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A Pathway to Resilience***

GRAINS AND OILSEEDS OUTLOOK FOR 2021¹

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

Planted Acreage Outlook for 2021 (Table 1)

This paper provides USDA's projections of 2021/22 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 5 percent from 2020 and up 2 percent from 2019. Nevertheless, this represents the fourth lowest acreage on record. 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' 2021 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 2021 planted area outlook includes record combined corn and soybean acres and a 2 percent rise in wheat acres, as lower spring wheat acres partly offsets higher winter wheat. Combined acreage for corn and soybeans is expected to reach 182 million acres, compared to the previous record in 2017 of 180.3 million. Current new crop soybean futures prices relative to corn, supported by strong Chinese demand and the tightest stocks-to-use ratio since 2013/14, are expected to boost soybean plantings to 90.0 million acres, which would be up 6.9 million from a year ago. Higher corn prices are also expected to encourage planting albeit at a lower acreage increase compared to soybeans, up 1 million acres to 92 million. The combined two-crop record is supported by lower spring wheat plantings in the Northern Plains and a return to normal planting conditions. This is contrary to 2019 and 2020 where weather events left unplanted area at an unusually high level. With strong prices and normal weather conditions, the three crop total is projected to reach 227 million acres, the highest since 2016.

Table 1. Wheat, Corn, and Soybean Planted Acreage, 2014-2021

	2014	2015	2016	2017	2018	2019	2020	2021 1/
	- Million Acres -							
Wheat	56.8	55.0	50.1	46.1	47.8	45.5	44.3	45.0
Corn	90.6	88.0	94.0	90.2	88.9	89.7	91.0	92.0
Soybeans	83.3	82.7	83.5	90.2	89.2	76.1	83.1	90.0
Total	230.7	225.7	227.6	226.4	225.9	211.3	218.4	227.0

1/ Projection

Source: National Agricultural Statistics Service data 2014-2020.

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 2021/22 (Table 2)

The 2021/22 outlook for U.S. wheat is for reduced supplies, slightly lower total use, and declining ending stocks. U.S. wheat production is projected almost unchanged from 2020/21 at 1,827 million bushels as higher area offsets a lower yield. The NASS *Winter Wheat and Canola Seedings* report indicates winter wheat seeded area is estimated at 32.0 million acres, up 5 percent from 2020/21 and the first increase in winter wheat acreage since 2013/14. In contrast, combined spring and durum wheat plantings for 2021/22 are expected to be reduced on higher expected net returns for corn and soybeans in the Northern Plains. Total wheat area for 2021/22 is projected at 45.0 million acres, up 651,000 acres from the previous year but still below the 5-year average. The all wheat yield for 2021/22 is projected down 1 percent from last year at 49.1 bushels per acre and is based on a long-term linear trend. Lower beginning stocks combine with a virtually unchanged crop size to reduce 2021/22 supplies by 6 percent to 2,793 million bushels, a 7-year low.

At 2,095 million bushels, projected 2021/22 total use is down slightly from a year earlier but remains near the 5-year average. U.S. domestic use is projected higher, primarily on increased feed and residual use as the narrowing wheat-corn price spread is expected to increase wheat feeding this summer. Lower exports are expected to more than offset higher domestic use. Several regions, particularly Europe, where production is expected to rebound significantly, result in greater competition for U.S. exports in 2021/22. With supplies projected to decline relatively more than total use, 2021/22 ending stocks are reduced to 698 million bushels. This is 17 percent below the previous year and the lowest carryout level since 2013/14. The tighter balance sheet supports a 2021/22 season-average farm price of \$5.50 per bushel, up \$0.50 from 2020/21.

Corn Supply, Demand, and Price Outlook for 2021/22 (Table 3)

The U.S. corn outlook for 2021/22 is for larger production, greater domestic use and exports, and slightly higher ending stocks. The corn crop is projected at 15.2 billion bushels, 7 percent above a year ago with an increase in area and a return to trend yields. The yield projection of 179.5 bushels per acre is based on a weather-adjusted trend assuming normal planting progress and summer growing season weather. With beginning stocks down relative to a year ago, total corn supplies are forecast at 16.7 billion bushels, or up 3 percent.

Total U.S. corn use in 2021/22 is forecast to rise 3 percent from a year ago on growth in domestic use and continued strength in exports. Food, seed, and industrial (FSI) use is projected up 4 percent to 6.6 billion bushels. Corn used for ethanol is projected up 5 percent relative to a year ago, based mostly on expectations of increased motor gasoline consumption following the COVID-19 related weakness seen during 2020/21. Feed and residual use for 2021/22 is up 200 million bushels to 5.9 billion, with a larger crop and lower expected prices. Corn exports are up 50 million bushels to 2.7 billion, reflecting expectations of global trade growth and continued robust demand from China. Ending stocks are projected at 1.6 billion bushels, up 50 million from a year ago, but relative to use are essentially unchanged. The season-average corn price received by producers is forecast down 10 cents to \$4.20 per bushel.

Rice Supply, Demand, and Price Outlook for 2021/22 (Tables 4 & 5)

The 2021/22 outlook for U.S. rice is for a lower supplies, reduced use, and near-stable ending stocks. U.S. rice production is projected at 202.9 million cwt, down 11 percent from the previous year. Long-grain accounts for all the production decline, more than offsetting slightly higher combined medium- and short-grain production. Total 2021/22 rice planted area is projected at 2.7 million acres, down 336,000 acres from the previous year. Long-grain plantings are projected to decline 332,000 acres as some area is expected to shift to corn and soybeans in the Delta States on higher expected returns while combined medium- and short-grain area is projected nearly unchanged. The all rice yield is projected up slightly from 2020/21 to a near record 7,657 pounds per acre based on a by-class trend analysis. Total 2021/22 imports are projected at a record 39.0 million cwt as the growth in consumer demand for Asian long-grain aromatic varieties is expected to persist and China is expected to continue supplying medium-grain rice to Puerto Rico. Total 2021/22 supplies are down 11.1 million cwt from the previous year to 281.3 million as lower production more than offsets higher beginning stocks and record imports.

Total 2021/22 use is down 11.0 million cwt to 242.0 million on both lower domestic and residual use and exports. Long-grain total use is down 12.0 million cwt to 178.0 million with exports down 2.0 million to 63.0 million cwt on strong competition from South America. Combined medium- and short-grain total use is up 1.0 million cwt to 64.0 million with exports forecast to remain flat. Total 2021/22 ending stocks are virtually unchanged from 2020/21 at 39.3 million cwt. The all rice season-average farm price is up \$0.20 per cwt to \$13.60.

Soybean Supply, Demand, and Price Outlook for 2021/22 (Tables 6, 7 & 8)

The 2021/22 outlook for U.S. soybeans is for lower supplies and exports, and higher crush and ending stocks. Soybean supplies are projected at 4.7 billion bushels, slightly below 2020/21 with higher production more than offset by lower beginning stocks. Soybean production is projected at 4.5 billion bushels, 9 percent above a year earlier with plantings recovering from last year's weather-related decline and a return to trend yields. The yield forecast of 50.8 bushels per acre is based on a weather-adjusted trend assuming normal growing season weather.

Soybean crush is projected at a record 2.2 billion bushels, driven by higher domestic use of soybean meal that more than offsets lower meal exports. Soybean crush margins remain relatively strong with soybean and soybean product prices near 2020/21 levels. Soybean meal prices are forecast at \$390 per short ton. Domestic use of soybean oil is projected up 2 percent for 2021/22 on expected expansion in renewable diesel capacity and gains in edible oil. Increased use of soybean oil for renewable diesel, included in the food, feed, and other industrial category on the balance sheet, is expected to be partly offset with lower soybean oil exports and reduced soybean oil used for methyl ester production as processors return to a more typical share of soybean oil in total feedstocks. Soybean oil ending stocks for 2021/22 are forecast at 1.6 billion pounds, down 6 percent from 2021/22. Soybean oil prices are forecast at 40.0 cents per pound.

Soybean exports for 2021/22 are projected at 2.2 billion bushels, down 50 million from the forecast for 2020/21. Despite increasing global import demand, U.S. market share is likely to decline on limited exportable supplies.

Soybean ending stocks for 2021/22 are projected at 145 million bushels, up 25 million from 2020/21, but still historically low relative to projected use at 3.2 percent. The soybean season-average farm price is projected at \$11.25 per bushel, up slightly from 2020/21 as forward pricing opportunities for 2021/22 are expected to be higher than a year ago.

Table 2. Wheat Supply, Demand, and Price, 2018/19-2021/22

	2018/19	2019/20	2020/21 1/	2021/22 2/
Area planted (mil. ac.)	47.8	45.5	44.3	45.0
Area harvested	39.6	37.4	36.7	37.2
Yield (bu./ac.)	47.6	51.7	49.7	49.1
Production (mil. bu.)	1,885	1,932	1,826	1,827
Beginning stocks	1,099	1,080	1,028	836
Imports	135	105	120	130
Supply	3,119	3,117	2,974	2,793
Feed & residual	88	101	125	140
Food & seed	1,013	1,022	1,028	1,030
Total domestic use	1,101	1,123	1,153	1,170
Exports	937	965	985	925
Total use	2,039	2,089	2,138	2,095
Ending stocks	1,080	1,028	836	698
Stocks/use (percent)	53.0	49.2	39.1	33.3
Season-avg. farm price (\$/bu.)	5.16	4.58	5.00	5.50

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, 2021. 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, 2018/19-2021/22

	2018/19	2019/20	2020/21 1/	2021/22 2/
Area planted (mil. ac.)	88.9	89.7	90.8	92.0
Area harvested	81.3	81.3	82.5	84.4
Yield (bu./ac.)	176.4	167.5	172.0	179.5
Production (mil. bu.)	14,340	13,620	14,182	15,150
Beginning stocks	2,140	2,221	1,919	1,502
Imports	28	42	25	25
Supply	16,509	15,883	16,127	16,677
Feed & residual	5,429	5,903	5,650	5,850
Ethanol 3/	5,378	4,852	4,950	5,200
Total food, seed & industrial	6,793	6,282	6,375	6,625
Total domestic use	12,222	12,185	12,025	12,475
Exports	2,066	1,778	2,600	2,650
Total use	14,288	13,963	14,625	15,125
Ending stocks	2,221	1,919	1,502	1,552
Stocks/use (percent)	15.5	13.7	10.3	10.3
Season-avg. farm price (\$/bu.)	3.61	3.56	4.30	4.20

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, 2021. 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, 2018/19-2021/22

All Rice	2018/19	2019/20	2020/21 1/	2021/22 2/
Area planted (mil. ac.)	2.95	2.55	3.04	2.70
Area harvested	2.91	2.48	2.99	2.65
Yield (pounds/ac.)	7,692	7,473	7,619	7,657
Production (mil. cwt)	223.8	185.1	227.6	202.9
Beginning stocks	29.4	44.9	28.7	39.4
Imports	29.0	37.3	36.2	39.0
Supply	282.2	267.3	292.4	281.3
Total domestic & residual use	143.8	144.4	160.0	151.0
Exports	93.6	94.2	93.0	91.0
Total use	237.3	238.6	253.0	242.0
Ending stocks	44.9	28.7	39.4	39.3
Stocks/use (percent)	18.9	12.0	15.6	16.3
Season avg. farm price (\$/cwt.)	12.60	13.60	13.40	13.60

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, 2021. 2/ Projections based on the 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, 2018/19-2021/22

Rice-by-class	2018/19	2019/20	2020/21 1/	2021/22 2/
<u>Long-grain</u>				
Area planted (mil. ac.)	2.20	1.78	2.33	2.00
Area harvested	2.18	1.73	2.30	1.96
Yield (pounds/ac)	7,517	7,261	7,422	7,450
Production (mil. cwt)	163.6	125.6	170.9	146.0
Beginning stocks	20.3	32.6	16.9	27.3
Imports	23.4	29.8	29.5	31.5
Supply	207.3	188.0	217.3	204.8
Total domestic & residual use	108.5	106.4	125.0	115.0
Exports	66.2	64.6	65.0	63.0
Total use	174.7	171.1	190.0	178.0
Ending stocks	32.6	16.9	27.3	26.8
Stocks/use (percent)	18.7	9.9	14.4	15.0
Season avg. farm price (\$/cwt.)	10.80	12.00	12.20	12.50
<u>Medium- and short-grain</u>				
Area planted (mil. ac)	0.75	0.77	0.70	0.70
Area harvested	0.73	0.75	0.69	0.69
Yield (pounds/ac)	8,209	7,964	8,282	8,240
Production (mil. cwt)	60.3	59.5	56.7	56.9
Beginning stocks	7.6	10.2	10.7	11.1
Imports	5.6	7.6	6.7	7.5
Supply	72.8	78.3	74.1	75.5
Total domestic & residual use	35.3	38.0	35.0	36.0
Exports	27.3	29.6	28.0	28.0
Total use	62.6	67.6	63.0	64.0
Ending stocks	10.2	10.7	11.1	11.5
Stocks/use (percent)	16.3	15.9	17.7	18.0
Season avg. farm price (\$/cwt)	18.50	18.20	16.90	17.00
California	21.10	21.60	19.00	19.00
Other States	12.30	11.60	12.50	12.80

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, 2021. 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, 2018/19-2021/22

	2018/19	2019/20	2020/21 /1	2021/22 /2
Area planted (mil. ac.)	89.2	76.1	83.1	90.0
Area harvested	87.6	74.9	82.3	89.1
Yield (bu./ac.)	50.6	47.4	50.2	50.8
Production (mil. bu.)	4,428	3,552	4,135	4,525
Beginning stocks	438	909	525	120
Imports	14	15	35	35
Supply	4,880	4,476	4,695	4,680
Crush	2,092	2,165	2,200	2,210
Seed and Residual	127	105	125	124
Total domestic use	2,219	2,270	2,325	2,334
Exports	1,752	1,682	2,250	2,200
Total use	3,971	3,952	4,575	4,534
Ending stocks	909	525	120	145
Stocks/use (percent)	22.9	13.3	2.6	3.2
Season-avg. farm price (\$/bu.)	8.48	8.57	11.15	11.25

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, 2021.

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, 2018/19-2021/22

	2018/19	2019/20	2020/21 /1	2021/22 /2
Production (thou. short tons)	48,814	51,100	51,959	52,125
Beginning stocks	555	402	341	350
Imports	683	639	600	550
Supply	50,052	52,142	52,900	53,025
Domestic Use	36,212	37,723	38,300	38,725
Exports	13,438	14,077	14,250	13,900
Total use	49,650	51,800	52,550	52,625
Ending stocks	402	341	350	400
Avg. price (\$/short ton) 3/	308.28	299.50	400.00	390.00

1/ Beginning stocks, production, imports, use, ending stocks, and average price are projections from the *World Agricultural Supply and Demand Estimates*, February 9, 2021.

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, 2018/19-2021/22

	2018/19	2019/20	2020/21 /1	2021/22 /2
Production (mil. lbs.)	24,197	24,912	25,565	25,700
Beginning stocks	1,995	1,775	1,849	1,714
Imports	397	319	350	450
Supply	26,590	27,006	27,764	27,864
Domestic Use	22,874	22,319	23,300	23,800
Biodiesel 3/	7,863	7,858	8,300	7,800
Food, Feed, Other Industrial	15,011	14,461	15,000	16,000
Exports	1,940	2,839	2,750	2,450
Total use	24,815	25,158	26,050	26,250
Ending stocks	1,775	1,849	1,714	1,614
Avg. price (cents/lb.) 4/	28.3	29.7	40.0	40.0

1/ Beginning stocks, production, imports, use, ending stocks, and average price are projections from the *World Agricultural Supply and Demand Estimates*, February 9, 2021.

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

3/ Reflects only biodiesel made from methyl ester 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, 2018/19-2021/22

	2018/19	2019/20	2020/21 1/	2021/22 2/
Area planted (mil. ac.)	5.7	5.3	5.9	7.2
Area harvested	5.1	4.7	5.1	6.4
Yield (bu./ac.)	72.1	73.0	73.2	69.0
Production (mil. bu.)	365	341	373	441
Beginning stocks	35	64	30	28
Imports	0	0	0	0
Supply	400	405	403	469
Feed & residual	138	97	70	70
Food, seed & industrial	106	75	10	10
Total domestic use	244	171	80	80
Exports	93	204	295	365
Total use	336	375	375	445
Ending stocks	64	30	28	24
Stocks/use (percent)	18.9	8.0	7.5	5.4
Season-avg. farm price (\$/bu.)	3.26	3.34	4.80	4.70

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, 2021. 2/ Projections based on analysis by USDA's Feed Grains Interagency Commodity Estimates Committee.

Note: Totals may not add due to rounding.