



Rice Outlook: September 2023

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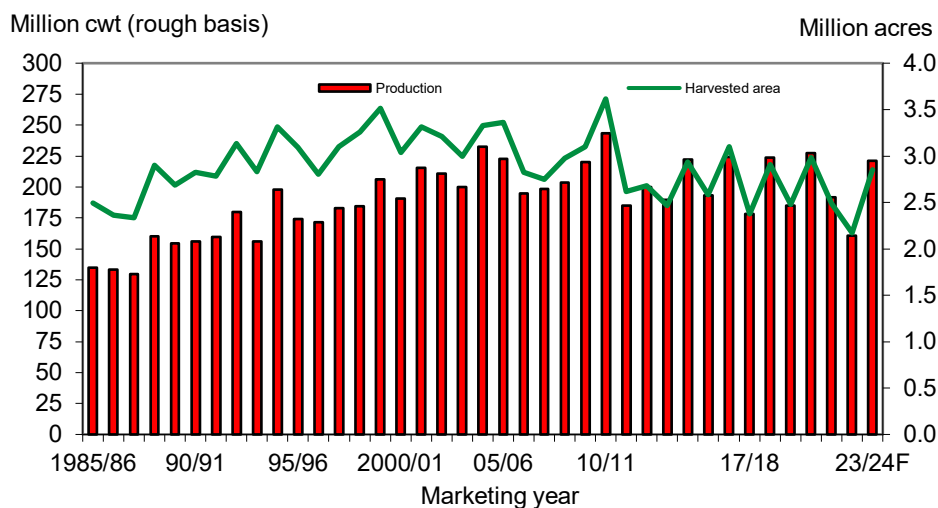
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Rice Outlook monthly tables, in Excel format, can be found on the Rice Outlook report page on USDA's Economic Research Service website.

U.S. 2023/24 Rice Production Forecast Raised 8.5 Percent to 220.9 Million Hundredweight (CWT)

There are several revisions this month to the U.S. 2023/24 rice balance sheet. On the supply side, carryin is raised 5.7 million cwt to 30.3 million, imports are increased 1.0 million cwt to 39.0 million cwt, and production is increased 17.3 million cwt to 220.9 million. The production increase is primarily based on a larger harvested area reported by the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS). These upward revisions boosted the total supply forecast 23.9 million cwt to 290.2 million, the highest since 2020/21. On the use side, total domestic and residual use is raised 7.0 million cwt to a record 162.0 million, while total exports are increased 5.0 million cwt to 85.0 million. On balance, these supply and use revisions resulted in an 11.9-million cwt increase in the 2023/24 U.S. ending stocks forecast to 43.2 million cwt.

Figure 1
U.S. 2023/24 rice production projected to increase 38 percent



Cwt = Hundredweight. 2023/24 are forecasts; F = forecast.

Source: USDA, Economic Research Service, *Rice Yearbook* dataset; 1985/86–2020/21; USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*, 2021/22–2023/24.

The 2023/24 U.S. season-average farm price (SAFP) forecasts for both classes of rice were lowered this month. This reduced the all-rice SAFP forecast by 90 cents to \$16.80 per cwt, matching 2008/09 as the second highest on record. For 2022/23, imports and exports are revised based on August–July U.S. Census trade data. Ending stocks are raised based on August 1 rice stocks estimates reported by NASS. These trade and stocks revisions resulted in a 4.6-million-cwt reduction in the 2022/23 total domestic and residual use estimate. The 2022/23 all-rice SAFP forecast is lowered 10 cents to \$19.30 per cwt due to a 10-cent reduction in the long-grain SAFP reported by NASS to \$16.80 per cwt.

In the 2023/24 global rice market, world production is lowered 2.9 million metric tons to 518.1 million (milled basis), still the highest on record. Production forecasts for 2023/24 are reduced for Bangladesh, Burma, Costa Rica, India, Iraq, Laos, and Thailand, but raised for Australia, the Dominican Republic, and the United States. Global consumption and residual use for 2023/24 is reduced 225,000 tons to 522.7 million, still the second-highest on record, with Bangladesh and Vietnam accounting for most of the downward revision. Global ending stocks were lowered more than 2 percent to 167.6 million tons, with India accounting for most of the reduction.

Global rice trade in calendar year 2024 is projected at 52.1 million tons (milled basis), down 800,000 tons from the previous forecast, with India and Burma accounting for almost all of the downward revision in exports. In contrast, export forecasts are raised for Pakistan, Thailand, the United States, and Vietnam. On the 2024 import side, forecasts are lowered for Burkina Faso, China, Ghana, and Nigeria.

Over the past month, quotes for trading prices for most grades of regular (neither parboiled nor aromatic) whole-grain milled rice from Thailand decreased 4 to 5 percent. Price quotes from Vietnam also decreased. Price quotes for U.S. long-grain milled-rice are unchanged from a month earlier and remain near-record-high. California medium-grain milled-rice price quotes were also unchanged from a month earlier, with quotes record-high. South American export price quotes rose over the past month.

Table A. U.S. all-rice supply and use at a glance, 2021/22–2023/24									
Balance sheet item	2021/22	2022/23 August	2022/23 September	2022/23 changes from previous month	2022/23 comments and analysis	2023/24 August	2023/24 September	2023/24 changes from previous month	2023/24 comments and analysis
Supply August–July marketing year									
Beginning stocks	43.7	39.7	39.7	0.0		24.6	30.3	5.7	Increased based on NASS reported August 1 stocks.
Production	191.6	160.4	160.4	0.0		203.6	220.9	17.3	Raised based on a big increase in harvested area and a slightly higher yield reported by NASS in its September <i>Crop Production</i> report.
Imports	37.8	38.5	39.9	1.4	Raised based on August–July U.S. Census Bureau reported imports.	38.0	39.0	1.0	Raised based on stronger-than-expected imports of Asian aromatic rice in 2022/23.
Total Supply	273.0	238.6	240.0	1.4	Higher imports.	266.2	290.2	23.9	Increased based on a much larger production estimate, as well as a larger carryin, and higher imports.
Demand August–July marketing year									
Domestic and residual use	151.1	150.0	145.4	-4.6	Reduced based on the implied domestic disappearance indicated by the NASS reported August 1 rice stocks.	155.0	162.0	7.0	Increased based on larger supplies of both long-grain and medium- and short-grain.
Exports	82.2	64.0	64.3	0.3	Raised based on August–July U.S. Census Bureau reported exports.	80.0	85.0	5.0	Larger supplies and expectations of more competitive prices.
Rough	28.3	19.0	18.1	-0.9	Lowered based on August–July U.S. Census Bureau reported exports.	23.0	26.0	3.0	Larger supplies of long-grain rice and more competitive prices compared with South American exporters.
Milled	53.9	45.0	46.2	1.2	Revised up based on August–July U.S. Census Bureau reported exports, with North East Asia accounting for most of the increase.	57.0	59.0	2.0	Larger U.S. supplies and more competitive prices compared with recent boosts in prices for Asian and South American rice.
Total use	233.3	214.0	209.7	-4.3	A smaller domestic and residual use estimate more than offset stronger exports.	235.0	247.0	12.0	Larger expected domestic and residual use and an increased export forecast.
Ending stocks	39.7	24.6	30.3	5.7	Raised based on August 1 stocks estimates reported in NASS' <i>Rice Stocks</i> .	31.2	43.2	11.9	Larger supplies more than offset higher forecasts for domestic and residual use and for exports.
Price August–July marketing year									
Season-average farm price (SAFP)	\$16.10	\$19.40	\$19.30	-0.1	Lowered based on a 10-cent reduction in the long-grain SAFP.	\$17.70	\$16.80	-0.90	Reduction based on lower SAFP forecasts for both classes of rice.

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 to 2023/24

Balance sheet item	2021/22	2022/23 August	2022/23 September	2022/23 Changes from previous month	2022/23 Comments and analysis	2023/24 August	2023/24 September	2023/24 Changes from previous month	2023/24 Comments and analysis
LONG-GRAIN									
Supply August–July marketing year									
Carryin	29.7	24.6	24.6	0.0		16.8	21.2	4.4	Raised based on data reported in the August <i>NASS Rice Stocks</i> .
Production	144.6	128.2	128.2	0.0		146.8	152.9	6.1	Raised based primarily on a larger harvested area forecast reported by NASS in its September <i>Crop Production</i> report.
Imports	30.7	31.0	31.9	0.9	Raised based on August–July U.S. Census Bureau data indicating stronger-than-expected imports of Asian aromatic rice.	31.0	32.0	1.0	Raised based on expectation that a continued increase in imports of Asian aromatic rice will offset reduced imports of broken kernel rice.
Total supply	205.0	183.8	184.7	0.9	A larger import forecast.	194.6	206.1	11.5	Increased based on a much larger production forecast, as well as a larger carryin, and higher imports.
Demand August–July marketing year									
Domestic and residual use	119.7	117.0	113.7	-3.3	Reduced based on the implied domestic disappearance indicated by the NASS reported August 1 <i>Rice Stocks</i> .	121.0	124.0	3.0	Raised based on a larger production estimate, including likely larger post-harvest losses.
Exports	60.6	50.0	49.8	-0.2	Reduction based on U.S. Census Bureau August–July export data.	54.0	58.0	4.0	Raised based on larger supplies and expectations of more competitive prices, especially compared with South American exporters.
Total use	180.3	167.0	163.5	-3.5	Lowered primarily based on a weaker domestic and residual use estimate.	175.0	182.0	7.0	Increased forecasts for domestic and residual use and for exports.
Ending stocks	24.6	16.8	21.2	4.4	Raised based on August 1 stocks estimates reported in NASS' <i>Rice Stocks</i> .	19.6	24.1	4.5	Increased total supplies more than offset higher total use.
Price 1/									
Season-average farm price (SAFP)	\$13.60	\$16.90	\$16.80	-0.10	Lowered based on monthly reported cash prices and marketings through July.	\$15.50	\$15.00	-0.50	Reduced based on larger supplies.

Continued--

Table B. U.S. rice supply and use at a glance, by class, 2021/22 to 2023/24--Continued

Balance sheet item	2021/22	2022/23 August	2022/23 September	2022/23 Changes from previous month	2022/23 Comments and analysis	2023/24 August	2023/24 September	2023/24 Changes from previous month	2023/24 Comments and analysis
MEDIUM- AND SHORT-GRAIN									
Supply									
Carryin	11.5	13.0	13.0	0.0		5.8	6.8	1.0	Raised based on NASS reported August 1 stocks.
Production	47.0	32.2	32.2	0.0		56.8	68.0	11.2	Raised based primarily on a big increase in harvested area reported by NASS in its September <i>Crop Production</i> report. Most of the increase is in the South.
Imports	7.1	7.5	8.0	0.5	Raised based on August-July U.S. Census Bureau import data.	7.0	7.0	0.0	
Total Supply	66.0	52.8	53.0	0.3	A larger import forecast.	69.6	81.8	12.2	Increased based on a much larger production forecast as well as a larger carryin.
Demand									
August-July marketing year									
Domestic and residual use	31.4	33.0	31.7	-1.3	Reduced based on the implied domestic disappearance indicated by NASS in its August <i>Rice Stocks</i> report.	34.0	38.0	4.0	Raised based on a larger production estimate, including likely larger post-harvest losses.
Exports	21.5	14.0	14.5	0.5	Raised based on August-July U.S. Census Bureau export data reporting stronger-than-expected shipments to Japan.	26.0	27.0	1.0	Increased based on larger supplies and expected lower prices.
Total use	53.0	47.0	46.2	-0.8	A reduced domestic and residual use estimate more than offset slightly higher exports.	60.0	65.0	5.0	Larger forecasts for both domestic use and for exports.
Ending stocks	13.0	5.8	6.8	1.0	Raised based on August 1 stocks estimates reported in NASS' <i>Rice Stocks</i> .	9.6	16.8	7.2	A large increase in the total supply forecast more than offset stronger expected domestic and residual use.
Price 1/									
August-July marketing year									
Southern medium- and short-grain	\$13.90	\$18.20	\$18.20	0.00		\$16.00	\$15.50	-0.50	Lowered based on a larger southern harvested area forecast reported by NASS.
California medium- and short-grain	\$31.90	\$36.00	\$36.00	0.00		\$29.00	\$26.00	-3.00	Lowered based on a larger California production forecast reported by NASS.
U.S. medium- and short-grain	\$26.40	\$29.40	\$29.40	0.00		\$24.80	\$22.60	-2.20	Lowered based on a reduced forecast for medium- and short-grain SAFPs in both regions.

1/ Season-average farm price. NASS = USDA, National Agricultural Statistics Service.

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

Table C. U.S. rice harvested area, yield, and production, by State and U.S. total

State and U.S. total	2019	2020	2021	2022	2023	Change from previous year	
						Quantity	Percent
	----- 1,000 acres -----						
Harvested area							
Arkansas	1,126	1,441	1,193	1,084	1,411	327	30.2
California	501	514	405	254	511	257	101.2
Louisiana	414	473	413	415	463	48	11.6
Mississippi	113	165	99	84	118	34	40.5
Missouri	173	214	194	149	203	54	36.2
Texas	150	179	181	186	144	-42	-22.6
U.S. total	2,477	2,986	2,485	2,172	2,850	678	31.2
South	1,976	2,472	2,080	1,918	2,339	421	21.9
	----- Pound per acre -----						
Yield							
Arkansas	7,480	7,500	7,630	7,410	7,550	140	1.9
California	8,460	8,720	9,050	8,760	8,900	140	1.6
Louisiana	6,380	6,820	6,870	6,660	6,750	90	1.4
Mississippi	7,350	7,420	7,540	7,370	7,400	30	0.4
Missouri	7,370	7,250	8,040	7,940	8,000	60	0.8
Texas	7,350	8,150	6,860	6,510	8,800	2290	35.2
U.S. average	7,473	7,619	7,709	7,383	7,751	368	5.0
South	7,224	7,391	7,448	7,201	7,500	299	4.2
	----- 1,000 Hundredweight -----						
Production							
Arkansas	84,257	108,107	91,063	80,340	106,531	26,191	32.6
California	42,362	44,810	36,653	22,251	45,479	23,228	104.4
Louisiana	26,408	32,237	28,380	27,649	31,253	3,604	13.0
Mississippi	8,302	12,241	7,465	6,191	8,732	2,541	41.0
Missouri	12,747	15,522	15,599	11,832	16,240	4,408	37.3
Texas	11,028	14,597	12,421	12,105	12,672	567	4.7
U.S. total	185,104	227,514	191,581	160,368	220,907	60,539	37.8
South	142,742	182,704	154,928	138,117	175,428	37,311	27.0

These six States account for almost 100 percent of U.S. rice acreage and production. Production and yield are rough basis.
Source: USDA, Economic Research Service; USDA, National Agricultural Statistics Service.

U.S. Rice Production Projected To Increase 38 Percent in 2023/24

The 2023/24 U.S. rice production forecast is raised 8.5 percent to 220.9 million cwt, up 60.5 million cwt from a year earlier and the largest since 2020/21. This month's upward revision is primarily due to a 205,000-acre increase in harvested area to 2.85 million, 31 percent larger than a year earlier and the highest since 2020/21. Harvested area estimates were raised this month for all reported States, with Arkansas accounting for more than half the total increase. The U.S. yield forecast is increased 52 pounds to 7,751 pounds per acre, 5 percent above a year earlier and highest on record. Texas accounted for all of the upward revision in the U.S. yield. The California 2023/24 yield forecast was lowered slightly.

The harvested area estimate is reported by U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) in its September 12 *Crop Production* report. It is derived from the revised NASS planted area estimate of 2.90 million acres, which is based on all available information as of September 1, including Farm Service Agency certified acreage data. The NASS-reported yield is based on a survey of growers conducted August 25–September 7 that asked operators what they estimated their final yields would be based on crop conditions as of September 1.

By class, 2023/24 long-grain production is raised 6.1 million cwt to 152.9 million, 19 percent larger than a year earlier and the largest since 2020/21. The bulk of the expected annual increase in long-grain production is due to an area expansion, primarily in the Delta. The area expansion was due to high rice prices at planting time, some decline in input prices from the year-earlier extremely high levels, and generally favorable weather conditions early in the season in much of the South. Combined medium- and short-grain production is forecast at 68.0 million cwt, up 11.2 million from the previous forecast, 111 percent larger than a year earlier and the largest since 2011/12. The substantial increase in U.S. medium- and short-grain production in 2023/24 is primarily based on a strong area recovery in California—where more than two-thirds of the U.S. medium- and short-grain crop is typically produced—from 2 years of severe drought. Medium- and short-grain plantings also increased in the South in 2023/24, with Arkansas reporting the largest expansion.

Harvested area is projected to be larger than a year earlier in all reported States except Texas, where water restrictions reduced plantings on the west side of Houston while excessive rainfall reduced plantings by a smaller amount on the east side. Arkansas reported the largest increase in harvested area in 2023/24, followed by California. Yields are projected to be higher than a year earlier in all six reported States, with Texas reporting the largest increase. However, projected yield growth in Mississippi and Missouri is less than 1 percent. Yields are projected near-record-high in California and Missouri. Production in 2023/24 is projected higher than a year earlier in all reported States. Arkansas' crop size is forecast to increase the most—up 26.2 million cwt—while California is forecast to achieve the largest percentage production increase—104 percent.

Harvest of the main crop on the Gulf Coast is nearing completion and began last month in parts of the Delta. Both Gulf Coast States typically harvest a partial second crop—called a ratoon crop—from the stubble of the first-crop harvest remaining in the field. Delta States are not able to harvest a ratoon crop due to their shorter growing season. Through September 10, harvest pace in the South was ahead of normal in all five reported States except Texas, although the Texas harvest pace was just 1 percentage point behind the State's 5-year average. In contrast,

harvest had yet to begin in California, with 4 percent typically harvested by September 10 (table d).

Table D. Weekly crop progress-- <i>continued</i>				
State	Week ending			State and U.S. 2018–2022 average
	September 10, 2023	Previous week	A year earlier	
Rice harvested				
	----- Percent -----			
Arkansas	40	24	22	27
California	0	0	4	4
Louisiana	91	86	82	86
Mississippi	53	32	41	40
Missouri	14	5	2	7
Texas	87	80	85	88
U.S. total	45	34	33	35
N/A = Not available. These six States account for almost 100 percent of U.S. rice acreage. Source: USDA, National Agricultural Statistics Service; USDA, Economic Research Service.				

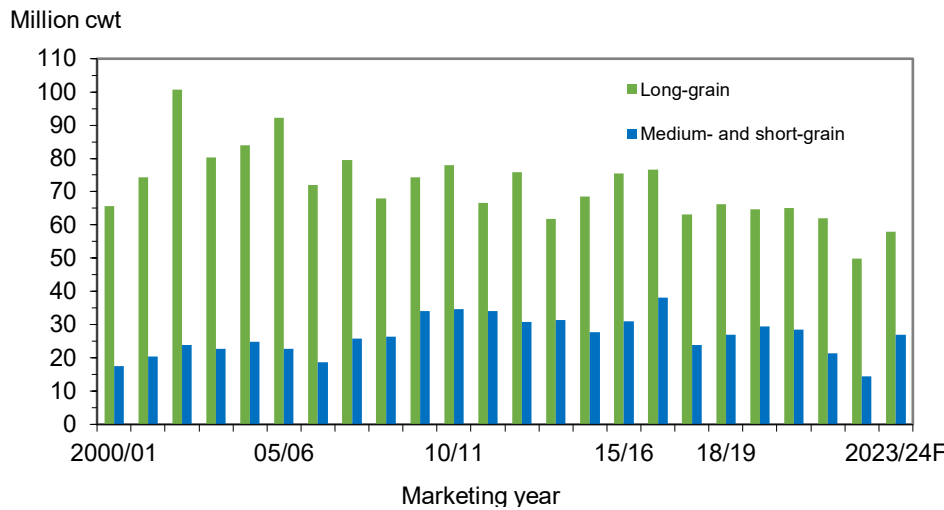
Both the 2023/24 carryin estimate and import forecast are raised this month. Carryin was boosted 5.7 million cwt to 30.3 million, based on August 1 data reported by NASS in its *Rice Stocks* released on August 23. The 2023/24 U.S. import forecast was raised 1.0 million cwt—all long-grain—to 39.0 million, 2 percent below the year-earlier revised record. These supply-side revisions boosted total supplies 9 percent to 290.2 million cwt, 21 percent larger than a year earlier and the highest since 2020/21.

U.S. 2023/24 Rice Exports Forecast To Rise 32 Percent

U.S. 2023/24 rice exports are forecast at 85.0 million cwt, up 5.0 million from the previous forecast and almost 21 million cwt above the year-earlier revised estimate. Long-grain accounts for most of the month-to-month 2023/24 upward revision. The year-to-year all-rice increase is based on larger supplies and expectations of more competitive prices.

Long-grain exports are projected at 58.0 million cwt, up 16 percent from a year earlier. In 2023/24, the United States is expected to expand sales to Latin America—the largest market for U.S. long-grain rice—and also to increase sales to the Middle East. The Middle East is the second-largest export market for U.S. long-grain rice, with Iraq currently the largest U.S. market in the region. Combined medium- and short-grain exports of 27.0 million cwt are 12.5 million cwt above the 2022/23 unusually low level. Recovery of sales to Japan, South Korea, and Taiwan is expected to account for most of the increase in medium- and short-grain exports (figure 3). Northeast Asia accounts for the bulk of U.S. medium- and short-grain exports. U.S. sales to the Middle East are expected to increase as well (figure 2).

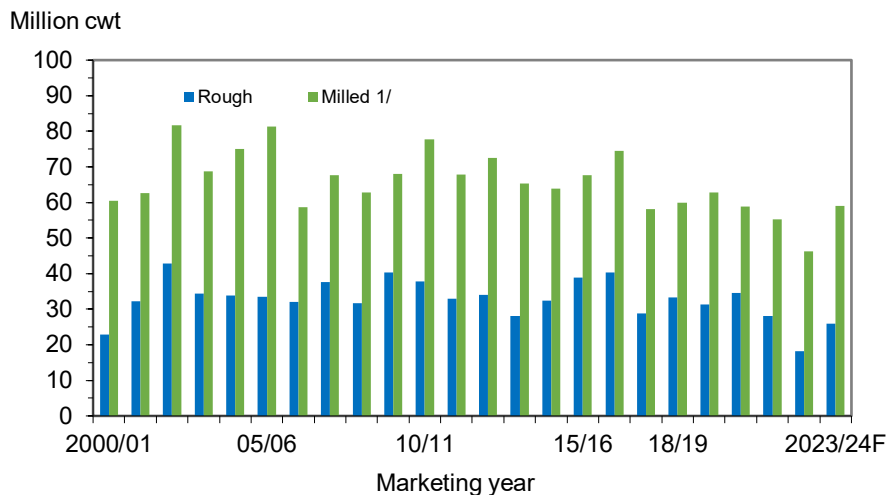
Figure 2
U.S. exports of long-grain and combined medium- and short-grain rice are projected to increase in 2023/24 1/



Cwt = Hundredweight. 2023/24 are forecasts.1/ Milled-, brown-, and rough-rice exports on a rough-rice basis. F = forecast.

Source: USDA, Economic Research Service, Rice Yearbook dataset; 2000/01–2020/21; USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*, 2021/22–2023/24.

Figure 3
U.S. milled-rice exports projected to increase 28 percent in 2023/24



Cwt = Hundredweight. 2023/24 are forecasts.1/ Milled- and brown-rice exports on a rough-rice basis. F = forecast.

Source: USDA, Economic Research Service, *Rice Yearbook* dataset; 2000/01–2020/21; USDA, World Agricultural Outlook Board, *World Agricultural Supply and Demand Estimates*, 2021/22–2023/24.

Milled-rice exports are projected to increase almost 13.0 million cwt to 59.0 million in 2023/24, with the three Northeast Asian countries accounting for the largest share of the expansion

(figure 3). Sales to the Middle East and Haiti are expected to increase as well. The rough-rice projected export expansion of 43 percent to 26.0 million is largely based on the expectation that the United States will regain some of its market in Mexico—the largest market for U.S. rough-rice—due to lower prices and larger available supplies. In 2022/23, the United States lost much of its Mexican market to South American suppliers, mostly Brazil, due to their more competitive prices. Rough-rice sales to other Latin American markets are expected to increase in 2023/24.

Record total domestic and residual use in 2023/24, forecast at 162.0 million cwt, is based on larger supplies and an expected increase in post-harvest losses associated with a larger crop. Long-grain domestic and residual use of 124.0 million cwt is also projected record-high. Combined medium- and short-grain domestic and residual use of 38.0 million cwt is projected to be the highest since 2019/20. U.S. ending stocks in 2023/24 are forecast at 43.2 million cwt, up 43 percent from a year earlier and the largest since 2020/01.

U.S. 2022/23 Ending Stocks Estimate Raised 23 Percent

There are several revisions this month to the 2022/23 U.S. rice balance sheet, based on both the U.S. Census Bureau reporting of July trade data and the August 1 data from NASS in its *Rice Stocks* released on August 23. First, imports of both long-grain and medium- and short-grain rice are raised based on the 2022/23 full market year (August–July) trade data. Second, total exports are raised slightly as a stronger medium- and short-grain export estimate more than offset a small reduction in the long-grain estimate. By type, larger-than-expected milled rice exports more than offset a reduction in the 2022/23 rough-rice export estimate.

Third, 2022/23 ending stocks are raised 5.7 million cwt to 30.3 million, still 24 percent below a year earlier, with long-grain accounting for most of the upward revision. Fourth, the above trade and ending stocks revisions resulted in a 4.6-million-cwt reduction in the all-rice total domestic and residual use estimate, with domestic and residual estimates lowered for both classes of rice.

Season-average farm-price (SAFP) forecasts for 2023/24 were lowered for all reported categories of rice this month, a result of the month's larger supply forecasts. These reductions reduced the all-rice SAFP 90 cents to \$16.80 per cwt. For all categories of U.S. rice, farm prices in 2023/24 are projected to be below a year earlier, a result of a substantial increase in supplies. For 2022/23, the long-grain SAFP is lowered 10 cents to \$16.80 per cwt, still the highest on record. The revision is based on August–July NASS-reported cash prices and marketings. The lower long-grain SAFP reduced the all-rice 2022/23 SAFP 10 cents to \$19.30 per cwt, still the highest on record.

International Outlook

Production Forecasts for 2023/24 Lowered for Bangladesh, Burma, Costa Rica, India, Iraq, Laos, and Thailand

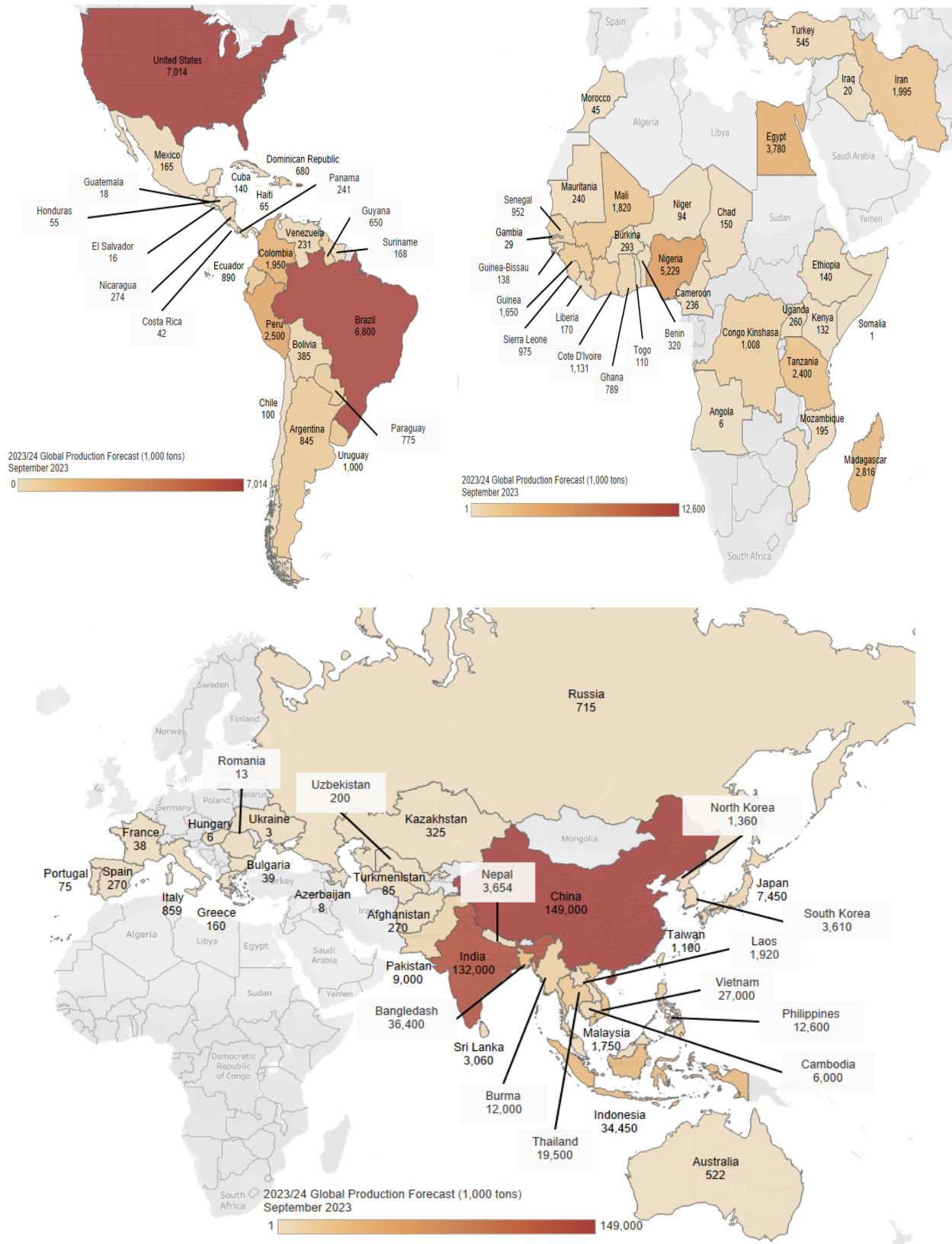
Global rice production in 2023/24 is projected at a record 518.1 million tons (milled basis), down 2.9 million tons from last month's forecast but up 4.5 million tons from a year earlier. This month, crop reductions for Bangladesh, Burma, Costa Rica, India, Iraq, Laos, and Thailand more than offset upward revisions for Australia, the Dominican Republic, Iran, and the United States (table e).

On an annual basis, Australia, Burma, China, Egypt, the European Union, Indonesia, Pakistan, Russia, Sri Lanka, Tanzania, and the United States account for the bulk of the expected increase in global rice production in 2023/24. (See maps 1 and 2 for additional details). In contrast, rice production in 2023/24 is projected to decline 4.0 million tons in India to 132.0 million—still the second-highest on record. Thailand's 2023/24 rice production is projected to decline 1.4 million tons to 19.5 million. Rice production is projected to continue to decline in Japan and South Korea due to diet diversification and declining and aging populations. Weaker crops are also projected in 2023/24 for Mali, Nigeria, Turkey, and Venezuela (maps 1 and 2).

Total global rice supplies in 2023/24 are projected at 690.3 million tons, down 4.4 million tons from the previous forecast and 5.8 million tons below a year earlier and the second consecutive year of declining global rice supplies (table f). The downward revision is the result of a 1.5-million-ton reduction in the carryin forecast and a 2.9-million-ton reduction in the 2023/24 global production forecast. India accounts for most of the decline in the 2023/24 carryin, with India's 2023/24 carryin lowered 3.0 million tons to 33.0 million due to a higher 2022/23 domestic and residual use estimate. India's higher carryin more than offset a 909,000-ton increase in Thailand's carryin to 3.3 million tons and a 180,000-ton increase in the U.S. 2023/24 carryin to 961,000 tons.

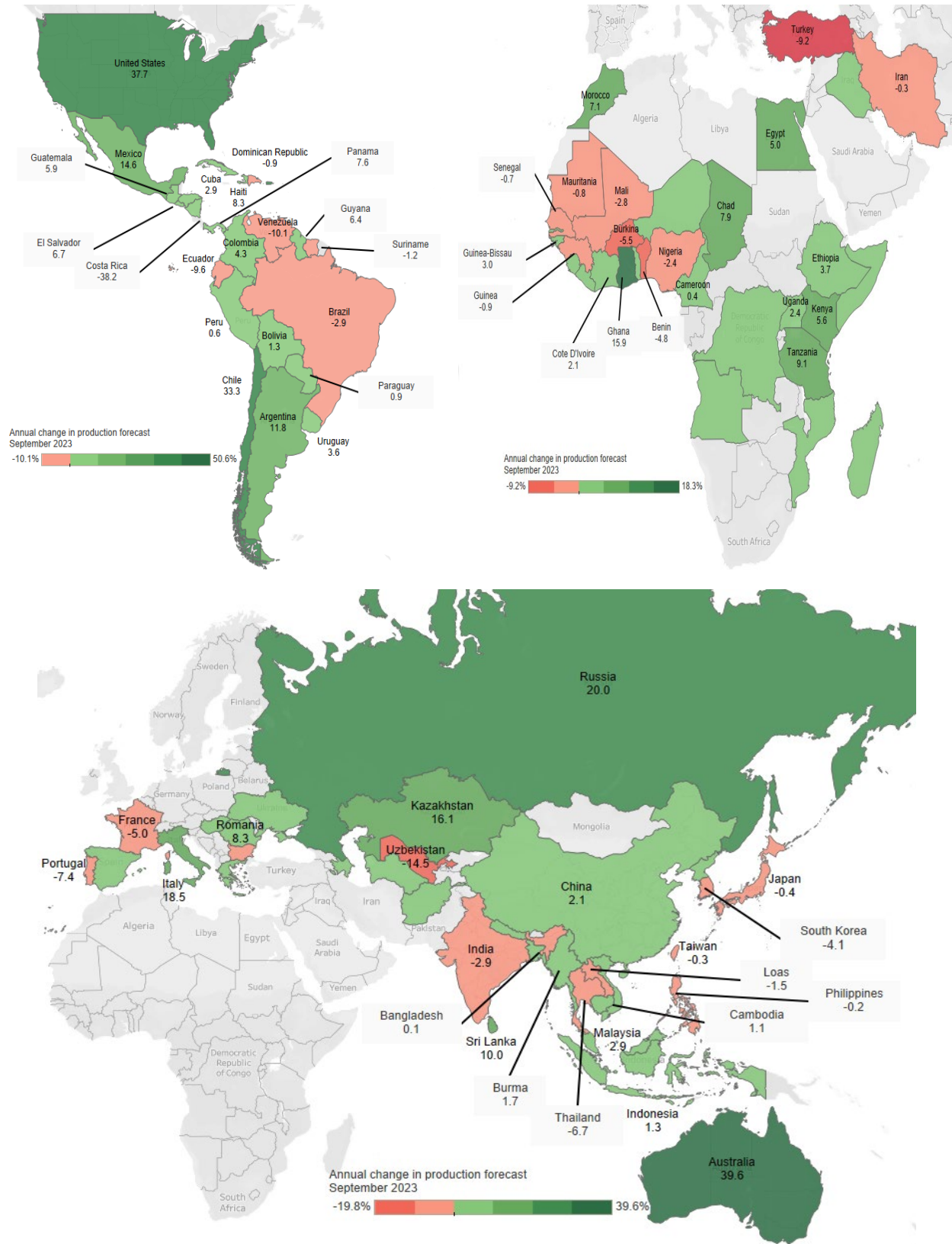
The year-to-year decline in total supplies is the result of a 10.2-million-ton reduction in the 2023/24 carryin to 172.2 million tons more than offsetting a 4.5-million-ton increase in production in 2023/24. China accounts for most of the decline in global beginning stocks in 2023/24, with its carryin dropping 6.4 million tons to 106.6 million. India's 2023/24 carryin declined 1.0 million tons to 33.0 million, and Vietnam's carryin decreased 0.9 million tons to 1.56 million. In contrast, 2023/24 rice carryin for Indonesia rose 600,000 tons to 3.5 million and the U.S. carryin increased 300,000 tons to 1.26 million.

Map 1: Production forecasts (milled basis) 2023/24



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

Map 2: Annual percent change in production forecasts 2023/24



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

Table E. Global rice production, selected monthly revisions and year-to-year changes, September 2023						
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 change
Rice production in 2023/24, 1,000 metric tons (milled basis)						
Australia	522	36	39.6	↑	↑	Raised the production forecast based on a larger harvested area estimate indicated by the Australian Bureau of Agricultural and Resource Economics and Sciences. Harvested area was raised 5,000 hectares to 70,000 hectares, up 35 percent from a year earlier.
Bangladesh	36,400	-600	0.1	↓	↑	Lowered the production forecast based on smaller plantings for both the aus, or monsoon crop, and the aman, or post-monsoon crop. Aus area was lowered due to a lack of rainfall and a heat wave. Aman area was reduced due to a delayed monsoon and lack of rainfall in July that delayed plantings. Total harvested area was reduced 200,000 hectares to 11.65 million.
Burma	12,000	-500	1.7	↓	↑	Lowered the production forecast based on heavy rains during the first half of the monsoon season that reduced plantings of the main (wet) season crop. Total harvested area was lowered 100,000 hectares to 6.9 million, still 1.5 percent larger than a year earlier.
Costa Rica	42	-27	-38.2	↓	↓	Big reduction in the production forecast is the result of a 9,000-hectare decrease in the harvested area estimate to 15,000 hectares, the smallest since at least 1960/61. The area decline is the result of price uncertainty.
Dominican Republic	680	40	-0.9	↑	↓	Raised the production forecast based on a larger harvested area estimate. At 200,000 hectares, harvested area is up 10,000 hectares from the previous forecast but still 2,000 hectares below the year-earlier record high.
India	132,000	-2,000	-2.9	↓	↓	Lowered the production forecast due to extremely weak rainfall in August that is expected to reduce yields on the kharif crop, which normally accounts for about 85 percent of India's total rice production. Much of the kharif crop is rainfed and is typically planted June–September.
Iraq	20	-117	0.0	↓	→	Big reduction in the production forecast is due to the decision by the Government of Iraq to maintain water restrictions another year due to several years of drought, a severe heat wave, and reduced flows of water from the Euphrates and Tigris Rivers. At 8,000 hectares, harvested area is unchanged from a year earlier and the second-lowest level since at least 1960/61.
Laos	1,920	-40	-1.5	↓	↓	Reduced the production forecast based on a lower expected yield. The yield was lowered due to a 1-month delay in the onset of the 2023 monsoon.
Thailand	19,500	-200	-6.7	↓	↓	Lowered the production forecast due to a 2–3 week delay in the onset of the 2023 rainy season in May that has led to low water availability for the upcoming dry season crop.
Turkey	545	-25	-9.2	↓	↓	Reduced the production forecast based on a lack of water availability.
United States	7,014	548	37.7	↑	↑	Production forecast is raised based on a substantially larger harvested area estimate and slightly higher yield reported by USDA's National Agricultural Statistics Service. Harvested area was raised 83,000 hectares to 1.15 million, with area estimates raised for both the South and California.

Continued--

Table E. Global rice production, selected monthly revisions and year-to-year changes, September 2023--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 change
Rice production in 2022/23, 1,000 metric tons (milled basis)						
Argentina	756	-19	-4.8	↓	↓	Lowered the production estimate based on a smaller harvested area reported by the Government of Argentina. At 173,000 hectares, harvested area is 12,000 hectares below the previous forecast and 7 percent below a year earlier. Argentina experienced severe drought in 2022/23, a major reason for the area decline.
Dominican Republic	686	36	2.8	↑	↑	Raised the production estimate to a record-high based on Ministry of Agriculture area and production data through June, the last month of the 2022/23 market year. At 202,000 hectares, harvested area is up 12,000 hectares from the previous forecast and the highest on record.
Thailand	20,909	709	5.2	↑	↑	Increased the production forecast to a record-high based on a higher harvested area estimate reported by the Government of Thailand. At 11.1 million hectares, harvested area was up 222,000 hectares from the previous estimate and the highest on record.

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

Table F. Global rice balance sheet for 2021/22–2023/24 (in million tons, milled basis)								
Balance sheet item	2021/22 September	2022/23 August	2022/23 September	2022/23 change from previous month	2023/24 August	2023/24 September	2023/24 change from previous month	Percent change from previous year
Supply								
Beginning stocks	187.3	182.5	182.4	0.0	173.8	172.2	-1.5	-5.6
Production	513.9	512.8	513.6	0.7	520.9	518.1	-2.9	0.9
Total supply	701.2	695.3	696.0	0.7	694.7	690.3	-4.4	-0.8
Trade year imports 1/	56.1	53.8	53.1	-0.6	52.9	52.1	-0.8	-1.9
Demand								
Consumption and residual use:	518.8	521.5	523.8	2.3	523.0	522.7	-0.2	-0.2
Trade year exports	56.1	53.8	53.1	-0.6	52.9	52.1	-0.8	-1.9
Ending stocks	182.4	173.8	172.2	-1.5	171.8	167.6	-4.2	-2.7
Trade year 2022/23 is calendar year 2023. 1/ Includes imports not assigned to a specific country.								
Source: USDA, Foreign Agricultural Service, <i>Production, Supply, and Distribution</i> database.								

Global domestic and residual use in 2023/24 is projected at a record 522.7 million tons, down 225,000 tons from the previous forecast and about 1 million tons smaller than the year-earlier record, exceeding production by 4.6 million tons (table f). Domestic and residual use forecasts for 2023/24 were lowered this month for Angola, Bangladesh, Burkina Faso, Burma, Ghana, and Vietnam that more than offset increased forecasts for the Dominican Republic, India, Indonesia, and the United States. India accounts for the largest increase in the global domestic

and residual use forecast, with its 2023/24 forecast raised 500,000 tons to 115.5 million, still 500,000 tons million tons below the year-earlier revised record. India's 2022/23 domestic and residual use estimate is boosted 3.0 million tons to a record 116.0 million based implied domestic use derived from the latest Government of India stocks reporting.

Global ending stocks in 2023/24 are projected at 167.6 million tons, 4.2 million tons below the previous forecast and 4.6 million tons smaller than a year earlier. India accounts for most of this month's downward revision in global ending stocks, with its ending stocks forecast lowered 4.0 million tons to 32.0 million, down 1.0 million tons from the year-earlier revised level. China's 2023/24 ending stocks forecast was lowered 500,000 tons to 105.1 million tons, 1.5 million tons below a year earlier. Ending stocks are also projected to decline in 2023/24 in Thailand and Vietnam, while U.S. ending stocks are projected to increase 378,000 tons to 1.37 million, mostly due to a much larger crop.

India's 2023 and 2024 Rice Export Forecasts Lowered Again

Global rice trade in calendar year 2024 is projected at 52.1 million tons (milled basis), down 800,000 tons from the previous forecast and 1.5 percent smaller than the year-earlier revised forecast of 53.1 million tons. Global rice trade in 2023 is lowered 570,000 tons from the August forecast (tables g and h).

This month, a 1.5-million-ton reduction in India's 2024 export forecast to 17.5 million tons—and smaller expected shipments from Burma—more than offset increased export forecasts for Pakistan, Thailand, the United States, and Vietnam. On an annual basis, in 2024 exports are projected to decline from a year earlier for Brazil, India, Malaysia, Paraguay, Thailand, and Vietnam, but are projected to increase for Australia, Burma, Cambodia, China, Pakistan, the United States, and Uruguay.

The substantial reduction in the 2024 export forecast for India is primarily based on a smaller production forecast and expectations of continued export restrictions by India in 2024. On August 25, the Government of India announced the implementation of a 20-percent tariff on parboiled rice exports effective through October 16, 2023. In 2022, India exported nearly 7.5 million tons of parboiled rice, with Sub-Saharan Africa the largest destination. On August 25, the Government of India also announced a \$1,200 per ton minimum export price for basmati rice to help contain local prices.

These additional restrictions follow the July 20 announcement by the Government of India of an immediate ban on sales of non-basmati, non-parboiled milled-rice to ensure domestic availability of non-basmati rice and prevent higher domestic prices. In early September 2022, India banned the export of broken-kernel rice and placed a 20-percent export tariff on unmilled (or paddy) rice, brown-rice, and regular-milled white rice (non-basmati and non-parboiled). Despite the September tariff and ban on exports of broken-kernels, India continued to export non-basmati rice and also broken-kernel rice, but at a slower pace. India accounted for slightly more than 40 percent of global rice exports and shipped rice to around 140 countries in 2022. Kenya, Benin, Madagascar, Mozambique, and Togo are major markets for India's non-basmati and non-parboiled milled rice.

Table G. Selected rice importers at a glance (1,000 metric tons), September 2023

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 importers, 2024						
Burkina-Faso	500	-125	0.0	↓	→	Lowered the import forecast based on a recent slower-than-expected pace of purchases from main supplier India.
China	3,500	-500	0.0	↓	→	Import forecast is reduced based on a recent slower pace of purchases, especially purchases from top suppliers Vietnam, Burma, India, and Pakistan.
Ghana	700	-200	0.0	↓	→	Lowered imports based on higher expected global trading prices and a forecast for a bumper 2023/24 rice harvest.
Iraq	2,000	100	-9.1	↑	↓	Raised imports based on a substantial reduction in the 2023/24 crop forecast due to continued Government water restrictions.
Nigeria	2,000	-200	-4.8	↓	↓	Import forecast is lowered based on ample carryover stocks and the August 25 announcement by main supplier India of a 20-percent tariff on parboiled exports.
United States	1,250	50	0.0	↑	→	Raised the import forecast based on recent stronger-than-expected purchases of Asian aromatic rice, primarily from Thailand and India.

Continued--

Table G. Selected rice importers at a glance (1,000 metric tons), September 2023--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 importers, 2023						
Angola	350	-50	-51.4	↓	↓	Reduction in the import forecast is based on India's recent ban on regular-milled white rice and its 20-percent tariff on parboiled exports. India is the largest supplier of rice to Angola.
Australia	225	-25	-9.6	↓	↓	Lowered imports based on recent shipment pace.
Burkina-Faso	500	-100	-9.1	↓	↓	Lowered the import forecast based on a recent slower-than-expected pace of purchases from main supplier India.
China	3,500	-500	-43.1	↓	↓	Import forecast reduced based on a recent slower pace of purchases, especially from Vietnam, Burma, India, and Pakistan. China bought sufficient supplies of rice early in 2023.
Indonesia	2,000	150	170.3	↑	↑	Raised the import forecast based on continued strong purchases from top suppliers Vietnam and Thailand and an agreement signed in August with Cambodia to import 125,000 tons of rice by the end of 2023.
United States	1,250	25	-4.9	↑	↓	Raised the import forecast based on recent stronger-than-expected purchases of Asian aromatic rice, primarily from Thailand and India.
Uzbekistan	60	40	-11.8	↑	↓	Increased the import forecast based on recent large purchases from Kazakhstan.

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

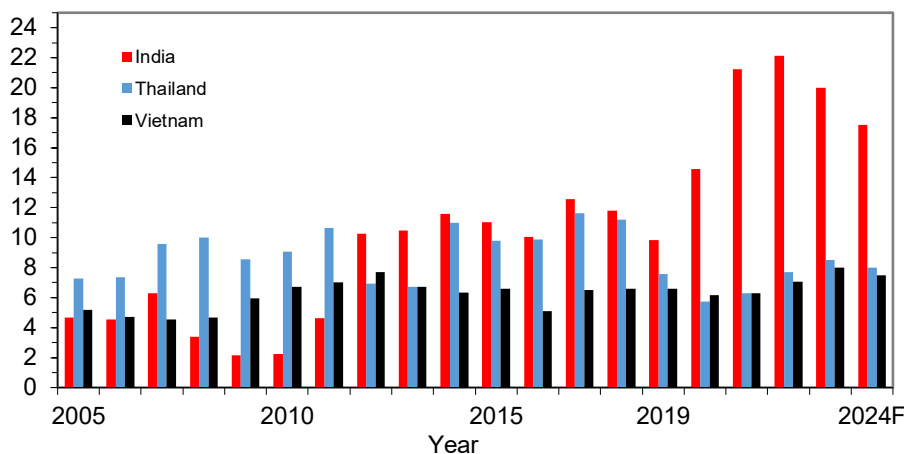
Table H. Selected rice exporters at a glance (1,000 metric tons), September 2023						
Country or region	Current forecast	Change from previous month	Percent change from previous year	Month-to-month direction	Year-to-year direction	Explanation of month-to-month change in forecast
Rice exporters, 2024						
Burma	1,800	-300	28.6	↓	↑	Lowered exports based on a smaller 2023/24 production forecast.
India	17,500	-1500	-12.5	↓	↓	Substantial reduction in exports is based on the August 25 announcement of a 20-percent tariff on parboiled exports effective through October 16 and a reduction in the 2023/24 production forecast.
Pakistan	5,000	100	38.9	↑	↑	Exports raised to a record-high based on expected weaker shipments from India and ample supplies.
Thailand	8,000	500	-5.9	↑	↓	Raised the export forecast based on weaker shipments from India.
United States	2,650	200	17.8	↑	↑	Export forecast raised based on a larger 2023/24 production forecast and expectations of more competitive prices.
Vietnam	7,500	200	-6.3	↑	↓	Exports raised based on expected weaker shipments from India.
Rice exporters, 2023						
Burma	1,400	-450	-40.0	↓	↓	Reduced exports based on the announcement on August 25 by the Myanmar Rice Federation of a 45-day ban on exports beginning on September 1.
India	20,000	-500	-9.6	↓	↓	Lowered the export forecast based on India's announcement on August 25 of a 20-percent tariff on parboiled rice exports through October 16.
Paraguay	880	60	17.0	↑	↑	Raised the export forecast to a record-high based on a stronger-than-expected pace of sales through July, with Brazil the largest buyer.
United States	2,250	125	2.7	↑	↑	Increased the export forecast based on a substantially larger 2023/24 production forecast and reduced price expectations.
Vietnam	8,000	100	13.4	↑	↑	Export forecast is raised based on expected weaker shipments from India, a major competitor of Vietnam in several markets.

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

On the 2024 import side, forecasts are lowered for Burkina Faso, China, Ghana, and Nigeria, with imports by China lowered by the largest amount. In contrast, import forecasts for 2024 are raised for both Iraq and the United States. On an annual basis, Egypt, Indonesia, Iraq, Kenya, Nigeria, the Philippines, Tanzania, Turkey, and Vietnam account for the bulk of the projected decline in global imports.

Figure 4
Rice exports from India projected to decline in 2023 and 2024

Million tons



Notes: Rice exports are reported on a milled basis for each calendar year; 2023 and 2024 are forecasts. F = forecast.

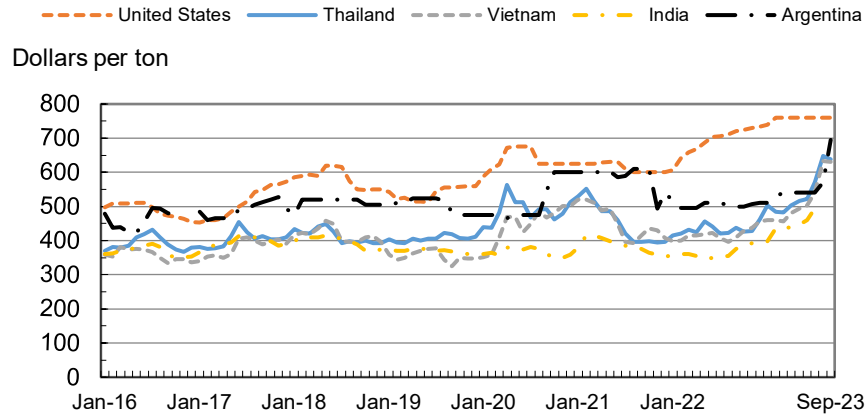
Source: USDA, Foreign Agricultural Service, *Production, Supply, and Distribution* database.

Over the past month, quotes for trading prices for most grades of regular (neither parboiled nor aromatic) whole-grain milled rice from Thailand decreased 4–5 percent, mostly due to a lack of new purchases. However, price quotes from Thailand rose in late August and early September due to strong demand from Indonesia, the Philippines, and Malaysia. For the week ending September 12, Thailand’s 100-percent Grade B long-grain milled rice for export was quoted at \$629 per ton, down \$28 from the week ending August 8, but still up more than \$100 per ton from early July. Thailand’s price rose rapidly from late July through mid-August in response to India’s export ban on regular-milled white rice.

Price quotes for 5-percent broken from Vietnam for the week ending September 12 were \$615 per ton, down \$5 from the week ending August 8. However, Vietnam’s prices had risen to \$645 per ton by late August before dropping to \$615 by September 12 due to weak global demand and lower domestic rice prices. Like Thailand, Vietnam’s prices rose from late July through late August, largely due to the export restrictions by India and rapid buying by several major importers in anticipation of much tighter exportable supplies. Price quotes for 5-percent broken from Argentina for the week ending September 12 were reported at \$695 per ton, up \$155 from the week ending August 8 (figure 5). Quotes for India have been unavailable since its imposition of an export ban on July 20.

Figure 5

Thailand's rice trading prices declined over the past month



Notes: September 2023 = through September 12 only. No India quotes after July 2023. Free on Board local port. Monthly average of weekly price quotes. Quotes used: Thailand, 100-percent grade B; India, 5-percent broken, container since February 2021, bulk prior months; Vietnam, 5-percent broken; Argentina, 5-percent broken; United States, No. 2, 4-percent broken.
Sources: Thailand: *Rice Price*, U.S. Embassy, Bangkok; United States, India,

U.S. trading prices for long-grain milled rice were again unchanged over the past month. Prices for U.S. long-grain milled rice, Number 2 Grade, 4-percent broken kernels (Iraqi specifications) remain quoted at \$760 per ton for the week ending September 12, unchanged since late January and the highest since early October 2008. U.S. price quotes for Latin American markets were also unchanged since late January, quoted at \$725 per ton for the week ending September 12. Nominal price quotes (no actual offers or sales) for California medium-grain milled-rice, Number 1 Grade, 4-percent broken remain at \$1,650 per ton (free on board at a domestic mill) for the week ending September 12, unchanged since late December and the highest on record for this specification. For listings of trading prices by exporter and grade of rice, see table 10 in the Rice Outlook Monthly Table file that is posted on the Rice Outlook web page concurrently with the most recent issue of the *Rice Outlook* report.

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