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*New Paths to
Sustainability and
Productivity Growth*



GRAINS AND OILSEEDS OUTLOOK FOR 2022¹

Prepared by Members of the
Wheat, Feed Grains, Rice, and Oilseeds Interagency Commodity Estimates Committees
U.S. Department of Agriculture

Planted Acreage Outlook for 2022 (Table 1)

This paper provides USDA’s projections of 2022/23 U.S. supply, demand, and prices for wheat, corn, rice, soybeans, and soybean products. Projections presented in this paper include implications of the January 12 NASS *Winter Wheat and Canola Seedings* report, which estimated that winter wheat area increased 7 percent from the prior 5-year average. The projections assume normal weather conditions for spring planting and summer crop development. These forecasts will be updated in the May 12 *World Agricultural Supply and Demand Estimates* (WASDE) report. The May *WASDE* will incorporate farmers’ 2022 planting intentions as indicated in the March 31 NASS *Prospective Plantings* report and survey-based forecasts for winter wheat production, as well as global, country-by-country supply and demand projections.

The 2022 planted area outlook shows a slight increase in combined corn, wheat, and soybean acres from last year and the highest total since 2014. Combined acreage for corn and soybeans is expected to reach 180.0 million acres, down slightly compared to last year when there was low prevented plantings and record acres of 180.6 million. Shifts in relative prices and higher input costs support a year-to-year decrease in expected corn plantings, although the decline is moderated by the highest projected corn price for crop insurance purposes in over a decade. Soybean area is forecast to increase as strong U.S. crush demand and the current drought in South America has resulted in very favorable new-crop pricing opportunities for producers. In addition, soybean plantings are expected to benefit as farmers focus on managing high production costs. Strong wheat prices and the tightest stocks-to-use ratio since 2013/14 are expected to boost total wheat acres to 48.0 million. With higher supplies, prices for all three commodities are expected to decline from last year.

Table 1. Wheat, Corn, and Soybean Planted Acreage, 2015-2022

	2015	2016	2017	2018	2019	2020	2021	2022 1/
	- Million Acres -							
Wheat	55.0	50.1	46.1	47.8	45.5	44.5	46.7	48.0
Corn	88.0	94.0	90.2	88.9	89.7	90.7	93.4	92.0
Soybeans	82.7	83.5	90.2	89.2	76.1	83.4	87.2	88.0
Total	225.7	227.6	226.4	225.9	211.3	218.5	227.3	228.0

1/ Projection

Source: National Agricultural Statistics Service data 2015-2021

Note: Totals may not add due to rounding.

¹This paper incorporates contributions by analysts from the World Agricultural Outlook Board, the Economic Research Service, the FPAC-BC, and the Foreign Agricultural Service.

Wheat Supply, Demand, and Price Outlook for 2022/23 (Table 2)

The 2022/23 outlook for U.S. wheat is for increased supplies, slightly larger total use, and higher ending stocks. U.S. wheat production is projected 18 percent above 2021/22 at 1,940 million bushels on both higher area and yield. The NASS *Winter Wheat and Canola Seedings* report estimated winter wheat seeded area at 34.4 million acres, up 2 percent from 2021/22 and the largest since 2016/17. Combined spring and durum wheat plantings for 2022/23 are also projected higher although constrained by favorable prices for alternatives beyond corn and soybeans in the Northern Plains, including minor oilseeds, other small grains, and pulses. Total wheat planted area for 2022/23 is projected at 48.0 million acres, up nearly 1.3 million acres from last year and the highest wheat area since 2016/17. The all wheat yield for 2022/23 is projected up 11 percent from last year's drought-affected yield at 49.1 bushels per acre and is based on a long-term linear trend. A significantly larger crop more than offsets lower beginning stocks to raise 2022/23 supplies by 5 percent to 2,708 million bushels.

At 1,977 million bushels, projected 2022/23 total use is up slightly from a year earlier but below the 5-year average. U.S. domestic use is projected modestly lower on reduced feed and residual use despite increased supplies as corn is expected to be more competitively priced during the summer months. Food use is projected marginally higher as population growth is expected to more than offset the effect of slightly lower per capita consumption. Higher exports are expected to more than offset lower domestic use although exports are still forecast below the 5-year average. U.S. export prices are expected to remain uncompetitive in several markets, limiting export gains. With supplies projected to increase more than total use, 2022/23 ending stocks are raised to 731 million bushels. This is 13 percent above last year but well below the 5-year average. The increased stocks and higher stocks-to-use ratio of 37.0 percent contributes to a projected 2022/23 season-average farm price of \$6.80 per bushel, down \$0.50 from 2021/22.

Corn Supply, Demand, and Price Outlook for 2022/23 (Table 3)

The U.S. corn outlook for 2022/23 is for modestly larger production, greater domestic use, lower exports, and higher ending stocks. The corn crop is projected at a record 15.240 billion bushels, about 1 percent above a year ago as a forecast decline in area is more than offset by a return to trend yields. The yield projection of 181.0 bushels per acre is based on a weather-adjusted trend assuming normal planting progress and summer growing season weather. With beginning stocks higher relative to a year ago, total corn supplies are forecast at 16.805 billion bushels, or up just under 3 percent.

Total U.S. corn use in 2022/23 is forecast virtually unchanged from a year ago as growth in domestic use is essentially offset by lower exports. Food, seed, and industrial (FSI) use is projected up about 1 percent to 6.840 billion bushels. Corn used for ethanol is projected up 75 million bushels to 5.400 billion, based on expectations of growth in motor gasoline consumption. Feed and residual use is unchanged at 5.650 billion, reflecting corn production near a year ago and expectations of declining cattle on feed numbers during the year. Exports are down 75 million bushels to 2.350 billion, with expectations of increased competition from other exporters despite global trade growth and continued robust demand from China. Ending stocks are projected at 1.965 billion bushels, up 425 million from a year ago and resulting in stocks relative to use at 13.2 percent, which if realized would be the highest since 2019/20. The season-average corn price received by producers is forecast down 45 cents to \$5.00 per bushel.

Rice Supply, Demand, and Price Outlook for 2022/23 (Tables 4 & 5)

The 2022/23 outlook is for lower supplies as larger production and imports are offset by lower beginning stocks. Lower exports and domestic use result in near-steady ending stocks. Total 2022 rice planted acreage is projected up almost 3 percent from last year to 2.6 million acres, due almost entirely to an increase in medium- and short-grain. High anticipated prices for alternative crops, primarily soybeans, are expected to sharply limit any area expansion in southern states, partly due to the substantial increase in prices for inputs, such as fertilizers and diesel fuel. Despite improved precipitation through early 2022, California acreage is expected to recover only slightly as available supplies of water needed for irrigation are still well below average. The continued large price premium for medium grain rice over long grain should encourage greater seedings of medium grain in southern states, partially offsetting a second consecutive year of abnormally low California rice acreage.

Total harvested rice area is projected at 2.6 million acres, with 1.9 million of long-grain and 0.6 million of medium- and short-grain. The average all-rice yield is forecast unchanged from last year's record yield, at 7,709 pounds per acre, assuming normal weather and planting dates. For medium- and short-grain rice, the yield forecast is decreased 167 pounds per acre to 8,376 pounds, as an expansion of area in southern states where farmers historically have lower yields is expected to reduce the average yield for this class. All-rice total supplies for 2022/23 are projected to decrease by 2.8 million cwt from a year earlier to 263.2 million, a reduction of 1 percent as a large decline in beginning stocks is only partly offset by higher imports and a slightly larger crop. Long grain supplies are forecast to decline 5.5 million cwt on lower beginning stocks, while medium- and short-grain rice supplies are up 2.7 million cwt on a partial rebound in production. All rice imports are forecast to increase to 33.0 million cwt, up 2.5 million from last year, with long-grain aromatics from Asia accounting for most of the expected increase.

Total 2022/23 use is projected at 230.0 million cwt, down less than 1 percent from a year earlier, with lower exports and domestic use. Supplies of medium- and short-grain rice are projected to be larger in 2022/23. In contrast, long grain exports are projected to decline, as large global supplies continue to reduce the competitiveness of U.S. rice in most markets. Total domestic use and residual is expected to decrease based on slightly smaller total supplies. All rice ending stocks are forecast to decline less than 1 percent to 33.2 million cwt. The all-rice season average farm price is forecast to increase 40 cents per cwt to \$16.10, with increases in both long-grain and medium- and short-grain prices.

Soybean Supply, Demand, and Price Outlook for 2022/23 (Tables 6, 7 & 8)

The 2022/23 outlook for U.S. soybeans is for increased supplies, exports, crush, and lower ending stocks. Soybean supplies are projected at 4.8 billion bushels, slightly above 2021/22 on higher beginning stocks and production. Soybean production is projected at 4.5 billion bushels, 1 percent above a year earlier with higher planted acreage accounting for most of the increase. The yield forecast of 51.5 bushels per acre is based on a weather-adjusted trend assuming normal growing season weather.

Soybean exports for 2022/23 are projected at 2.15 billion bushels, up 100 million from the 2021/22 forecast. U.S. exports are expected to be relatively strong through the first half of the marketing year with the current drought in South America limiting their exportable supplies this fall. However, with a

higher South American harvest expected in early 2023, export competition in the second half of the marketing year will likely limit additional U.S. gains.

Soybean crush is projected to rise for the second year in a row to a record 2.25 billion bushels, largely driven by growing domestic demand for soybean oil and supported by meal demand growth. Since early 2021, tight global vegetable oil supplies and increasing demand for biofuel feedstocks in the United States have led to higher soybean oil prices and increased demand for crush. The trend is expected to continue into 2022/23, with planned expansion of renewable diesel capacity to meet federal and state biofuel mandates. Competition for biofuel feedstocks as new renewable diesel producers enter the market will support soybean oil prices and lead to lower soybean oil for methyl ester and food, feed, and other industrial uses. Exports of soybean oil are expected to decline to 1.2 billion pounds, the lowest level since 2005/06. Soybean oil stocks are projected 13 percent down from 2021/22 to 1.8 billion pounds, leading to an average price of 68.0 cents per pound. With increased soybean meal production and limited gains in domestic soybean meal use, soybean meal prices are forecast down to \$375 per short ton. Lower meal prices are expected to result in higher soybean meal exports. Like soybeans, soybean meal exports are expected to be relatively strong in the first part of the marketing year with limited exportable supplies in South America.

Soybean ending stocks for 2022/23 are projected at 305 million bushels, down 20 million from the 2021/22 forecast. The soybean season-average farm price is projected at \$12.75 per bushel, down slightly from 2021/22. Although current forward price opportunities will support prices received this fall, price expectations are likely to moderate later this year in anticipation of a rebound in production for South America in 2023.

Table 2. Wheat Supply, Demand, and Price, 2019/20-2022/23

	2019/20	2020/21	2021/22 1/	2022/23 2/
Area planted (mil. ac.)	45.5	44.3	46.7	48.0
Area harvested	37.4	36.8	37.2	39.5
Yield (bu./ac.)	51.7	49.7	44.3	49.1
Production (mil. bu.)	1,932	1,828	1,646	1,940
Beginning stocks	1,080	1,028	845	648
Imports	104	100	100	120
Supply	3,116	2,957	2,591	2,708
Feed & residual	95	95	110	100
Food & seed	1,024	1,025	1,023	1,027
Total domestic use	1,118	1,120	1,133	1,127
Exports	969	992	810	850
Total use	2,087	2,111	1,943	1,977
Ending stocks	1,028	845	648	731
Stocks/use (percent)	49.3	40.0	33.3	37.0
Season-avg. farm price (\$/bu.)	4.58	5.05	7.30	6.80

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, use, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates*, February 9, 2022. 2/ Projections based on analysis by USDA's Wheat Interagency Commodity Estimates Committee.

Note: Totals may not add due to rounding.

Table 3. Corn Supply, Demand, and Price, 2019/20-2022/23

	2019/20	2020/21	2021/22 1/	2022/23 2/
Area planted (mil. ac.)	89.7	90.7	93.4	92.0
Area harvested	81.3	82.3	85.4	84.2
Yield (bu./ac.)	167.5	171.4	177.0	181.0
Production (mil. bu.)	13,620	14,111	15,115	15,240
Beginning stocks	2,221	1,919	1,235	1,540
Imports	42	24	25	25
Supply	15,883	16,055	16,375	16,805
Feed & residual	5,900	5,602	5,650	5,650
Ethanol 3/	4,857	5,028	5,325	5,400
Total food, seed & industrial	6,286	6,466	6,760	6,840
Total domestic use	12,186	12,068	12,410	12,490
Exports	1,777	2,753	2,425	2,350
Total use	13,963	14,821	14,835	14,840
Ending stocks	1,919	1,235	1,540	1,965
Stocks/use (percent)	13.7	8.3	10.4	13.2
Season-avg. farm price (\$/bu.)	3.56	4.53	5.45	5.00

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, use, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates*, February 9, 2022. 2/ Projections based on analysis by USDA's Feed Grains Interagency Commodity Estimates Committee. 3/ Corn used to produce ethanol and by-products including, distillers' grains, corn gluten feed, corn gluten meal, and corn oil.

Note: Totals may not add due to rounding.

Table 4. Rice Supply, Demand, and Price, 2019/20-2022/23

All Rice	2019/20	2020/21	2021/22 1/	2022/23 2/
Area planted (mil. ac.)	2.55	3.04	2.53	2.60
Area harvested	2.48	2.99	2.49	2.55
Yield (pounds/ac.)	7,473	7,619	7,709	7,709
Production (mil. cwt)	185.1	227.5	191.8	196.7
Beginning stocks	44.9	28.7	43.7	33.5
Imports	37.3	34.1	30.5	33.0
Supply	267.3	290.2	266.0	263.2
Total domestic & residual use	144.4	152.7	145.5	144.0
Exports	94.2	93.9	87.0	86.0
Total use	238.6	246.6	232.5	230.0
Ending stocks	28.7	43.7	33.5	33.2
Stocks/use (percent)	12.0	17.7	14.4	14.4
Season avg. farm price (\$/cwt.)	13.60	14.40	15.70	16.10

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, use, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates*, February 9, 2022.

2/Projections based on analysis by USDA's Rice Interagency Commodity Estimates Committee.

Note: Totals may not add due to rounding.

Table 5. Rice-by Class Supply, Demand, and Price, 2019/20-2022/23

Rice-by-class	2019/20	2020/21	2021/22 1/	2022/23 2/
<u>Long-grain</u>				
Area planted (mil. ac.)	1.78	2.33	1.97	1.98
Area harvested	1.73	2.30	1.94	1.94
Yield (pounds/ac)	7,261	7,422	7,471	7,497
Production (mil. cwt)	125.6	170.8	144.6	145.5
Beginning stocks	32.6	16.9	29.7	21.4
Imports	29.8	27.4	24.0	26.0
Supply	188.0	215.1	198.4	192.9
Total domestic & residual use	106.3	120.2	113.0	111.0
Exports	64.8	65.1	64.0	62.0
Total use	171.1	185.3	177.0	173.0
Ending stocks	16.9	29.7	21.4	19.9
Stocks/use (percent)	9.9	16.0	12.1	11.5
Season avg. farm price (\$/cwt.)	12.00	12.60	13.50	14.00
<u>Medium- and short-grain</u>				
Area planted (mil. ac)	0.77	0.70	0.56	0.62
Area harvested	0.75	0.69	0.55	0.61
Yield (pounds/ac)	7,964	8,282	8,543	8,376
Production (mil. cwt)	59.5	56.7	47.2	51.2
Beginning stocks	10.2	10.7	11.5	9.6
Imports	7.6	6.7	6.5	7.0
Supply	78.3	72.7	65.1	67.8
Total domestic & residual use	38.2	32.4	32.5	33.0
Exports	29.4	28.8	23.0	24.0
Total use	67.6	61.2	55.5	57.0
Ending stocks	10.7	11.5	9.6	10.8
Stocks/use (percent)	15.9	18.7	17.3	19.0
Season avg. farm price (\$/cwt)	18.20	20.10	22.10	22.30
California	21.60	22.60	26.00	26.00
Other States	11.60	13.00	13.90	14.50

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, use, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates*, February 9, 2022.

2/Projections based on analysis by USDA's Rice Interagency Commodity Estimates Committee.

Note: Totals may not add due to rounding.

Table 6. Soybean Supply, Demand, and Price, 2019/20-2022/23

	2019/20	2020/21	2021/22 /1	2022/23 /2
Area planted (mil. ac.)	76.1	83.4	87.2	88.0
Area harvested	74.9	82.6	86.3	87.2
Yield (bu./ac.)	47.4	51.0	51.4	51.5
Production (mil. bu.)	3,552	4,216	4,435	4,490
Beginning stocks	909	525	257	325
Imports	15	20	15	15
Supply	4,476	4,761	4,707	4,830
Crush	2,165	2,141	2,215	2,250
Seed and Residual	108	103	117	125
Total domestic use	2,273	2,243	2,332	2,375
Exports	1,679	2,261	2,050	2,150
Total use	3,952	4,504	4,382	4,525
Ending stocks	525	257	325	305
Stocks/use (percent)	13.3	5.7	7.4	6.7
Season-avg. farm price (\$/bu.)	8.57	10.80	13.00	12.75

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, crush, exports, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates* report, February 9, 2022.

2/ Projections based on analysis by the USDA's Oilseeds Interagency Commodity Estimates Committee.

Note: Totals may not add due to rounding.

Table 7. Soybean Meal Supply, Demand, and Price, 2019/20-2022/23

	2019/20	2020/21	2021/22 /1	2022/23 /2
Production (thou. short tons)	51,100	50,565	51,909	53,050
Beginning stocks	402	341	341	400
Imports	639	783	450	450
Supply	52,142	51,689	52,700	53,900
Domestic Use	37,967	37,580	37,900	38,600
Exports	13,834	13,768	14,400	14,800
Total use	51,801	51,348	52,300	53,400
Ending stocks	341	341	400	500
Avg. price (\$/short ton) 3/	299.50	392.31	410.00	375.00

1/ Production, imports, use, ending stocks, and average price are projections from the *World Agricultural Supply and Demand Estimates*, February 9, 2022.

2/ Projections based on analysis by the USDA's Oilseeds Interagency Commodity Estimates Committee.

3/ The average price is for 48-percent protein meal at Decatur, Illinois.

Note: Totals may not add due to rounding.

Table 8. Soybean Oil Supply, Demand, and Price, 2019/20-2022/23

	2019/20	2020/21	2021/22 /1	2022/23 /2
Production (mil. lbs.)	24,911	25,023	26,205	26,325
Beginning stocks	1,775	1,853	2,131	2,076
Imports	320	302	450	600
Supply	27,006	27,177	28,786	29,001
Domestic Use	22,317	23,323	25,285	26,000
Biofuel 3/	8,658	8,850	11,000	12,000
Food, Feed, Other Industrial	13,659	14,473	14,285	14,000
Exports	2,837	1,723	1,425	1,200
Total use	25,154	25,046	26,710	27,200
Ending stocks	1,853	2,131	2,076	1,801
Avg. price (cents/lb.) 4/	29.7	56.9	66.0	68.0

1/ Production, imports, use, ending stocks, and average price are projections from the *World Agricultural Supply and Demand Estimates*, February 9, 2022.

2/ Projections based on analysis by the USDA's Oilseeds Interagency Commodity Estimates Committee.

3/ Reflects soybean oil used for biofuel as reported by the U.S. Energy Information Administration.

4/ The average price is for crude soybean oil at Decatur, Illinois.

Note: Totals may not add due to rounding.

Table 9. Sorghum Supply, Demand, and Price, 2019/20-2022/23

	2019/20	2020/21	2021/22 1/	2022/23 2/
Area planted (mil. ac.)	5.3	5.9	7.3	6.5
Area harvested	4.7	5.1	6.5	5.8
Yield (bu./ac.)	73.0	73.2	69.0	69.2
Production (mil. bu.)	341	373	448	401
Beginning stocks	64	30	20	33
Imports	0	0	0	0
Supply	405	403	468	434
Feed & residual	97	89	115	95
Food, seed & industrial	75	10	10	10
Total domestic use	172	99	125	105
Exports	203	284	310	300
Total use	375	383	435	405
Ending stocks	30	20	33	29
Stocks/use (percent)	8.0	5.3	7.6	7.2
Season-avg. farm price (\$/bu.)	3.34	5.04	5.45	4.90

1/ Acreage, yield, production, and beginning stocks are estimates from the National Agricultural Statistics Service. Imports, use, ending stocks, and season-average farm price are projections from the *World Agricultural Supply and Demand Estimates*, February 9, 2022. 2/ Projections based on analysis by USDA's Feed Grains Interagency Commodity Estimates Committee.

Note: Totals may not add due to rounding.