



Rice Outlook: May 2022
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Rice Outlook monthly tables, in Excel format, can be found on the Rice Outlook report page on USDA's Economic Research Service website.

U.S. 2022/23 Rice Production Projected at 182.7 Million Cwt

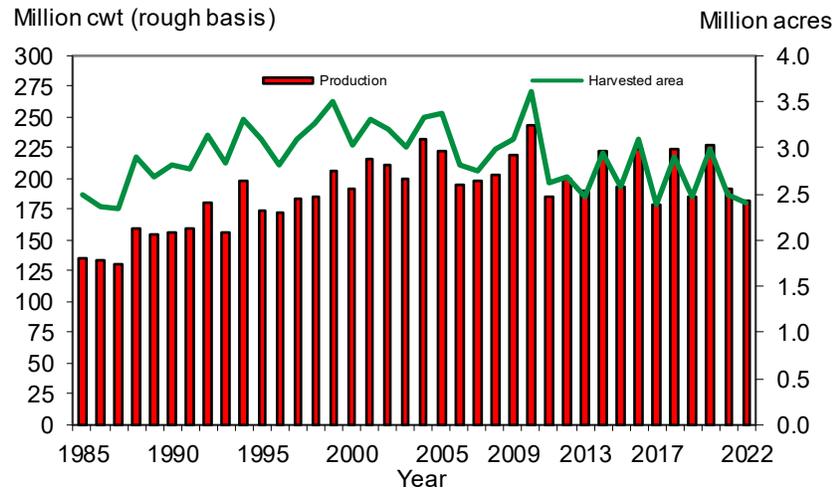
The first forecasts for the 2022/23 market year and for calendar year 2023 are presented this month. For the United States, production in 2022/23 is projected at 182.7 million hundredweight (cwt), down 5 percent from a year earlier. Imports are projected at a record 38.0 million cwt, up 10 percent. On the use side, exports are projected to decline almost 4 percent to 82.0 million cwt and combined domestic and residual use is projected to drop 3 percent. These supply and use projections result in an ending stocks' forecast of 33.2 million cwt, down 11.5 percent from 2021/22. The 2021/22 U.S. rice balance sheet was revised this month, with imports raised 4.0 million cwt to 34.5 million cwt and total use raised 1.0 million cwt to 232.5 million cwt, resulting in a 3.0-million cwt increase in ending stocks to 37.5 million cwt. U.S. season-average farm prices (SAFP) for 2022/23 are projected higher than a year earlier for both classes of rice, with the long-grain and the California medium- and short-grain SAFP projected record high.

In the global market, rice production in 2022/23 is forecast at a record 514.6 million tons (milled basis), up 1.8 million tons from a year earlier, with India achieving the largest increase. Global consumption and residual use in 2022/23 is projected at a record 518.4 million tons, up 1.5 percent from a year earlier, with China and India accounting for the bulk of the increase. Global ending stocks in 2022/23 are projected at 186.3 million tons, down 2 percent from the year-earlier revised record, with China accounting for the largest share of the decline. Global rice trade in calendar year 2023, at a record 54.3 million tons (milled basis), is up 3 percent from a year earlier, with India, Thailand, and Pakistan expected to increase shipments. On the 2023 global import side, China accounts for the largest expected increase, taking a record 6.0 million tons.

Over the past month, quotes for Thailand's trading prices for most grades of regular (non-specialty) milled white rice increased around 8 percent, while Vietnam's quotes were unchanged. India's price quotes for 5-percent broken kernel rice declined over the past month, with India remaining the most competitively-priced source of Asian rice. U.S. trading prices for long-grain milled rice and certain specifications of California medium- and short-grain milled rice increased over the past month.

Figure 1

Reduced harvested area is projected to pull U.S. 2022/23 rice production down 5 percent



Cwt = Hundredweight. 2022 forecasted.

Source: USDA, Economic Research Service, *Rice Yearbook* dataset; 1985/86-2019/20; USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*, 2020/21-2022/23.

Table A - U.S. all-rice supply and use at a glance, 2021/22 and 2022/23

Balance sheet item	2021/22 April	2021/22 May	2021/22 Changes from previous	2021/22 Comments and analysis	2022/23 May	2022/23 Changes from previous year	2022/23 Comments and analysis
Supply ----- Million cwt ----- August-July marketing year							
Beginning stocks	43.7	43.7	0.0		37.5	-6.2	Smaller carryout in 2021/22
Production	191.8	191.8	0.0		182.7	-9.1	Harvested area expected lower due to severe drought in California, high input prices, and strong prices for corn and soybeans in the Delta. Average yield expected lower based on long-term yield trend by class.
Imports	30.5	34.5	4.0	Strong pace to date, record U.S. imports in March	38.0	3.5	Projected higher based on smaller U.S. supplies and continued growth in aromatic imports from South and Southeast Asia.
Total Supply	266.0	270.0	4.0	Larger imports	258.2	-11.8	A smaller carryin and a weaker crop are expected to more than offset record imports.
Demand ----- Million cwt ----- August-July marketing year							
Domestic and residual use	145.5	147.5	2.0	Higher import forecast	143.0	-4.5	Expected to decline due to a smaller crop, indicating smaller post-harvest losses.
Exports	86	85	-1.0	Weaker-than-expected shipment pace	82.0	-3.0	Tighter U.S. supplies and higher prices are expected to reduce U.S. exports.
Rough	34	33	-1.0	Slower-than-expected shipments to Latin America	34.0	1.0	Expect a small increase in sales to Latin America, the major market for U.S. rough-rice exports.
Milled	52	52	0.0		48.0	-4.0	Decline is based on very tight medium- and short-grain supplies and record high prices for California rice, as well as continued strong competition from South American and Asian long-grain exporters.
Total use	231.5	232.5	1.0	Larger domestic use more than offset a reduced export forecast.	225.0	-7.5	Weaker domestic use and smaller exports
Ending stocks	34.472	37.472	3.0	Larger imports more than offset greater total use.	33.2	-4.3	A smaller crop and carryin more than offset weaker domestic use and exports.
Price ----- Dollars per cwt ----- August-July marketing year							
Season-average farm price	15.70	15.70	0.00		17.80	2.10	Big increase in input costs, tighter rice supplies, and higher prices for other grains and oilseeds

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

Table B - U.S. rice supply and use at a glance, by class, 2021/22 and 2022/23

Balance sheet item	2021/22 April	2021/22 May	2021/22 Changes from previous month	2021/22 Comments and analysis	2022/23 May	2022/23 Changes from previous year	2022/23 Comments and analysis
LONG-GRAIN							
Supply ----- Million cwt ----- August-July marketing year							
Beginning stocks	29.7	29.7	0.0		21.4	-8.4	Smaller carryout in 2021/22
Production	144.6	144.6	0.0		140.9	-3.7	Expectations of slightly smaller harvested area and a weaker yield
Imports	24.0	28.0	4.0	Stronger-than-expected shipments from Thailand, including brokens	30.0	2.0	Projected record-high based on smaller U.S. supplies and continued growth in aromatic imports from Asia.
Total supply	198.4	202.4	4.0	Larger imports	192.3	-10.1	Smaller carryin and a slightly weaker crop more than offset larger imports.
Demand ----- Million cwt ----- August-July marketing year							
Domestic and residual use	115.0	117.0	2.0	Larger imports	113.0	-4.0	Smaller crop and reduced supplies
Exports	64.0	64.0	0.0		61.0	-3.0	Tighter U.S. supplies and higher prices are expected to limit U.S. exports, especially outside the Western Hemisphere.
Total use	179.0	181.0	2.0	Higher domestic use	174.0	-7.0	Weaker domestic use and exports
Ending stocks	19.4	21.4	2.0	Higher import forecast more than offsets stronger domestic use.	18.3	-3.1	Smaller supplies more than offset weaker domestic use and smaller exports.
Price ----- Dollars per cwt ----- August-July marketing year							
Season-average farm price (SAFP)	13.80	13.80	0.00		15.50	1.70	Tighter U.S. supplies, substantially higher input prices, higher prices for other grains and oilseeds
MEDIUM- AND SHORT-GRAIN							
Supply ----- Million cwt ----- August-July marketing year							
Beginning stocks	11.5	11.5	0.0		13.6	2.1	Larger carryout in 2021/22
Production	47.2	47.2	0.0		41.8	-5.4	Area lower due to severe drought in California and slightly weaker plantings in the South.
Imports	6.5	6.5	0.0		8.0	1.5	Projected higher based on smaller U.S. supplies and continued shipments from Asia to Puerto Rico.
Total Supply	65.1	65.1	0.0		63.4	-1.7	A much smaller crop more than offset record imports and a larger carryin.
Demand ----- Million cwt ----- August-July marketing year							
Domestic and residual use	30.5	30.5	0.0		30.0	-0.5	Smaller supplies
Exports	22.0	21.0	-1.0	Slow pace of shipments to Northeast Asia	21.0	0.0	Tighter supplies and higher prices prevent any increase.
Total use	52.5	51.5	-1.0	Weaker exports	51.0	-0.5	Weaker domestic use
Ending stocks	12.6	13.6	1.0	Weaker exports	12.4	-1.2	Smaller supplies more than offset weaker domestic use.
SAFP ----- Dollars per cwt ----- August-July marketing year							
Southern medium- and short-grain	14.00	14.00	0.00		16.00	2.00	Big increase in input costs and tighter supplies in California are expected to boost southern prices.
California medium- and short-grain	25.00	25.00	0.00		29.00	4.00	Big increase in input costs and a smaller California crop are expected to boost California prices.
U.S. medium- and short-grain	21.50	21.50	0.00		24.80	3.30	Big increase in input costs and tighter supplies are expected to boost U.S. prices.

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

Domestic Outlook

U.S. 2022/23 Rice Supply Projected To Decline 4 Percent

Total supplies of U.S. rice in 2022/23 are projected at 258.2 million cwt, a decline of 11.8 million cwt from a year earlier and the smallest since 2017/18. The projected decline in total supplies is based on a smaller carryin and a reduced crop more than offsetting record imports. By class, long-grain projected total supply of 192.3 million cwt would be the lowest since 2019/20. Combined medium- and short-grain total supplies of 63.4 million cwt would be the lowest since 2008/09.

U.S. 2022/23 rice production is projected at 182.7 million cwt, a decline of almost 5 percent from a year earlier and the smallest since 2017/18. The expected production decline is based on a 3-percent drop in harvested area to 2.41 million acres—the smallest since 2017/18—and a projected yield drop of 1.5 percent to 7,596 pounds per acre. The harvested area projection is based on farmers' planting intentions by State reported by USDA's National Agricultural Statistics Service (NASS) on March 31 in its *Perspective Plantings* report. The intended acreage estimates in the report are based primarily on surveys conducted during the first 2 weeks of March. NASS will conduct a survey of actual plantings in June that will be released on June 30 in the *Acreage* report. Actual plantings often differ from intended plantings due to weather conditions and relative price changes.

The projected all-rice average yield is based on 10-year yield trends by class. The first survey-based yield estimates for the 2022/23 U.S. rice crop—including State yield estimates—will be released by NASS on August 12 in its *Crop Production* report. Yields by class and State will be released by NASS in January 2023 in its *Crop Production 2022 Summary*.

Long-grain 2022/23 production is projected at 140.9 million cwt, a decline of almost 3 percent from a year earlier and the smallest since 2019/20. Combined medium- and short-grain production is projected at 41.8 million cwt, a decline of more than 11 percent and the smallest since 1988/89. Most of the projected medium- and short-grain production decline is due to severe drought that has sharply lowered rice acreage in California this year. In March, California growers indicated medium- and short-grain plantings at 340,000 acres, a drop of 15 percent from a year earlier and the lowest since 1983/84. This is the second consecutive year of a drought-induced sharp decline in California rice area.

Imports of all-rice are projected at 38.0 million cwt, the highest on record. Long-grain imports are projected to increase 7 percent to a record 30.0 million cwt. The increase is based on continued expansion of aromatic rice imports—jasmine from Southeast Asia and basmati from South Asia—and much tighter supplies of U.S. rice. Record projected imports of medium- and short-grain rice of 8.0 million cwt is based on the continued supply of three or four shipments of about 21,000 tons each to Puerto Rico, typically from China, and steady growth in imports from regular suppliers Thailand, India, and Italy.

Progress of the 2022/23 U.S. Rice Crop Remains Behind Normal in Much of the Delta

Planting of the 2022/23 U.S. rice crop currently remains behind normal in much of the Delta but has caught up on the Gulf Coast and is well ahead of normal in California. In the Delta, the largest rice producing region in the United States, just 57 percent of Arkansas' 2022/23 crop was planted by May 8, well behind both 75 percent a year earlier and the State's average of 72 percent. In nearby Missouri, only 31 percent of the rice crop was planted by May 8, sharply behind 71 percent a year earlier and the State's average of 61 percent. The delays in both States are largely due to frequent rainfall that hindered operations. In contrast, 72 percent of the Mississippi crop was planted by May 8, just 4 percentage points behind a year earlier and ahead of the State's average of 66 percent. Plantings in Mississippi also got off to a slow start this year due to excessive rain that hindered operations but have recently caught up.

On the Gulf Coast, Louisiana's rice crop was reported 92-percent planted by May 8, ahead of both the 87percent reported a year earlier and the State's 5-year average of 91 percent. In Texas, 88 percent of the 2022/23 rice crop was reported planted by May 8, down slightly from 92 percent a year earlier but 1 percentage point ahead of the State's 5-year average. Both Gulf Coast States got off to a slow planting start due to rainfall but have quickly caught up.

Plantings began in California in late April, a few days behind normal due to rain, and have proceeded at a brisk pace. For the week ending May 8, 70 percent of the California 2022/23 rice crop was planted, ahead of last year's rapid pace of 49 percent and well ahead of the State's 5-year average of 28 percent. In both 2021/22 and 2022/23, California's rapid pace of plantings was largely due to the much smaller-than-normal level of total rice acreage planted.

Similar to the pace of plantings, the pace of emergence of the 2022/23 U.S. rice crop remains behind normal across most of the Delta. For the week ending May 8, only 32 percent of the Arkansas crop was reported emerged, 19 percentage points behind both a year earlier and the State's 5-year average. In Missouri, just 5 percent of the crop had emerged by May 8, well behind 60 percent a year earlier and the State's 5-year average of 40 percent. Mississippi's 2022/23 rice crop was reported 50 percent emerged by May 8, 4 percentage points behind a year earlier but 6 percentage points ahead of the State's 5-year average.

On the Gulf Coast, 85 percent of the Louisiana rice crop had emerged by May 8, 5 percentage points ahead of a year earlier but unchanged from the State's 5-year average. In Texas, 76 percent of the rice crop had emerged by May 8, unchanged from a year earlier but 2 percentage points behind the State's 5-year average. For the week ending May 8, 2 percent of California's 2022/23 rice crop was reported emerged, 7 percentage points behind the year-earlier record pace and 1 percentage point behind the State's 5-year average.

U.S. Milled-Rice Exports Projected Lowest Since 1970/71

Both combined domestic and residual use and exports are projected to be smaller than a year earlier in 2022/23. At 82.0 million cwt, total U.S. rice exports in 2022/23 are projected to be the smallest since 1996/97. Milled rice exports of 48.0 million cwt would be the smallest since 1970/71, a result of a sharp decline in California's medium- and short-grain production and lower prices for similar grades of long-grain rice from Asian and South American exporters. Rough-rice exports of 34.0 million cwt—mostly long-grain shipments to Latin American markets—have moved within a narrow range since 2020/21. The U.S. faces less competition in

the global rough-rice market than in the global milled-rice market, as few exporters outside the Western Hemisphere ship rough-rice beyond local border markets.

Long-grain projected exports of 61.0 million would be the lowest since 1996/97. Smaller U.S. supplies and more competitive prices from South American suppliers are behind the forecast for weaker U.S. long-grain exports. Combined medium- and short-grain exports of 21.0 million cwt are unchanged from 2021/22, the lowest since 2006/07, a result in both years of extremely tight supplies of California rice and high prices. California supplies the bulk of U.S. medium- and short-grain exports, with Northeast Asia the top market. In both 2021/22 and 2022/23, the United States is expected to ship little medium- and short-grain rice outside of its core markets Japan, South Korea, Taiwan, Jordan, and Canada.

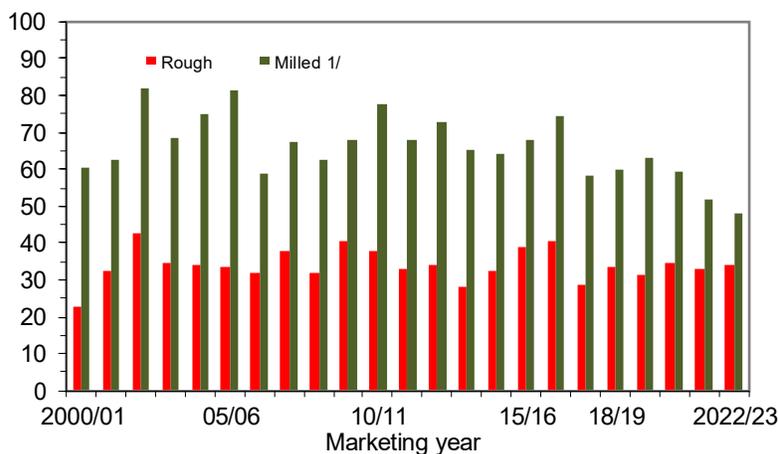
The 3-percent projected decline in total domestic and residual use of all-rice to 143.0 million cwt is based on smaller supplies of U.S. rice and fewer expected post-harvest losses resulting from a weaker crop. Long-grain projected domestic and residual use of 113.0 million cwt is the smallest since 2019/20. Combined medium- and short-grain projected domestic and residual use of 30.0 million cwt is the smallest since 2014/15, another year of a California drought.

These supply and use forecasts result in an all-rice ending stocks forecast for 2022/23 of 33.2 million cwt, the smallest since 2019/20. Long-grain projected ending stocks of 18.3 million cwt are also the lowest since 2019/20. Combined medium- and short-grain ending stocks of 12.4 million cwt are the lowest since 2020/21.

Figure 2

U.S. milled-rice exports are projected to continue to decline in 2022/23; rough-rice exports projected to increase slightly

Million tons



Cwt = Hundredweight. 2021/22 and 2022/23 are forecasts. 1/ Milled- and brown-rice exports on a rough-rice basis.

Source: USDA, Economic Research Service, *Rice Yearbook* dataset; 2000/01-2019/20; USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*, 2020/21-2022/23.

U.S. 2021/22 Import Forecast Raised 4.0 Million Cwt

There were several revisions to the 2021/22 U.S. supply and use tables this month. On the supply side, the all-rice import forecast was raised 4.0 million cwt—all long-grain—to 34.5 million, up 1 percent from a year earlier. The substantial upward revision was based on Census reported imports through March and expectations regarding imports the remainder of the market year. In March, the U.S. Bureau of the Census reported U.S. rice imports at a record 171,852 tons (product-weight), up almost 115 percent from a month earlier and nearly 35,000 tons larger than the previous record reported in April 2020. Thailand accounted for the largest share of the month-to-month increase, with its total rice imports at a record 117,852 tons, up 110 percent from a month earlier. Shipments from China and India were also up from a month earlier.

By class, 2022/23 U.S. long-grain imports of 28.0 million cwt are up 2 percent from a year earlier. In March, the United States imported a record of almost 139,000 tons of long-grain rice, up 46 percent from a month earlier. This included a record 110,739 tons of long-grain rice from Thailand, containing almost 36,000 tons of broken, which are classified as long-grain. Most of the remainder from Thailand was its jasmine rice, a premium aromatic. India supplied almost 18,000 tons of rice in March, up 26 percent from a month earlier and the highest since October 2020.

U.S. 2021/22 medium- and short-grain imports remain forecast at 6.5 million cwt, 3 percent below a year earlier. In March, the United States imported almost 33,000 tons of medium- and short-grain, up 329 percent from a month earlier and the highest since July 2020. China accounted for two-thirds of the medium- and short-grain imports and the bulk of the monthly increase. In March, Puerto Rico—a U.S. territory—imported 21,000 tons of rice from China. This was China's third shipment of 21,000 tons to Puerto Rico in 2021/22. Puerto Rico is expected to receive another large shipment from Asia—either from China or India—this market year.

U.S. 2021/22 Milled-Rice Exports Forecast at 52.0 Million Cwt

U.S. rice exports in 2021/22 are projected at 85.0 million cwt, 1.0 million cwt below the previous forecast, more than 9 percent below a year earlier, and the smallest since 2000/01. This month's revision was largely based on U.S. Bureau of the Census monthly trade data through March, shipment and outstanding sales data through April 28 reported in the weekly *U.S. Export Sales*, and expectations regarding shipments and sales the remainder of the 2021/22 market year.

Long-grain exports in 2021/22 of 64.0 million cwt are nearly 2 percent smaller than a year earlier. The decline is primarily based on smaller supplies and higher U.S. prices. Mexico, Central America, Haiti, northern South America, Canada, and the Middle East remain the top markets for U.S. long-grain exports. In Latin America, the United States is facing increasing competition from South American exporters in several key markets, mostly a result of lower prices. Similar to U.S. rice, the rice exported from South America into these markets is generally considered high quality.

Combined medium- and short-grain U.S. rice exports in 2021/22 are projected at 21.0 million cwt, down 1.0 million from the previous forecast, 27 percent below 2020/21, and the lowest since 2006/07. The downward revision was based on a slower-than-expected pace of shipments to Northeast Asia, especially South Korea. The year-to-year decline in U.S. medium- and short-grain exports is based on expectation of few sales outside the core U.S. markets in

Northeast Asia—Japan, South Korea, and Taiwan. U.S. medium- and short-grain sales to the Middle East are expected to be lower than in 2020/21, with Jordan and Saudi Arabia the main buyers. The United States is not expected to sell any rice to North Africa.

By type, U.S. rough-rice exports in 2021/22 are projected at 33.0 million cwt, 1.0 million cwt below the previous forecast and down almost 5 percent from a year earlier. Based on data from the weekly *U.S. Export Sales* through April 28, combined U.S. rough-rice shipments and outstanding sales were well behind a year earlier to Mexico—the largest buyer of U.S. rough rice—but well ahead to Colombia and Guatemala. Almost all U.S. rough-rice exports are currently shipped to Latin America. Long-grain accounts for the vast majority of U.S. rough-rice exports.

U.S. milled-rice exports (milled- and brown-rice exports on a rough-rice basis) of 52.0 million cwt are 12 percent below a year earlier and the lowest since 1973/74. The United States is expected to make few commercial sales of milled rice beyond Northeast Asia, Haiti, Canada, Iraq, Jordan, Saudi Arabia, and the European Union. However, Mexico, although primarily a rough-rice market, regularly imports small quantities of U.S. milled rice. Exports of U.S. milled-rice are limited by lower-priced rice from Asia, as well as by increased competition from South American exporters.

Total domestic and residual use of rice in 2021/22 is projected at 147.5 million cwt, up 2.0 million cwt—all long-grain—from the previous forecast but still more than 3 percent smaller than the year-earlier record. The year-to-year projected decline is based on smaller U.S. supplies—primarily a much smaller crop—which implies smaller post-harvest losses in marketing and milling and smaller imports. Long-grain domestic and residual use of 117.0 million cwt is almost 3 percent below the year-earlier record. Combined medium- and short-grain domestic and residual use of 30.5 million cwt is 6 percent below a year earlier.

The above supply and use revisions result in a 2021/22 ending stocks forecast of 37.5 million cwt, 14 percent less than a year earlier. Long-grain ending stocks of 21.4 million cwt are 28 percent below a year earlier. In contrast, combined medium- and short-grain ending stocks of 13.6 million cwt are 18 percent larger than a year earlier.

U.S. Season-Average Rough-Rice Prices Projected Higher in 2022/23

Season-average farm prices (SAFP) in 2022/23 for both classes of rice in both the South and California are projected to be higher than in 2021/22. Tighter U.S. rice supplies, much higher input prices, and substantial price increases expected for other grains and oilseeds are the major reasons for the higher expected rice prices in 2022/23.

The 2022/23 long-grain projected SAFP of \$15.50 per cwt is up 12 percent from a year earlier and the highest on record. The southern medium- and short-grain SAFP is projected at \$16.00, 14 percent above a year earlier and the highest since 2008/09. In California, the SAFP is projected at a record \$29.00 per cwt, up 16 percent from a year earlier. The U.S. medium- and short-grain SAFP is projected at \$24.80 per cwt, almost 16 percent above a year earlier and unchanged from the 2008/09 record. The U.S. all-rice SAFP of \$17.80 per cwt is up nearly 13 percent from a year earlier and the highest on record.

There were no revisions this month to the 2021/22 U.S. season-average farm price (SAFP) forecasts. Prices are projected higher than a year earlier for both classes of rice, primarily a result of tighter U.S. supplies and higher NASS prices reported to date.

International Outlook

Global Rice Production Projected Record High in 2022/23

Global rice production in 2022/23 is forecast at a record 514.6 million tons (milled basis), up 1.8 million tons from a year earlier. India accounts for the largest share of the projected increase, with production projected at a record 130.0 million tons, up 1.0 million tons from 2021/22. Production in 2022/23 is projected to be up at least 100,000 tons from a year earlier in Australia, Bangladesh, Burma, Indonesia, Iran, Nepal, Nigeria, Pakistan, and Thailand. In contrast, production is projected to decline at least 100,000 tons in 2022/23 in Ghana, South Korea, Madagascar, Peru, Russia, Tanzania, and the United States.

Global consumption and residual use in 2022/23 is projected at a record 518.4 million tons, up 1.5 percent from a year earlier. China's consumption and residual use is projected at a record 156.6 million tons, up almost 1 percent from a year earlier. The increase is largely due to greater feed use of brokens, with low-priced imports accounting for much of this growth. India's 2022/23 consumption and residual use is projected at a record 107.0 million tons, up 3 percent from a year earlier. The strong increase is largely due to an expected continuation of the Government of India's distribution of surplus rice to low-income households under the National Food Security Act and other food security programs and more is expected to go towards rice instead of wheat. China and India are the two largest rice producing countries. Consumption and residual use in 2022/23 in Bangladesh is projected to increase 0.3 million tons to a record 36.8 million, partly a result of a record crop and strong population growth. In Indonesia, the fourth-largest consumer of rice, consumption and residual use is projected to decline 0.15 million tons to 35.05 million, a result of diet diversification.

Global ending stocks in 2022/23 are projected at 186.3 million tons, down 2 percent from the year-earlier revised record. China accounts for the largest share of the decline, with ending stocks projected to drop 4.0 million tons to 109.0 million, a result of strong consumption growth outstripping record production and imports. In addition, ending stocks are projected to decline at least 100,000 tons in 2022/23 in Bangladesh, Burma, Egypt, Ghana, Sri Lanka, Thailand, and the United States. In contrast, India's 2022/23 ending stocks are projected to increase 1.0 million tons to a record 42.5 million, a result of consecutive record crops. In 2022/23, ending stocks in Australia, South Korea, and Indonesia are projected to increase around 100,000 tons and China and India are expected to account for more than 81 percent of global ending stocks. The 2022/23 global stocks-to-use ratio is projected at 35.9 percent, down from the 2021/22 record of 37.2 percent.

Table C - Global rice production, selected monthly revisions and year-to-year changes, May 2022						
Country or region	Current forecast	Change from previous month	Percent change from previous year	Month-to-month direction	Year-to-year direction	Explanation and comments on year-to-year change
Rice production in 2022/23, 1,000 metric tons (milled basis)						
Argentina	830	--	6.4	--	↑	Increase based on a normal yield and a 3-percent area expansion to 190,000 hectares.
Australia	575	--	22.3	--	↑	Big boost in production based on a 23-percent increase in harvested area to 80,000 hectares.
Bangladesh	36,000	--	0.4	--	↑	Record high production based on a 130,000-hectare increase in harvested area to 11.75 million hectares.
Brazil	7,100	--	-0.6	--	↓	Production projected to drop due to smaller harvested area.
Burma	12,500	--	1.2	--	↑	Production projected up slightly based on a small increase in the yield.
Cambodia	5,940	--	1.3	--	↑	Record production based on a fractional area expansion and a 1-percent increase in the yield.
China	149,000	--	0.0	--	⇒	Near-steady production is based on a slight increase in harvested area offsetting a fractionally lower yield. Production is record high.
Egypt	2,900	--	0.0	--	⇒	Production expected to again be constrained by Government enforcement of rice area restrictions.
European Union	1,740	--	1.3	--	↑	Production increase based on larger crops in France, Hungary, Italy, and Spain.
India	130,000	--	0.8	--	↑	Seventh consecutive record crop based on a record yield and harvested area remaining high.
Indonesia	34,600	--	0.6	--	↑	Increased production based on a small increase in harvested area and a fractional increase in the yield.
Nigeria	5,355	--	1.9	--	↑	Record production based on record harvested area and a slight increase in the yield.
Pakistan	8,900	--	2.3	--	↑	Record crop based a record yield and harvested area unchanged from the year-earlier record.
Philippines	12,411	--	-0.5	--	↓	Slight production decline due to a fractionally lower yield, a result of higher input costs.
Sri Lanka	2,995	--	2.4	--	↑	A partial crop recovery is projected based on expectations of a higher average yield.
Thailand	19,800	--	0.8	--	↑	The small production increase based on expanded harvested area.
United States	5,801	--	-4.7	--	↓	Smaller crop based on a 3-percent decline in rice harvested area and a weaker yield.
Uruguay	910	--	3.2	--	↑	Production increase based on expanded harvest area and a slightly higher yield.
Vietnam	27,400	--	0.3	--	↑	Slight production increase based on a record yield of 6.01 tons per hectare.

-- = Not available. No previous forecast.

Continued--

Table C - Global rice production, selected monthly revisions and year-to-year changes, May 2022--continued						
Country or region	Current forecast	Change from previous month	Percent change from previous year	Month-to-month direction	Year-to-year direction	Explanation and comments on month-to-month revision
Rice production in 2021/22, 1,000 metric tons (milled basis)						
Argentina	780	-60	-7.1	↓	↓	Crop estimate lowered due to adverse impact on yields of severe heat and drought.
Burma	12,352	-248	-2.0	↓	↓	Production lowered due to a weaker yield caused by higher input prices, political unrest, and COVID-19.
Cote d'Ivoire	1,078	-122	12.1	↓	↑	Crop reduced based on smaller harvested area and a 5-percent reduction in the yield.
European Union	1,717	-123	-5.9	↓	↓	Production lowered based on a smaller crop estimate for Italy, the largest rice producer in the EU.
Ghana	740	140	8.7	↑	↑	Production raised based on record high harvested area and yield. Crop size has doubled since 2012/13.
Guinea	1,921	101	0.6	↑	↑	Near-record production based on larger harvested area. Production has nearly doubled over the past decade.
Mali	1,570	-88	-19.8	↓	↓	Reduced production primarily based on a much weaker yield.
Nepal	3,417	-283	-8.7	↓	↓	Crop estimate reduced based on a much smaller yield caused by excessive rainfall last October.
Nigeria	5,255	255	2.1	↑	↑	Production raised based on a higher yield. Area remains record high.
Philippines	12,474	74	0.5	↑	↑	Production raised slightly based on a higher average yield.
Tanzania	2,525	125	9.3	↑	↑	Raised production to a record high based a larger harvested area and fractionally higher yield.
Thailand	19,650	-50	4.2	↓	↑	Crop lowered based on a small reduction in harvested area.
Vietnam	27,331	137	-0.2	↑	↓	Crop raised based on a slightly higher yield; area continues slow decline.

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

Global production in 2021/22 is projected at 512.9 million tons, 0.2 million tons below the previous forecast but 3.5 million tons larger than a year earlier. India accounts for most of the expected production increase in 2021/22, with production estimated at 129.0 million tons, a result of an almost 3-percent expansion in harvested area to a record 47.0 million hectares and a 1-percent increase in yield. China's production is estimated to increase 0.7 million tons to a near-record of almost 149.0 million tons, a result of a record yield. Bangladesh's 2021/22 crop is estimated to have increased almost 4 percent to 35.85 million tons, a result of both an area expansion and a record yield. In addition, production is projected to increase at least 100,000 tons in 2021/22 in Australia, Cote d'Ivoire, South Korea, Nigeria, Pakistan, Tanzania, and Thailand. These production increases in 2021/22 are partially offset by projected crop reductions in Argentina, Brazil, Burma, Colombia, Egypt, the European Union, Guyana, Indonesia, Iran, Madagascar, Mali, Nepal, Russia, Sri Lanka, the United States, Uruguay, and Vietnam.

Global rice consumption and residual use in 2021/22 is projected at 510.6 million tons, up more than 1 percent from a year earlier. China accounts for the bulk of the expected increase, with consumption and residual use projected to increase more than 3 percent to 155.4 million tons, with feed and industrial uses accounting for most of the increase. India's consumption and residual use is projected to increase more than 2 percent to 103.5 million tons, a result of another bumper rice crop and the Government's extension of free food grains under COVID-19 relief programs through September.

Global ending stocks in 2021/22 are projected at a record 190.1 million tons, up 1 percent from a year earlier. India's ending stocks are projected to increase 12 percent to a near-record 41.5 million, primarily due to consecutive bumper crops. Pakistan's ending stocks are projected to increase 13 percent to a record 2.15 million tons, primarily due to a big boost in production. In contrast, China's ending stocks are projected to decline 3 percent to 113.0 million tons, mostly due to the continued sales of Government-held stocks of surplus rice. U.S. 2021/22 ending stocks are projected to decline 11.5 percent to less than 1.1 million tons due to a smaller crop and reduced carryin from 2020/21.

Global Rice Trade Projected Record High in 2023

Global rice trade in calendar year 2023 is projected at a record 54.3 million tons (milled basis), up 3 percent from a year earlier. India, Thailand, and Pakistan are expected to increase shipments in 2023. India's projected exports of a record 22.0 million tons accounts for almost 41 percent of global shipments and exceeds the combined shipments of the next three largest exporters—Thailand, Vietnam, and Pakistan. Brazil, the United States, and Vietnam are projected to export less rice in 2023, while Burma's, Cambodia's, and China's exports are projected unchanged from 2022.

On the 2023 global import side, China accounts for the largest expected increase, taking a record 6.0 million tons, up 0.8 million from 2022. The Philippines is projected to remain the number two rice importer, taking 3.0 million tons, unchanged from the year-earlier record. Nigeria and the EU are each expected to import 2.2 million tons of rice in 2023. Other countries importing at least 1.0 million tons include Cote d'Ivoire, Ghana, Iran, Iraq, Malaysia, Nepal, Saudi Arabia, Senegal, South Africa, the United Arab Emirates, the United Kingdom, and the United States.

Table D - Selected rice importers at a glance (1,000 metric tons), May 2022						
Country or region	Current forecast	Change from previous month	Percent change from previous year	Month-to-month direction	Year-to-year direction	Explanation of year-to-year change
Rice importers, 2023						
Bangladesh	500	--	25.0	--	↑	Increase based on a tightening supply situation.
Brazil	850	--	6.3	--	↑	Stronger imports based on a second consecutive year of declining rice production.
China	6,000	--	15.4	--	↑	Record imports based on continued purchases of low-priced broken for feed use.
Cote d'Ivoire	1,500	--	3.4	--	↑	Increased imports based on stronger domestic use and tighter ending stocks.
Egypt	950	--	18.8	--	↑	Record imports based on a second consecutive year of enforced Government rice area restrictions.
Ethiopia	950		0.0	--	⇒	Imports remain record high based on continued growth in domestic use.
Ghana	1,000	--	5.3	--	↑	Stronger imports based on a smaller rice crop and continued growth in consumption.
Guinea	800	--	0.0	--	⇒	Imports unchanged based on record production and normal stocks.
Indonesia	650	--	-13.3	--	↓	Reduced imports based on stronger production and a small decline in domestic use.
Iran	1,200	--	0.0	--	⇒	Imports unchanged as growth in production matches expansion in consumption.
Iraq	1,350	--	8.0	--	↑	Record imports based on strong growth in domestic use.
Malaysia	1,200	--	0.0	--	⇒	Near-record imports based on fractional growth in production and flat domestic use.
Nepal	1,400	--	3.7	--	↑	Record imports based on strong consumption growth outstripping crop recovery.
Nigeria	2,200	--	0.0	--	⇒	Strong imports projected based on rising consumption continuing to outstrip production gains.
Philippines	3,000	--	0.0	--	⇒	Record imports based on record domestic use and a slight drop in production.
Saudi Arabia	1,400	--	0.0	--	⇒	Steady imports based on flat domestic use and adequate stocks.
Senegal	1,250	--	0.0	--	⇒	Imports remain record-high based on steady growth in consumption and marginal expansion in production.
South Africa	1,025	--	2.5	--	↑	Small increase in imports based on rising domestic use.
United Arab Emirates	1,000	--	11.1	--	↑	Record imports based on economic recovery from COVID-19.
United States	1,200	--	9.1	--	↑	Near-record imports based on a weaker harvest, smaller supplies, higher prices, and a tightening stocks situation.
Vietnam	600	--	-25.0	--	↓	Sharp decline in imports based on a halt in purchases of low-priced broken for feed use from India.

-- = Not available. No previous forecast.

Continued--

Table D - Selected rice importers at a glance (1,000 metric tons), May 2022--Continued						
Country or region	Current forecast	Change from previous month	Percent change from previous year	Month-to-month direction	Year-to-year direction	Explanation of year-to-year change in forecast or month-to-month change in forecast
Rice importers, 2022						
Bangladesh	400	-100	-84.9	↓	↓	Weak purchases from main-supplier India thus far in 2021.
Egypt	800	0	145.4	→	↑	Import boost based on a 27.5-percent production decline.
European Union	2,100	0	12.8	→	↑	Higher imports based on a 6-percent decline in production caused by excessive heat.
Madagascar	700	0	25.0	→	↑	Big boost in imports based on severe drought.
Mali	800	250	166.7	↑	↑	Import forecast raised to a record-high based on a reduced crop estimate.
Mauritania	100	30	0.0	↑	→	Import forecast raised based on a smaller carryin.
Nigeria	2,200	0	4.8	→	↑	Imports projected stronger to build up in stocks.
Philippines	3,000	0	1.7	→	↑	Imports projected record high due to continued strong growth in domestic consumption.
Senegal	1,250	150	0.0	↑	→	Imports raised based on a reduced production estimate.
United States	1,100	100	12.4	↑	↑	Upward revision based on stronger-than-expected purchases through March and expectations regarding imports the remainder of 2022.
Vietnam	800	0	-55.6	→	↓	Big decline due to smaller purchases of broken kernel rice for feed use from India.

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

Global rice trade in 2022 is projected at 52.6 million tons, up 0.1 million tons from the previous forecast and 0.8 million above a year earlier. Australia, Burma, Pakistan, Thailand, Uruguay, and Vietnam account for most of the expected increase in global rice exports in 2022. Partially offsetting these increases are projected weaker exports from Argentina, Cambodia, China, India, and the United States. India is projected to remain the number one rice exporter in 2022 by a wide margin, and Thailand is projected to return as number two.

On the 2022 global import side, Brazil, China, Colombia, Egypt, the European Union, Ethiopia, Indonesia, Iran, Madagascar, Mali, Nepal, Nigeria, Saudi Arabia, Sri Lanka, Togo, Turkey, the United Arab Emirates, and the United States are expected to increase imports by at least 100,000 tons. Partially offsetting these increases in imports is a 2.25-million-ton reduction in Bangladesh's 2022 imports to 400,000 tons, a result of a strong production recovery and a large buildup in stocks. In addition, Vietnam's 2022 imports are projected to decline 1.0 million tons to 800,000 as Vietnam's record purchases of low-priced broken rice from India for feed use decline. Vietnam has not typically purchased rice from India.

Table E - Selected rice exporters at a glance (1,000 metric tons), May 2022

Country or region	Current forecast	Change from previous month	Percent change from previous year	Month-to-month direction	Year-to-year direction	Explanation of year-to-year change
Rice exporters, 2023						
Australia	280	--	12.0	--	↑	Stronger exports based on a substantial increase in production.
Brazil	650	--	-16.7	--	↓	Exports projected to decline due to a second consecutive year of reduced production.
Burma	2,100	--	0.0	--	→	Exports unchanged from 2022 due to supply constraints.
Cambodia	1,400	--	0.0	--	→	Exports projected unchanged as production growth nearly matches rising domestic use.
China	2,400	--	6.7	--	↑	Stronger exports based on continued sale of Government held stocks.
European Union	420	--	-4.5	--	↓	Smaller exports based on greater global competition in key markets.
Guyana	450	--	2.3	--	↑	Small export expansion based on a larger crop.
India	22,000	--	4.8	--	↑	Record exports based on a seventh consecutive year of a record crop and continued competitive prices.
Pakistan	4,600	--	5.7	--	↑	Record exports based on another record crop.
Paraguay	700	--	9.4	--	↑	Record exports based on a 10-percent production increase.
Thailand	7,500	--	7.1	--	↑	Increased exports based on a larger crop and only a small expansion in domestic use.
United States	2,650	--	-1.9	--	↓	Weaker exports based on expectations of a smaller harvest, tighter supplies, and higher U.S. trading prices.
Uruguay	850	--	3.7	--	↑	Export expansion based on a larger crop.
Vietnam	6,400	--	-1.5	--	↓	Slight drop in exports based on stronger competition from Thailand and India.

-- = Not available. No previous forecast.

Continued--

Table E - Selected rice exporters at a glance (1,000 metric tons), May 2022--continued						
Country or region	Current forecast	Change from previous month	Percent change from previous year	Month-to-month direction	Year-to-year direction	Explanation of month-to-month change in forecast
Rice exporters, 2022						
Argentina	320	-50	-20.0	↓	↓	Export forecast lowered based on a reduced crop estimate.
Brazil	780	-20	-0.3	↓	↓	Lowered exports based on a slower-than-expected pace of shipments.
Guyana	440	10	8.4	↑	↑	Raised exports based on a stronger-than-expected pace of shipments.
Paraguay	640	10	0.0	↑	→	Raised exports based on a stronger-than-expected pace of shipments.
Tanzania	100	70	-50.0	↑	↓	Exports raised based on a larger crop.
Thailand	7,000	200	15.5	↑	↑	Exports raised based on a stronger-than-expected pace of shipments to Iraq, Africa, China, and the United States.
United States	2,700	-75	-7.4	↓	↓	Reduced exports based on a weaker-than-expected pace of shipments through April, especially to Northeast Asia.

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

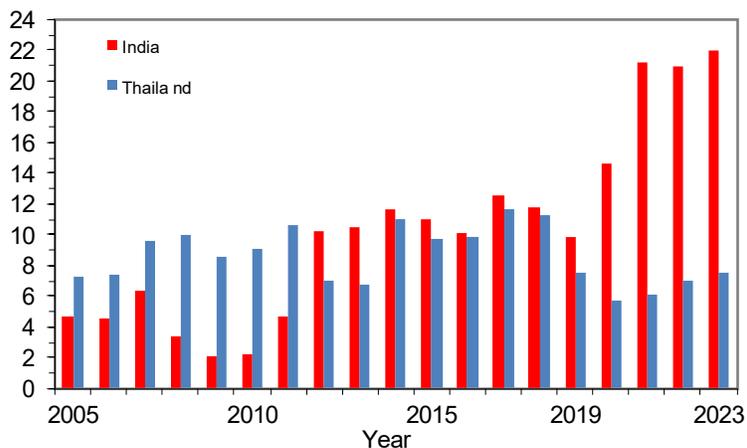
Over the past month, quotes for Thailand's trading prices for most grades of regular (non-specialty) milled rice increased around 8 percent, a result of strong demand for white rice and parboiled rice from Sub-Saharan Africa, China, and Iraq. Thailand's 100-percent Grade B long-grain milled rice for export was quoted at \$458 per ton for the week ending May 10, up \$34 from the week ending April 5 and the highest since mid-June 2021. Prices for Thailand's 5-percent broken parboiled rice—a specialty rice—were quoted at \$428 per ton for the week ending May 10, up \$13 from the week ending April 5. Prices for Thailand's jasmine rice—a premium aromatic—were quoted at \$895 per ton for the week ending May 10, up \$125 from the week ending April 5 and the highest since early September 2020.

In contrast, price quotes for Vietnam's rice for the recently harvested winter-spring crop were unchanged from a month earlier, although prices dropped slightly in mid-April before returning to early-April levels by the second week in May. The mid-April decline was largely due to a stall in demand from the Philippines, a top buyer of Vietnam's rice. For the week ending May 10, prices for Vietnam's 5-percent broken-kernel long-grain milled rice were quoted at \$420 per ton, unchanged from the week ending April 5. India's price quotes for 5-percent broken-kernel rice declined \$15 per ton from the week ending April 5 to \$330 for the week ending May 10, remaining the most competitively priced source of Asian rice. Pakistan's price quote for 5-percent broken-kernel rice remained at \$360 per ton over the same time.

Figure 3

India's 2023 rice exports projected record high; Thailand's 2023 exports projected to increase 7 percent

Million tons



Notes: Rice exports are reported on a milled basis; 2022 and 2023 are forecasts.
 Source: USDA, Foreign Agricultural Service, *Production, Supply, and Distribution* database.

Movements in South American exporter price quotes varied by source and grade and remain below U.S. price quotes for similar grades of milled rice. Uruguay's generic 5-percent broken-kernel long-grain milled rice remains quoted at \$545 per ton for the week ending May 10, unchanged from the week ending December 7. The price quote is \$95 per ton below the current U.S. price for long-grain milled rice for Latin American markets. Price quotes for higher priced nongeneric shipments from Uruguay remained at \$590 per ton for the week ending May 10. Argentina's 5-percent brokens were quoted at \$510 per ton for the week ending May 10, also unchanged from the week ending April 5. Prices for Brazil's generic 5-percent broken-kernel rice were quoted at \$570 per ton for the week ending May 10, up \$10 from the week ending April 5.

U.S. trading prices for long-grain milled rice increased over the past month. Prices for U.S. long-grain milled rice, Number 2 Grade, 4-percent broken kernels (free on board a vessel at a Gulf port, Iraqi specifications) were quoted at \$675 per ton for the week ending May 10, up \$10 from the week ending April 5 and the highest since July 2020. U.S. prices for Latin American milled-rice markets—Haiti, Colombia, and Mexico—were quoted at \$640 per ton for the week ending May 10, up \$10 from the week ending April 5.

Milled-rice prices in California for certain specifications also rose over the past month. Prices for California Number 1 Grade, 4-percent broken kernels for the week ending May 10 were quoted at \$1,365 per ton (free on board at a domestic mill), up \$145 from the week ending April 5 and the highest on record. Export prices for California rice for delivery to the Port of Oakland, California, medium-grain milled-rice (Number 1 Grade, 4-percent brokens, Korean specifications) remain quoted at \$1,360 per ton for the week ending May 10, unchanged since late February. For listings of trading prices by exporter and grade of rice, see table 9 in the Excel file.

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