, reducing export volumes, and place downward pressure on 2024/25 ending stocks.

Approved by USDA's World Agricultural Outlook Board

Domestic Outlook

2024/25 Domestic Corn Market Update

This month's 2024/25 U.S. corn outlook is unchanged from last month. Import volumes through January 2025 suggest that the United States is poised to hit USDA's forecast of 25 million bushels. With no changes to production, the 2024/25 corn-supply estimate remains at 16,655.1 million bushels.

Data from the U.S. Department of Commerce, Bureau of the Census indicate U.S. corn exports for January 2025 were the highest thus far in 2024/25 at 243 million bushels—contributing to the aggregated marketing year total of just over 970 million bushels. For reference, the year-to-date total is nearly 240 million bushels higher than last year's January cumulative total. Looking ahead, future indicators of U.S. corn exports indicate foreign demand for U.S. corn will remain elevated. In fact, data provided by USDA, Agricultural Marketing Service show that February corn inspections are nearly 25 percent higher than last year and closely align with January 2025 inspections. Similarly, U.S. corn commitments (outstanding sales plus accumulated exports) through February are 22 percent higher than the same time last year, at 1,951 million bushels.

These factors are complemented by favorable global market conditions. Although Argentina's corn export prices remain the most competitive with U.S. prices, South American prices remain a premium to U.S. corn export prices. Thus, these indicators place corn usage to be on track to meet the current export forecast (2.45 billion bushels), despite market uncertainty.

Not only are U.S. corn exports strengthening through January 2025, but so are ethanol exports. Combining U.S. Department of Energy, Energy Information Administration (EIA) and Census Bureau data, 2024/25 ethanol export volumes through January exceed last year's 5-month total by over 30 percent. Although observed corn-to-ethanol conversion rates are generally more efficient in 2024/25, strengthening foreign demand for U.S. ethanol has spurred corn-use-for ethanol production nearly 50 million bushels higher than last year's cumulative total through January. However, corn price premiums relative to sorghum have incentivized greater sorghum use for ethanol production. With last month's upward revision to sorghum food, seed, and industrial (FSI) use, the United States is poised to satisfy (stable) domestic gasoline consumption and foreign ethanol demand. Consequently, USDA's corn-use-for ethanol production outlook is unchanged this month, at 5.5 billion bushels. The season-average corn price forecast remains at $4.35 per bushel.

Sorghum Exports in 2024/25 Are Slashed As China Demand Dwindles

U.S. sorghum supplies are unchanged this month at 376.6 million bushels for marketing year 2024/25 (September-August).

The 2024/25 sorghum export forecast was cut by 70 million bushels (or just over 40 percent) to 100 million in the March *World Agricultural Supply and Demand Estimates (WASDE)* report, as exports to date (namely to China) have been paltry, and indications of future exports through the remainder of the marketing year remain muted. Some available sorghum supplies are expected to be used for feed and residual purposes, as sorghum cash prices are currently discounted to corn cash prices. Ultimately, the expectation of lower exports compared to moderately higher domestic use lifts the 2024/25 sorghum ending-stocks forecast.

Between September and January, the United States exported 41.8 million bushels of sorghum to China. For reference, this is less than half of U.S. sorghum destined for China over the same period a year ago (see figure 1).

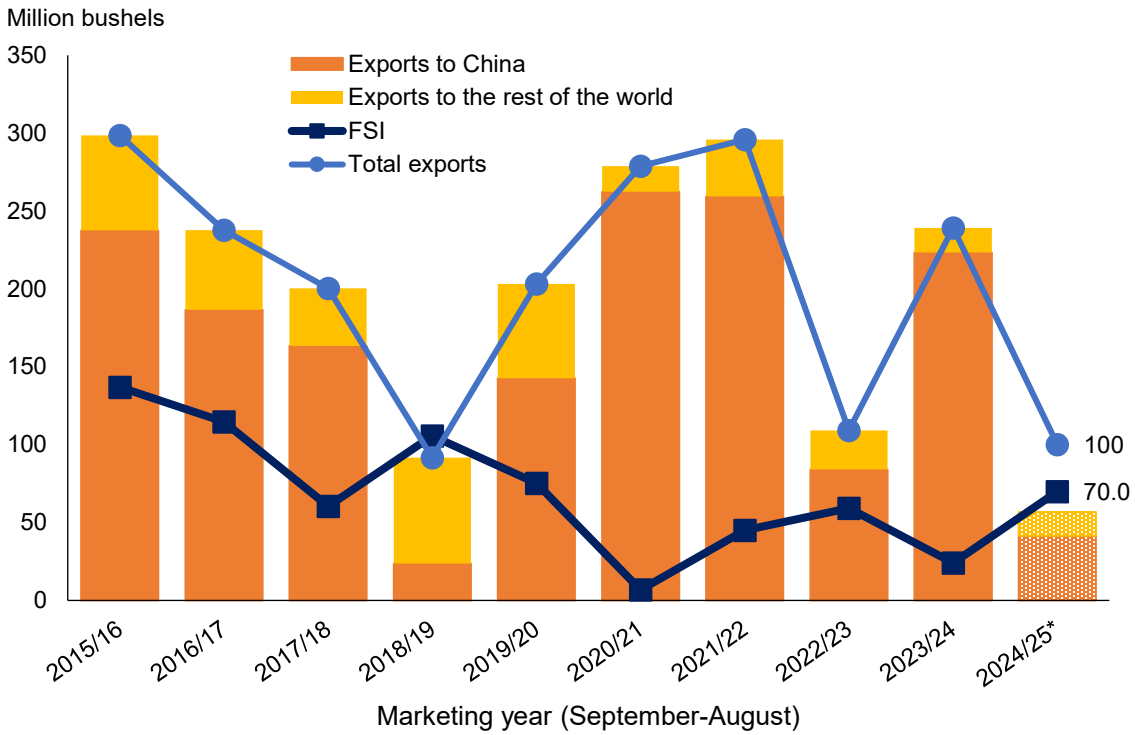
Figure 1
Total and year-to-date U.S. sorghum exports to China

Note: (*) denotes forecast. MY = marketing year.
Source: USDA, Economic Research Service using data from the U.S. Department of Commerce, Bureau of the Census and USDA, *World Agricultural Supply and Demand Estimates*.

China has been the dominant international buyer of U.S. sorghum since 2013/14 and is the driving force behind total U.S. exports in a given marketing year (averaging 78 percent of total

U.S. sorghum exports to the world over the past decade). Regardless, a strong inverse relationship exists between foreign demand for U.S. sorghum and domestic use—which are ultimately constrained by output and supply levels. With less sorghum allocated to exports, higher supplies are available for domestic use (figure 2).

Figure 2
U.S. sorghum exports and domestic FSI use



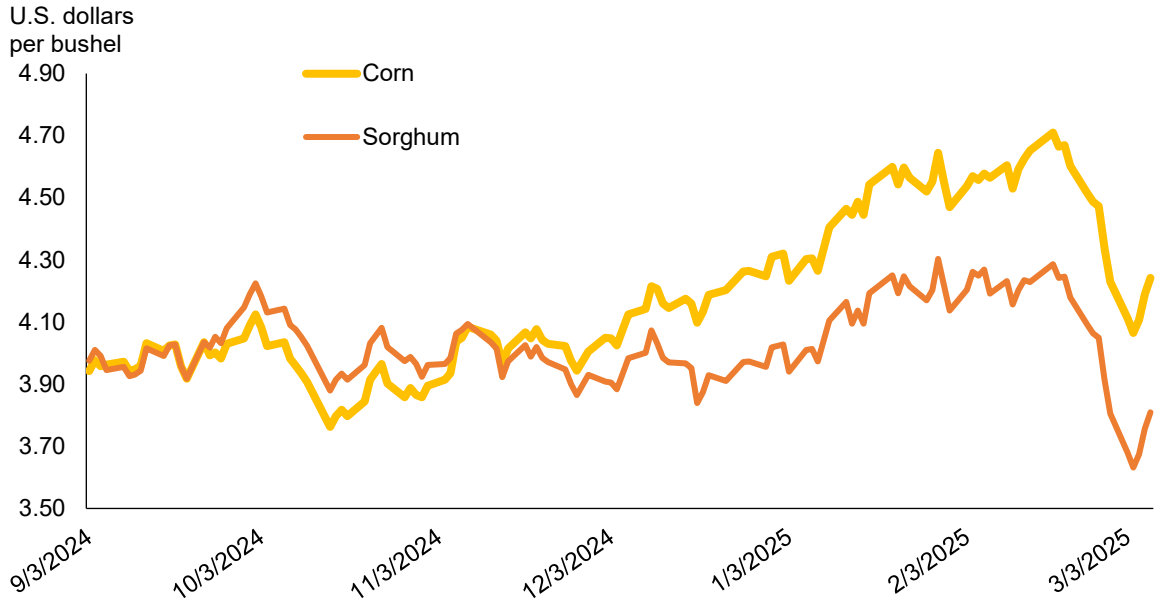
Note: (*) denotes that the FSI and total export values for 2024/25 are forecasted. 2024/25 exports to China and to the rest of the world are from September through January. Food, seed, and industrial use is represented by FSI.
Source: USDA, Economic Research Service using data from the U.S. Department of Commerce, Bureau of the Census and USDA, Office of the Chief Economist *World Agricultural Supply and Demand Estimates (WASDE)* report.

Combined with falling prices (which are now at a discount to corn), domestic feed and residual sorghum use is lifted this month by 50 million bushels to 155 million. Utilizing EIA data, indicated domestic FSI use is on pace to hit the current forecast of 70 million bushels—unchanged this month. The net impact of these use changes lifts the 2024/25 sorghum ending-stocks forecast by 20 million bushels to 51.6 million.

According to the USDA, Agricultural Marketing Service (AMS) *Kansas Daily Grain Bids* report, sorghum cash prices have been trading under the corn-cash price in western Kansas since November—and the gap is widening. In early November 2024, the Dodge City, Kansas cash price for sorghum was $4.03 per bushel, a 2-cent discount to corn-cash prices at the same location. By early March, the cash price for sorghum had fallen to $3.68 per bushel and was trading at a 43-cent-discount to corn (see figure 3)—providing an incentive for (local) feedlots to

substitute more sorghum into their feed rations. As such, the 2024/25 sorghum feed and residual forecast is raised by 50 million bushels this month to 155 million. Moreover, these factors contribute to a reduction in the projected-average sorghum price received by U.S. farmers. Reduced by $0.10, the 2024/25 season-average sorghum price forecast is now $4.15 per bushel.

Figure 3
Daily corn and sorghum cash prices offered in Dodge City, KS



Source: USDA, Economic Research Service using data from USDA, Agricultural Marketing Service *Kansas Daily Grain Bids* report as of March 7, 2025.

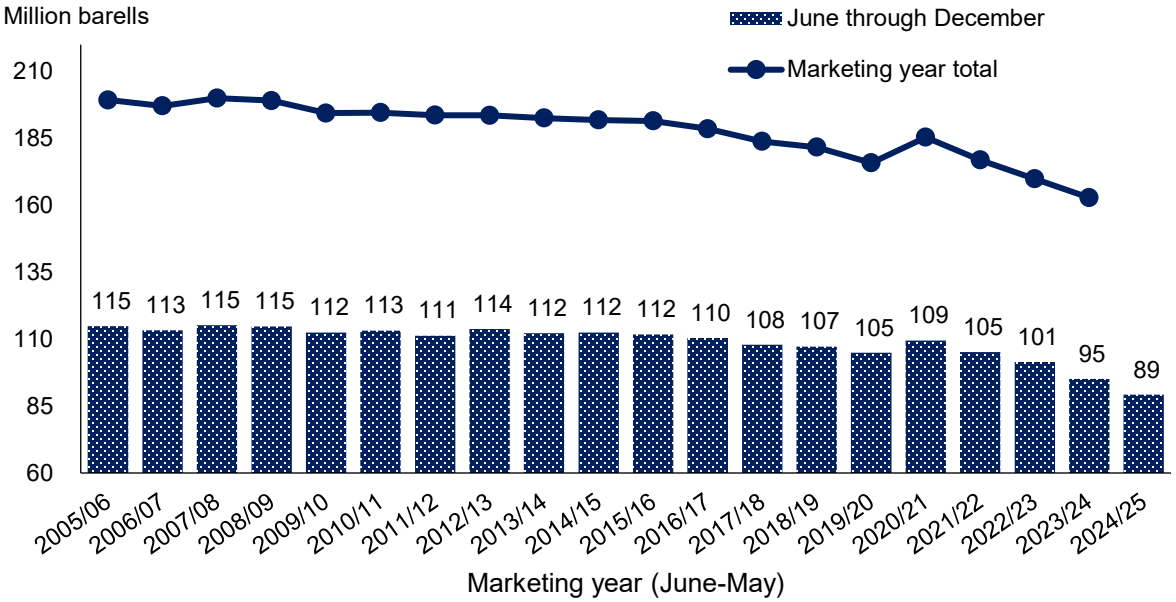
Fading Beer Production Impacts U.S. Barley FSI Use in 2024/25

The 2024/25 barley-supply forecast is reduced by 1 million bushels this month to 231 million. Although January 2025 import volumes reported by the Census Bureau were the second highest thus far in 2024/25 (at just over 1 million bushels), cumulative import volumes are sluggish compared to last month's forecast. Lowered by 1 million bushels, the 2024/25 U.S. barley-import forecast now sits at 9 million bushels.

U.S. beer production, a high-value end-use market for barley, is down roughly 6 percent in the 2024/25 marketing year (June-May). According to data from the U.S. Department of the Treasury, Alcohol and Tobacco Tax and Trade Bureau (TTB), total U.S. beer production has been declining steadily since 2012/13, by roughly 1–2 million barrels per year (see figure 4).

June through December 2024, domestic beer production totaled 89 million barrels (at 31 gallons to the barrel).

Figure 4
U.S. beer production

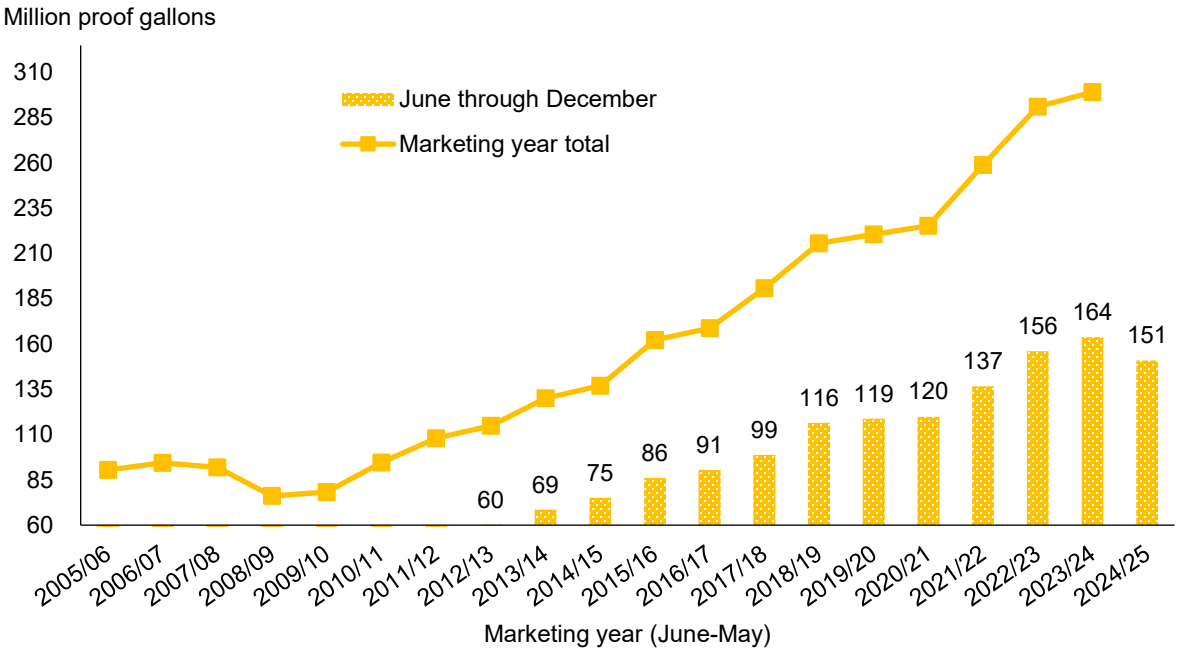


Note: 1 barrel of beer = 31 U.S. liquid gallons.
Source: USDA, Economic Research Service using data from the U.S. Department of the Treasury, Alcohol and Tobacco Tax and Trade Bureau.

Although partly offset by increased whisky production (see figure 5), reduced beer production has a greater impact on overall malting barley use for alcohol production in the United States.

In general, beer production inputs (i.e., malt barley) vary by formulation and type—the same is true for whisky. Consequently, depending on the variety, there may be types of beer that require more malt barley to produce than whisky—and vice versa. Therefore, declining beer production far outweighs the rise in whisky production due—in large part—to the significant difference between the amount of beer produced in the United States versus the amount of whisky. For example (converting from barrels—the standard unit of beer production—to U.S. gallons), the United States produced 5,048 million gallons of beer in 2023/24 (the lowest in 20 years) versus 299 million proof gallons of whisky (the highest in 20 years).

Figure 5
U.S. whisky production



Source: USDA, Economic Research Service using data from the U.S. Department of the Treasury, Alcohol and Tobacco Tax and Trade Bureau.

Taking these factors into consideration, less malting barley is required to satisfy domestic alcohol consumption preferences than in prior years. For these reasons, the 2024/25 barley FSI forecast is lowered 5 million bushels this month to 115 million bushels. If realized, this forecast would represent a year-over-year barley FSI use decline of 8 percent. Barley used for feed and residual in 2024/25 is increased commensurately this month (to 45 million bushels).

With lower supplies and total use unchanged, 2024/25 barley-ending stocks are lower this month at 63 million bushels. Expectations of decreased demand for (malting) barley are represented by falling prices. This contributes to a reduction in the 2024/25 all-barley price forecast to $6.50 per bushel, $0.10 below last month's forecast.

U.S. Oats Supplies Are Projected Lower in March, Prices Are Lifted

The 2024/25 (June-May) U.S. oats-supply forecast was trimmed to 169 million bushels this month, reflecting a 5-million-bushel reduction to the oats-import forecast for the year. The United States is a net importer of oats, drawing the vast majority of its overseas supply from Canada. However, Census data from June through January show that Canadian oat exports to the United States (of 57.3 million bushels) are down 11 percent from last year and fall 16

percent short of the previous 5-year average. A downward shift in oat supplies is further reflected in a 5-million-bushel cut to the forecast of oats used for feed and residual use in 2024/25 (to 55 million bushels). The U.S. oats ending-stocks forecast (of 31 million bushels) is unchanged this month. Lower supplies support an upward shift of $0.05 per bushel to the 2024/25 season-average oats price received by farmers (which is now $3.45 per bushel).

International Outlook

Corn and Barley Output Prospects Boost 2024/25 Global Coarse Grains Production

Global ***2024/25 coarse grains*** production is projected 3.2 million tons higher this month at 1,495.7 million tons. While gains are expected across the coarse grains complex, the projected increase in corn output (driven by ***India***) accounts for just over 50 percent of this increase. This is complemented by higher expected barley output (in ***Australia***), with the remainder of the coarse grains production increase accounted for by anticipated gains in sorghum and oats output (in ***Australia***). See table A1.

Table A1

World and U.S. Coarse grains production at a glance (2024/25)

	Region or country	2023/24	2024/25 Feb.	2024/25 Mar.	Month-to-month changes
		Million metric tons (MMT)			*MMT*
Coarse Grains	United States	402.9	390.9	390.9	0.0
	Total foreign	1,101.7	1,101.7	1,104.9	3.2
	World	1,504.5	1,492.5	1,495.7	3.2
Corn	United States	389.7	377.6	377.6	0.0
	Total foreign	838.4	834.8	836.5	1.7
	World	1,228.1	1,212.5	1,214.2	1.7
Barley	United States	4.1	3.1	3.1	0.0
	Total foreign	139.3	139.3	140.5	1.2
	World	143.4	142.5	143.6	1.1
Sorghum	United States	8.1	8.7	8.7	0.0
	Total foreign	50.3	52.3	52.5	0.2
	World	58.4	61.1	61.2	0.1
Oats	United States	0.8	1.0	1.0	0.0
	Total foreign	18.6	21.4	21.5	0.1
	World	19.5	22.3	22.5	0.2
Rye	United States	0.3	0.4	0.4	0.0
	Total foreign	11.4	10.2	10.3	0.1
	World	11.7	10.6	10.7	0.1

Note: Changes are compared to the February 2025 projections for 2024/25.

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

In ***Australia***, Queensland and New South Wales constitute most of the country's sorghum production (53 and 46 percent, respectively). Although this summer crop has a rather wide planting window, favorable rainfall during the late spring and early summer has benefitted yield

prospects—even encouraging late plantings due to good soil moisture. Through February, cumulative precipitation and soil moisture levels exceeded normal levels. Such conditions support an increase in the 2024/25 sorghum yield forecast, lifting the expected output level to 2.3 million tons. These changes align with information contained in the Australian Bureau of Agricultural and Resource Economics (ABARES) *March 2025 Crop Report*.

This report also contains estimates from the 2024/25 winter barley and oats crops, which are reflected in updated USDA estimates. An increase in ***oats*** yields offsets a slight reduction in area, raising the production forecast to 1.3 million tons. For ***barley***, the harvest is now complete and the March 2025 ABARES report indicates production was higher than anticipated. More specifically, an increase in harvested area and yields combine for a 1.6-million-ton increase in projected barley output in Australia for 2024/25, at 13.3 million tons.

The increase in barley production for Australia is partly offset by a reduced barley crop in ***Argentina***. Buenos Aires is the main barley producing province in Argentina, where the harvest was completed at the end of January. After tabulating harvest results, Argentina's Ministry of Agriculture released a report containing final estimates. In short, low precipitation levels (combined with high temperatures during the flowering stage) negatively impacted the 2024/25 barley crop. As the growing season progressed, abundant rainfall levels cultivated a prolonged, favorable environment for plant disease. As a result, yields were negatively impacted. This month, a reduction to 2024/25 barley yields for Argentina lowers the production forecast by 0.3 million tons to 4.8 million. These changes contribute to a 1.1-million-ton increase in the 2024/25 global barley production forecast that now sits at 143.6 million tons.

For ***corn***, many of the production changes this month are based on official reported data. For example, the corn harvest is now complete in ***Russia*** and ***Ukraine***. In Russia, harvested area and yields were slightly higher than expected. These factors contribute to a 750,000-ton increase in expected corn output for Russia's 2024/25 corn crop, totaling 14 million tons. Similarly, yield results in Ukraine were slightly higher than predicted. As such, Ukraine's 2024/25 corn output estimate is raised by 300,000 tons to 26.8 million.

In ***South Africa***, the Department of Agriculture, Forestry and Fisheries' Crop Estimates Committee recently released first summer estimates for the 2024/25 corn crop. Coinciding with contents of this report, expectations of lower harvested area are combined with a slight reduction in yields, to decrease production prospects by 1 million tons. A 150,000-hectare reduction to harvested area is the main driver of this reduction, with output expectations falling to 16 million tons.

Mexico's Secretary of Agriculture and Rural Development (SIAP) recently provided an update on summer crop harvest and fall and winter crop planting progress. Receiving adequate precipitation and moisture levels, total planted- and harvested-corn area for the 2024/25 summer crop was higher than anticipated. As a result, Mexico's 2024/25 harvested corn area forecast is raised 4 percent to 6.4 million hectares. Fall and winter corn plantings are now complete; however, limited irrigation and scant precipitation are expected to impact yield potentials—particularly in Sinaloa. These factors place downward pressure on overall corn yield expectations—ultimately, outweighing area gains. The result of these changes is a lower 2024/25 corn production forecast for Mexico, falling 0.4 million tons to 23.3 million.

The Indian Ministry of Agriculture recently released its second advance estimates that contain insight for ***India's*** corn crop. Utilizing these estimates, USDA adjusted the 2024/25 corn-area projection this month, up 0.4 million hectares to 11.2 million. With exceptional kharif monsoon season rainfall, yields are slightly higher at 3.6 tons per hectare, and India's 2024/25 corn production is expected to reach 40 million tons.

The net impact of these changes boosts global corn production 1.7 million tons higher than last month, at 1,214.2 million tons.

In February, growing conditions were average across the major ***corn*** producing regions in ***Argentina***. Although moisture levels were variable across provinces, the core areas of production received average rainfall levels. Considering last month's conditions, the stability of weather during February is considered favorable for the 2024/25 corn crop. Consequently, the production forecast remains unchanged from last month, at 50 million tons.

Similarly, conditions in major ***Brazilian*** corn producing states are positive, recovering from the variable weather in January. In fact, conditions have allowed producers to ramp up 2024/25 corn plantings. As of February 23, plantings were nearly 54 percent complete—lagging last year's progress by just over 5 percent. For reference, this shaves 7.3 percentage points off the year-over-year planting progress deficit relative to last month. These factors do not warrant any changes to the 2024/25 corn production forecast for Brazil, which remains at 126 million tons.

Revisions were made, however, to ***Argentina's*** and ***Brazil's 2023/24*** corn production estimates. Relying on final trade estimates and indicated utilization data, Argentina's 2023/24 corn output is estimated at 51 million tons, exceeding the prior estimate by 1 million tons. Conversely, Brazil's 2023/24 corn output is lowered by 3 million tons this month, settling at 119 million tons. Considering indicated utilization data, these changes result in lower ***Argentine*** and ***Brazilian*** corn-beginning stocks for 2024/25.

Reduced Supplies Impact 2024/25 Coarse Grains Trade

Most of the changes to projected coarse grains output levels for 2024/25 are expected to impact trade. However, additional impacts (such as weak ***China*** demand and back-year revisions) also contribute. Impacts of such contributions are not relegated to trade, however, but also domestic use. Nonetheless, global ***coarse grains*** trade for the 2024/25 October-September international trade year is lowered 2.1 million tons to 222.9 million. In short, projected declines in corn-, sorghum-, and oats-export volumes exceed gains in barley trade. See table A2.

Table A2

2024/25 global coarse grains exports and imports by commodity (trade year)

Commodity	Trade year (TY) attribute	Country/ region	2023/24	2024/25 Feb.	2024/25 Mar.	Month-to-month changes
			Million metric tons (MMT)			*MMT*
Corn	TY imports	China	23.4	10.0	8.0	(2.0)
		Colombia	6.6	6.6	6.8	0.2
		Egypt	8.0	8.2	8.4	0.2
		Taiwan	4.6	4.7	4.5	(0.2)
		Turkey	3.3	2.3	2.6	0.3
		Vietnam	11.3	12.8	13.0	0.2
		World	199.7	181.6	180.6	(1.0)
	TY exports	Argentina	31.2	38.0	39.5	1.5
		Brazil	46.4	43.0	41.0	(2.0)
		South Africa	2.5	2.6	2.1	(0.5)
		World	198.1	187.8	186.8	(1.0)
Sorghum	TY imports	China	8.3	6.5	4.5	(2.0)
		World	9.4	7.8	5.9	(1.9)
	TY exports	Australia	2.1	2.1	2.2	0.1
		United States	6.1	4.2	2.2	(2.0)
		World	9.6	8.3	6.4	(1.9)
Barley	TY imports	Iran	1.4	1.5	1.8	0.3
		Iraq	0.2	0.3	0.5	0.2
		Saudi Arabia	2.6	2.2	2.6	0.4
		Thailand	0.1	0.1	0.2	0.1
		World	32.6	25.4	26.4	1.0
	TY exports	Argentina	2.8	3.3	3.0	(0.3)
		Australia	7.9	6.2	7.2	1.0
		Russia	5.8	2.6	2.8	0.2
		Turkey	0.1	0.3	0.5	0.2
		United Kingdom	0.7	0.8	0.7	(0.1)
		World	31.9	26.1	27.1	1.0

Note: Selected changes are compared to the February 2025 projections for 2024/25.

The trade year is October-September for coarse grains, corn, barley, sorghum, oats, and rye.

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

Revisions to ***Brazil's*** and ***Argentina's*** 2023/24 corn production and MY export estimates impact 2024/25 TY forecasts. Their 2023/24 corn MY started in March 2024 and ended in February 2025, and the TY covers October 2024-September 2025. Thus, considering realized and revised export data from October 2024-February 2025 with trade expectations for the remainder of the TY, Argentina's 2024/25 TY corn export forecast is raised by 1.5 million tons this month to 39.5 million. The impact of lower beginning stocks is reflected in reduced ending stocks for 2024/25.

China continues to show weak demand for imported feedstuffs, such as corn and sorghum. Internal market prices in key corn domestic markets (such as the North China Plain) signal heavy deflationary price pressure, with current cash prices at multi-year lows. This demand weakness is corroborated by reported imports to date by China's Customs. During the October to December quarter, China's corn imports from all sources, at just under 1.0 million tons, were roughly one-tenth of the same period the year prior. Exporter data to date imply that this weakness will persist at least through March. Given these factors, China's corn-import forecast is cut 2.0 million tons this month to 8.0 million—which, if realized—would be the lowest since 2019/20. Sorghum imports during the October to December quarter were actually above the year prior. However, a slowdown in sales and shipments from major exporters (such as the United States) is expected to reduce imports in the coming months. Thus, China's sorghum TY import forecast is lowered 2.0 million tons to 4.5 million, also the lowest since 2019/20.

For ***India***, however, the boost in corn supplies is expected to satisfy domestic demand and build stock levels. Of the projected 2-million-ton supply gain, 0.5 million tons are allocated to domestic feed use and 1.2 million tons to food, seed, and industrial corn use. Because the projected supply gains outpace growth in use, 2024/25 corn-ending stocks are raised for India.

The projected reduction in corn output in ***South Africa*** is expected to impact trade prospects. Much like other southern hemisphere exporting countries, South Africa's local corn marketing year (May-April) differs from the international trade year (TY). Regardless, South Africa's 2024/25 MY and TY corn export forecasts are reduced this month.

Overall, reductions to corn TY export forecasts exceed projected increases, lowering ***global 2024/25 TY corn*** export prospects by 1 million tons to 186.8 million.

A higher TY 2024/25 sorghum export forecast for ***Australia*** minimally offsets reduced U.S. sorghum exports (see the domestic section). Australia's projected increase in sorghum output is expected to spur its sorghum export program, lifting MY (April-March) and TY export forecasts

by 0.2 and 0.1 million tons, respectively. The combined effect of this month's sorghum trade changes reduces ***global TY 2024/25 sorghum*** exports by 1.9 million tons to 6.4 million.

For ***barley***, changes to trade forecasts are influenced by changes in production projections, trade volumes to date, and official reports. For instance, ***Russia's*** barley exports for MY 2024/25 (July-June) remain strong. Consequently, this impacts the 2024/25 TY forecast, which is raised by 0.2 million tons this month to 2.8 million. Despite this increase, export volumes for TY 2024/25 remain 3 million tons below last year's level. Similarly, first quarter (October-January) TY export volumes by ***Turkey*** have exceeded last year's TY export total. The majority of these exports have been destined for ***Iraq***. This dynamic is reflected in this month's updated TY trade forecasts for both countries, appropriately adding 0.2 million tons each.

The ***United Kingdom's*** Agriculture and Horticulture Development Board (AHDB) recently released a report with updated trade figures. Considering exports recorded to date, the 2024/25 TY barley forecast is slightly reduced this month for the ***United Kingdom***. The remaining changes for 2024/25 barley TY export forecasts are reflective of production changes. That is, TY barley exports are raised by 1 million tons for ***Australia*** and reduced by 0.3 million tons for ***Argentina***.

The net result of changes to 2024/25 barley TY exports lifts ***global*** trade prospects by 1 million tons compared with last month.

Suggested Citation

Ates, A. M. & Hutchins, C. (2025). *Feed outlook: March 2025* (Report No. FDS-25c). U.S. Department of Agriculture, Economic Research Service.