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Any opinion, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture nor the University of Missouri.

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FAPRI-MU and AMAP are both affiliated with the MU Division of Applied Social Sciences.

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Summary

Many of the factors that pushed prices of several agricultural commodities to record or near-record levels in 2022 have reversed, or at least moderated, in 2023. World grain production is up this year, central banks have tightened monetary policy, and some input costs have receded. With the important exception of cattle, prices for most U.S. farm products have declined in 2023. Crop prices could decline further in 2024 under a set of plausible assumptions.

This report, based on information available in mid-August 2023, updates the 2023 FAPRI baseline outlook released earlier this year. Crop production in 2023 is assumed to equal the values reported by USDA in its August *Crop Production* report and macroeconomic assumptions are based on July 2023 forecasts by S&P Global. Current government policies are assumed to continue.

Key results include:

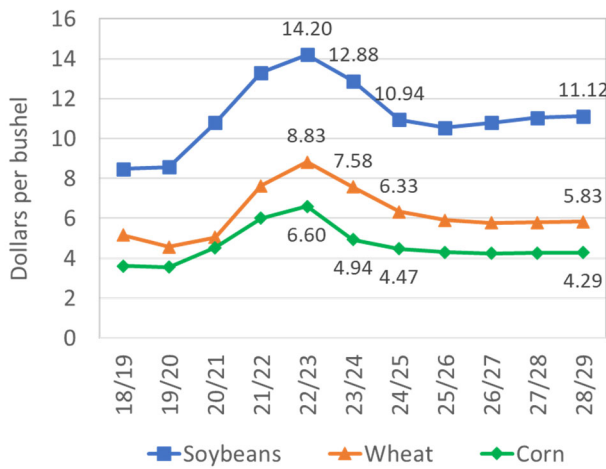
- Farmers planted more corn this spring, so August estimates from USDA show a rebound in U.S. corn production in 2023. More production contributes to lower prices, as the marketing year average price falls from \$6.60 per bushel in 2022/23 to \$4.94 for the crop harvested this fall.
- The proportional decline in soybean prices is smaller, from \$14.20 per bushel for the 2022/23 crop to \$12.88 in 2023/24. USDA estimates that U.S. soybean production will decline slightly this year because of reduced acreage planted. South American production is projected to increase.
- The war in Ukraine contributed to an upward spike in wheat prices in 2022. Wheat prices have fallen back given adequate global supplies, even though U.S. wheat yields are below the long-term trend for the third straight year in 2023.
- Cotton prices are supported by a second consecutive year of reduced U.S. cotton production, as prices dip only slightly in 2023/24.
- Corn, wheat, soybean, and cotton prices could all decline again in 2024/25 if growing conditions allow yields to recover to trendline levels.
- Increased biofuel use of vegetable oil supports the price of soybean oil and soybeans. U.S. crush increases, pushing down the price of soybean meal relative to soybeans and soybean oil. U.S. soybean oil prices exceed those from Argentina and Brazil, and U.S. net exports of soybean oil remain near zero.
- Given an assumed modest expansion of the Renewable Fuel Standard (RFS), consistent with recent policy, overall U.S. biofuel use increases slowly over the next five years. Total biofuel consumption roughly matches the RFS requirement, and all major classes of Renewable Identification Numbers (RINs) continue to maintain a value of more than \$1 per gallon.
- Projected domestic use of ethanol is about the same in 2028 as it was in 2022, while the use of biomass-based diesel increases by more than a billion gallons over the same period. Biofuel production and use continue to be sensitive to trends in fuel use and regulatory decisions.
- Drought has reduced cattle numbers, pushing up prices for fed and feeder cattle. Projected 5-area direct steer prices rise from \$144 per hundredweight in 2022 to \$178 in 2023 and reach a peak of \$189 in 2025, when beef production is 2 billion pounds lower than in 2022. The proportional increase in feeder steer prices is even sharper.
- Projected U.S. pork production remains in a narrow range between 2022 and 2025. Hog prices drop more sharply than feed costs in 2023. An increase in U.S. pork exports in 2023 is largely offset by lower domestic use.
- Rising poultry production and domestic use moderates the decline in overall U.S. meat and poultry consumption in 2023. Projected chicken production increases by more than 3 billion pounds between 2022 and 2028.
- After very strong growth in 2021 and 2022, projected per-capita U.S. consumer meat expenditures increase only marginally in 2023 and for the next several years.

- An increase in production and weaker international markets contribute to sharply lower milk prices in 2023. Combined with high prices for alfalfa and other feeds, the result has been large payments to dairy producers under the Dairy Margin Coverage program.
- Prices for fertilizer increased dramatically in 2022 but have since declined. Estimated per-acre variable costs for many crops decline in 2023, but the result is sensitive to when producers made input purchase decisions. Given projected prices for fertilizer and other inputs, costs for corn and other crops decline further in 2024 and 2025.
- U.S. consumer food prices increased by 9.9% in 2022, the highest rate in decades. Year-over-year increases in food prices have slowed dramatically in recent months, and the annual average increase in the food consumer price index (CPI) is projected to be 5.9% in 2023.
- The increase in the food CPI slows to 2.5% in 2024 and to less than 2% in 2025. In contrast to 2022, projected increases in the price of food consumed away from home are larger than the increases in prices of food consumed at home.

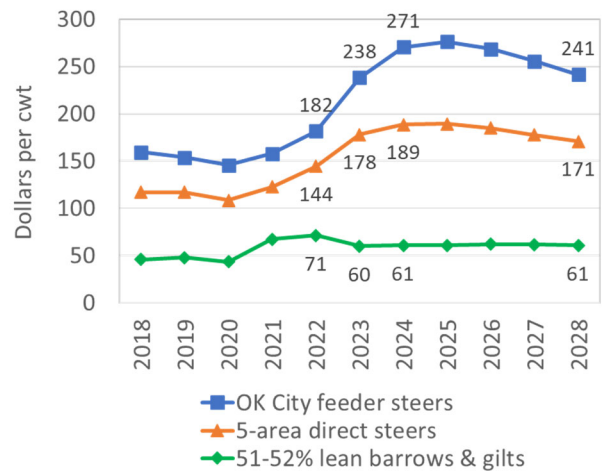
These projections are a snapshot based on information available in August 2023. New information about the size of the 2023 crop, the war in Ukraine and other factors will alter the outlook, perhaps in important ways. This baseline update does not explore or quantify the uncertainty around these projections. Please refer to our stochastic baseline projections released earlier this year for information of this type.

A subsequent report will examine the farm income implications of these commodity market projections.

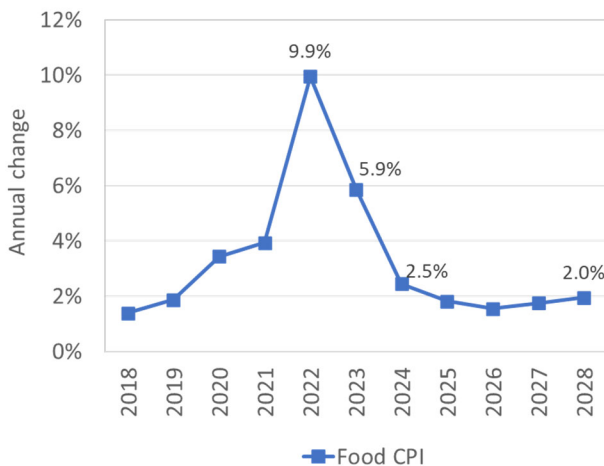
Grain and soybean prices



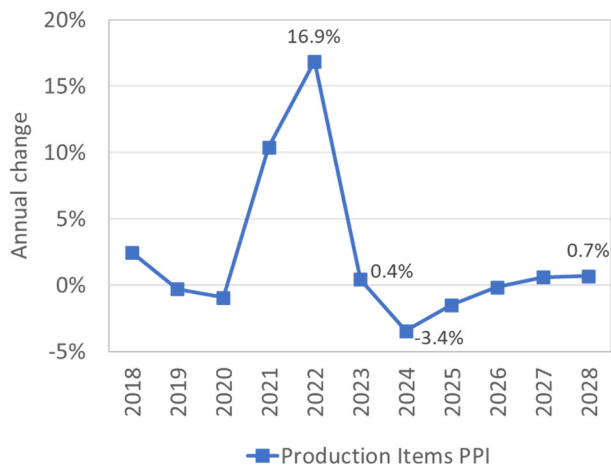
Cattle and hog prices



CPI for food



Production items PPI



Macroeconomic assumptions*

Calendar year	2021	2022	2023	2024	2025	2026	2027	2028
Real GDP growth								
				(Percent)				
United States	5.9	2.1	1.8	1.2	1.5	1.7	1.8	1.8
China	8.5	3.0	5.2	4.8	4.8	4.8	4.7	4.7
European Union	5.5	3.6	0.7	1.0	1.7	1.8	1.6	1.6
World	6.1	3.1	2.4	2.4	2.8	2.9	2.8	2.8
U.S. CPI inflation	4.7	8.0	4.1	2.7	2.6	2.3	2.3	2.2
U.S. interest rates								
Federal funds rate	0.1	1.7	5.1	5.1	3.5	2.6	2.6	2.6
Prime rate	3.3	4.9	8.2	8.2	6.6	5.8	5.8	5.8
Petroleum price				(Dollars per barrel)				
West Texas Intermediate	67.99	94.78	75.33	73.33	78.94	82.19	85.40	87.11
Exchange rates				(Currency per dollar)				
Chinese yuan	6.45	6.73	7.02	6.68	6.45	6.30	6.23	6.30
Euro	0.85	0.95	0.92	0.90	0.87	0.86	0.85	0.85

*Source: S&P Global forecast, July 2023

Policy assumptions

Year	2021	2022	2023	2024	2025	2026	2027	2028
Special program availability								
Pandemic Assistance	Yes	No	No	No	No	No	No	No
Inflation Reduction Act new conservation budget authority	No	No	Yes	Yes	Yes	Yes	No	No
Effective reference prices				(Dollars per bushel)				
Corn	3.70	3.70	3.70	4.01	4.26	4.26	4.26	3.89
Soybeans	8.40	8.40	8.40	9.26	9.66	9.66	9.66	9.66
Wheat	5.50	5.50	5.50	5.50	5.74	6.10	6.10	5.61
PLC participation				(Percent of base acreage)				
Corn	50.8	37.6	33.9	21.9	35.6	38.3	38.7	28.4
Soybeans	12.6	13.2	14.4	12.2	5.5	4.9	5.1	9.2
Wheat	82.7	50.6	42.9	55.4	57.4	72.1	72.7	60.8
Conservation reserve area				(Million acres)				
Conservation reserve area	20.5	22.0	23.0	25.5	26.1	26.5	26.9	26.9
Renewable fuel standard				(Billion gallons, ethanol equivalent)				
Overall, as applied	19.9	20.5	21.3	21.8	22.6	22.8	22.9	23.1
Advanced biofuels	5.3	5.6	6.1	6.8	7.6	7.8	7.9	8.1
Biomass-based diesel	3.8	4.1	4.6	5.0	5.6	5.7	5.8	5.9
Conventional biofuel "gap"	14.6	14.9	15.3	15.0	15.0	15.0	15.0	15.0

U.S. corn supply and use

September-August year	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Area	(Million acres)							
Planted area	93.3	88.6	94.1	91.2	92.3	91.7	90.9	90.3
Harvested area	85.3	79.2	86.3	83.3	84.3	83.8	83.0	82.5
	(Bushels per harvested acre)							
Yield	176.7	173.3	175.1	182.8	184.9	186.9	189.0	191.0
	(Million bushels)							
Supply	16,333	15,142	16,594	17,456	17,923	18,155	18,252	18,332
Beginning stocks	1,235	1,377	1,457	2,202	2,306	2,464	2,543	2,553
Production	15,074	13,730	15,111	15,228	15,591	15,663	15,682	15,753
Imports	24	35	27	27	27	27	27	27
Domestic use	12,483	12,060	12,334	12,455	12,563	12,589	12,600	12,617
Feed and residual	5,719	5,425	5,594	5,561	5,614	5,674	5,703	5,720
Ethanol and coproducts	5,326	5,225	5,307	5,431	5,478	5,437	5,410	5,398
HFCS	416	415	415	420	413	405	402	400
Seed	29	31	30	31	31	31	31	31
Food and other	993	964	988	1,011	1,027	1,041	1,054	1,067
Exports	2,472	1,625	2,058	2,695	2,896	3,022	3,099	3,169
Total use	14,956	13,685	14,392	15,150	15,459	15,611	15,699	15,785
Ending stocks	1,377	1,457	2,202	2,306	2,464	2,543	2,553	2,547
Under loan	62	62	100	125	139	144	143	142
Other stocks	1,314	1,395	2,102	2,181	2,326	2,399	2,410	2,405
Prices, program provisions	(Dollars per bushel)							
Farm price	6.00	6.60	4.94	4.47	4.31	4.24	4.26	4.29
Loan rate	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
Effective reference price	3.70	3.70	3.70	4.01	4.26	4.26	4.26	3.89
Market returns	(Dollars)							
Gross market revenue/a.	1,060.07	1,144.04	864.34	817.55	796.67	793.19	804.34	818.76
Variable expenses/a.	359.78	486.78	460.34	401.49	376.96	373.72	384.20	396.15
Market net return/a.	700.29	657.26	404.00	416.06	419.70	419.47	420.14	422.62

U.S. soybean supply and use

September-August year	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Area	(Million acres)							
Planted area	87.2	87.5	83.5	87.0	85.2	85.8	86.9	87.5
Harvested area	86.3	86.3	82.7	86.2	84.4	85.0	86.0	86.6
Yield	(Bushels per harvested acre)							
	51.7	49.5	50.9	52.0	52.5	53.1	53.6	54.2
Supply	(Million bushels)							
Beginning stocks	257	274	260	234	366	364	346	335
Production	4,465	4,276	4,205	4,484	4,431	4,510	4,613	4,690
Imports	16	30	30	25	25	25	25	25
Domestic use	2,312	2,340	2,424	2,499	2,554	2,597	2,637	2,676
Crush	2,204	2,220	2,298	2,365	2,418	2,459	2,497	2,535
Seed and residual	108	120	126	134	136	138	140	141
Exports	2,152	1,980	1,838	1,878	1,904	1,956	2,012	2,045
Total use	4,464	4,320	4,262	4,377	4,459	4,553	4,649	4,722
Ending stocks	274	260	234	366	364	346	335	329
Under loan	8	9	13	25	28	27	27	28
Other stocks	266	252	221	342	335	318	308	301
Prices, program provisions	(Dollars per bushel)							
Farm price	13.30	14.20	12.88	10.94	10.55	10.80	11.05	11.12
Illinois processor price	15.05	14.48	13.18	11.29	10.91	11.15	11.39	11.46
Loan rate	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.20
Effective reference price	8.40	8.40	8.40	9.26	9.66	9.66	9.66	9.66
Market returns	(Dollars)							
Gross market revenue/a.	688.08	703.31	655.15	569.45	554.20	573.35	592.44	602.30
Variable expenses/a.	199.32	251.01	244.86	229.57	222.00	222.05	226.39	231.10
Market net return/a.	488.76	452.30	410.28	339.88	332.21	351.30	366.04	371.21
Other indicators								
Soybean/corn price ratio	2.22	2.15	2.61	2.45	2.45	2.55	2.60	2.59
48% soymeal price, \$/ton	439.81	455.00	384.50	304.32	288.18	295.88	304.63	307.56
Soybean oil price, cents/lb.	72.98	65.00	62.23	57.28	56.84	57.58	58.09	58.45
Crushing margin, \$/bu.	3.95	3.98	3.19	2.65	2.60	2.63	2.65	2.70

U.S. wheat supply and use

June-May year	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Area	(Million acres)							
Planted area	46.7	45.7	49.8	48.7	47.6	47.3	47.2	46.9
Harvested area	37.1	35.5	37.9	39.4	38.4	38.2	38.1	37.8
Yield	(Bushels per harvested acre)							
	44.3	46.5	45.8	51.3	51.7	52.1	52.6	53.0
Supply	(Million bushels)							
Beginning stocks	2,588	2,470	2,441	2,749	2,852	2,912	2,947	2,963
Production	845	698	580	610	753	808	834	846
Imports	1,646	1,650	1,734	2,023	1,986	1,992	2,000	2,004
	96	122	127	117	113	113	113	113
Domestic use	1,093	1,131	1,131	1,148	1,158	1,163	1,165	1,168
Feed and residual	64	90	91	101	105	105	104	104
Seed	58	69	66	64	64	63	63	63
Food and other	972	973	975	983	990	994	998	1,001
Exports	796	759	700	847	886	915	936	945
Total use	1,889	1,890	1,832	1,996	2,044	2,078	2,101	2,113
Ending stocks	698	580	610	753	808	834	846	850
Under loan	2	5	4	10	11	12	12	12
Other stocks	696	575	605	744	797	822	834	838
Prices, program provisions	(Dollars per bushel)							
Farm price	7.63	8.83	7.58	6.33	5.91	5.79	5.79	5.83
Loan rate	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38
Effective reference price	5.50	5.50	5.50	5.50	5.74	6.10	6.10	5.61
Market returns	(Dollars)							
Gross market revenue/a.	338.16	410.61	347.17	324.80	305.10	301.53	304.27	309.11
Variable expenses/a.	141.24	193.15	182.02	160.07	153.96	152.77	156.31	161.40
Market net return/a.	196.92	217.46	165.16	164.73	151.15	148.76	147.96	147.71

U.S. upland cotton supply and use

August-July year	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Area	(Million acres)							
Planted area	11.09	13.58	10.98	11.13	10.91	11.07	11.07	11.05
Harvested area	10.15	7.13	8.52	9.51	9.37	9.52	9.51	9.41
	(Pounds per harvested acre)							
Yield	813	942	773	863	869	878	885	894
	(Million bales)							
Supply	20.18	17.72	17.25	20.06	21.31	22.00	22.30	22.37
Beginning stocks	2.99	3.73	3.53	2.97	4.35	4.59	4.76	4.85
Production	17.19	14.00	13.72	17.09	16.97	17.42	17.53	17.52
Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Domestic use								
Mill use	2.54	2.04	2.15	2.27	2.33	2.36	2.38	2.40
Exports	14.16	12.48	12.14	13.44	14.40	14.88	15.07	15.10
Total use	16.70	14.53	14.28	15.71	16.73	17.24	17.45	17.50
Unaccounted	-0.24	-0.33	0.00	0.00	0.00	0.00	0.00	0.00
Ending stocks	3.73	3.53	2.97	4.35	4.59	4.76	4.85	4.87
Prices, program provisions	(Cents per pound)							
Farm price	91.4	82.0	79.3	67.5	69.7	70.5	70.9	71.3
Loan rate	52.0	52.0	52.0	52.0	52.0	52.0	52.0	52.0
Seed cotton effective refer, price	36.7	36.7	36.7	36.7	36.7	36.7	36.7	36.7
Seed cotton farm price	46.8	44.9	43.3	35.4	36.3	36.6	36.9	37.1
Market returns	(Dollars)							
Gross market revenue/a.	870.62	978.83	787.97	714.12	734.72	749.87	760.79	772.34
Variable expenses/a.	473.53	549.81	545.53	506.83	498.36	505.46	519.48	532.10
Market net return/a.	397.09	429.02	242.43	207.29	236.36	244.40	241.32	240.25

U.S. rice supply and use

August-July year	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Area	(Million acres)							
Planted area	2.53	2.22	2.69	2.63	2.65	2.65	2.66	2.66
Harvested area	2.49	2.17	2.65	2.58	2.61	2.61	2.61	2.62
	(Pounds per harvested acre)							
Yield	7,709	7,383	7,699	7,824	7,868	7,917	7,973	8,023
	(Million hundredweight)							
Supply	273.0	238.6	266.4	274.7	281.1	285.0	287.9	290.8
Beginning stocks	43.7	39.7	24.6	31.4	34.4	36.4	37.1	37.8
Production	191.6	160.4	203.6	202.1	205.3	206.6	208.2	209.8
Imports	37.8	38.5	38.2	41.2	41.4	42.1	42.6	43.2
Domestic use	149.8	150.0	155.2	157.9	159.8	161.5	162.6	163.1
Exports	83.5	64.0	79.9	82.4	84.9	86.4	87.5	89.4
Total use	233.3	214.0	235.0	240.3	244.7	247.9	250.1	252.5
Ending stocks	39.7	24.6	31.4	34.4	36.4	37.1	37.8	38.3
Prices, program provisions	(Dollars per hundredweight)							
Farm price	16.10	19.40	17.74	15.90	15.53	15.82	15.81	16.05
Long grain	13.60	16.90	15.49	13.79	13.94	13.93	14.17	14.26
Japonica	31.90	36.00	28.96	26.35	24.71	25.24	25.79	26.37
Other medium, short grain	13.90	18.20	15.93	14.09	14.15	14.14	15.11	14.68
Loan rate	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Effective reference price								
Long grain	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Japonica	17.30	17.79	18.50	19.90	19.90	19.90	19.90	19.90
Other medium, short grain	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Market returns	(Dollars)							
Gross market revenue/a.	1,241.23	1,432.38	1,365.62	1,243.72	1,222.17	1,252.62	1,260.28	1,287.56
Variable expenses/a.	580.23	746.93	717.12	666.58	643.90	649.12	664.22	680.15
Market net return/a.	661.00	685.45	648.51	577.14	578.26	603.50	596.06	607.40

Other U.S. feed grains supply and use

Marketing year	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Sorghum								
	(Million acres)							
Planted area	7.31	6.33	6.81	6.63	6.67	6.70	6.73	6.77
Harvested area	6.49	4.57	5.94	5.85	5.89	5.91	5.94	5.97
	(Bushels per harvested acre)							
Yield	69.00	41.09	66.21	72.95	72.87	73.16	73.48	73.78
	(Million bushels)							
Production	448	188	393	427	429	432	436	440
Imports	0	0	0	0	0	0	0	0
Domestic use	125	110	131	154	158	155	154	154
Exports	296	100	254	267	270	277	282	286
Ending stocks	47	25	33	39	40	41	41	42
	(Dollars per bushel)							
Farm price	5.94	6.75	4.92	4.31	4.13	4.17	4.22	4.29
Effective reference price	3.95	3.95	3.95	4.06	4.50	4.50	4.30	3.95
Barley								
	(Million acres)							
Planted area	2.71	2.95	3.19	2.91	3.18	3.01	2.92	2.91
Harvested area	1.99	2.43	2.40	2.37	2.58	2.44	2.37	2.36
	(Bushels per harvested acre)							
Yield	60.3	71.7	75.1	79.1	79.9	80.7	81.5	82.3
	(Million bushels)							
Production	120	174	180	187	206	197	193	194
Imports	15	24	15	15	11	8	8	8
Domestic use	157	182	177	186	199	198	197	198
Exports	7	2	3	3	4	5	5	5
Ending stocks	42	56	71	84	99	102	101	100
	(Dollars per bushel)							
Farm price	5.31	7.40	6.74	5.96	5.44	5.20	5.18	5.22
Effective reference price	4.95	4.95	4.95	4.95	4.95	5.10	5.14	5.14
Oats								
	(Million acres)							
Planted area	2.55	2.58	2.56	2.44	2.69	2.75	2.77	2.78
Harvested area	0.65	0.89	0.80	0.77	0.85	0.87	0.88	0.88
	(Bushels per harvested acre)							
Yield	61.3	64.8	61.5	65.5	65.8	66.3	66.7	67.1
	(Million bushels)							
Production	40	58	49	50	56	58	59	59
Imports	81	84	82	81	79	78	78	77
Domestic use	124	138	131	130	132	133	133	134
Exports	3	2	2	2	2	2	2	2
Ending stocks	33	35	33	31	33	35	36	36
	(Dollars per bushel)							
Farm price	4.55	4.57	3.30	3.32	3.37	3.35	3.36	3.40
Effective reference price	2.40	2.40	2.40	2.76	2.76	2.76	2.76	2.76

Other U.S. oilseeds supply and use

Marketing year	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Peanuts								
	(Million acres)							
Planted area	1.58	1.45	1.58	1.56	1.56	1.53	1.52	1.51
Harvested area	1.54	1.39	1.54	1.51	1.52	1.48	1.47	1.46
	(Pounds per harvested acre)							
Yield	4,130	4,019	4,047	4,323	4,378	4,437	4,496	4,551
	(Million pounds)							
Production	6,361	5,568	6,220	6,533	6,634	6,559	6,600	6,662
Imports	107	100	100	100	100	100	100	100
Domestic use	4,893	4,796	4,930	5,066	5,131	5,147	5,179	5,212
Exports	1,184	1,185	1,336	1,373	1,432	1,482	1,520	1,554
Ending stocks	2,360	2,047	2,101	2,295	2,466	2,497	2,498	2,494
	(Cents per pound)							
Farm price	24.30	26.20	26.73	24.23	23.00	22.74	22.86	22.98
Effective reference price	26.75	26.75	26.75	26.75	26.75	26.75	26.75	26.75
Sunflowerseed								
	(Million acres)							
Planted area	1.29	1.69	1.35	1.45	1.45	1.49	1.45	1.43
Harvested area	1.25	1.61	1.29	1.39	1.39	1.42	1.38	1.37
	(Pounds per harvested acre)							
Yield	1,529	1,750	1,760	1,689	1,699	1,711	1,723	1,736
	(Million pounds)							
Production	1,905	2,813	2,268	2,344	2,359	2,437	2,378	2,378
Imports	384	331	363	408	331	309	315	321
Domestic use	2,278	2,980	2,553	2,630	2,554	2,582	2,557	2,558
Exports	110	108	124	109	134	142	140	138
Ending stocks	295	337	290	304	306	327	324	326
	(Cents per pound)							
Farm price	32.90	28.20	25.33	22.98	23.85	22.74	22.84	22.82
Effective reference price	20.15	20.15	20.15	20.15	21.20	21.68	21.92	20.44
Canola								
	(Million acres)							
Planted area	2.15	2.21	2.28	2.14	2.23	2.30	2.33	2.34
Harvested area	2.09	2.17	2.24	2.09	2.18	2.24	2.27	2.28
	(Pounds per harvested acre)							
Yield	1,302	1,762	1,865	1,924	1,943	1,962	1,979	1,997
	(Million pounds)							
Production	2,721	3,822	4,186	4,023	4,235	4,397	4,491	4,559
Imports	1,109	1,272	797	889	815	811	844	883
Domestic use	3,774	4,525	4,618	4,590	4,696	4,835	4,963	5,072
Exports	284	328	398	318	336	361	360	361
Ending stocks	243	483	450	453	471	483	496	505
	(Cents per pound)							
Farm price	32.90	29.80	25.58	23.42	23.20	23.55	23.41	23.42
Effective reference price	20.15	20.15	20.15	20.15	20.90	22.33	22.33	20.55

U.S. hay supply and use

May-April year	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
				(Million acres)				
Area harvested	50.7	49.5	52.0	52.3	52.3	52.2	52.0	52.1
				(Tons per acre)				
Yield	2.37	2.28	2.29	2.41	2.42	2.43	2.44	2.45
				(Million tons)				
Production	120.2	112.8	118.8	125.8	126.7	126.9	127.2	127.6
Disappearance	121.4	115.0	118.9	122.1	124.7	126.2	127.2	127.9
Ending stocks	16.8	14.5	14.4	18.1	20.1	20.9	20.9	20.5
				(Dollars per ton)				
All hay price	193.00	235.00	216.18	193.15	183.65	180.08	180.90	183.70

U.S. planted and idled area

Marketing year	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Planted area				(Million acres)				
Corn	93.25	88.58	94.10	91.20	92.31	91.73	90.86	90.31
Soybeans	87.20	87.45	83.51	87.02	85.20	85.80	86.89	87.45
Wheat	46.74	45.74	49.81	48.70	47.62	47.34	47.17	46.90
Upland cotton	11.09	13.58	10.98	11.13	10.91	11.07	11.07	11.05
Sorghum	7.31	6.33	6.81	6.63	6.67	6.70	6.73	6.77
Barley	2.71	2.95	3.19	2.91	3.18	3.01	2.92	2.91
Oats	2.55	2.58	2.56	2.44	2.69	2.75	2.77	2.78
Rice	2.53	2.22	2.69	2.63	2.65	2.65	2.66	2.66
Sunflower seed	1.29	1.69	1.35	1.45	1.45	1.49	1.45	1.43
Peanuts	1.58	1.45	1.58	1.56	1.56	1.53	1.52	1.51
Canola	2.15	2.21	2.28	2.14	2.23	2.30	2.33	2.34
Sugar beets	1.16	1.16	1.13	1.14	1.16	1.16	1.16	1.16
Sugarcane harvested	0.94	0.95	0.94	0.95	0.97	0.97	0.98	0.98
13-crop planted	260.50	256.88	260.90	259.89	258.61	258.50	258.49	258.25
Hay area harvested	50.74	49.55	51.98	52.25	52.35	52.18	52.05	52.06
13 crops + hay	311.23	306.43	312.88	312.15	310.96	310.67	310.54	310.31
Conservation reserve (CRP)	20.51	22.03	23.00	25.49	26.11	26.53	26.92	26.87
13 crops + hay + CRP	331.75	328.45	335.88	337.64	337.07	337.21	337.46	337.19
Double crop area	3.99	3.52	3.63	4.10	3.76	3.74	3.77	3.77
Total minus double crop	327.76	324.94	332.25	333.54	333.31	333.47	333.69	333.41

U.S. soybean product supply and use

October-September year	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29
Soybean meal	(Thousand tons)							
Production	51,814	52,564	54,122	55,766	57,022	57,978	58,886	59,775
Imports	655	625	600	600	600	600	600	600
Domestic use	38,959	38,950	39,751	41,065	41,815	42,093	42,401	42,839
Exports	13,540	14,200	14,922	15,274	15,798	16,486	17,086	17,535
Ending stocks	311	350	399	427	436	435	434	435
Soybean oil	(Million pounds)							
Production	26,155	26,265	26,999	27,944	28,574	29,053	29,508	29,953
Imports	303	375	354	350	368	468	427	395
Domestic use	24,827	26,350	27,040	27,852	28,490	29,105	29,501	29,922
Biofuel	10,348	11,700	12,553	13,330	13,920	14,512	14,887	15,280
Food and other	14,479	14,650	14,488	14,522	14,570	14,593	14,614	14,642
Exports	1,771	400	408	415	393	389	391	393
Ending stocks	1,991	1,881	1,785	1,812	1,870	1,897	1,940	1,972
Decatur prices	(Dollars per ton)							
Soybean meal 48% protein	439.81	455.00	384.50	304.32	288.18	295.88	304.63	307.56
	(Cents per pound)							
Soybean oil	72.98	65.00	62.23	57.28	56.84	57.58	58.09	58.45

U.S. biomass-based diesel supply and use

Calendar year	2021	2022	2023	2024	2025	2026	2027	2028
Supply and use	(Million gallons)							
Production	2,575	3,119	3,740	3,569	3,728	3,922	4,177	4,273
From soybean oil	1,188	1,363	1,623	1,632	1,764	1,822	1,905	1,943
From corn oil	342	389	403	405	434	454	474	479
From other fats and oils	1,042	1,355	1,714	1,531	1,530	1,645	1,797	1,851
Net imports	398	212	345	400	367	332	302	264
Domestic disappearance	2,957	3,375	4,061	3,957	4,088	4,249	4,475	4,534
Ending stocks	176	120	144	155	161	166	170	173
Prices and RIN values	(Dollars per gallon)							
Biodiesel rack, Des Moines	5.13	6.58	5.14	4.77	4.60	4.58	4.61	4.61
#2 diesel, refiner sales	2.11	3.58	2.86	2.65	2.55	2.60	2.68	2.72
Biodiesel RIN (per RIN gal.)	1.50	1.67	1.45	1.14	1.46	1.33	1.17	1.31

U.S. ethanol supply and use

Calendar year	2021	2022	2023	2024	2025	2026	2027	2028
Petroleum fuel prices								
	(Dollars per barrel)							
Petroleum, W. Texas interm.	67.99	94.78	75.33	73.33	78.94	82.19	85.40	87.11
Petroleum, refiners acquisition	67.51	95.16	74.69	73.09	80.03	83.43	86.06	87.20
	(Dollars per gallon)							
Unl. gasoline, FOB Omaha	2.23	3.17	2.79	2.58	2.72	2.77	2.85	2.89
Unleaded gasoline, retail	3.05	4.09	3.57	3.34	3.53	3.57	3.64	3.70
	(Million gallons)							
Motor gasoline supplied	135,145	134,548	136,735	136,487	136,052	135,130	133,689	132,134
Ethanol supply and use								
Production	15,016	15,365	15,442	15,845	16,216	16,275	16,112	16,118
From corn	14,979	15,341	15,421	15,808	16,176	16,218	16,042	16,031
From other feedstocks	36	23	20	35	38	55	67	85
Cellulosic	1	1	2	2	2	2	2	3
Imports	61	69	47	40	42	38	36	35
Domestic disappearance	13,946	14,103	14,062	14,113	14,489	14,390	14,131	14,127
In low-level blends	13,615	13,542	13,328	13,183	12,750	12,617	12,612	12,310
In mid-level blends	105	315	463	639	1,168	1,234	1,037	1,238
In flex fuel vehicles	240	246	271	291	572	539	481	579
Exports	1,242	1,351	1,432	1,773	1,768	1,922	2,018	2,027
Ending stocks	924	904	899	897	898	899	899	898
Ethanol prices								
	(Dollars per gallon)							
Conventional rack, Omaha	2.40	2.61	2.04	1.73	1.76	1.73	1.70	1.72
Other advanced rack	2.59	2.81	2.04	1.73	1.76	1.73	1.70	1.72
Effective retail	1.92	2.08	1.42	1.38	1.16	1.25	1.36	1.26
Ethanol/gasoline retail ratio	63%	51%	40%	41%	33%	35%	37%	34%
RIN values								
	(Dollars per gallon)							
Conventional ethanol	1.31	1.46	1.41	1.10	1.41	1.28	1.13	1.27
Other advanced ethanol	1.50	1.66	1.41	1.10	1.41	1.28	1.13	1.27

U.S. beef sector

Calendar year	2021	2022	2023	2024	2025	2026	2027	2028	
				(Million head)					
Beef cows (Jan. 1)	30.8	30.0	28.9	28.3	28.1	28.2	28.5	29.1	
Dairy cows (Jan. 1)	9.4	9.4	9.4	9.4	9.4	9.4	9.5	9.5	
Cattle and calves (Jan. 1)	93.8	92.1	89.3	87.4	87.1	87.3	87.5	87.8	
				(Million pounds)					
Beef supply and use									
Production	28,016	28,359	27,115	25,875	25,667	25,948	26,354	26,798	
Imports	3,345	3,390	3,531	3,579	3,587	3,563	3,521	3,484	
Domestic use	27,973	28,157	27,532	26,443	26,130	26,285	26,581	26,939	
Exports	3,428	3,544	3,197	3,032	3,125	3,213	3,274	3,323	
Ending stocks	676	723	641	620	618	632	652	671	
				(Dollars per hundredweight)					
Prices									
Total all grades, 5-area									
direct steers	122.40	144.40	178.09	188.52	189.44	184.65	177.77	170.79	
600 - 650 lb. Oklahoma									
City feeder steers	157.65	181.51	238.28	270.71	276.20	268.68	255.52	241.39	
Boxed beef cutout	280.21	263.94	298.80	325.43	332.82	330.21	323.29	316.27	
				(Dollars per pound)					
Beef retail	7.25	7.59	8.03	8.54	8.78	8.76	8.66	8.53	

U.S. pork sector

Calendar year	2021	2022	2023	2024	2025	2026	2027	2028	
				(Million head)					
Breeding herd (Dec. 1*)	6.18	6.13	6.10	5.96	5.87	5.84	5.83	5.80	
Market hogs (Dec. 1*)	71.1	68.3	68.7	67.7	67.5	67.7	68.3	68.8	
				(Million pounds)					
Pork supply and use									
Production	27,690	27,011	27,279	27,168	27,282	27,575	27,961	28,295	
Imports	1,180	1,344	1,109	1,129	1,094	1,078	1,059	1,059	
Domestic use	21,868	21,951	21,516	21,367	21,371	21,391	21,595	21,773	
Exports	7,024	6,345	6,886	6,940	7,002	7,252	7,410	7,567	
Ending stocks	446	504	491	481	484	494	509	522	
				(Dollars per hundredweight)					
Prices									
Barrows & gilts, national base									
51-52% lean equivalent	67.29	71.21	59.92	60.66	60.78	62.03	61.36	60.56	
Pork cutout value	104.10	103.72	93.57	98.73	99.68	100.71	100.21	99.62	
				(Dollars per pound)					
Pork retail	4.50	4.90	4.78	4.85	4.93	4.99	4.99	4.97	

* Preceding year

U.S. poultry supply and use

Calendar year	2021	2022	2023	2024	2025	2026	2027	2028
Broiler								
	(Million pounds)							
Production	44,419	45,711	46,116	46,567	47,330	47,957	48,476	48,979
Imports	155	176	115	130	132	133	135	137
Domestic use	37,350	38,411	38,903	39,166	39,746	40,196	40,545	40,882
Exports	7,348	7,290	7,341	7,516	7,697	7,886	8,063	8,232
Ending stocks	705	892	879	894	913	922	926	928
Turkey								
Production	5,558	5,222	5,438	5,638	5,743	5,785	5,796	5,803
Imports	22	85	50	65	60	60	60	60
Domestic use	5,090	4,877	5,038	5,231	5,319	5,364	5,373	5,374
Exports	548	407	435	455	463	471	479	487
Ending stocks	166	190	204	222	243	253	256	257
Prices								
	(Cents per pound)							
National composite wholesale broiler	101.18	140.53	122.52	115.33	109.44	108.71	109.88	111.25
Broiler retail	209.44	242.79	246.59	241.80	237.23	236.47	238.07	241.20
8-16 lb. national turkey hens	122.75	154.54	152.35	129.77	120.09	117.67	118.65	120.47

U.S. per-capita meat consumption

Calendar year	2021	2022	2023	2024	2025	2026	2027	2028
	(Pounds)							
Beef	58.9	59.1	57.5	54.9	54.0	54.0	54.4	54.8
Pork	51.1	51.1	49.8	49.2	49.0	48.7	49.0	49.1
Broiler	96.5	98.9	99.7	99.8	100.8	101.4	101.8	102.1
Turkey	15.3	14.6	15.0	15.5	15.7	15.8	15.7	15.6
Sum	221.8	223.7	222.0	219.5	219.4	219.9	220.8	221.6

U.S. dairy sector

Calendar year	2021	2022	2023	2024	2025	2026	2027	2028
Milk supply								
Dairy cows (thou. head)	9,449	9,402	9,404	9,391	9,420	9,457	9,491	9,515
Milk yield (lbs. per cow)	23,950	24,087	24,216	24,647	24,904	25,162	25,407	25,729
Milk production (bil. lbs.)	226.3	226.5	227.7	231.5	234.6	238.0	241.1	244.8
(Dollars per hundredweight)								
All milk price	18.53	25.34	19.78	19.67	20.19	20.00	19.87	19.89
Wholesale prices								
(Dollars per pound)								
Butter, CME	1.74	2.86	2.49	2.21	2.02	1.94	1.91	1.90
Cheese, Am., 40#, CME	1.71	2.07	1.79	1.81	1.84	1.84	1.83	1.84
Nonfat dry milk, AA	1.31	1.70	1.15	1.22	1.37	1.37	1.36	1.37
Dairy product production								
(Million pounds)								
American cheese	5,615	5,640	5,747	5,859	5,952	6,057	6,159	6,273
Other cheese	8,146	8,422	8,500	8,646	8,777	8,924	9,068	9,226
Butter	2,063	2,059	2,140	2,204	2,259	2,311	2,360	2,421
Nonfat dry milk	2,753	2,635	2,720	2,846	2,971	3,100	3,191	3,259

U.S. consumer food price inflation

Calendar year	2021	2022	2023	2024	2025	2026	2027	2028
(Change from the previous year)								
Food	3.9%	9.9%	5.9%	2.5%	1.8%	1.6%	1.8%	2.0%
Food at home	3.5%	11.4%	5.0%	1.6%	1.3%	1.2%	1.4%	1.7%
Cereal and bakery	2.3%	13.0%	8.8%	1.0%	0.9%	1.2%	1.8%	2.1%
Meat	6.6%	10.9%	2.3%	2.4%	1.3%	1.1%	1.2%	1.2%
Dairy	1.4%	12.0%	3.7%	1.2%	1.6%	1.3%	1.5%	1.8%
Fruits and vegetables	3.2%	8.5%	2.9%	1.2%	1.3%	1.1%	1.3%	1.4%
Other food at home	2.6%	13.0%	7.3%	1.6%	1.3%	1.2%	1.5%	1.8%
Food away from home	4.5%	7.7%	7.1%	3.3%	2.3%	1.9%	2.0%	2.2%