

U.S. Agricultural Market Snapshot, April 2022

Events of the last three months have had large impacts on agricultural markets. The war in Ukraine, drought in South America and other developments have resulted in sharp increases in commodity prices. The result is higher farm receipts and costs, and higher consumer food prices.

The 2022 FAPRI baseline outlook (<https://www.fapri.missouri.edu>) was based on information available in January 2022, and much has changed since then. This bulletin summarizes results from a partial update to the baseline, based on information available in mid-April 2022. This analysis uses the same domestic policy assumptions as the 2022 FAPRI baseline, but updates a number of other assumptions:

- 1) Information from more recent USDA reports and other agricultural market information is considered. This includes the March *Prospective Plantings* report and the April *World Agricultural Supply and Demand Estimates*.
- 2) New information about the general economy and other markets is incorporated, including higher petroleum prices and general inflation rates.

To prepare these updated projections, we used a subset of the models that we would normally use, focusing on U.S. markets in the near future. The increases in U.S. crop and crop product exports due to the Ukraine war and reduced South American supply are based on tentative judgments, not detailed assessment. As this is a partial update relative to the full FAPRI baseline, we focus on only the next two years.

Given all of those caveats, here are some key findings from the analysis:

- Projected prices for crops harvested in 2022 are much higher than in the FAPRI baseline outlook. Corn prices exceed \$6 per bushel, wheat is over \$8 per bushel, and soybeans top \$14 per bushel. Even these prices are below prices implied by futures markets in late April 2022.
- Livestock sector prices are boosted by lower 2022 production than previously expected and strong demand. Avian influenza reduces the number of laying hens and egg production.
- Production expenses are also higher than previously projected. Higher costs for fertilizer and feed contribute to a \$55 billion (14%) increase in farm production costs in 2022.
- Projected net farm income in 2022 is almost the same as in 2021. Growth in both crop and livestock sector receipts offsets the increase in expenses and a drop in government payments.

Summary:

An April 2022 snapshot of U.S. agricultural markets indicates higher farm commodity prices, higher production expenses, and higher consumer food costs than were reported in the FAPRI-MU 2022 baseline outlook. The war in Ukraine and reduced soybean production in South America are two of the factors that have pushed prices higher.

For more on this topic, see these FAPRI-MU publications:

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U.S. Agricultural Market Outlook

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- Consumer food prices increase by 6.8% in 2022, well above previous estimates, and higher than even the 5.5% rate in 2008. Food prices in March were 8.8% above the year-ago levels, so food inflation would need to slow in the months ahead to average 6.8% for the year as a whole.
- The outlook for 2023 and beyond depends on the evolution of the war in Ukraine, the weather, and a host of other factors. Assuming a partial return to “normality” next year, we project lower prices for many commodities, lower net farm income, and slower food price inflation in 2023.

U.S. corn supply and use

	2020/21	2021/22	2022/23	2023/24
		(Million acres)		
Area planted	90.7	93.4	89.5	92.6
Area harvested	82.3	85.4	81.5	84.4
		(Bushels per acre)		
Yield	171.4	177.0	179.9	181.8
		(Million bushels)		
Production	14,111	15,115	14,654	15,337
Ethanol and coproducts use	5,033	5,288	5,385	5,467
Feed and residual use	5,599	5,675	5,421	5,613
Other domestic use	1,437	1,432	1,439	1,473
Exports	2,753	2,498	2,514	2,479
Ending stocks	1,235	1,481	1,401	1,732
		(Dollars per bushel)		
Marketing year avg. price	4.53	5.78	6.06	5.26
		(Dollars per acre)		
Gross market revenue	776.61	1022.47	1090.38	955.58
Variable expenses	333.28	358.50	491.85	484.51
Market net return	443.33	663.97	598.53	471.07

U.S. wheat supply and use

	2020/21	2021/22	2022/23	2023/24
		(Million acres)		
Area planted	44.5	46.7	47.4	48.1
Area harvested	36.8	37.2	39.8	40.1
		(Bushels per acre)		
Yield	49.7	44.3	50.1	50.4
		(Million bushels)		
Production	1,828	1,646	1,994	2,022
Feed and residual use	95	101	76	104
Food, seed and industrial use	1,024	1,025	1,026	1,031
Exports	992	785	1,066	964
Ending stocks	845	676	628	668
		(Dollars per bushel)		
Marketing year avg. price	5.05	7.60	8.08	6.84
		(Dollars per acre)		
Gross market revenue	250.93	336.51	405.27	345.01
Variable expenses	129.54	133.18	189.84	189.36
Market net return	121.39	203.33	215.42	155.65

The war in Ukraine has had a profound impact on global grain markets. The expected reduction in exports from Ukraine and Russia has resulted in sharply higher prices for wheat, corn and other grains.

USDA's March *Prospective Plantings* report indicated U.S. farmers were planning to plant fewer acres of corn in 2022 than the average market expectation. This update assumes actual plantings match the reported intentions.

Corn and wheat prices increase, but remain below the level implied by futures markets in late April 2022.

Sharply higher fertilizer prices lead to a large increase in variable production expenses, and corn market net returns decline slightly in spite of higher prices.

Strong export demand pushes up wheat prices and returns. Note that the projections assume trend-line yields in 2022, but reported poor crop conditions could reduce production and further boost wheat prices.

Projections for 2023/24 assume some recovery in Black Sea region exports, contributing to lower prices.

U.S. soybean supply and use

	2020/21	2021/22	2022/23	2023/24
		(Million acres)		
Area planted	83.4	87.2	91.0	88.7
Area harvested	82.6	86.3	89.7	87.4
		(Bushels per acre)		
Yield	51.0	51.4	51.0	51.5
		(Million bushels)		
Production	4,216	4,435	4,572	4,503
Crush	2,141	2,214	2,277	2,291
Seed and residual use	103	118	116	119
Exports	2,261	2,118	2,162	2,083
Ending stocks	257	258	292	319
		(Dollars per bushel)		
Marketing year avg. price	10.80	13.27	14.22	12.78
IL processor price	13.41	15.08	14.42	13.02
		(Dollars per acre)		
Gross market revenue	551.26	681.64	725.04	658.06
Variable expenses	187.26	195.96	246.53	243.10
Market net return	364.00	485.68	478.51	414.96
		(Dollars per ton)		
Decatur 48% soybean	392.31	415.40	405.66	358.02
		(Cents per pound)		
Decatur soybean oil price	56.87	68.81	64.11	59.09

Other U.S. crop prices

	2020/21	2021/22	2022/23	2023/24
		(Cents per pound)		
Upland cotton	66.3	91.0	87.1	81.8
Seed cotton	34.2	46.4	44.3	41.5
Peanuts	21.0	23.8	24.0	23.7
Sunflower seed	21.3	31.8	32.4	28.1
Canola	18.4	31.8	29.5	23.6
		(Dollars per hundredweight)		
Rice	14.40	15.80	15.84	15.87
Long grain rice	12.60	13.75	14.03	13.90
		(Dollars per bushel)		
Sorghum	5.04	5.87	6.14	5.47
Barley	4.75	5.27	5.60	5.43
Oats	2.77	4.30	4.00	3.66
		(Dollars per ton)		
Hay	156.00	188.14	203.16	197.85

The South American soybean crop is much smaller than earlier expected, and down from last year's level in spite of increased acreage.

Soybean prices are also supported by strong demand from renewable diesel production and reduced sunflower oil exports by Ukraine, normally the world's top exporter.

Soybean planting intentions for 2022 exceeded market expectations. Increased area and trendline yields result in an increase in projected production, which moderates the increase in prices in the 2022/23 marketing year.

A larger harvest in South America in early 2023 would put downward pressure on soybean prices.

Limited U.S. supplies and strong export demand have supported cotton prices.

U.S. rice supplies are also limited, with no recovery in rice area expected in 2022.

Prices for other grains and oilseeds are also expected to remain high in 2022/23.

Drought has limited forage supplies and contributed to high prices for hay.

As with corn and wheat, prices for other crops are projected to moderate in 2023/24, but with much uncertainty.

U.S. livestock production and prices

	2020	2021	2022	2023
Production	(Billion pounds)			
Beef	27.24	28.01	27.56	26.88
Pork	28.32	27.69	27.18	27.45
Broilers	44.11	44.42	44.60	45.45
Turkey	5.74	5.56	5.51	5.53
	(Billion dozen)			
Eggs	9.29	9.24	9.05	9.36
Prices	(Dollars per hundredweight)			
5-area direct steers	108.51	122.40	139.99	148.08
OK City 600-650 lb. feeder cattle	145.82	157.65	177.96	190.67
51-52% lean barrows and gilts	43.18	67.29	67.99	66.24
	(Cents per pound)			
Nat'l composite wholesale broilers	73.2	101.2	123.4	105.7
Nat'l wholesale turkey hens	106.5	122.8	134.8	125.3
	(Cents per dozen)			
NY Grade A wholesale eggs	112.2	118.5	169.9	128.6

U.S. milk production and prices

	2020	2021	2022	2023
Production	(Billion pounds)			
	223.3	226.3	226.7	230.5
Prices	(Dollars per hundredweight)			
All milk	18.24	18.69	24.54	21.77
Class III milk	18.16	17.08	21.70	19.33
Class IV milk	13.49	16.09	22.67	19.44

U.S. meat production is projected to decline slightly in 2022. High feed costs are a contributing factor.

Most livestock and poultry prices are at or near record highs in 2022, as consumer meat demand has remained strong.

Avian influenza has reduced the number of layers, contributing to a sharp increase in egg prices.

In 2023, projected hog and poultry prices decline as production recovers. In contrast, limited cattle supplies, in part due to current drought conditions, result in lower beef production and higher cattle prices.

Milk production growth slows in 2022, in part because of high prices for hay, corn and other feeds.

Slower production growth and strong demand results in a sharp increase in milk prices in 2022.

Resumed production growth moderates milk prices in 2023.

U.S. farm income

	2020	2021	2022	2023
	(Billion dollars)			
Crop receipts	198.8	236.6	267.8	265.0
Livestock receipts	165.0	195.9	231.7	220.3
Farm-related receipts	34.3	32.7	39.0	42.1
Government payments	45.7	27.1	10.5	5.0
Non-money income	18.5	21.5	23.2	23.7
Change in inventories	-9.3	-3.4	-6.0	1.1
Production expenses	357.8	391.5	446.5	454.8
Feed	56.8	64.9	75.4	73.4
Purchased livestock	29.0	33.8	36.3	37.4
Fertilizer and lime	24.4	28.5	47.1	44.1
Fuel and electricity	17.9	22.0	26.9	27.3
All other	229.6	242.3	260.9	272.6
Net farm income	95.2	119.1	119.7	102.5
(in 2022 dollars)	103.7	124.8	119.7	99.9

Higher prices resulted in a large increase in crop and livestock receipts in 2021, and another large increase is projected for 2022.

Government payments to farmers have declined sharply from the record 2020 level.

Much higher fertilizer prices are one of many factors contributing to another large increase in projected farm production expenses in 2022.

Changes in receipts and expenses largely offset one another, leaving projected 2022 net farm income near the 2021 level. Net income drops in 2023, as receipts decline slightly while costs remain elevated.

U.S. consumer food price inflation

	2020	2021	2022	2023
All food	3.4%	3.9%	6.8%	3.7%
Food at home	3.5%	3.5%	6.9%	3.2%
Meat	6.2%	6.6%	9.4%	2.6%
Cereal and bakery	2.2%	2.3%	6.4%	4.9%
Food away from home	3.4%	4.5%	6.5%	4.1%

Consumer food price inflation has been accelerating in recent months.

Higher farm commodity prices contribute to the projected 6.8% increase in 2022, but higher labor and energy costs and a range of other factors are much of the story.

Projected food price inflation slows in 2023, but remains well above pre-pandemic rates.