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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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The Agricultural and Food Policy Center at Texas A&M University will prepare a companion set of estimates of the farm-level impacts of these projections (www.afpc.tamu.edu).

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Summary

Prices for many farm commodities have fallen sharply from their 2022 peaks, contributing to lower farm income and slower food price inflation. While market uncertainty persists, projected prices decline further for crops harvested in 2024, and net farm income falls to the lowest level since 2020.

This report summarizes baseline projections for agricultural and biofuel markets prepared using market information available in January 2024. Based on forecasts by S&P Global, economic growth and inflation slow in 2024, and interest rates begin to decline. The baseline reflects current policies, meaning it incorporates programs that had been enacted prior to January 2024, but does not reflect any subsequent policy changes. The baseline is intended to serve as a reasonable point of reference for evaluating alternative scenarios; it is not a prediction of future market conditions or policy choices.

We use our models to develop a range of projected market outcomes that takes into account some major sources of uncertainty about future supply and demand conditions. In some of the resulting 500 outcomes, prices, quantities and values are much higher or much lower than the averages reported here.

Some key results:

- Grain and oilseed prices have declined in the 2023/24 marketing year from the record or near-record levels of the previous year. Prices could decline again in 2024/25 if growing conditions result in trend-line yields.
- U.S. corn production hit a record high in 2023, in spite of less than ideal growing conditions. Corn prices that averaged \$6.54 per bushel in 2022/23 fall to a projected \$4.39 per bushel in 2024/25 and even lower in later years.
- Similarly, soybean prices fall from \$14.20 per bushel in 2022/23 to a projected \$10.73 per bushel in 2024/25. After averaging a record \$8.83 per bushel in 2022/23, projected wheat prices fall to \$6.13 per bushel in 2024/25.
- Changes in relative prices cause an acreage shift from corn to soybeans in 2024, resulting in record U.S. soybean production.
- Rising production of renewable diesel increases demand for soybean oil and other fats and oils. This supports soybean oil and soybean prices, but the resulting increase in crush puts downward pressure on soybean meal prices.
- Lower crop prices are partially offset by lower expected prices for fertilizer and some other farm inputs in 2024/25. Still, projected net returns to producers for major crops are well below recent peak levels.
- Hog, poultry, and milk prices all declined in 2023 as demand weakened. Projected hog prices are about the same in 2024 as in 2023, while further small declines are expected for poultry and milk prices. Lower corn and soybean meal prices mean lower feed costs.
- In contrast, cattle prices increased in 2023 and further increases are expected in 2024 and 2025. Drought and other factors have reduced the cow herd, and it will take time before beef production can increase again.
- Recent high prices have reduced federal spending on commodity programs, but crop insurance net outlays hit a record level in fiscal year (FY) 2023.
- Lower projected prices cause spending on the price loss coverage (PLC) and agriculture risk coverage (ARC) programs to rebound in future years, and crop insurance net outlays average more than \$12 billion per year.
- Net farm income fell by \$30 billion in 2023 from the record level of 2022, and another large decline is projected for 2024. However, at \$118 billion, 2024 real net farm income remains above the annual levels of 2015-2020. Projected real net farm income continues to decline in 2025 and subsequent years.
- Consumer food price inflation slowed in 2023 and could slow further in 2024. The consumer price index for food increases by a projected 2.1% in 2024, with the food-away-from-home category accounting for most of the increase.

Key results

Marketing year	2014/15-2022/23 average	2023/24	2024/25	2025/26-2033/34 average
Crop prices				
Corn farm price, dollars per bushel	4.25	4.78	4.39	4.08
Soybean farm price, dollars per bushel	10.36	12.68	10.73	10.57
Wheat farm price, dollars per bushel	5.64	7.19	6.13	5.41
Upland cotton farm price, cents per pound	70.2	76.0	67.9	70.9
Selected program benefits, billion dollars				
Agriculture risk coverage (ARC)	1.98	0.32	2.41	2.01
Price loss coverage (PLC)	1.92	0.01	1.48	4.14
Crop insurance net indemnities	4.74	9.53	7.93	7.66
<hr/>				
Calendar year except as noted	2014-2022 average	2023	2024	2025-2033 average
Livestock sector prices				
Fed steers, 5-area direct, dollars per hundredweight (cwt)	128.25	175.54	178.57	169.39
Barrows and gilts, 51-52% lean, dollars per cwt	55.38	58.59	58.97	59.54
National wholesale broiler, cents per pound	97.17	124.36	116.67	110.80
All milk, dollars per cwt	19.14	20.54	20.21	19.59
Biofuel production, billion gallons				
Ethanol	15.2	15.6	15.9	16.0
Biomass-based diesel	2.2	4.0	4.3	5.0
Government outlays, billion dollars, fiscal year				
Commodity Credit Corporation (CCC) net outlays	29.0	32.8	30.2	29.2
Major commodity programs	11.7	7.3	8.2	11.5
MFP, CRP, disaster and all other CCC net outlays	4.9	1.4	1.3	6.3
MFP, CRP, disaster and all other CCC net outlays	6.8	5.9	6.9	5.2
Crop insurance net outlays	7.8	16.6	14.2	12.4
Other non-CCC (CFAP, PPP, disaster, conservation)	9.5	8.9	7.8	5.3
Net farm income, billion dollars				
Crop and livestock sector cash receipts	99.7	155.9	118.3	113.2
Government payments	401.0	506.8	480.0	479.2
Production expenses	18.7	12.2	10.6	12.6
Real net farm income in 2023 dollars	366.6	438.3	443.8	452.0
Real net farm income in 2023 dollars	118.8	159.6	118.3	96.8
Farm balance sheet, billion dollars				
Farm assets	3,149	4,090	4,092	4,154
Farm debt	411	521	547	576
Debt-to-asset ratio	13.0%	12.7%	13.4%	13.9%
Annual consumer food price inflation				
	2.9%	5.8%	2.1%	2.0%

Note: The estimates are based on market information available in January 2024. Projections are averages across 500 outcomes.

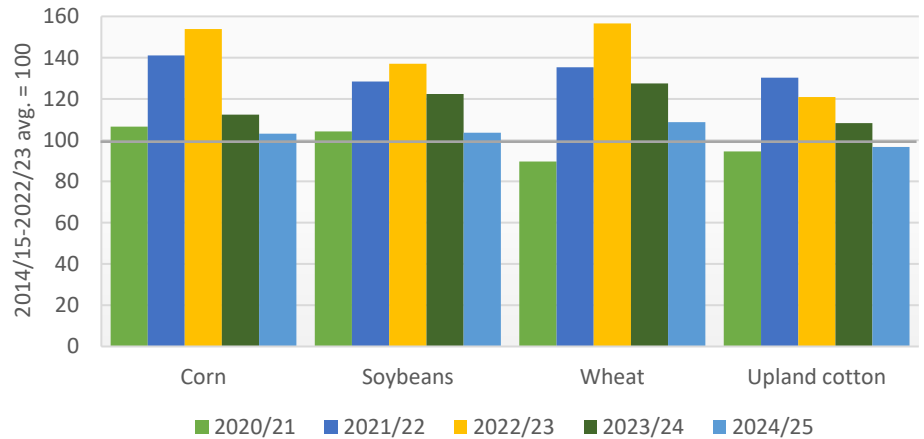
“MFP” is the market facilitation program; “CRP” is the conservation reserve program; “CFAP” is the coronavirus food assistance program; “PPP” is the paycheck protection program

Current developments

Prices for corn, soybeans, wheat and cotton increased sharply in 2021 and early 2022 in response to unfavorable weather, disruptions caused by the war in Ukraine and other factors.

Prices for those major field crops have come back down. For crops harvested in 2024, projected prices are near the average prices received by farmers between the 2014/15 and 2022/23 marketing years.

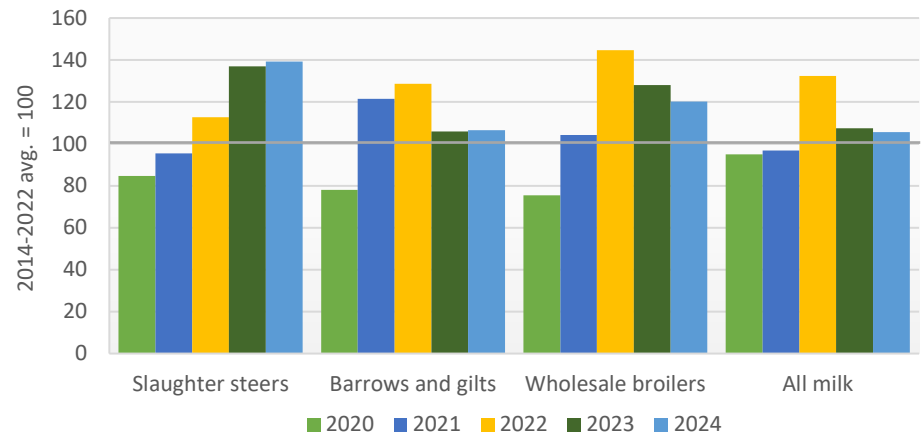
Crop prices decline sharply from recent peaks



Livestock sector prices also increased in 2021 and 2022. Hog, chicken and milk prices all declined in 2023 and are expected to remain well below their peak values in 2024.

The major exception to this pattern is cattle. Drought and other factors have reduced beef cow numbers, and beef production is projected to decline again in 2024. This has resulted in higher prices for both feeder and slaughter cattle.

Livestock prices decline except for cattle

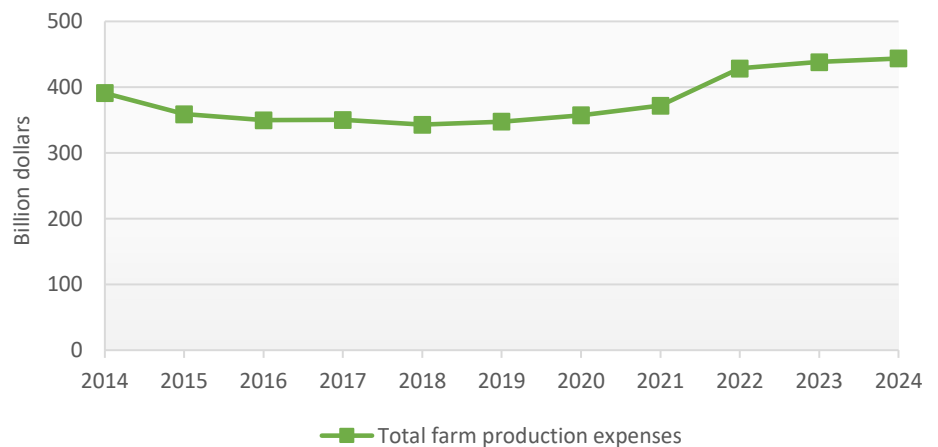


Production expenses also increased sharply in 2022, as prices for fertilizer, fuel, feed and other farm inputs jumped.

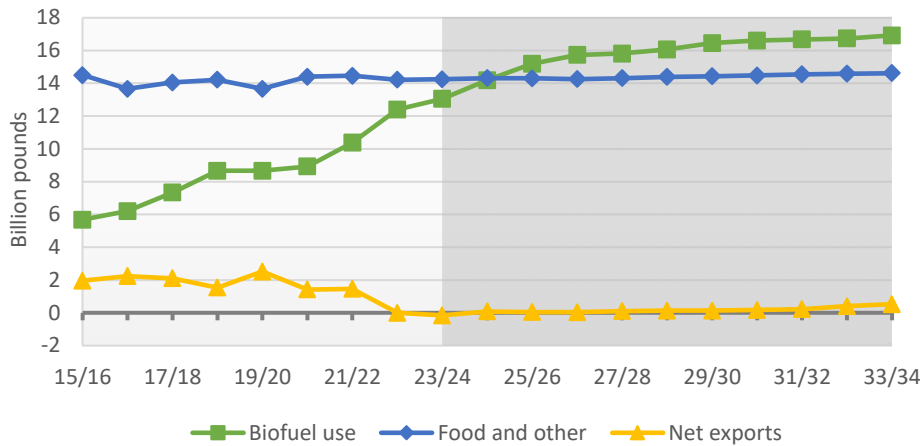
Since 2022, production costs have increased more slowly. Higher interest rates, labor costs, and prices for purchased livestock have more than offset the impact of lower fertilizer and feed prices.

The result has been a tightening of producer margins in 2023 and 2024.

Production costs jumped in 2022 and remain high



Biofuel use supports soybean oil prices

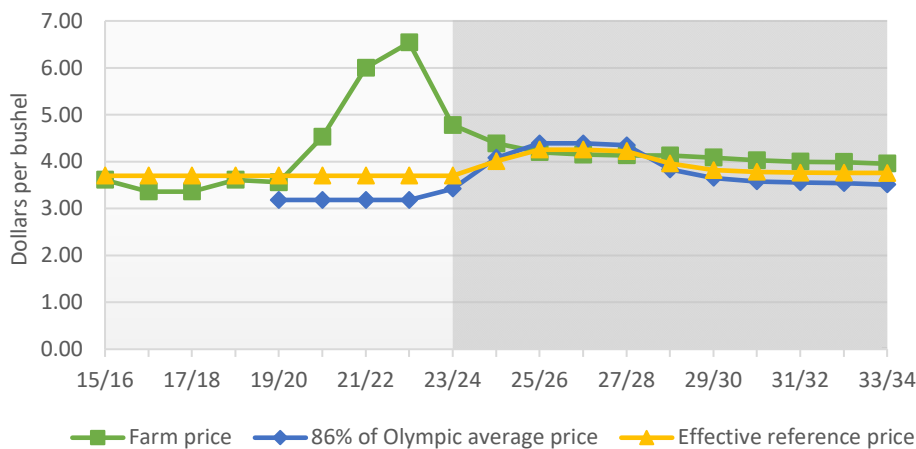


Crop outlook highlights

The rapid expansion of renewable diesel production has increased demand for soybean oil. Strength in demand for soybean oil supports prices of soybean oil and soybeans. The resulting increase in soybean crush also increases supplies of soybean meal, resulting in lower meal prices.

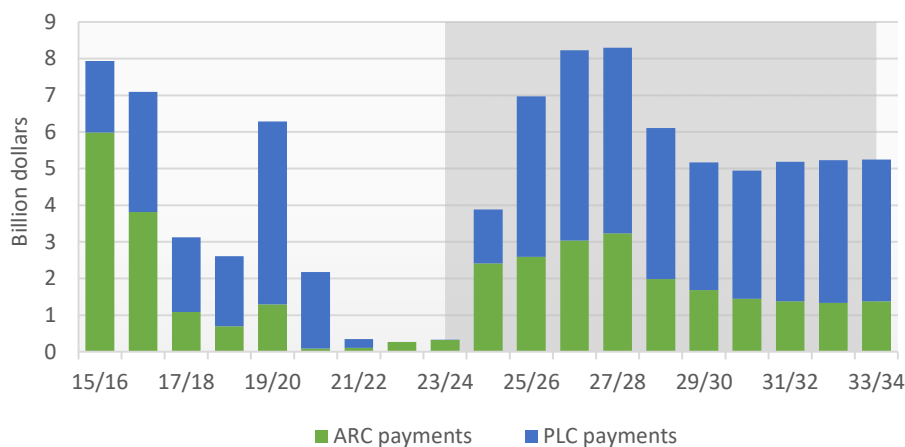
The future path of renewable diesel expansion is sensitive to market conditions and state, national and international policies.

Projected corn prices dip near payment triggers



PLC payments occur when marketing year average (MYA) prices are below the effective reference price. ARC payments occur when county per-acre revenues drop below a trigger that is based on 86% of the Olympic average MYA price multiplied by an Olympic average of county yields. Projected MYA prices decline even as the Olympic average of past prices pushes up both the ARC and PLC payment triggers. The result could be larger ARC and PLC payments in the years ahead under an extension of current policies.

ARC and PLC payments rebound from recent lows

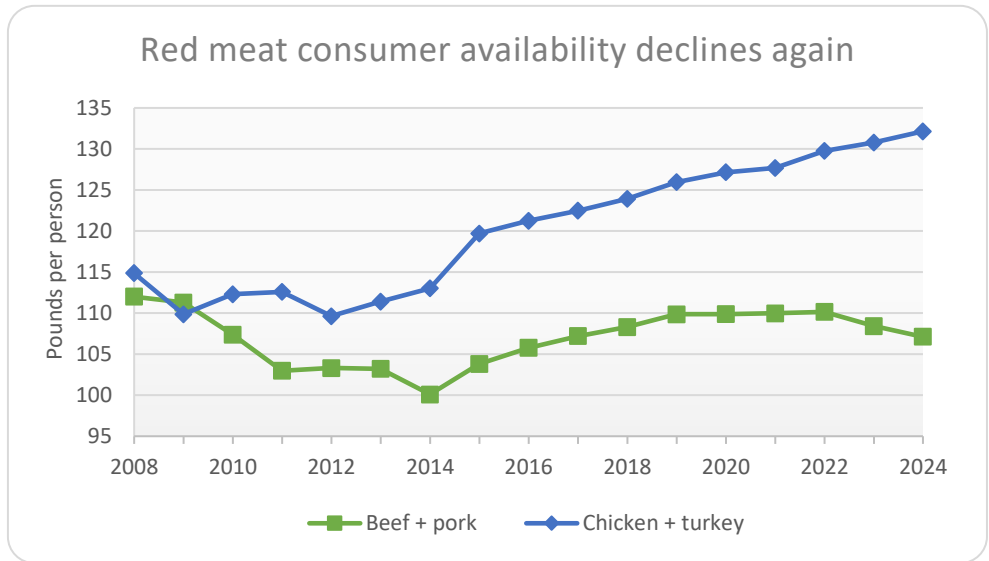


Total ARC and PLC payments are likely to remain below \$1 billion for the third straight year in 2023/24. From 2024/25 to 2027/28, however, the combination of higher payment triggers and lower projected market prices results in a sharp increase in ARC and PLC payments. Average payments decline after 2027/28, as effective reference prices and ARC benchmark revenues decline again.

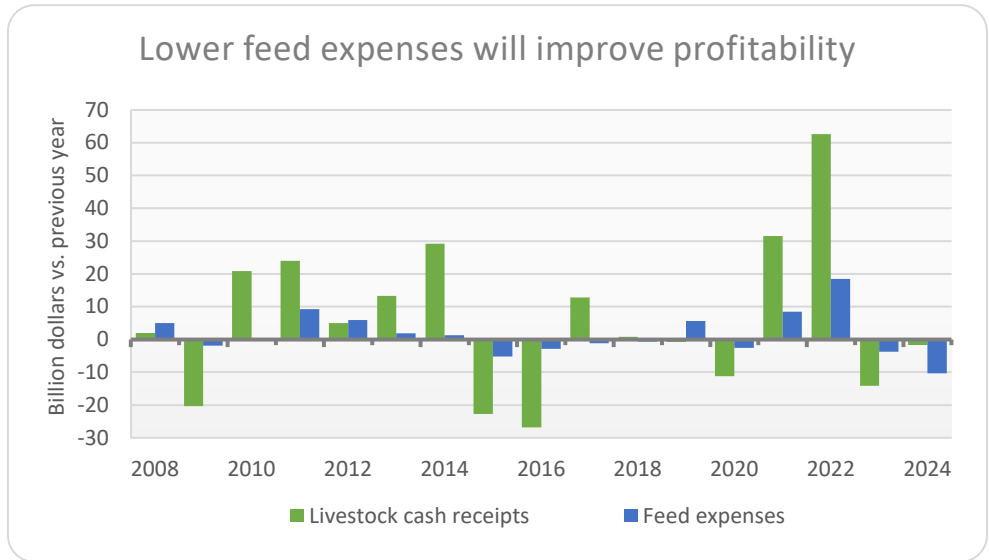
In any given year, even small deviations from projected average prices and yields can result in large proportional changes in ARC and PLC payments.

Livestock and dairy outlook highlights

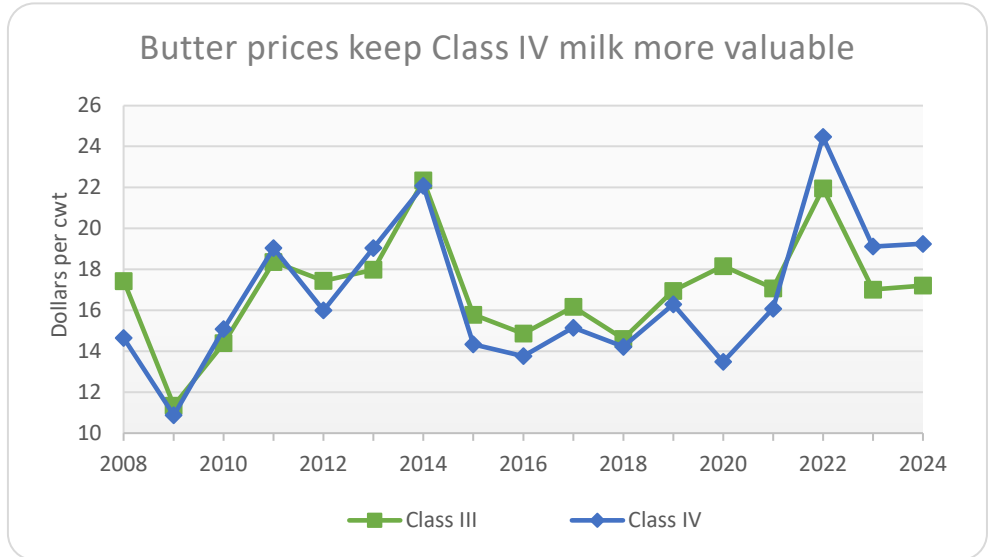
Following three years of elevated feed costs and five years of declining beef cow inventory, per-capita consumer availability of the sum of beef and pork reaches its lowest value since 2016. Meanwhile, poultry meat availability grows for the twelfth consecutive year as chicken and turkey producers expand production.



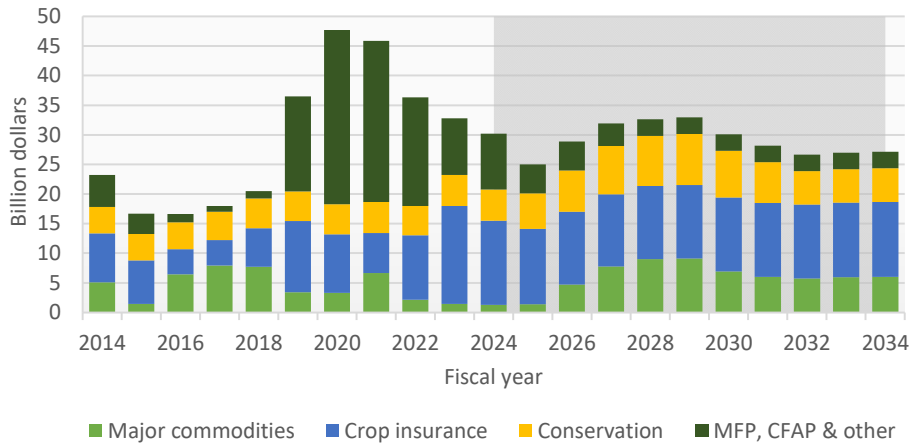
Though total livestock cash receipts declines for the second consecutive year following 2022's record high, purchased feed expenses fall by more than \$10 billion. This improves profitability for most livestock producers. Profits for cow-calf operators could end up the second highest on record, trailing only 2014.



Despite some moderation from last year and the 2022 record, butter prices remain historically strong, keeping Class IV milk prices above Class III. This would be the third consecutive year with Class IV prices outpacing Class III, following a period of eight years where Class III prices were stronger. Cheese prices remain at or below the 2014-2022 average value of \$1.80 per pound as additional cheese production capacity outpaces demand growth.



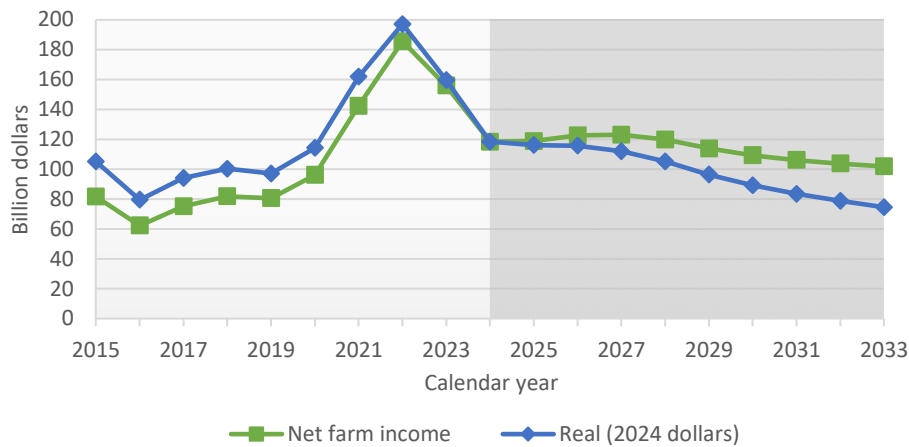
Selected program outlays average \$29 billion/year



Government costs, farm income and food prices

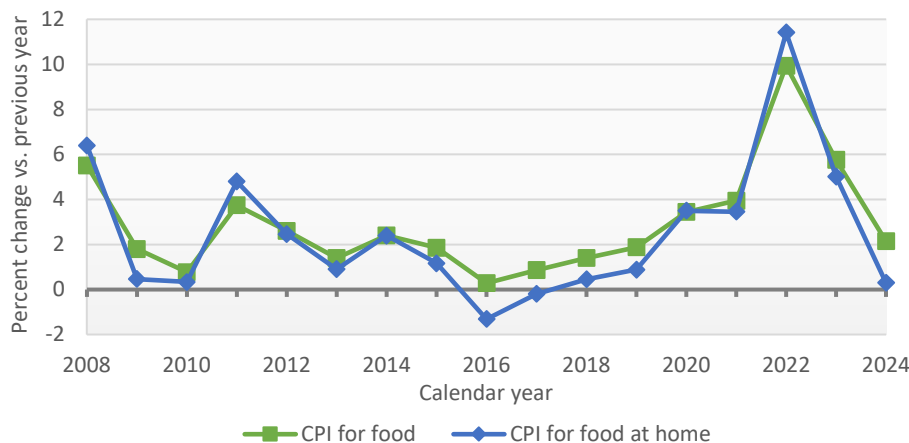
Ad hoc programs such as trade, pandemic and disaster aid resulted in sharply higher spending on farm-related programs in fiscal years (FY) 2019-2022. If no new ad hoc programs are authorized, projected spending falls in FY 2024 and FY 2025 before rising again. Projected spending averages \$29 billion per year over the FY 2025-2034 period. Crop insurance accounts for about 47% of the total outlays.

Net farm income declines again in 2024



The U.S. Department of Agriculture (USDA) reports that 2022 net farm income was at record levels in nominal terms and the highest in decades in real terms. Projected declines in commodity prices result in lower net farm income in 2023 and 2024. While nominal net farm income stays above \$100 billion each year, projected real net farm income eventually falls to levels below those experienced between 2015 and 2019.

Food inflation retreats to historical ranges



Growth in the consumer price index (CPI) for food slows to just over 2% this year, with the CPI for food at home barely positive. This is a welcome reprieve for consumers following four consecutive years of growth above 3.4%. Even though price growth moderates significantly, price levels for many products remain at or near record highs. With raw food commodities accounting for only about \$0.15 of each food dollar spent, significant declines in retail food prices require more than just commodity price declines.

Policy assumptions

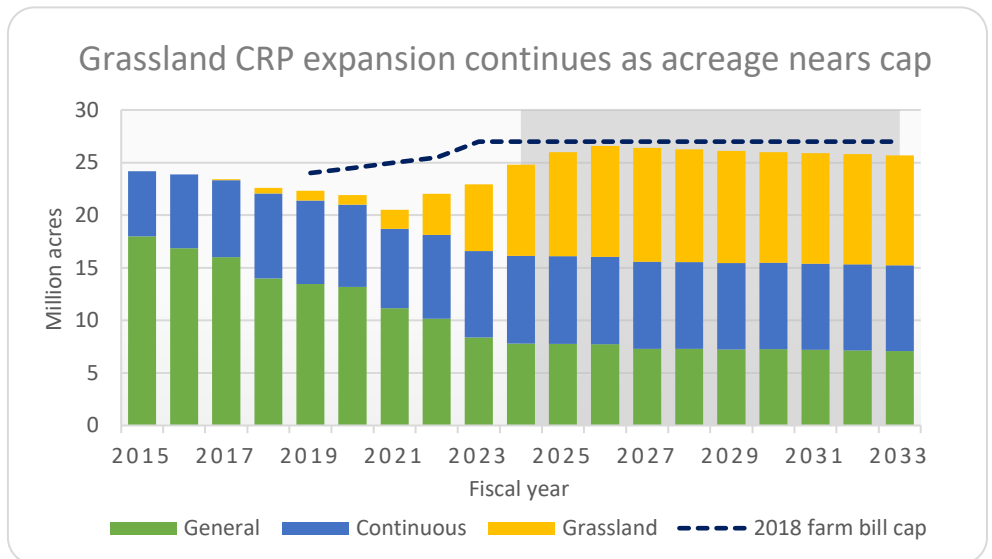
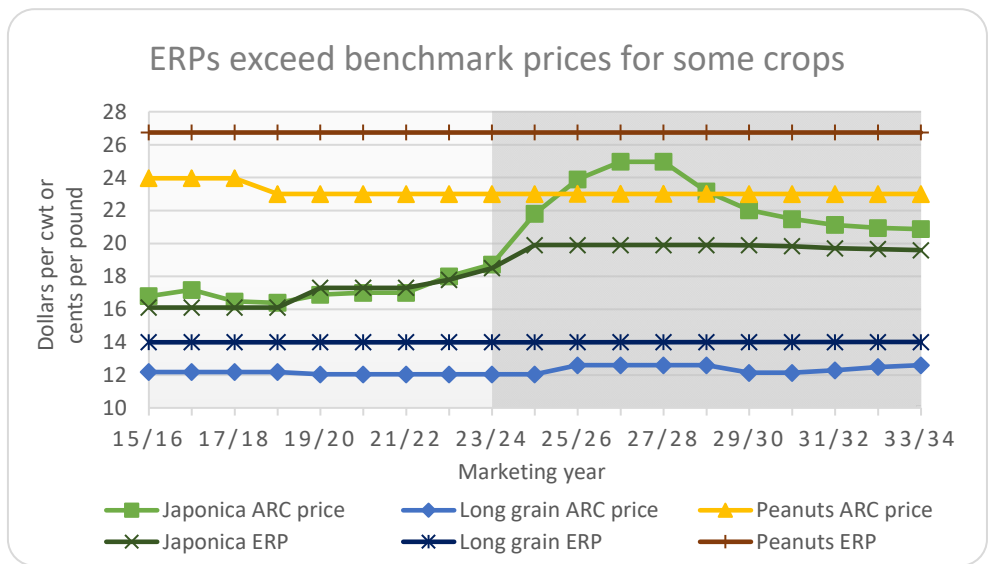
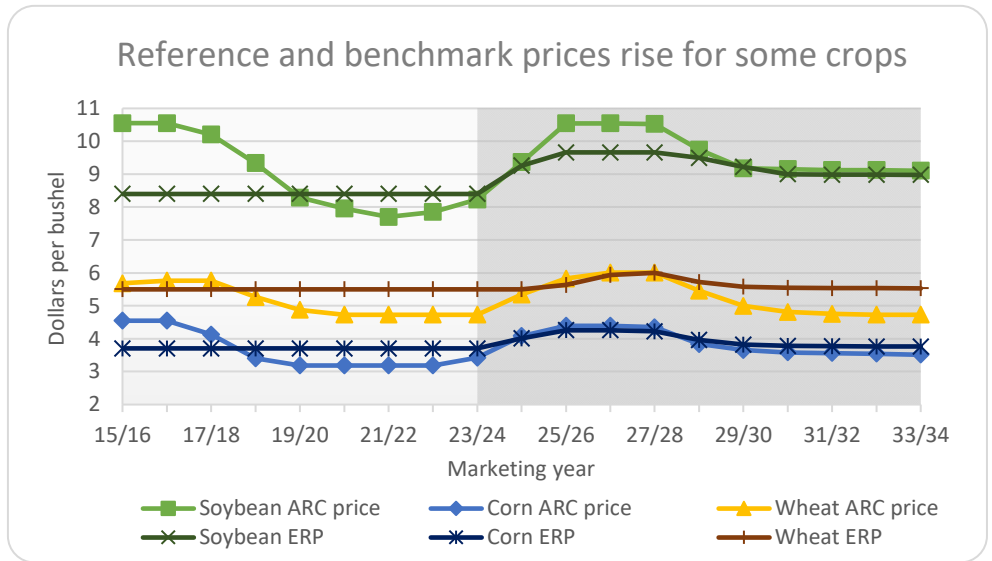
The outlook assumes provisions of the recently-extended 2018 farm bill continue. Producers continue to face annual decisions about whether to elect ARC or PLC for the eligible base acreage on their farms. The 2018 farm bill allows effective reference prices (ERP) to exceed the statutory level by up to 15%. With higher prices in recent history, ERPs are expected to hit their cap for some crops. ARC payments trigger when county revenues per acre drop below a trigger based on 86% of Olympic averages of prices (ARC price) and county yields.

For long grain rice, recent higher prices lead to a small average rise in the ARC price in the projection period but remains well below the ERP.

Recent high prices pushes the ERP for Japonica rice to its maximum value and elevate ARC prices even more.

Both the ARC price and ERP for peanuts is expected to remain steady as market prices remain below statutory price levels, resulting in those statutory levels being used as replacement values in the ARC price calculation.

The 27 million acre cap on conservation reserve program (CRP) enrollment is assumed to continue. Acceptance of more acres during the recent sign-up period has brought the enrolled acres closer to the cap. The grassland CRP program is expected to continue to account for a growing share of the enrolled acreage, bringing down the average rental rate and eventually total program costs in later years. Enrollments are at or near the cap after 2025.



Selected U.S. crop commodity program provisions

Policy	Crop/provision	2023/24	2024/25-2033/34 average
Price loss coverage (PLC) (Makes payments when marketing year average price falls below the effective reference price. Paid on 85% of base acres and program yields. Effective reference price can exceed minimum if the moving average of MYA prices exceeds the minimum by at least 17.6%.)		Effective reference price	Effective reference price
	Corn	\$3.70 per bu.	\$3.96 per bu.
	Soybeans	\$8.40 per bu.	\$9.29 per bu.
	Wheat	\$5.50 per bu.	\$5.65 per bu.
	Long grain rice	\$14.00 per cwt	\$14.00 per cwt
	Japonica rice	\$18.50 per cwt	\$19.82 per cwt
	Sorghum	\$3.95 per bu.	\$4.11 per bu.
	Barley	\$4.95 per bu.	\$5.15 per bu.
	Oats	\$2.40 per bu.	\$2.72 per bu.
	Peanuts	\$535.00 per ton	\$535.00 per ton
	Sunflowers	\$0.202 per lb	\$0.202 per lb
Seed cotton	\$0.367 per lb	\$0.367 per lb	
Marketing loan program (Producers can borrow at the loan rate and receive benefits if a market price indicator falls below the loan rate.)		Loan rate	Loan rate
	Corn	\$2.20 per bu.	\$2.20 per bu.
	Soybeans	\$6.20 per bu.	\$6.20 per bu.
	Wheat	\$3.38 per bu.	\$3.38 per bu.
	Rice	\$7.00 per cwt	\$7.00 per cwt
	Upland cotton	\$0.520 per lb	\$0.519 per lb

Other policy assumptions

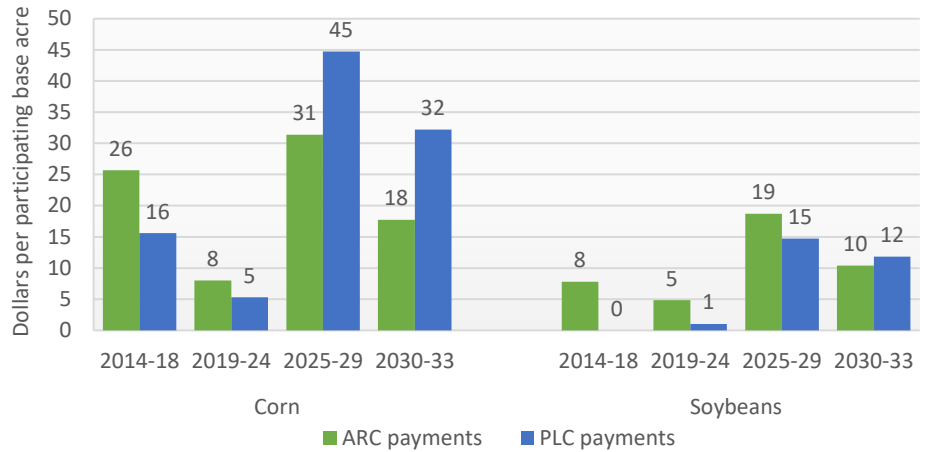
Policy	Description
Agriculture risk coverage (ARC)	County version (ARC-CO) makes payments when county revenues per acre fall below 86% of benchmark county revenue tied to moving averages of marketing year average prices and trend-adjusted county yields. Payments are made on 85% of base acreage.
Dairy margin coverage (DMC)	Milk producers receive payments when the margin between milk prices and an indicator of feed prices falls below coverage levels chosen by the producer. Producers pay premiums, with much lower premiums on the first 5 million pounds of milk than on additional quantities.
Conservation reserve program (CRP)	Maximum allowed enrollment increased to 27 million acres in 2023. Maximum rental rate is 85% of county average rental rate for general signups and 90% of county average rental rate for continuous signups.
Trade policies	Trade policies in place in January 2024 continue.
Use of CCC Charter Act authority	Consistent with Congressional Budgetary Office’s February 2024 baseline, outlays associated with the Secretary of Agriculture’s use of Commodity Credit Corporation Charter Act Authority total \$3 billion per year for FY 2024-2026, \$2 billion in FY 2027 and \$1 billion per year in subsequent years.
Disaster and other ad hoc programs	Disaster and other ad hoc programs announced prior to mid-January 2024 are implemented, but no new programs are assumed.

Note: These policy assumptions are not a prediction of future policy outcomes. Alternative policy scenarios can be evaluated against this current policy baseline.

Crop program payments and participation

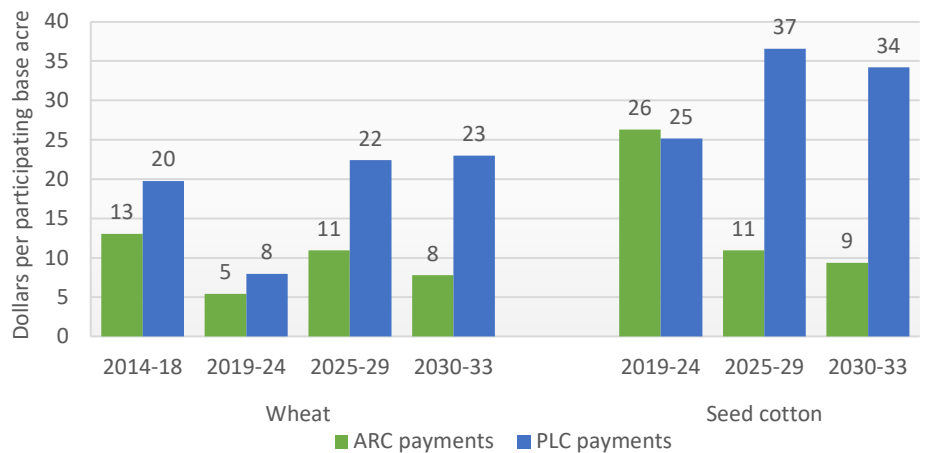
Under the 2014 farm bill, national average ARC payments per participating corn base acre exceeded PLC payments as prices came back down from their recent highs for both corn and soybeans. Under the 2018 farm bill, changing market conditions reduce corn payments under both programs. Projected average payments are greater in the 2025-2029 period for both crops and both programs, as market prices fall and ARC and PLC payment triggers increase in response to higher Olympic average prices.

Average corn and soybean payments larger in years ahead



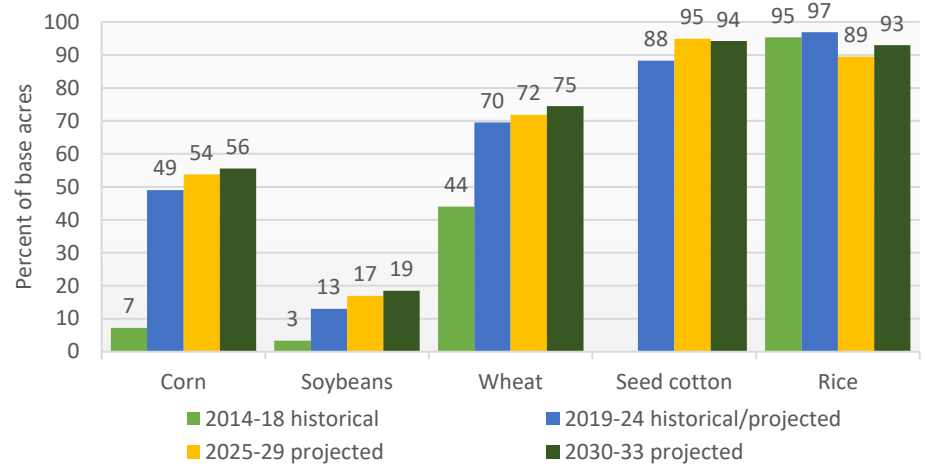
For wheat, seed cotton and many other crops, historical and projected average PLC payments exceed ARC payments per participating base acre. Payments can vary greatly from one year to the next because of changing market conditions, and for many commodities, the most likely payment rate in any given year is zero. In addition, ARC payments vary geographically, as they depend in part on county-level yields.

Larger PLC payments projected for wheat and seed cotton



The recently-extended 2018 farm bill continues to give producers the opportunity to make annual ARC-PLC elections. Given future expected payment rates, much of the corn and wheat base acreage is expected to shift towards PLC throughout the projection period, while most soybean base is expected to remain enrolled in ARC. Most wheat, seed cotton and long grain rice base acreage has been enrolled in PLC, and this is expected to continue. For Japonica rice, ARC participation is expected to be attractive as ARC benchmark prices remain above effective reference prices.

Average PLC enrollment rises as average prices fall

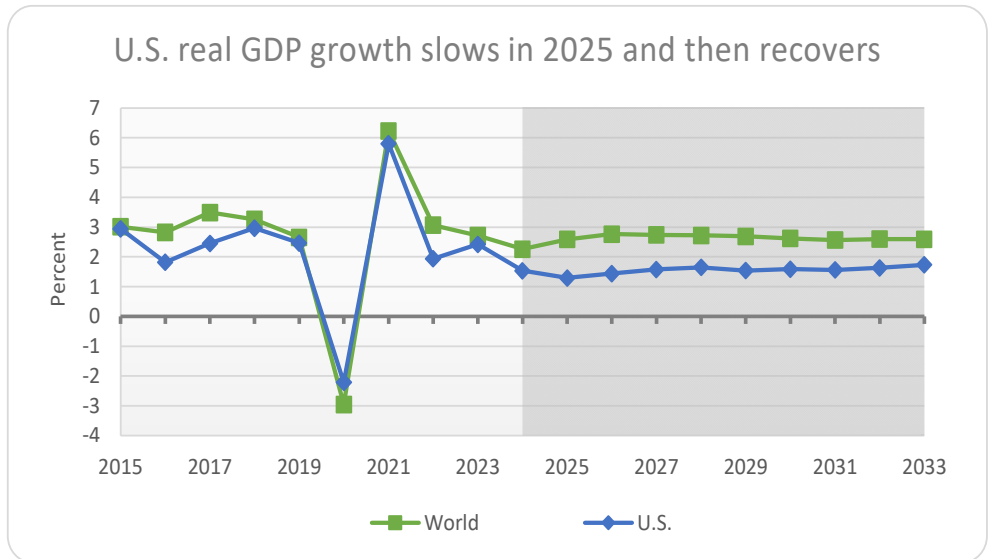


ARC and PLC payments and participation rates

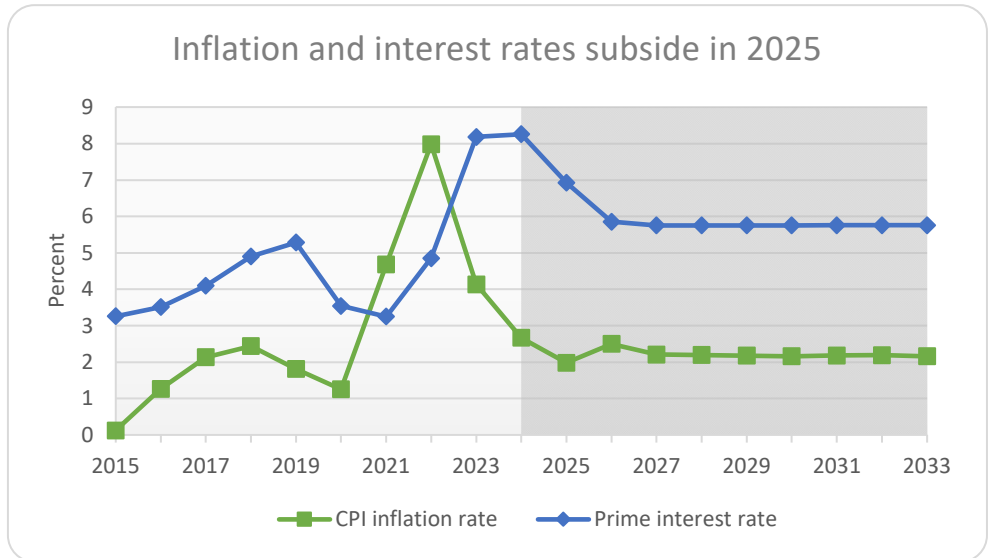
	Average ARC payment	Average PLC payment	Share of base acres in ARC	Share of base acres in PLC
Average for 2014-2018 crop years	(Dollars per base acre)		(Percent)	
Corn	25.67	15.59	92.8	7.2
Soybeans	7.80	0.00	96.7	3.3
Wheat	13.04	19.77	55.9	44.1
Sorghum	14.88	29.73	31.0	69.0
Barley	7.50	7.17	25.2	74.8
Oats	8.62	4.55	65.9	34.1
Long grain rice	28.86	135.95	0.2	99.8
Japonica rice	17.69	22.04	37.3	62.7
Other medium/short grain rice	52.24	100.41	3.7	96.3
Peanuts	45.40	201.51	0.3	99.7
Sunflower seed	8.17	17.90	43.5	56.5
Canola	15.30	43.56	2.8	97.2
Average for 2019-2024 crop years				
Corn	8.02	5.31	50.9	49.1
Soybeans	4.81	1.03	87.0	13.0
Wheat	5.41	7.95	30.4	69.6
Sorghum	8.70	7.70	29.9	70.1
Barley	5.67	3.42	26.3	73.7
Oats	2.34	0.29	47.7	52.3
Seed cotton	26.29	25.16	11.8	88.2
Long grain rice	21.91	43.47	0.2	99.8
Japonica rice	3.15	0.17	31.1	68.9
Other medium/short grain rice	15.84	34.66	0.7	99.3
Peanuts	20.73	74.31	1.0	99.0
Sunflower seed	5.14	3.08	39.0	61.0
Canola	9.82	17.04	21.3	78.7
Average for 2025-2029 crop years				
Corn	31.38	44.73	46.3	53.7
Soybeans	18.69	14.70	83.1	16.9
Wheat	10.97	22.41	28.1	71.9
Sorghum	10.21	28.59	18.4	81.6
Barley	11.20	15.01	40.9	59.1
Oats	3.17	3.32	40.2	59.8
Seed cotton	10.96	36.56	5.1	94.9
Long grain rice	21.71	46.15	0.3	99.7
Japonica rice	73.60	14.27	74.3	25.7
Other medium/short grain rice	19.73	32.92	25.8	74.2
Peanuts	29.69	93.89	8.4	91.6
Sunflower seed	7.31	1.95	65.3	34.7
Canola	12.57	15.65	47.3	52.7

Macroeconomic assumptions and farm prices paid

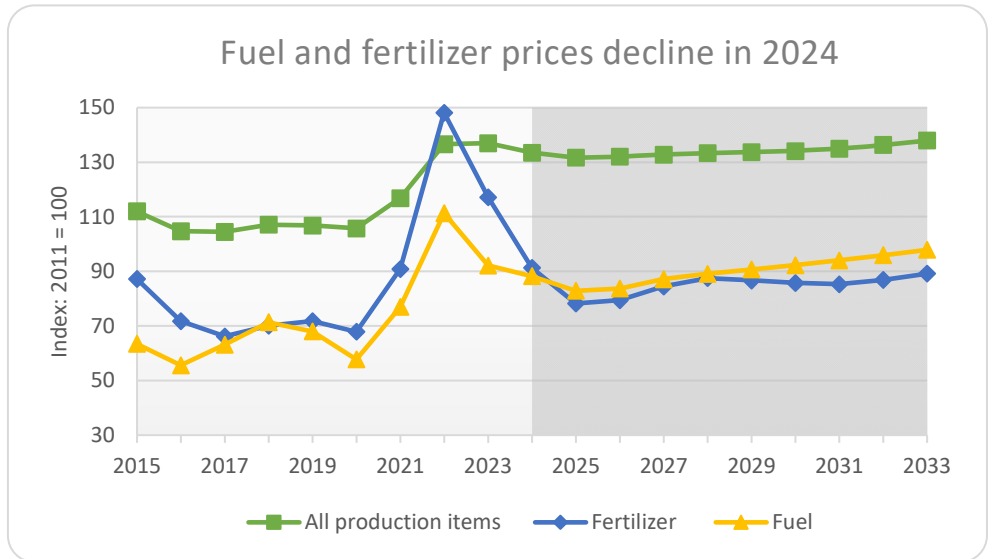
Real GDP fell in 2020 due to the pandemic and rebounded sharply in 2021. In December 2023, S&P Global forecasted slower growth in the U.S. and world economies in 2024, with another year of slower growth in the U.S. in 2025 followed by a return to more normal rates of growth in 2026. Changes in GDP and consumer spending can have important impacts on farm commodity demand and prices.



U.S. CPI reached the highest level in decades in 2022. In response, the Federal Reserve increased interest rates. In its December 2023 forecast, S&P Global expected inflation to subside in 2024 to 2.6% drawing closer to the Fed’s target of 2%. Once that occurs, S&P suggests that interest rates would be reduced. Note that the forecasted prime rate remains above the pre-pandemic level through 2033. Higher interest rates increase farm borrowing costs and may put downward pressure on farm real estate values.



The Russian invasion of Ukraine contributed to a sharp increase in fuel prices in 2022. Fertilizer prices also spiked in response to higher natural gas prices (especially in Europe), strong demand caused by high farm commodity prices and other factors. Prices for those key inputs have declined from their 2022 peaks, and further drops are projected in 2024 and 2025. However, higher interest and labor costs limit the decline for the index of farm production items in 2024, with only a slight reduction in 2025 before reversing.



Macroeconomic assumptions

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Real GDP growth	(Percent change from previous year)										
United States	2.4	1.5	1.3	1.4	1.6	1.6	1.5	1.6	1.6	1.6	1.7
China	5.4	4.7	4.6	4.5	4.5	4.5	4.5	4.3	4.0	4.0	3.9
World	2.7	2.3	2.6	2.8	2.7	2.7	2.7	2.6	2.6	2.6	2.6
Population growth											
United States	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
World	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8
U.S. CPI, all urban consumers	4.1	2.6	2.0	2.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2
U.S. real disposable income	4.2	2.9	3.0	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2
	(Percent)										
U.S. unemployment rate	3.6	4.0	4.3	4.5	4.5	4.4	4.3	4.3	4.3	4.3	4.3
3-month Treasury bill rate	5.1	5.0	3.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Prime interest rate	8.2	8.3	6.9	5.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Petroleum prices	(Dollars per barrel)										
West Texas Intermediate	78.32	80.34	70.71	76.83	80.39	82.98	85.20	87.31	89.47	91.74	93.73
Refiners' acquisition cost	78.66	81.96	73.33	80.05	83.18	85.25	87.23	89.17	91.17	93.23	95.18
Natural gas price	(Dollars per million BTU)										
Henry Hub	2.60	3.35	4.28	5.11	5.02	4.58	4.38	4.12	4.24	4.39	4.56
Exchange rates	(Currency per dollar)										
Euro	0.92	0.91	0.88	0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Chinese yuan	7.08	7.00	6.65	6.46	6.37	6.31	6.35	6.44	6.49	6.53	6.56

Source: S&P Global, December 2023

Indices of prices paid by farmers

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Production items, interest, taxes and wages	(2011 = 100)										
Production items	139.7	137.6	136.5	137.1	138.3	139.5	140.6	141.7	143.3	145.4	147.6
Feed	137.0	133.5	131.6	132.0	132.7	133.4	133.7	134.0	135.0	136.3	137.9
Livestock & poultry	132.5	114.9	107.5	105.2	105.2	105.7	105.6	105.0	104.4	104.2	104.1
Seeds	152.1	174.1	182.5	183.8	177.1	168.1	159.8	153.0	150.3	148.2	146.9
Fertilizer	134.4	137.3	137.3	137.2	137.6	138.8	140.4	142.0	143.7	145.4	147.3
Mixed fertilizer	117.2	91.3	78.2	79.5	84.5	87.6	86.7	85.8	85.3	86.9	89.2
Nitrogen fertilizer	128.5	89.2	76.3	77.1	80.2	84.7	83.9	83.5	83.0	84.6	86.9
Potash and phosph.	106.5	91.3	79.0	80.7	87.5	88.9	87.6	86.3	86.1	87.5	89.7
Agricultural chemicals	113.5	91.1	76.7	78.0	82.7	86.2	86.4	85.0	84.3	86.1	88.4
Fuels	136.6	141.9	142.6	144.7	147.5	150.6	153.7	156.8	159.9	163.1	166.5
Supplies & repairs	92.2	88.2	82.9	83.7	87.2	89.1	90.7	92.3	94.0	96.0	97.9
Autos & trucks	144.1	144.6	146.8	150.0	153.2	156.4	159.9	163.6	167.5	171.6	175.8
Farm machinery	129.3	131.2	132.6	134.1	135.6	137.3	139.1	140.8	142.6	144.3	146.2
Building material	158.8	148.0	143.5	143.9	146.2	149.1	151.5	153.4	155.7	158.2	161.0
Farm services	165.0	164.0	163.8	164.5	165.9	168.0	170.7	173.7	177.1	180.6	184.1
Interest*	141.5	141.0	142.4	145.1	148.4	151.9	155.5	159.0	162.8	166.7	170.9
Taxes**	142.7	151.2	139.1	126.8	124.8	125.9	127.2	128.5	129.9	131.3	132.8
Wage rates	143.8	156.4	166.5	170.7	173.6	177.7	183.1	188.8	194.5	199.5	204.3
	165.5	168.9	174.2	179.9	185.7	191.6	197.8	204.1	211.1	218.5	226.3

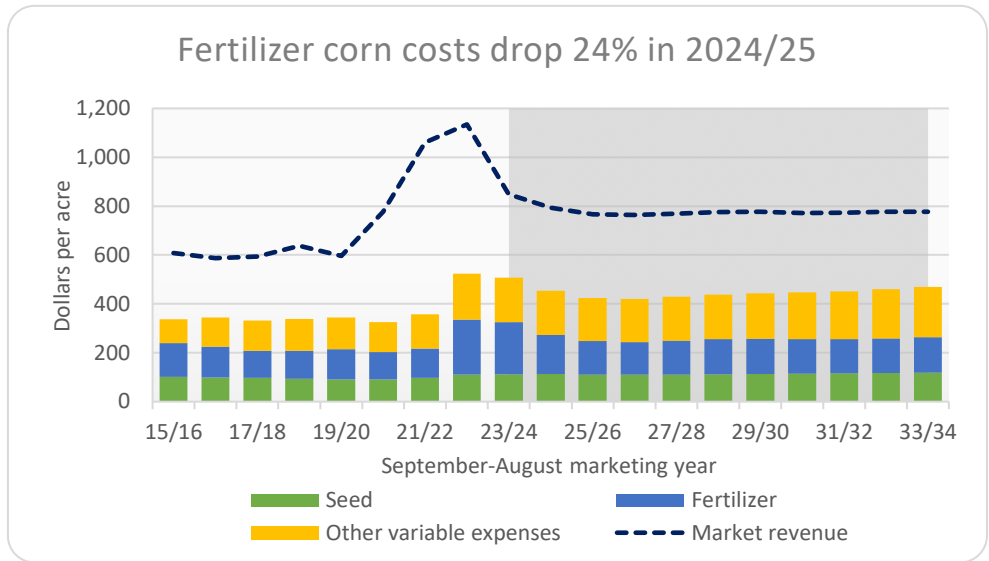
* Interest per acre on farm real estate debt and interest rate on farm non-real estate debt.

** Farm real estate taxes payable per acre.

Crop variable expenses

For corn, cost decreases in fertilizer and fuel more than offset an increase in other variable costs, resulting in an 11% decrease in variable expenses in 2024/25. Declines in fertilizer, fuel and chemical costs in 2025-2027 leave variable costs below those of 2023.

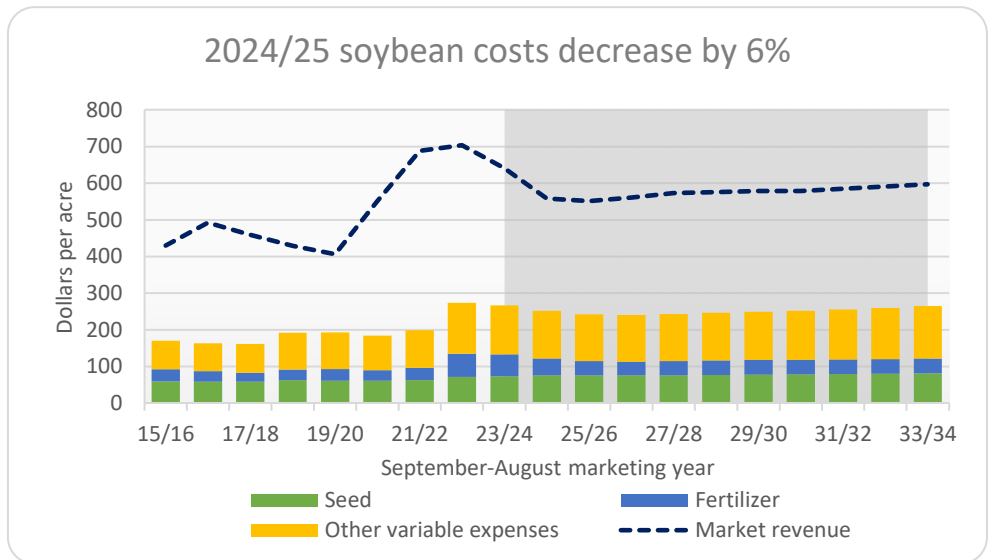
We define variable production expenses to be USDA's operating expenses plus hired labor. This includes seed, fertilizer, fuel, chemicals and other variable inputs, but does not include the cost of land or machinery replacement.



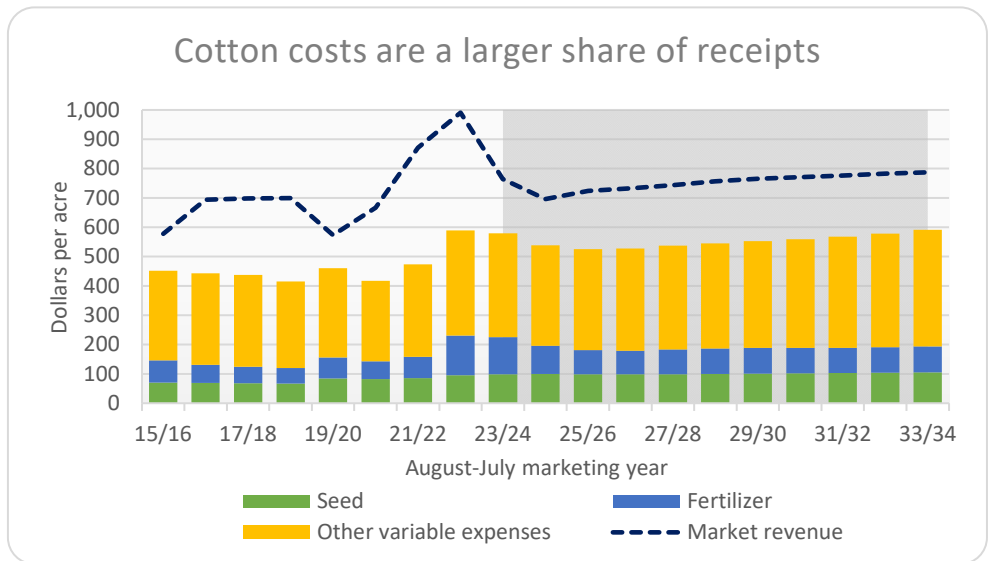
Relative to corn, soybeans utilize less fertilizer, and per-acre variable production expenses are lower.

Soybean market revenues per acre are also lower than for corn, but net returns (market revenue minus variable production costs) are similar, as the crops compete for acres. Soybean production expenses increase by less than 0.6% per year between 2025 and 2033.

Costs fall from their 2022/23 peak but remain well above those seen in the previous decade.



In contrast, national average cotton variable expenses per acre are greater relative to market receipts than in the cases of soybeans and corn. Similar to the case of corn, the decline in fertilizer and fuel expenses in 2024/25 offsets the rise in other variable expenses. Cotton variable expenses grow by 1% per year between 2025 and 2033. Agricultural chemicals, fuel, repairs and ginning costs account for most of the other variable expenses in the chart.



Crop variable costs of production

Marketing year	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34
Corn	(Dollars per acre)										
Seed	112.07	113.30	111.06	110.92	111.07	111.78	112.88	114.11	115.37	116.67	118.06
Fertilizer	212.68	159.69	136.96	132.12	139.12	144.11	144.19	142.33	141.15	142.49	145.50
Other variable costs	182.79	180.67	176.35	176.17	179.22	182.43	186.06	190.23	195.13	200.36	205.72
Total	507.54	453.66	424.36	419.21	429.42	438.32	443.13	446.67	451.65	459.52	469.28
Wheat											
Seed	16.30	15.81	15.69	15.38	15.31	15.32	15.43	15.54	15.66	15.78	15.94
Fertilizer	89.52	70.86	56.53	52.99	53.81	55.60	56.50	56.13	55.85	56.06	57.04
Other variable costs	97.25	95.84	94.67	94.92	96.15	97.69	99.45	101.47	103.72	106.11	108.59
Total	203.07	182.51	166.89	163.28	165.27	168.60	171.38	173.15	175.23	177.95	181.57
Soybeans											
Seed	73.02	75.82	76.13	76.07	76.20	76.71	77.44	78.26	79.09	79.96	80.88
Fertilizer	60.21	45.63	38.67	37.29	38.61	40.08	40.50	40.13	39.73	40.09	40.87
Other variable costs	133.16	129.91	127.24	126.97	128.13	129.62	131.48	133.78	136.62	139.63	142.72
Total	266.39	251.36	242.04	240.33	242.94	246.40	249.43	252.17	255.44	259.68	264.47
Upland cotton											
Seed	98.45	99.28	98.57	98.73	99.08	99.74	100.69	101.73	102.74	103.79	104.95
Fertilizer	127.39	97.24	82.65	80.40	84.14	87.08	87.55	86.75	86.16	86.99	88.72
Other variable costs	354.10	342.18	343.98	348.70	353.93	358.19	363.70	370.27	378.84	388.06	397.38
Total	579.94	538.70	525.20	527.83	537.15	545.01	551.94	558.76	567.74	578.84	591.05
Rice											
Seed	120.29	122.98	119.50	120.43	120.44	121.11	122.08	123.21	124.15	125.13	125.98
Fertilizer	221.93	148.30	126.06	122.37	125.13	129.67	130.67	130.06	129.49	130.40	132.57
Other variable costs	506.09	483.66	470.08	467.61	470.83	474.41	478.84	484.48	491.74	499.61	507.78
Total	848.31	754.94	715.64	710.41	716.41	725.19	731.59	737.75	745.38	755.14	766.33
Sorghum											
Seed	15.39	15.64	15.39	15.36	15.39	15.48	15.60	15.72	15.83	15.95	16.08
Fertilizer	75.16	56.87	49.48	48.10	50.33	51.92	51.99	51.42	51.06	51.48	52.42
Other variable costs	116.22	114.78	112.40	112.12	113.61	115.51	117.88	120.77	123.77	126.94	130.16
Total	206.77	187.28	177.27	175.59	179.33	182.91	185.47	187.91	190.66	194.36	198.66
Barley											
Seed	23.85	25.13	23.49	22.77	22.49	22.48	22.55	22.61	22.67	22.74	22.84
Fertilizer	89.17	67.46	55.27	52.91	53.82	55.74	56.07	55.72	55.36	55.75	56.72
Other variable costs	107.22	105.10	101.94	102.14	103.71	105.58	107.66	110.03	112.63	115.40	118.24
Total	220.24	197.69	180.70	177.82	180.02	183.80	186.28	188.36	190.67	193.89	197.80
Peanuts											
Seed	137.92	141.54	139.67	138.27	138.06	138.63	139.69	141.01	142.32	143.65	145.13
Fertilizer	136.85	106.05	90.40	87.02	90.88	94.28	94.96	94.06	93.36	94.38	96.46
Other variable costs	456.64	451.46	442.12	440.46	443.97	448.64	454.89	462.80	472.65	482.98	493.51
Total	731.42	699.05	672.19	665.75	672.91	681.55	689.53	697.87	708.32	721.01	735.11

The Stochastic Baseline

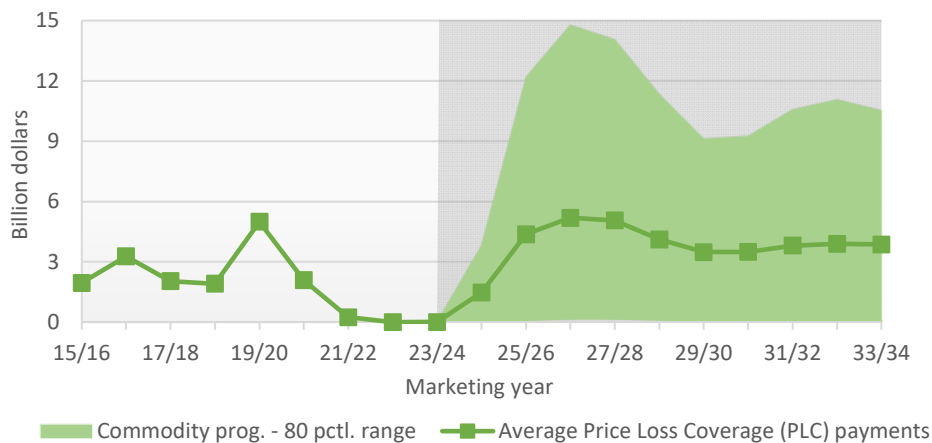
This baseline is constructed to incorporate the uncertainty of projections. Any estimate of the future has a random component that cannot be known ahead of time. As a result, a subset of the variables is allowed to be stochastic. This means that they contain a random effect. Since the models are interconnected, this leads to variability throughout the system. It is impossible to capture all uncertainty. Therefore, the stochastic baseline should not be treated as thoroughly incorporating all risk. For example, the 2020 baseline did not incorporate the possibility of a pandemic shock, and the 2022 baseline did not anticipate the possibility of a Russian invasion of Ukraine.

While the tables present one number for each variable, there is actually a distribution behind each. Many of the paths for the variables appear flat as if there is little year-over-year change. The charts and tables generally present the expectation for each year, which is the mean of the distribution. In reality, our models approximate an infinite number of outcomes.

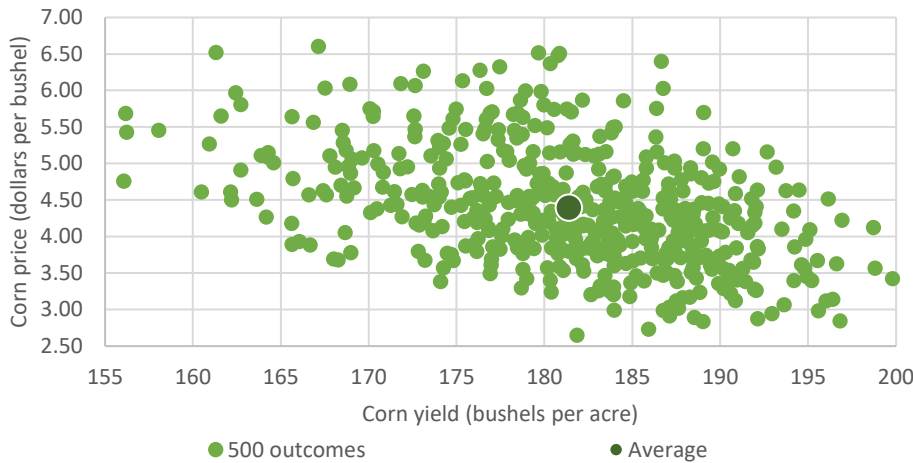
The stochastic nature of the baseline can lead to interesting results. Consider the price loss coverage (PLC) program that makes payments when the farm price falls below the effective reference price. Our expected farm price may be above the effective reference price. However, there is some probability that the price may fall below the effective reference price in the future. All of these outcomes determine the expected PLC payments. As a result, our tables may show an expected PLC payment even when the expected farm price is above the effective reference price, such as occurs in all but three years of the projection period in the case of corn.

Whenever the farm price is above the effective reference price, the PLC payment is zero. However, if the inverse is true then the payment rate has a one-to-one relationship with the farm price. This creates an asymmetry in the distribution of PLC payments as the lower tail is limited at zero while the upper tail can be quite high. The table with confidence interval information for a few variables is included on the next page.

Price uncertainty leads to a range of PLC payment outcomes



2024/25 corn yield and price distribution

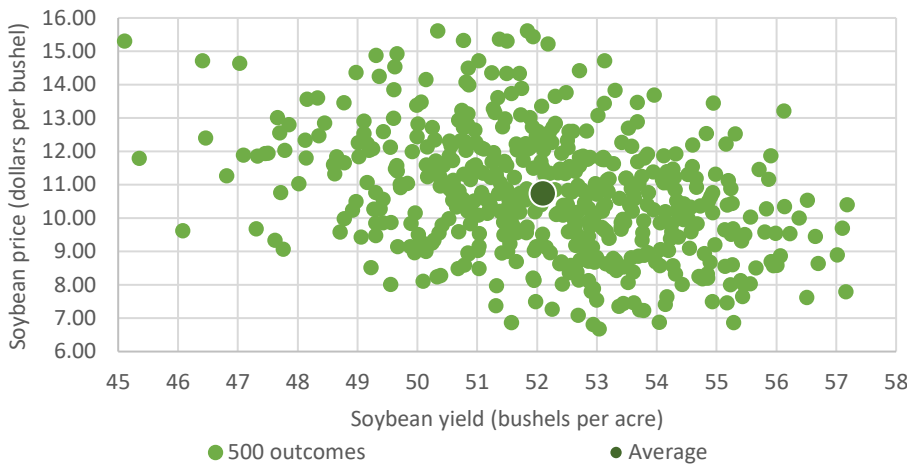


Stochastic results

Agricultural markets have many sources of variability, some of which are considered for each number in this report. There are a range of price outcomes possible for each range of possible U.S. corn yields resulting from uncertainties about other supply or demand factors.

The 2024/25 projected average farm price for corn of \$4.39 per bushel and yield of 181.4 bushels per acre are accompanied by uncertainty.

2024/25 soybean yield and price distribution



If U.S. yields were the only source of price variability, this relationship shown in the chart would run in approximately a diagonal line from upper left to lower right as lower yield are usually accompanied by higher prices and vice versa. Like corn, there is uncertainty in many other factors resulting in many different price outcomes for a given yield level.

The 2024/25 projected average farm price for soybeans of \$10.73 per bushel and yield of 52.1 bushels per acre are accompanied by uncertainty.

Corn yield and farm price, 2024/25

Yield range	Average yield	Average price	Price range
(Bushels per acre)		(Dollars per bushel)	
154 - 162	158.9	5.42	4.61 - 6.52
162 - 170	166.6	4.86	3.68 - 6.60
170 - 178	174.7	4.73	3.38 - 6.32
178 - 186	182.1	4.38	2.65 - 6.52
186 - 194	189.0	4.04	2.83 - 6.40
194 - 202	195.9	3.69	2.84 - 4.63

Soybean yield and farm price, 2024/25

Yield range	Average yield	Average price	Price range
(Bushels per acre)		(Dollars per bushel)	
45-47	46.0	12.51	9.62 - 15.30
47 - 49	48.1	11.79	9.07 - 14.64
49 - 51	50.2	11.36	8.01 - 15.61
51 - 53	52.1	10.79	6.81 - 15.61
53 - 55	53.9	10.20	6.67 - 14.71
55 - 58	55.8	9.53	6.87 - 13.21

Stochastic results

Marketing year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Corn price (Dollars per bushel)											
90th percentile	4.85	5.48	5.40	5.50	5.36	5.34	5.23	5.15	5.07	5.09	5.02
Mean	4.78	4.39	4.20	4.15	4.13	4.13	4.09	4.03	4.00	3.99	3.96
10th percentile	4.71	3.44	3.14	3.11	3.07	3.05	3.06	3.06	3.04	2.97	2.95
Soybean price											
90th percentile	12.96	13.01	13.03	13.29	13.66	13.44	13.15	13.06	13.10	13.26	12.83
Mean	12.68	10.73	10.51	10.58	10.71	10.64	10.60	10.50	10.51	10.52	10.53
10th percentile	12.40	8.49	8.16	8.09	8.21	8.19	7.99	8.21	7.94	8.09	8.01
Wheat price											
90th percentile	7.24	7.38	7.29	7.14	7.01	7.00	6.90	6.82	6.83	6.76	6.72
Mean	7.19	6.13	5.71	5.57	5.46	5.43	5.37	5.32	5.27	5.27	5.27
10th percentile	7.14	4.95	4.13	4.05	4.10	4.01	3.76	3.91	3.80	3.79	3.89
Upland cotton price (Cents per pound)											
90th percentile	76.7	80.5	82.3	83.8	84.1	84.2	86.8	87.3	87.1	87.6	87.5
Mean	76.0	67.9	68.3	69.3	70.2	71.0	71.4	71.6	71.7	72.0	72.2
10th percentile	75.2	55.0	54.0	54.1	55.0	56.5	55.3	56.1	57.1	56.7	56.2
PLC payments (Million dollars)											
90th percentile	7	3,816	12,192	14,779	14,051	11,330	9,128	9,244	10,583	11,069	10,529
Mean	8	1,476	4,370	5,193	5,059	4,121	3,483	3,496	3,808	3,893	3,861
10th percentile	4	6	105	156	178	122	66	28	46	62	89
ARC payments											
90th percentile	347	5,008	5,519	6,713	7,712	4,742	4,159	3,820	3,469	3,352	3,598
Mean	324	2,411	2,596	3,037	3,235	1,985	1,685	1,445	1,376	1,336	1,382
10th percentile	301	351	413	361	266	209	110	113	92	89	92
Crop insurance net indemnities											
90th percentile	9,611	11,225	11,624	10,974	11,688	11,525	11,557	11,418	11,244	11,618	11,538
Mean	9,532	7,929	7,548	7,440	7,529	7,616	7,696	7,747	7,702	7,767	7,857
10th percentile	9,449	5,530	4,471	4,393	4,428	4,228	4,462	4,432	4,882	4,479	4,597
Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
5-area direct steer price (Dollars per hundredweight)											
90th percentile	175.54	191.08	198.29	199.63	195.74	190.20	183.31	176.50	174.09	173.65	170.43
Mean	175.54	178.57	184.59	185.38	180.78	174.05	167.52	161.85	158.92	156.65	154.76
10th percentile	175.54	167.43	171.10	172.07	166.09	157.64	151.70	146.76	143.98	140.44	138.86
Barrows and gilts price											
90th percentile	58.59	66.29	70.08	70.72	73.02	70.81	68.75	67.75	68.01	68.75	67.96
Mean	58.59	58.97	61.07	61.35	61.96	60.45	58.97	58.10	57.61	57.80	58.53
10th percentile	58.59	51.76	52.62	52.54	52.51	50.87	49.68	48.64	48.42	48.34	49.61
All milk price											
90th percentile	20.54	24.59	25.42	24.88	25.10	24.68	24.57	24.70	24.94	24.49	25.44
Mean	20.54	20.21	20.43	20.01	19.80	19.56	19.43	19.37	19.25	19.26	19.23
10th percentile	20.54	15.91	16.00	15.45	14.75	14.83	14.35	14.33	13.75	13.79	13.24



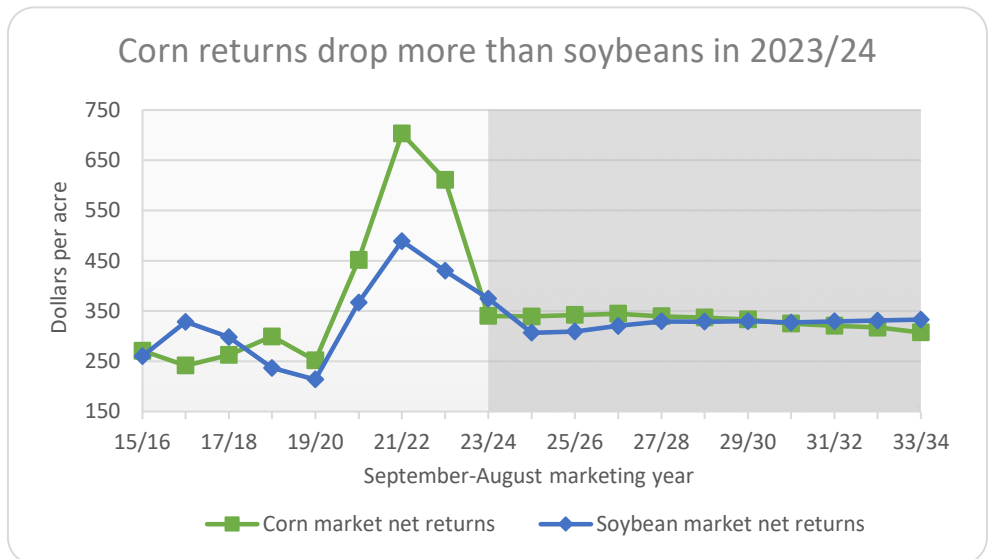
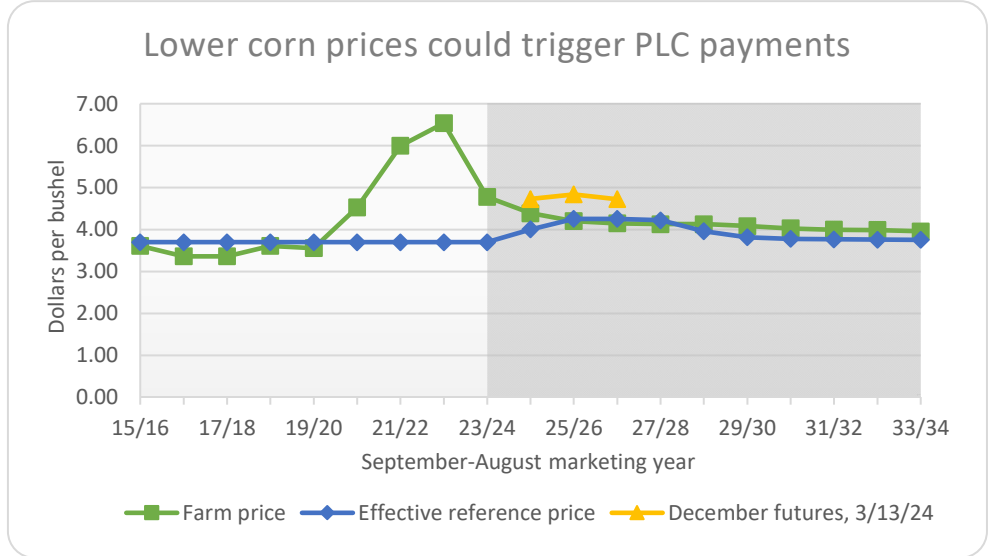
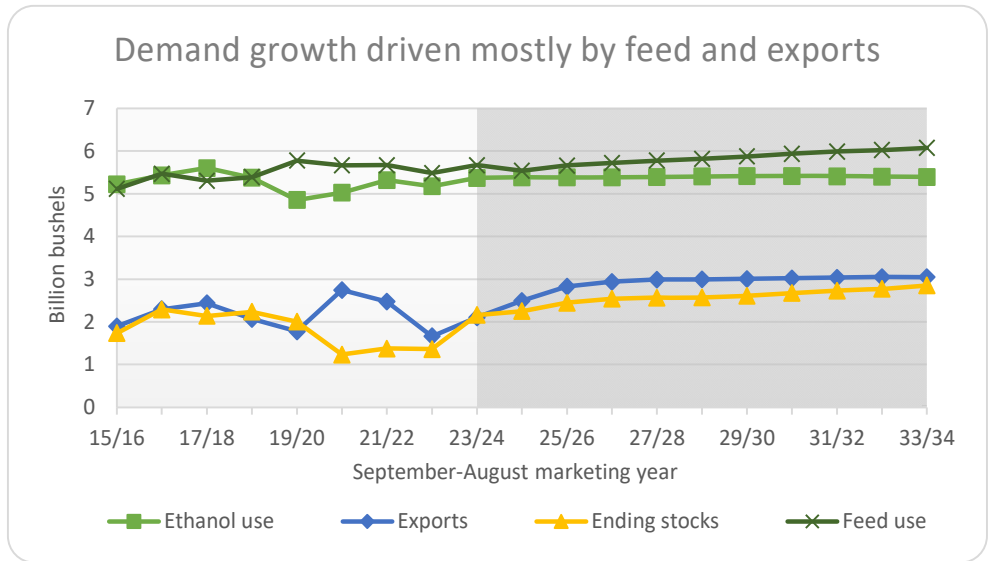
Grains

Corn

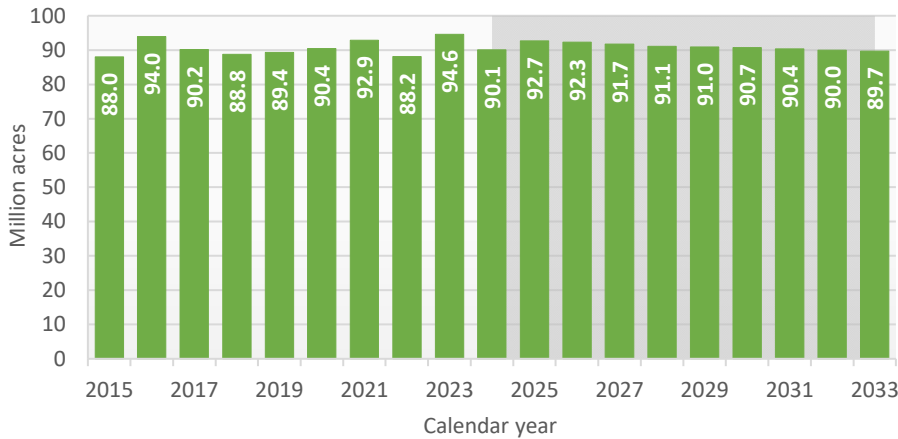
Corn prices have fallen in 2023/24, as larger supplies in both the U.S. and South America outpace demand growth. Exports for 2023/24 are projected to be at the level of their 10-year average. Exports could reach 3 billion bushels over the next five years. Corn used for ethanol and co-products is expected to be flat, with domestic demand growth coming primarily from feed demand. Ending stocks build alongside higher production and lower prices with the stocks-to-use ratio reaching above 20% by 2026/27, up from 11% in 2022/23.

After three years of higher corn prices, larger supplies have led to a drop in prices with the current 2023/24 marketing year average price projected at \$4.78 per bushel. Prices are projected to decline further in 2024/25 to an average of \$4.39 per bushel. For a few years beginning in 2025/26, the average farm price is low enough to trigger PLC payments. The effective reference price rises to its maximum value of \$4.26 per bushel in 2025/26.

Market net returns (price multiplied by yield minus variable expenses) for corn are projected to fall below those for soybeans in 2023/24, leading to an expectation of lower corn area and higher soybean area for the 2024/25 marketing year. Returns to both crops are lower than in recent history due primarily to lower prices. Over the projection period, returns to both crops fall close to their long-term average levels. This is likely to put downward pressure on non-operating expenses (or producers with high non-operating expenses).

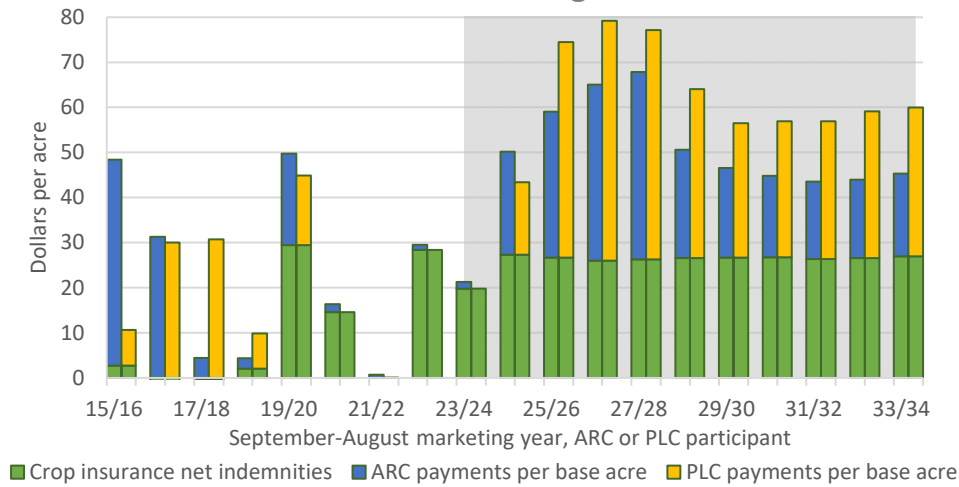


Lower corn area expected in 2024



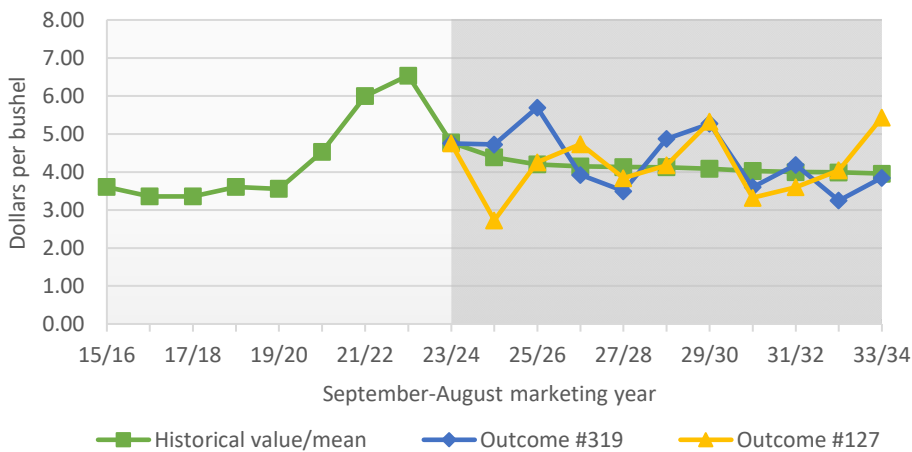
The prices of several inputs are projected lower for 2024, helping to bring down projected operating costs for corn and other crops. Despite this, lower crop prices outweigh lower costs resulting in lower expected net returns for corn than soybeans. Corn area in 2024 is projected to decline to 90.1 million acres in response to these lower relative expected net returns. Above or below average spring weather, among other factors, will influence the final acreage level. Corn acreage rebounds in 2025 before gradually declining below 90 million acres near the end of the projection period.

Future PLC benefits could be greater than ARC



Average benefits per planted acre or per base acre for program participants change over time. Average future payments consist of some combination of crop insurance net indemnities (indemnities less producer-paid premium) and ARC or PLC program payments. Average ARC and PLC payments both rise through 2026/27 and 2027/28 as lower market revenues meet higher benchmarks (ARC) and market prices meet elevated effective reference prices (PLC). These projected payments are averages of stochastic outcomes and actual payments may be higher or lower than the averages here.

Corn prices will vary more than the reported averages

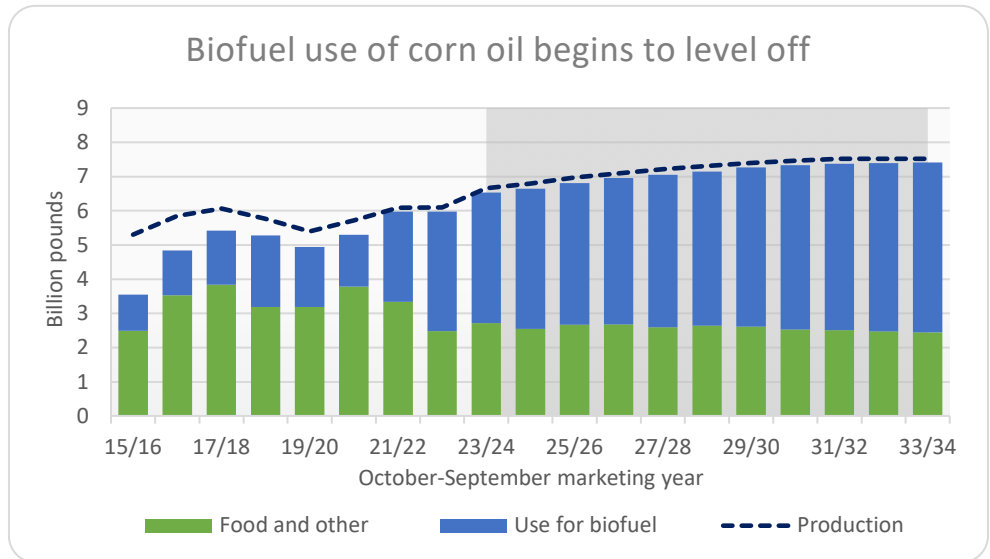


Actual crop prices will vary more than the average reported in the tables. Here we show two of the 500 simulated possible outcomes for corn prices. Each outcome starts with different assumptions about uncertainties inherent to agricultural markets.

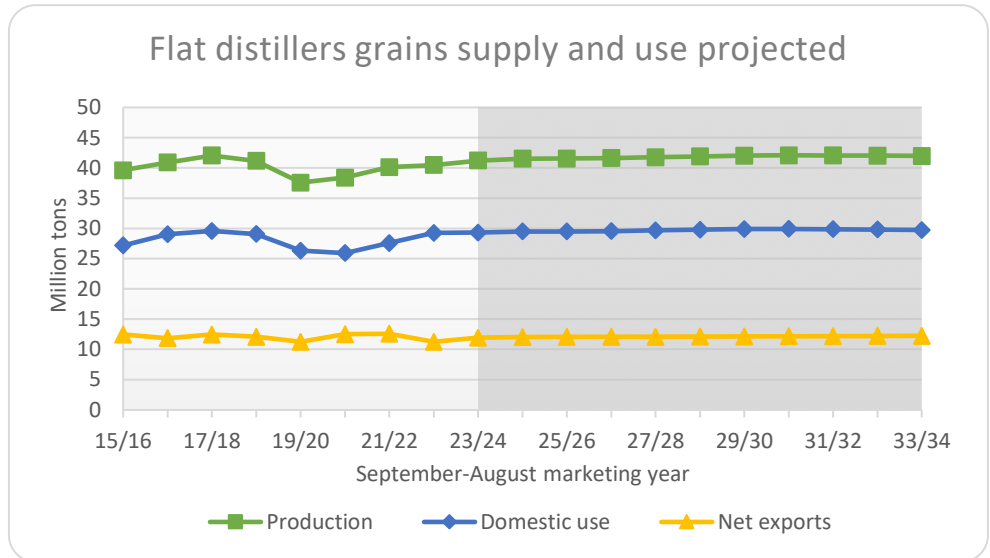
The actual price outcomes will matter for future program payments where those payments depend on averages of past prices. Under current programs, higher past prices make payments more likely when future prices fall, subject to program rules.

Corn milling products

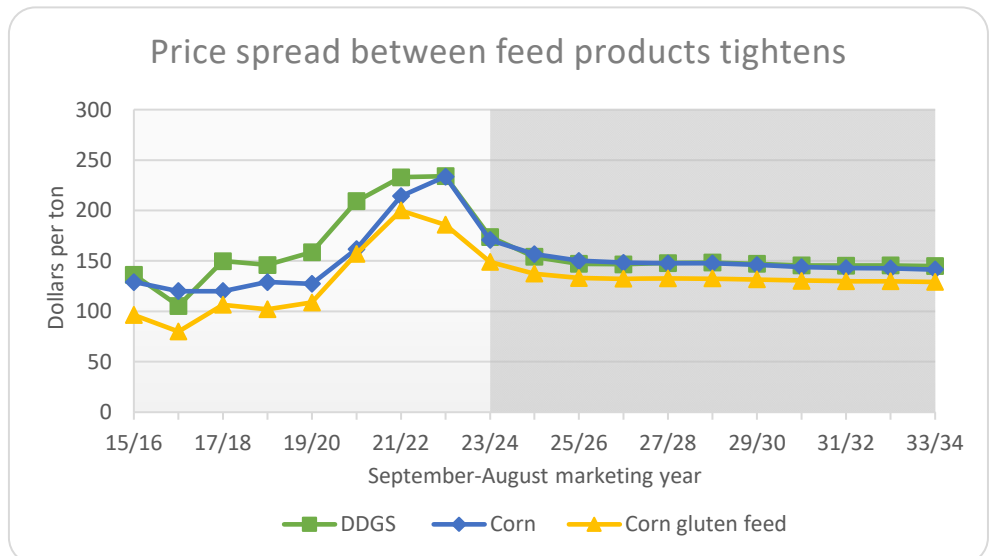
Distillers corn oil, a co-product of dry-mill ethanol production, serves as an important feedstock for biomass-based diesel production. Its use is projected to reach 3.8 billion pounds in the 2023/24 marketing year. Over the course of the projection period, it rises to 5.0 billion pounds by 2033/34. Overall, corn oil production increases to around 7.5 billion pounds in 2030/31 and levels off after that alongside dry-mill ethanol production.



Distillers dried grains with solubles (DDGS) production also follows the trajectory of dry-mill ethanol production and averages about 42 million tons over the projection period. Along with relatively flat production going forward, domestic use of DDGS and net exports remains roughly constant in the projection period.



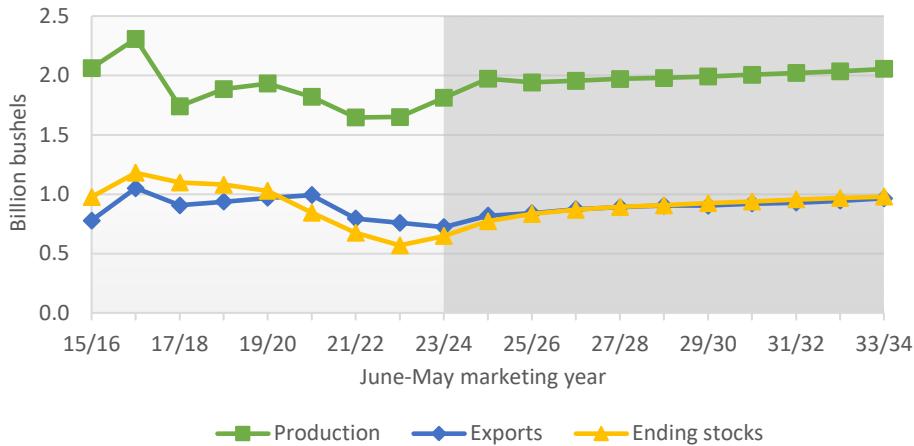
Increased soybean crush from biofuel feedstock demand leads to higher supplies of soybean meal and lower projected prices. Price competition in the feed sector drives prices lower for feed products such as DDGS and corn gluten feed. Projected DDGS prices in 2023/24 are \$174 per ton and corn gluten feed falls to \$149 per ton. Prices for both products trend slightly lower for the rest of the period. The price ratios between DDGS and corn products hold steady but at tighter levels than what has been observed in the past.



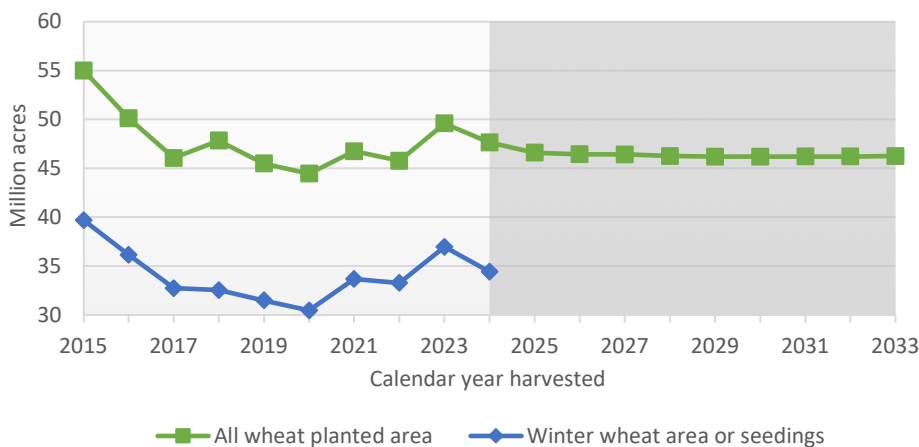
Wheat

The return to higher trend yields assumed in this baseline more than offsets a continued decline in wheat area to increase production throughout the projection period. U.S. domestic use rises modestly over the next 10 years. U.S. prices decline as world wheat prices fall. The stocks-to-use ratio exceeds 45% by 2033/34, up from 30% at the end of the 2022/23 marketing year.

Higher wheat production weakens prices



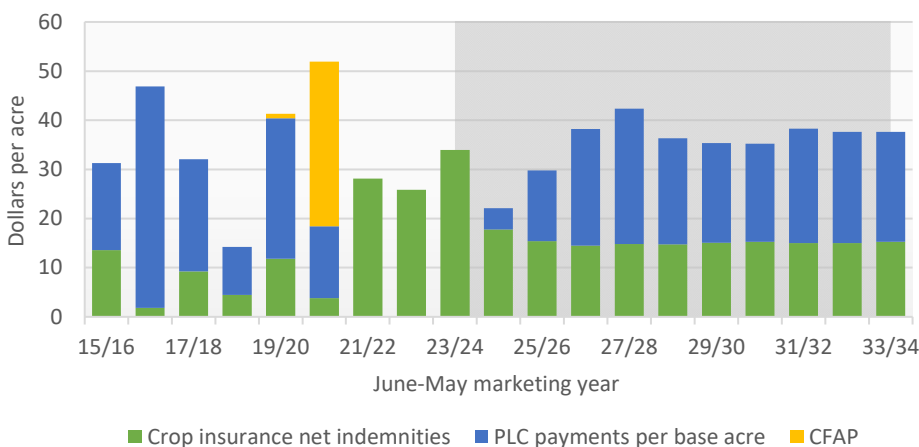
Winter wheat seedings declined in autumn 2023



Lower winter wheat prices in autumn of 2023 contributed to a decline in autumn wheat seeding, and a decline in the projected total wheat area for 2024/25 marketing year. The USDA reported winter wheat seeding in their January report at 34.4 million acres.

All wheat area declines in the baseline for 6 years before leveling off to average 46.2 million acres in the following years. Future wheat area will in part be determined by the strength of export markets.

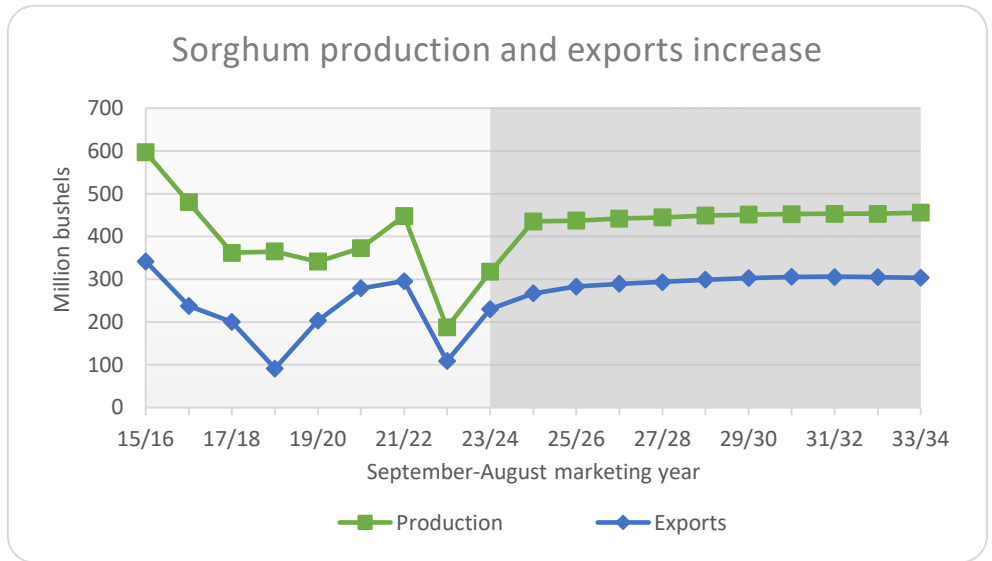
Average PLC benefits rise as market prices fall



Crop insurance net indemnities averaged \$29 per acre over the past 3 years, up from just \$7 per acre from 2015/16 to 2020/21. Net indemnities in the future are assumed to return to normal, and average \$15 per acre over the 2024/25 to 2033/34 period. For PLC participants, payments over the next 10 years average about \$20 per base acre as average market prices decline and fall below the effective reference price starting in 2026/27. PLC payments are expected to be more than double ARC payments on average over the projection period.

Sorghum, barley and oats

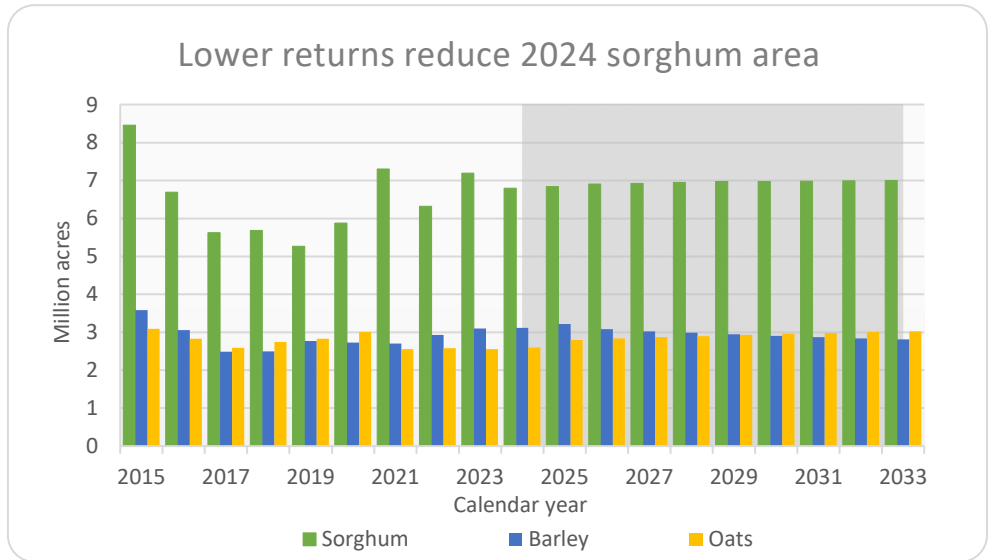
Sorghum prices have fallen along with corn prices in 2023/24. A continued rebound in production in 2024/25, due to a return to trend yields more than offsetting lower area, weighs on prices. Sorghum prices average 5% less than corn. Exports rebound in 2023/24 alongside higher production and lower prices and continue to increase thereafter. About 60% of production was exported over the previous decade. This share is projected to rise to average two-thirds of production in the future.



Sorghum area in 2024 is projected to fall slightly to 6.8 million acres before reaching about 7 million acres in later years.

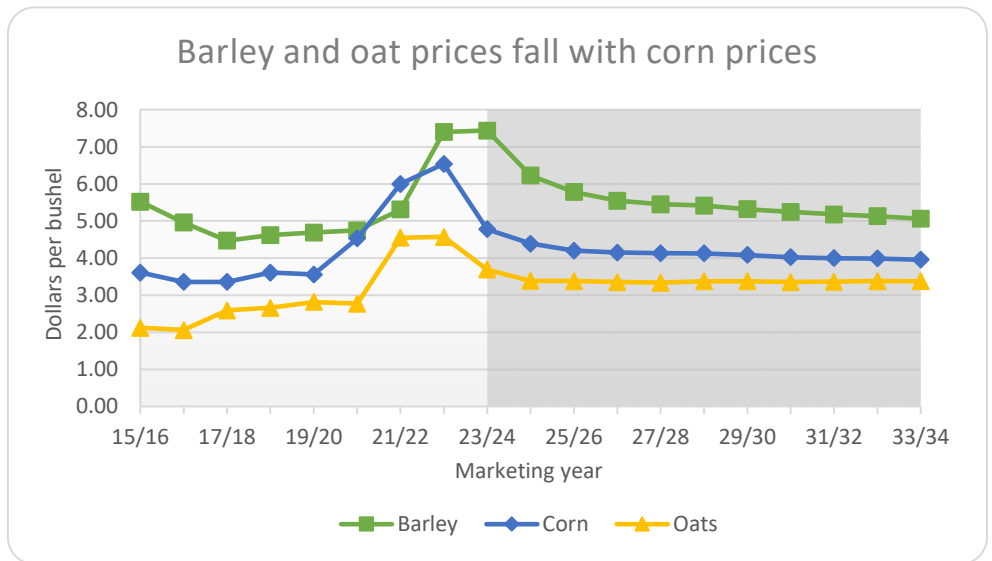
Barley area is projected to rise over the next couple of years as expected returns remain strong before declining in later years. Production and domestic demand fall in later years while lower area more than offsets higher yields.

Increasing oat production (from higher area and yields) means imports fall even as domestic demand grows.



Barley prices are expected to remain elevated for the current marketing year despite lower prices for other grains. Most U.S. barley is used for malting and thus can sell at a significant premium to feed grains. Barley prices decline throughout the projection period, averaging \$5.44 per bushel.

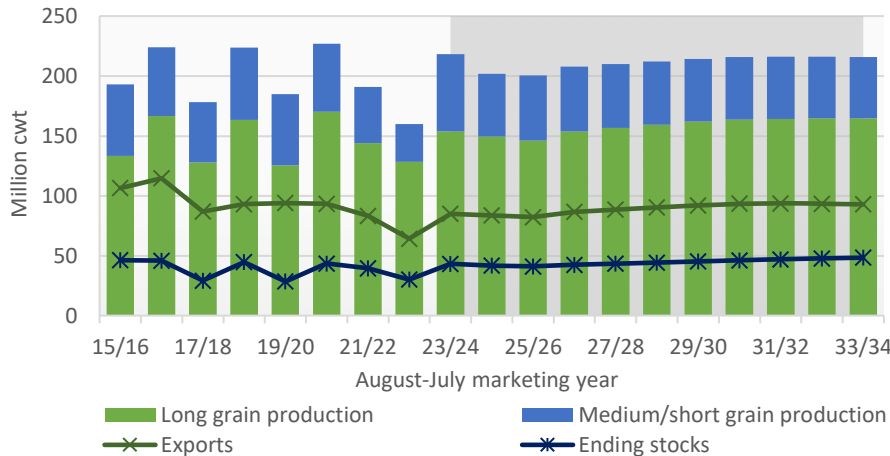
Oat prices have come down alongside prices for corn and other grains. Lower prices are projected for the 2024/25 marketing year. Oat prices average \$3.37 per bushel over the next 10 years.



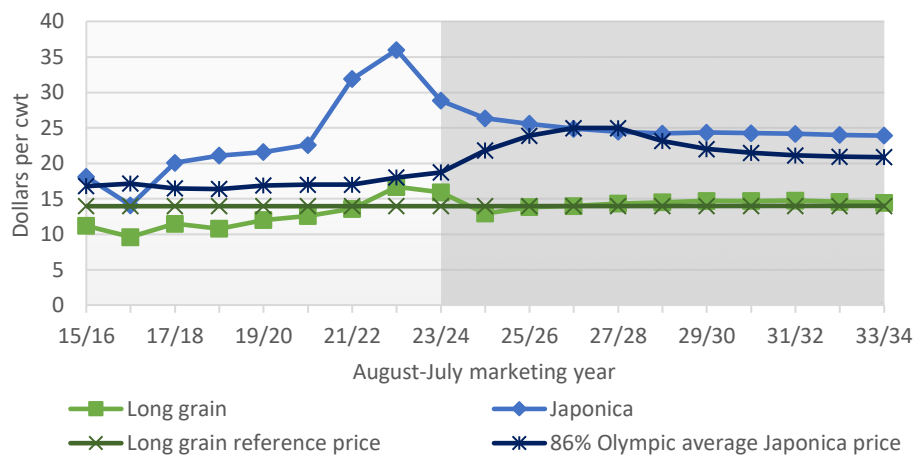
Rice

U.S. rice production falls in 2024/25 due to declines in both long grain and medium/short grain. Medium/short grain production was the largest in over 10 years in 2023/24 at more than 64 million hundredweight, resulting from a response in area to higher prices and better weather conditions than in the previous two seasons. Assumed normal conditions and lower expected returns reduce area for both long grain and medium/short grain rice in 2024/25.

Rice production declines in 2024/25



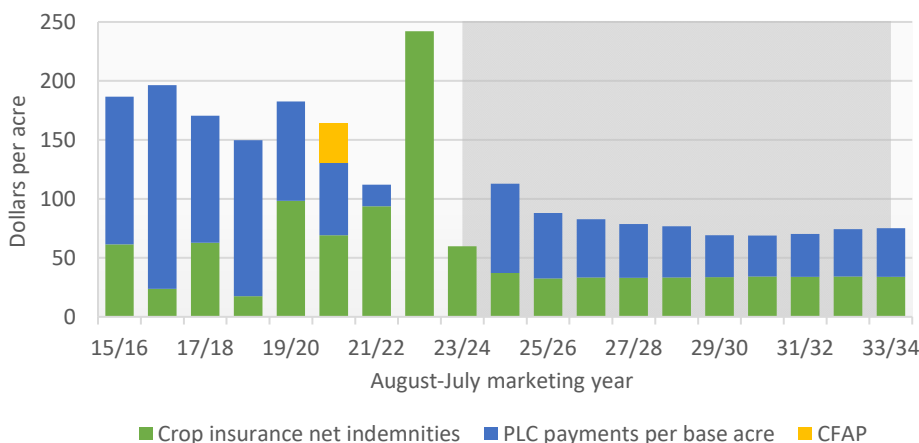
Long grain rice prices fall in 2024/25



Prices for all three types of rice declined in 2023/24 alongside higher production than the year before. Prices are projected to fall again in 2024/25 as the market works through larger total supplies and faces lower world prices.

Long grain prices are projected to drop below the effective reference price in 2024/25 and remain near the effective reference price thereafter. The ARC benchmark price continues to rise for Japonica rice, making the ARC program even more attractive for those producers with Japonica rice base acres.

Average PLC payments exceed net indemnities



Crop insurance net indemnities were smaller in 2023/24 than the previous year's record level due to the combination of higher premiums and lower losses. In the future, crop insurance net indemnities average less than the previous decade. PLC payments over the next 10 years are expected to be smaller on average (\$46 vs. \$79 per base acre) than the previous 10 years as prices are closer to the effective reference price in the future than in the past. Larger losses or lower prices in any given year could result in higher payments than the averages shown here for either program.

Corn supply and use

September-August year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Planted area	94.6	90.1	92.7	92.3	91.7	91.1	91.0	90.7	90.4	90.0	89.7
Harvested area	86.5	82.2	84.6	84.2	83.6	83.1	82.9	82.7	82.4	82.0	81.8
Yield	(Bushels per harvested acre)										
	177.3	181.4	183.0	184.9	186.8	188.6	190.6	192.4	193.9	195.2	196.9
Supply	(Million bushels)										
Beginning stocks	1,360	2,163	2,251	2,450	2,543	2,567	2,571	2,613	2,676	2,730	2,773
Production	15,342	14,909	15,483	15,565	15,625	15,670	15,802	15,915	15,975	16,017	16,106
Imports	25	25	25	25	25	25	25	25	25	25	25
Domestic use	12,458	12,355	12,481	12,556	12,636	12,697	12,779	12,855	12,909	12,949	13,003
Feed and residual	5,671	5,539	5,662	5,724	5,779	5,818	5,877	5,939	5,989	6,026	6,077
Ethanol and coproducts	5,371	5,387	5,382	5,384	5,396	5,406	5,417	5,417	5,410	5,402	5,394
High-fructose corn syrup	412	402	395	391	390	388	387	386	384	381	379
Seed	31	32	33	33	33	33	33	33	33	34	34
Food and other	973	993	1,010	1,024	1,038	1,051	1,065	1,079	1,093	1,106	1,120
Exports	2,106	2,491	2,829	2,941	2,990	2,994	3,006	3,021	3,037	3,050	3,047
Total use	14,564	14,846	15,310	15,497	15,625	15,691	15,785	15,877	15,946	15,998	16,050
Ending stocks	2,163	2,251	2,450	2,543	2,567	2,571	2,613	2,676	2,730	2,773	2,854
Under loan	102	129	148	154	155	155	159	164	166	167	171
Other stocks	2,061	2,123	2,302	2,389	2,412	2,416	2,455	2,512	2,564	2,606	2,683
Prices, program provisions	(Dollars per bushel)										
Farm price	4.78	4.39	4.20	4.15	4.13	4.13	4.09	4.03	4.00	3.99	3.96
Loan rate	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
Effective reference price	3.70	4.01	4.26	4.26	4.22	3.96	3.82	3.78	3.77	3.76	3.76
Enrolled base area	(Million acres)										
	92.6	94.1	94.9	95.2	95.3	94.1	93.9	93.9	93.9	94.0	94.0
PLC program yield	(Bushels per acre)										
	143.8	141.2	144.3	143.8	143.2	145.6	145.2	145.1	145.2	145.1	145.0
PLC participation rate	(Percent of base acres)										
	33.9	21.8	55.3	54.3	51.1	55.5	52.5	54.2	56.1	55.9	56.1
ARC participation rate	66.1	78.2	44.7	45.7	48.9	44.5	47.5	45.8	43.9	44.1	43.9
Returns and payments	(Dollars)										
Gross market revenue per acre	847.76	793.05	766.56	763.88	769.01	775.51	776.52	771.74	772.34	776.54	776.50
Variable expenses per acre	507.54	453.66	424.36	419.21	429.42	438.32	443.13	446.67	451.65	459.52	469.28
Market net return per acre	340.21	339.39	342.20	344.67	339.59	337.19	333.38	325.07	320.69	317.03	307.23
Marketing loan benefits per acre*	0.00	0.00	0.07	0.07	0.38	0.49	0.29	0.11	0.19	0.12	0.49
Payments to participants	(Dollars)										
PLC per base acre*	0.00	16.42	48.81	54.30	51.89	38.26	30.38	30.81	31.22	33.19	33.63
ARC per base acre*	1.49	22.82	32.34	39.04	41.61	24.06	19.84	18.05	17.19	17.36	18.34
Insurance net indemnities per acre*	19.77	27.33	26.68	26.00	26.27	26.56	26.71	26.75	26.34	26.59	26.99

* Marketing loan benefits and insurance net indemnities are averaged across all acres. ARC and PLC payments are per participating acre. All projections are averages across 500 stochastic outcomes.

Corn product supply and use

Marketing year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
High-fructose corn syrup	(Thousand tons, October-September year)										
Production	7,525	7,365	7,238	7,194	7,187	7,163	7,159	7,159	7,127	7,096	7,072
Domestic use	6,634	6,503	6,548	6,579	6,569	6,512	6,452	6,405	6,374	6,345	6,323
Net exports	891	862	690	615	618	651	707	755	753	751	749
	(Cents per pound, October-September year)										
Price, 42% Midwest	41.15	39.93	40.23	40.91	41.34	41.53	41.86	42.26	42.52	42.97	43.39
Distillers, brewers grains	(Thousand tons, September-August year)										
Production (dry equivalent)	41,233	41,523	41,563	41,633	41,780	41,913	42,044	42,089	42,068	42,035	41,989
Domestic use	29,310	29,501	29,492	29,549	29,689	29,801	29,905	29,922	29,880	29,823	29,752
Net exports	11,923	12,023	12,070	12,084	12,091	12,112	12,139	12,167	12,188	12,212	12,237
	(Dollars per ton, September-August year)										
Price, IL points	173.64	153.98	147.14	146.53	147.87	148.28	147.11	145.48	145.36	145.50	144.91
Corn gluten feed	(Thousand tons, September-August year)										
Production	8,036	7,925	7,879	7,879	7,895	7,920	7,945	7,974	7,994	8,015	8,035
Domestic use	7,298	7,184	7,143	7,156	7,187	7,227	7,264	7,304	7,338	7,374	7,408
Net exports	738	742	736	723	708	693	681	670	656	641	626
	(Dollars per ton, September-August year)										
Price, 21%, IL points	148.96	137.25	132.97	132.22	132.58	132.57	131.58	130.27	129.88	129.73	129.09
Corn gluten meal	(Thousand tons, September-August year)										
Production	2,115	2,086	2,073	2,073	2,078	2,084	2,091	2,098	2,104	2,109	2,114
Domestic use	1,331	1,259	1,233	1,224	1,222	1,220	1,217	1,215	1,212	1,209	1,205
Net exports	783	827	841	849	856	865	874	884	892	901	909
	(Dollars per ton, September-August year)										
Price, 60%, IL points	528.58	430.72	410.66	411.40	420.92	421.83	418.98	415.49	417.16	417.42	417.09
Corn oil	(Million pounds, October-September year)										
Production	6,654	6,800	6,970	7,098	7,219	7,311	7,406	7,468	7,521	7,523	7,525
Domestic use	6,532	6,643	6,812	6,959	7,057	7,149	7,263	7,328	7,376	7,396	7,417
Biodiesel	3,812	4,099	4,145	4,279	4,458	4,508	4,646	4,798	4,862	4,921	4,975
Food/other	2,720	2,544	2,667	2,679	2,599	2,640	2,617	2,530	2,514	2,475	2,442
Net exports	126	146	150	136	154	158	142	138	142	129	112
Ending stocks	147	157	164	168	176	181	182	184	187	184	181
	(Cents per pound, October-September year)										
Chicago price	55.87	55.17	56.12	57.83	57.28	57.64	59.55	60.51	60.93	62.67	64.79

All projections are averages across 500 stochastic outcomes.

Wheat supply and use

June-May year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Planted area	49.6	47.6	46.6	46.4	46.4	46.3	46.2	46.2	46.2	46.2	46.3
Harvested area	37.3	38.5	37.5	37.5	37.5	37.4	37.2	37.2	37.2	37.3	37.3
Yield	(Bushels per harvested acre)										
	48.6	51.2	51.7	52.1	52.5	52.9	53.4	53.8	54.2	54.6	55.0
Supply	(Million bushels)										
Beginning stocks	570	649	772	834	869	893	906	925	938	956	968
Production	1,812	1,973	1,942	1,956	1,972	1,980	1,991	2,006	2,021	2,036	2,055
Imports	145	126	123	122	122	122	122	122	122	122	123
Domestic use	1,155	1,156	1,164	1,171	1,178	1,184	1,190	1,194	1,197	1,200	1,201
Feed and residual	120	115	118	119	122	124	125	125	126	125	124
Seed	63	62	62	62	61	61	61	61	61	61	61
Food and other	971	978	984	990	995	999	1,004	1,007	1,011	1,014	1,017
Exports	723	819	840	873	891	904	903	921	928	945	965
Total use	1,878	1,975	2,004	2,043	2,069	2,088	2,094	2,115	2,126	2,145	2,166
Ending stocks	649	772	834	869	893	906	925	938	956	968	980
Under loan	6	11	14	15	16	16	17	17	18	18	18
Other stocks	643	761	820	853	877	890	908	921	938	950	962
Prices, program provisions	(Dollars per bushel)										
Farm price	7.19	6.13	5.71	5.57	5.46	5.43	5.37	5.32	5.27	5.27	5.27
Loan rate	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38
Effective reference price	5.50	5.50	5.63	5.94	6.00	5.72	5.58	5.54	5.54	5.53	5.53
Enrolled base area	(Million acres)										
	61.8	61.6	62.2	62.6	62.7	62.4	62.4	62.5	62.5	62.5	62.5
PLC program yield	(Bushels per acre)										
	41.9	40.9	40.9	41.2	41.2	41.2	41.4	41.4	41.4	41.4	41.4
PLC participation rate	(Percent of base acres)										
	42.9	55.4	62.7	72.7	75.4	74.9	73.8	74.0	74.9	74.4	74.6
ARC participation rate	57.1	44.6	37.3	27.3	24.6	25.1	26.2	26.0	25.1	25.6	25.4
Returns and payments	(Dollars)										
Gross market revenue per acre	349.58	313.32	294.87	290.01	286.34	287.41	286.52	285.94	285.49	287.46	289.52
Variable expenses per acre	203.07	182.51	166.89	163.28	165.27	168.60	171.38	173.15	175.23	177.95	181.57
Market net return per acre	146.51	130.82	127.98	126.73	121.07	118.81	115.14	112.80	110.25	109.51	107.95
Marketing loan benefits per acre*	0.00	0.05	0.61	1.06	1.38	1.05	2.15	1.36	1.76	1.78	1.71
Payments to participants	(Dollars)										
PLC per base acre*	0.00	4.49	14.98	24.71	28.74	22.45	21.17	20.79	24.23	23.63	23.35
ARC per base acre*	1.34	5.02	10.74	11.88	12.78	10.31	9.12	8.22	7.40	7.86	7.68
Insurance net indemnities per acre*	33.93	17.79	15.40	14.50	14.78	14.76	15.07	15.28	15.01	14.97	15.25

* Marketing loan benefits and insurance net indemnities are averaged across all acres. ARC and PLC payments are per participating acre. All projections are averages across 500 stochastic outcomes.

Sorghum supply and use

September-August year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Planted area	7.20	6.80	6.84	6.91	6.93	6.96	6.98	6.98	6.98	6.99	7.00
Harvested area	6.12	6.01	6.04	6.10	6.11	6.14	6.16	6.16	6.17	6.17	6.18
Yield	(Bushels per harvested acre)										
	52.0	72.3	72.3	72.3	72.6	73.0	73.1	73.3	73.3	73.3	73.6
Supply	(Million bushels)										
Beginning stocks	24	22	34	36	36	37	38	39	40	42	43
Production	318	435	437	442	445	449	451	452	453	453	456
Imports	0	0	0	0	0	0	0	0	0	0	0
Domestic use	90	157	152	152	150	149	147	145	146	147	150
Feed and residual	44	97	87	83	80	79	79	78	79	80	82
Food and industrial	44	59	65	69	69	69	68	67	66	67	67
Seed	1	1	1	1	1	1	1	1	1	1	1
Exports	230	267	283	289	294	299	303	306	306	305	303
Total use	320	424	436	442	444	448	450	451	451	452	454
Ending stocks	22	34	36	36	37	38	39	40	42	43	45
Under loan	0	1	2	2	2	2	2	2	2	2	2
Other stocks	22	33	34	34	35	36	37	38	40	41	43
Prices, program provisions	(Dollars per bushel)										
Farm price	4.83	3.98	3.93	3.93	3.95	3.97	3.92	3.87	3.83	3.81	3.75
Loan rate	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20	2.20
Effective reference price	3.95	4.06	4.48	4.48	4.28	4.01	3.97	3.96	3.96	3.96	3.96
Enrolled base area	(Million acres)										
	8.5	9.1	9.5	9.5	9.4	9.3	9.3	9.3	9.3	9.3	9.4
Countercyclical/PLC yield	(Bushels per acre)										
	63.5	63.8	63.6	63.6	64.0	63.9	63.8	63.8	63.8	63.8	63.7
PLC participation rate	(Percent of base acres)										
	40.3	69.6	79.3	78.9	83.5	84.0	82.6	82.7	82.8	82.8	83.2
ARC participation rate	59.7	30.4	20.7	21.1	16.5	16.0	17.4	17.3	17.2	17.2	16.8
Returns and payments	(Dollars)										
Gross market revenue per acre	251.12	284.37	280.25	280.01	283.41	285.93	283.56	280.11	277.20	275.85	272.75
Variable expenses per acre	206.77	187.28	177.27	175.59	179.33	182.91	185.47	187.91	190.66	194.36	198.66
Market net return per acre	44.35	97.08	102.97	104.42	104.08	103.02	98.09	92.21	86.54	81.48	74.09
Marketing loan benefits per acre*	0.00	0.00	0.20	0.13	0.11	0.35	0.14	0.09	0.50	0.44	0.68
Payments to participants	(Dollars)										
PLC per base acre*	0.00	17.34	36.47	37.37	29.59	20.11	19.38	20.14	22.83	23.78	25.08
ARC per base acre*	13.20	15.73	13.26	12.68	10.24	6.49	8.38	8.64	8.37	9.08	9.25
Insurance net indemnities per acre*	41.90	17.89	14.88	14.71	15.07	16.36	17.57	17.28	17.03	16.93	16.86

* Marketing loan benefits and insurance net indemnities are averaged across all acres. ARC and PLC payments are per participating acre. All projections are averages across 500 stochastic outcomes.

Barley supply and use

June-May year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Planted area	3.10	3.11	3.22	3.08	3.02	2.99	2.95	2.90	2.87	2.84	2.81
Harvested area	2.56	2.52	2.60	2.48	2.43	2.40	2.37	2.33	2.30	2.28	2.25
Yield	(Bushels per harvested acre)										
	72.4	79.6	80.5	81.4	82.1	82.9	83.8	84.5	85.3	86.1	86.8
Supply	(Million bushels)										
Beginning stocks	66	76	84	94	95	95	95	94	94	94	94
Production	185	200	209	202	200	199	198	197	196	196	195
Imports	14	12	10	8	8	7	7	6	6	5	5
Domestic use	186	199	205	203	202	201	200	198	197	196	194
Feed and residual	57	68	73	71	70	70	69	68	68	67	67
Food and industrial	125	126	127	127	127	127	126	126	125	124	123
Seed	4	4	4	4	4	4	4	4	4	4	4
Exports	3	5	5	5	6	6	6	6	6	6	6
Total use	189	204	210	208	207	207	206	204	203	202	200
Ending stocks	76	84	94	95	95	95	94	94	94	94	94
Under loan	0	1	1	1	1	1	1	1	1	1	1
Other stocks	75	83	92	94	94	94	93	93	93	93	93
Prices, program provisions	(Dollars per bushel)										
All barley farm price	7.44	6.23	5.78	5.55	5.45	5.42	5.32	5.24	5.18	5.13	5.06
Feed barley price	5.19	4.50	4.23	4.10	4.05	4.04	3.98	3.92	3.88	3.85	3.81
Loan rate	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Effective reference price	4.95	4.95	4.95	5.35	5.48	5.51	5.22	5.06	5.02	5.01	4.99
Enrolled base area	(Million acres)										
	5.3	5.3	5.3	5.4	5.4	5.4	5.3	5.4	5.4	5.4	5.4
Countercyclical/PLC yield	(Bushels per acre)										
	55.7	51.8	50.2	50.8	51.5	51.7	50.7	51.5	51.9	52.2	52.5
PLC participation rate	(Percent of base acres)										
	56.3	45.0	41.8	62.4	69.3	66.5	55.4	57.4	61.8	64.3	66.7
ARC participation rate	43.7	55.0	58.2	37.6	30.7	33.5	44.6	42.6	38.2	35.7	33.3
Returns and payments	(Dollars)										
Gross market revenue per acre	538.73	494.26	464.45	450.83	446.34	448.96	444.98	442.45	440.75	441.67	438.94
Variable expenses per acre	220.24	197.69	180.70	177.82	180.02	183.80	186.28	188.36	190.67	193.89	197.80
Market net return per acre	318.49	296.57	283.74	273.01	266.33	265.16	258.70	254.09	250.08	247.78	241.13
Marketing loan benefits per acre*	0.00	0.00	0.11	0.16	0.34	0.56	0.47	0.39	0.78	0.98	0.99
Payments to participants	(Dollars)										
PLC per base acre*	0.00	0.92	4.50	13.97	18.90	21.53	16.14	13.05	14.25	15.73	16.13
ARC per base acre*	0.05	1.20	5.94	10.05	12.39	15.32	12.32	9.98	9.24	8.62	9.35
Insurance net indemnities per acre*	12.42	14.35	12.94	12.60	12.75	12.69	13.23	12.99	12.92	12.82	12.90

* Marketing loan benefits and insurance net indemnities are averaged across all acres. ARC and PLC payments are per participating acre.

All projections are averages across 500 stochastic outcomes.

Oats supply and use

June-May year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Planted area	2.56	2.59	2.80	2.84	2.87	2.90	2.93	2.96	2.98	3.00	3.02
Harvested area	0.83	0.85	0.92	0.94	0.95	0.96	0.97	0.98	0.99	0.99	1.00
Yield	(Bushels per harvested acre)										
	68.6	65.8	65.9	66.3	66.7	67.1	67.5	67.8	68.1	68.3	68.6
Supply	(Million bushels)										
Beginning stocks	35	39	39	41	42	43	44	45	46	47	47
Production	57	56	61	63	64	65	66	67	68	68	69
Imports	85	81	79	78	77	76	75	74	74	73	72
Domestic use	136	135	136	137	137	138	138	138	138	138	138
Feed and residual	55	54	54	54	54	54	53	53	52	52	51
Food and industrial	74	74	75	76	76	77	77	78	78	79	79
Seed	7	7	7	7	7	8	8	8	8	8	8
Exports	2	2	2	2	2	2	2	2	2	2	2
Total use	137	137	138	139	139	140	140	140	140	140	140
Ending stocks	39	39	41	42	43	44	45	46	47	47	48
Under loan	0	0	0	0	0	0	0	0	0	0	0
Other stocks	39	39	41	42	43	44	45	46	46	47	48
Prices, program provisions	(Dollars per bushel)										
Farm price	3.69	3.38	3.38	3.36	3.34	3.37	3.37	3.35	3.36	3.38	3.37
Loan rate	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Effective reference price	2.40	2.76	2.76	2.76	2.76	2.75	2.72	2.68	2.67	2.66	2.66
Enrolled base area	(Million acres)										
	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Countercyclical/PLC yield	(Bushels per acre)										
	51.7	51.3	51.8	51.6	51.6	51.8	51.9	51.9	51.8	51.8	51.8
PLC participation rate	(Percent of base acres)										
	39.7	52.9	59.7	58.6	58.8	60.3	61.7	61.5	60.1	60.4	60.2
ARC participation rate	60.3	47.1	40.3	41.4	41.2	39.7	38.3	38.5	39.9	39.6	39.9
Returns and payments	(Dollars)										
Gross market revenue per acre	253.46	222.42	222.50	222.36	222.42	226.32	227.21	227.51	228.88	230.78	231.61
Variable expenses per acre	191.51	171.66	158.51	157.48	160.57	164.50	166.89	168.70	170.68	173.60	177.23
Market net return per acre	61.95	50.76	63.99	64.88	61.84	61.82	60.32	58.81	58.20	57.18	54.39
Marketing loan benefits per acre*	0.00	0.17	0.43	0.75	0.37	0.92	0.85	0.90	0.78	0.98	0.99
Payments to participants	(Dollars)										
PLC per base acre*	0.00	1.71	2.43	3.21	3.48	3.90	3.57	3.14	3.64	3.81	3.85
ARC per base acre*	0.93	2.28	2.92	3.48	3.53	3.21	2.72	2.44	2.48	2.45	2.55
Insurance net indemnities per acre*	5.03	2.75	2.58	2.56	2.56	2.56	2.54	2.54	2.54	2.53	2.55

* Marketing loan benefits and insurance net indemnities are averaged across all acres. ARC and PLC payments are per participating acre. All projections are averages across 500 stochastic outcomes.

Rice supply and use

August-July year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Planted area	2.89	2.66	2.63	2.71	2.73	2.74	2.76	2.77	2.76	2.76	2.74
Harvested area	2.85	2.62	2.59	2.67	2.69	2.71	2.72	2.73	2.73	2.72	2.70
Yield	7,649	7,701	7,736	7,772	7,808	7,841	7,873	7,906	7,931	7,957	7,993
Supply and use	(Million hundredweight)										
Production	218.3	201.7	200.6	207.9	210.0	212.2	214.2	215.8	216.2	216.2	215.9
Imports	41.9	43.0	43.7	44.1	44.6	45.1	45.6	46.2	46.8	47.5	48.2
Domestic use	162.0	161.1	161.8	163.9	165.0	165.9	166.8	167.6	168.4	169.4	170.5
Exports	85.2	83.8	82.4	86.8	88.6	90.4	92.0	93.6	93.8	93.5	93.0
Ending stocks	43.3	43.2	43.3	44.7	45.6	46.6	47.6	48.5	49.3	50.2	50.8
Program provisions	(Dollars per hundredweight)										
Loan rate	7.00	7.00	7.00	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	14.01	14.01	14.01
Japonica	18.50	19.90	19.90	19.90	19.90	19.90	19.89	19.83	19.71	19.65	19.59
Other medium/short	14.00	14.00	14.00	14.00	14.06	14.18	14.05	14.03	14.05	14.05	14.07
Base area	(Million acres)										
Long grain	3.82	3.83	3.87	3.85	3.84	3.83	3.83	3.82	3.82	3.83	3.83
Medium/short	0.50	0.58	0.65	0.70	0.71	0.67	0.64	0.62	0.62	0.62	0.62
PLC yield	(Pounds per acre)										
Long grain	6,261	6,275	6,287	6,299	6,305	6,289	6,286	6,285	6,286	6,287	6,288
Medium/short	6,982	7,211	7,277	7,322	7,330	7,290	7,257	7,251	7,247	7,250	7,251
PLC participation rate	(Percent of base acres)										
Long grain	99.6	99.8	99.5	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7
Medium/short	72.0	42.5	25.0	20.6	18.8	25.9	38.3	44.5	48.0	51.2	50.7
ARC participation rate											
Long grain	0.4	0.2	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Medium/short	28.0	57.5	75.0	79.4	81.2	74.1	61.7	55.5	52.0	48.8	49.3
Prices, returns and payments	(Dollars)										
Farm price/cwt	18.09	15.16	15.74	15.61	15.74	15.78	15.96	15.89	15.90	15.73	15.60
Long grain	15.94	12.96	13.84	14.01	14.34	14.52	14.72	14.70	14.76	14.59	14.46
Japonica	28.85	26.37	25.58	24.89	24.45	24.22	24.35	24.25	24.16	24.02	23.93
Other medium/short	17.07	14.29	14.93	14.96	15.15	15.24	15.38	15.30	15.29	15.08	14.92
Gross market revenue per acre	1,384.01	1,167.45	1,217.49	1,213.31	1,229.24	1,237.58	1,256.41	1,256.16	1,261.27	1,251.29	1,246.76
Variable expenses per acre	848.31	754.94	715.64	710.41	716.41	725.19	731.59	737.75	745.38	755.14	766.33
Market net return per acre	535.70	412.52	501.86	502.90	512.83	512.39	524.82	518.40	515.89	496.14	480.43
Marketing loan benefits per acre*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Payments to participants											
PLC per base acre*	0.00	75.29	56.08	49.18	45.24	43.29	35.32	34.58	35.74	39.47	40.52
ARC per base acre*	0.01	13.30	34.44	63.49	80.12	58.64	44.17	39.42	41.46	36.45	42.59
Insurance net indemnities per acre*	59.82	37.06	32.43	33.10	32.97	33.39	33.55	33.99	33.87	34.02	33.85

* Marketing loan benefits and insurance net indemnities are averaged across all acres. ARC and PLC payments are per participating acre.

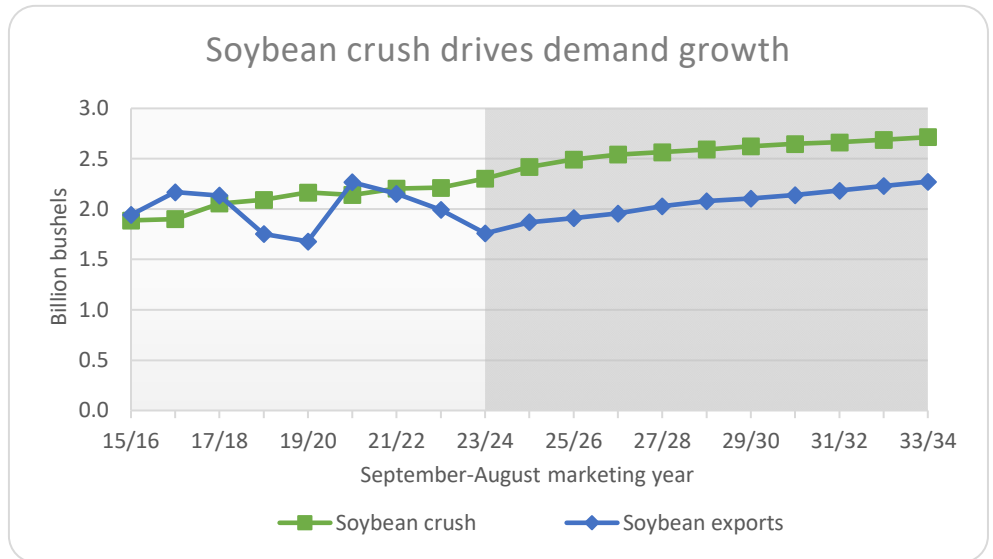
All projections are averages across 500 stochastic outcomes.



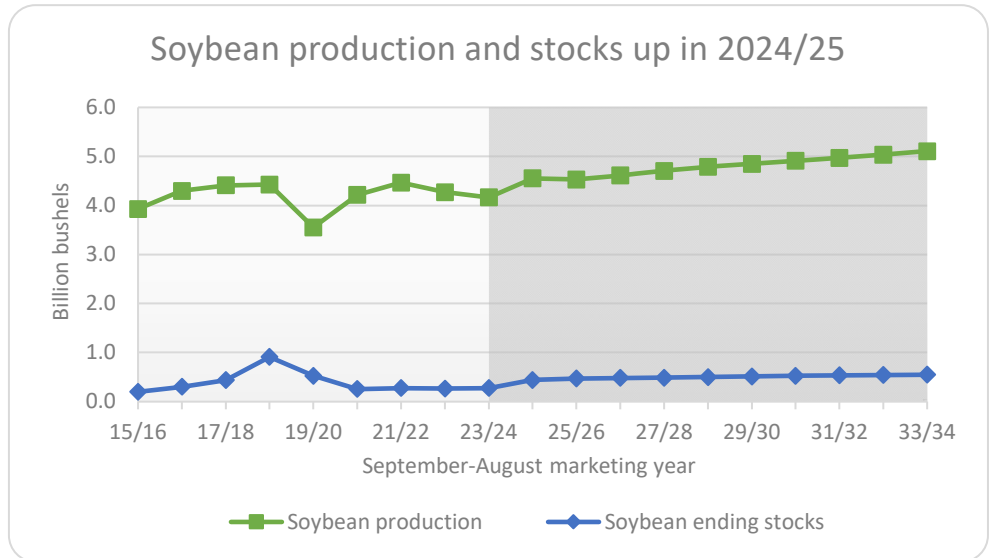
Oilseeds

Soybeans and products

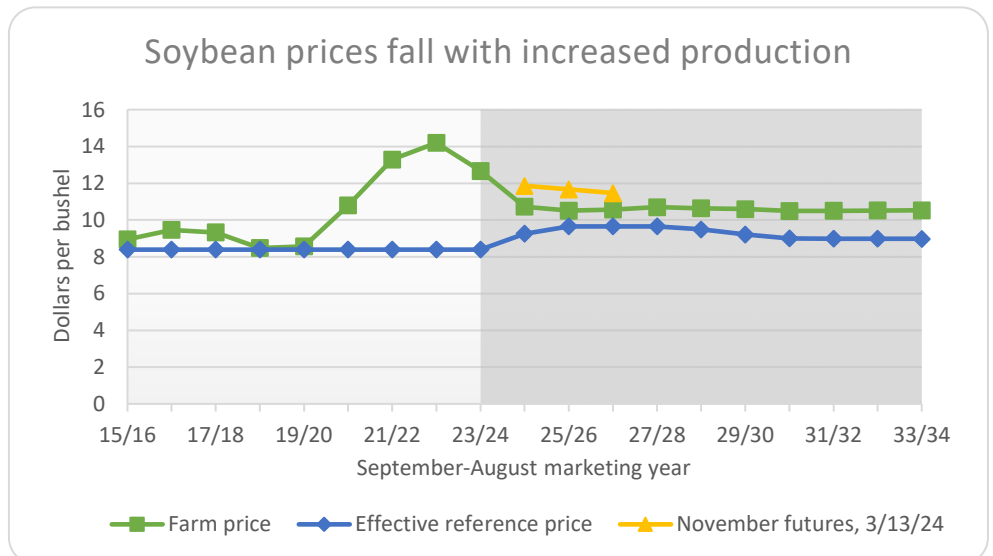
U.S. soybean crush capacity is increasing, contributing to an increase in domestic crush relative to soybean exports. After 2023/24, crush increases in response to growth in demand and especially domestic biofuel use of soybean oil. This growth in demand is one reason why soybean area is expanding at the expense of corn.



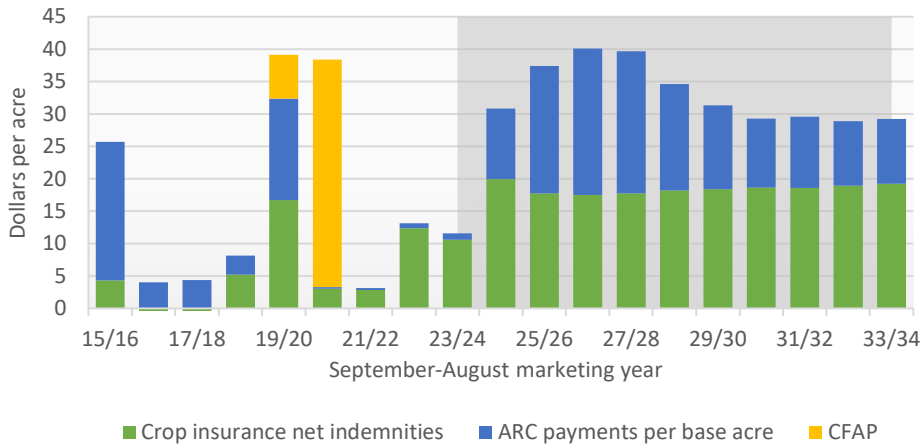
U.S. soybean production decreased for the second straight year in 2023. The decline of soybean area planted of 3.9 million acres more than offsets higher yields. Increased crush boosted demand, but a decline in exports results in ending stocks hitting a 4-year high. Projected ending stocks again increase in 2024/25 as a 4.6 million acre increase in planted area combines with trend yields to bump production and outpace total use.



U.S. soybean prices fall below \$13 in 2023/24 as exports decline more than production. A recovery in production contributes to the further slide in prices in 2024/25. Futures markets in early March were consistent with these projections. A rebound in Argentine yields contributes to lower soybean prices in 2023/24.

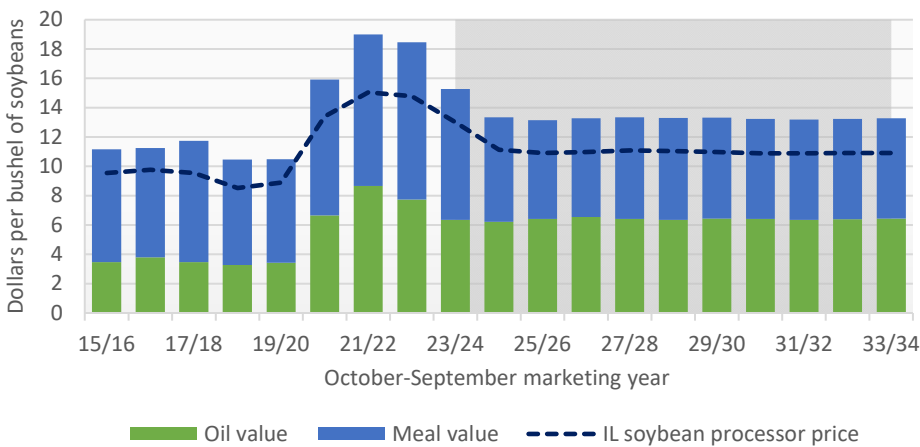


Lower prices raise soybean program benefits



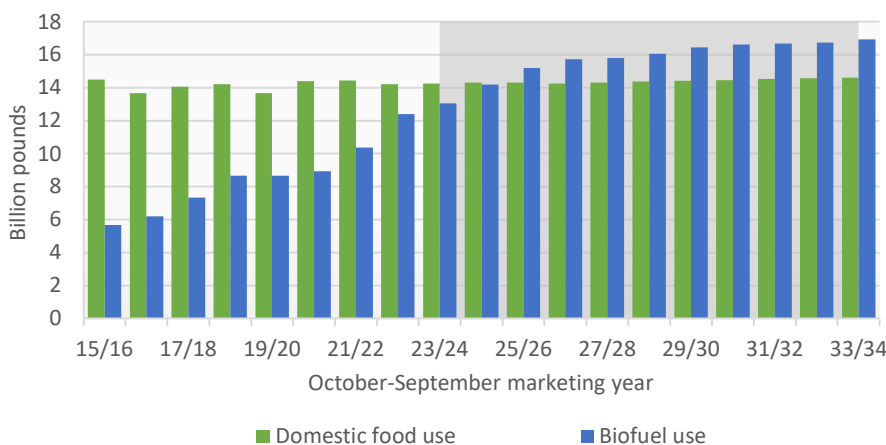
Soybean producers received smaller direct benefits from ARC, PLC and crop insurance in recent years than did producers of many other crops. In 2018/19 and 2019/20, however, they received large market facilitation payments (MFP) payments (not shown in the chart), and coronavirus food assistance program (CFAP) payments exceeded \$35 per soybean acre in 2020/21. In 2024/25, average projected ARC payments and crop insurance net indemnities rise. The projected crop insurance net indemnities assume a loss ratio of around 0.9, which is greater than it has been in most years.

Crushing margins decline but remain elevated



Processor prices for soybeans and soybean oil peaked in 2021/22, with the share of soybean oil value to crush values increasing to over 40%. This was a shift from about one-third of the crush value attributed to oil in the prior 5-year average. The share of the value of soybean oil continues to climb in the projection period, approaching 49% in the next few years. Rising demand for soybean oil used for biofuel production is an important contributor to this shift in the relative values of soybean products.

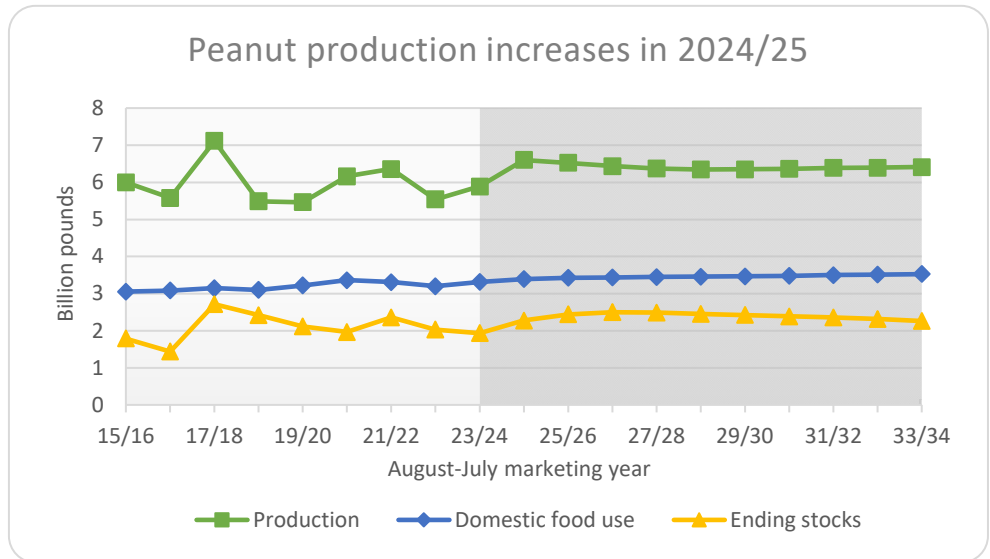
Biofuel use of soyoil has increased



Between 2012/13 and 2022/23, biofuel use accounted for about 95% of the increase in U.S. soybean oil consumption. Further growth is projected, in large part due to increased renewable diesel production, whereas only minimal expansion from food and other domestic uses contribute to soybean oil consumption growth through the projection period.

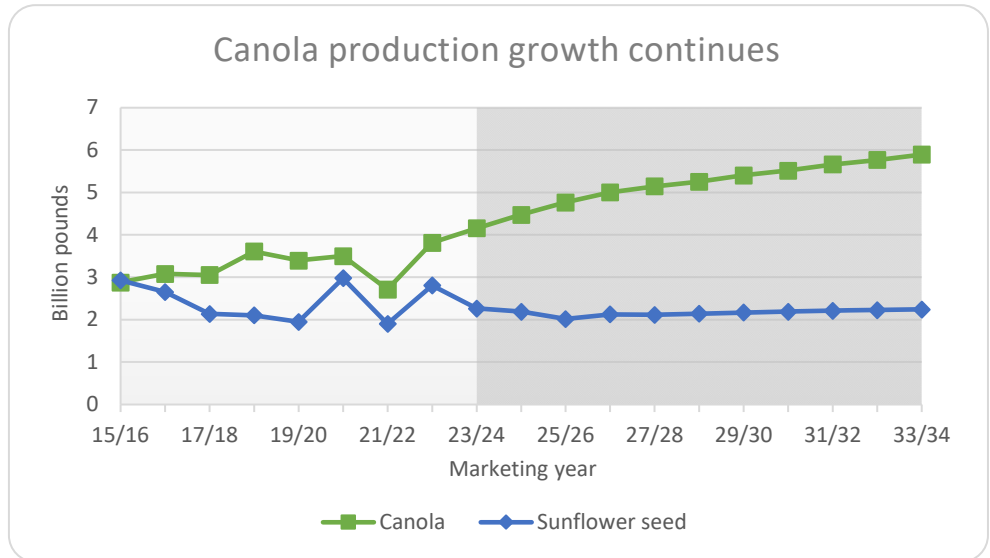
Peanuts

Weather impacted yields and led to the smallest peanut yield in seven years in 2023/24. Even with weaker yields, U.S. production rose in 2023 as planted area increased. Despite more production, increases in food use and exports reduces ending stocks in 2023/24. U.S. peanut prices reach \$560 per ton, its highest in 11 years. Area and yield both increase in 2024/25, outpacing the rise in consumption and lowering the price to \$512 per ton.

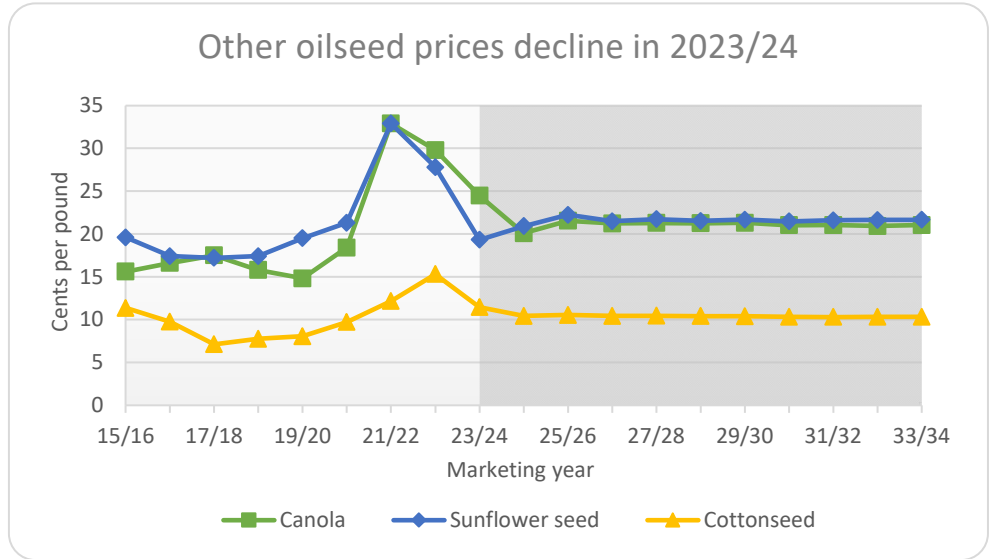


Other oilseeds

U.S. production of canola experienced strong growth and continues to exceed production of sunflowers. After drought conditions in the Northern Plains led to weaker canola production in 2021/22, area and yields recovered and continue to rise. The addition of canola oil as a potential source for renewable diesel increases demand for canola and supports more U.S. canola area through the projection period.



Prices for other oilseeds are affected by global oilseed markets and domestic soybean prices, but have their own dynamics as well. Downward price pressure from soybeans and grains had a spillover influence on other oilseed prices in 2023/24, even though both sunflower and canola ending stocks tighten. Increased supplies keep pressure on cottonseed prices in 2024/25.



Soybean supply and use

September-August year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Planted area	83.6	88.2	87.1	87.7	88.7	89.4	89.5	89.7	90.0	90.4	90.8
Harvested area	82.4	87.3	86.2	86.8	87.7	88.4	88.5	88.7	89.0	89.4	89.8
Yield	(Bushels per harvested acre)										
	50.6	52.1	52.6	53.1	53.6	54.2	54.8	55.3	55.8	56.3	56.9
Supply	(Million bushels)										
Beginning stocks	4,459	4,852	4,996	5,106	5,211	5,301	5,372	5,446	5,518	5,595	5,672
Production	264	275	442	469	481	488	499	510	524	534	540
Imports	4,165	4,553	4,531	4,613	4,707	4,790	4,849	4,912	4,971	5,037	5,109
	30	23	23	23	23	23	23	23	23	23	23
Domestic use	2,425	2,541	2,617	2,669	2,695	2,723	2,757	2,783	2,801	2,827	2,855
Crush	2,303	2,417	2,491	2,541	2,565	2,591	2,623	2,647	2,663	2,687	2,714
Seed and residual	122	124	126	128	130	132	134	136	138	140	141
Exports	1,759	1,869	1,910	1,956	2,028	2,078	2,105	2,140	2,183	2,228	2,271
Total use	4,184	4,410	4,527	4,625	4,724	4,802	4,862	4,922	4,984	5,055	5,126
Ending stocks	275	442	469	481	488	499	510	524	534	540	546
Under loan	12	28	31	32	33	34	36	38	40	40	41
Other stocks	263	413	438	449	455	465	474	486	495	500	505
Prices, program provisions	(Dollars per bushel)										
Farm price	12.68	10.73	10.51	10.58	10.71	10.64	10.60	10.50	10.51	10.52	10.53
Illinois processor price	13.01	11.11	10.90	10.96	11.09	11.03	10.98	10.89	10.90	10.91	10.92
Loan rate	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.20
Effective reference price	8.40	9.26	9.66	9.66	9.66	9.49	9.22	9.00	8.98	8.98	8.98
Enrolled base area	(Million acres)										
	52.6	52.9	53.6	53.7	53.6	53.2	53.0	53.0	53.0	53.1	53.0
PLC program yield	(Bushels per acre)										
	40.8	40.1	39.4	39.4	39.4	40.3	40.4	40.4	40.4	40.4	40.4
PLC participation rate	(Percent of base acres)										
	14.4	9.9	16.0	16.4	17.0	17.4	17.6	18.3	18.0	19.9	18.0
ARC participation rate	85.6	90.1	84.0	83.6	83.0	82.6	82.4	81.7	82.0	80.1	82.0
Returns and payments	(Dollars)										
Gross market revenue per acre	641.14	558.18	551.30	560.54	572.57	575.31	579.11	579.31	585.05	590.88	597.38
Variable expenses per acre	266.39	251.36	242.04	240.33	242.94	246.40	249.43	252.17	255.44	259.68	264.47
Market net return per acre	374.74	306.81	309.26	320.21	329.63	328.91	329.69	327.14	329.61	331.20	332.91
Marketing loan benefits per acre*	0.00	0.00	0.14	0.42	0.22	0.02	0.12	0.14	0.17	0.32	0.14
Payments to participants	(Dollars)										
PLC per base acre*	0.00	6.20	15.12	15.30	14.32	14.77	14.00	9.79	13.47	13.59	10.49
ARC per base acre*	1.00	10.91	19.63	22.61	21.92	16.38	12.92	10.64	10.99	9.96	10.03
Insurance net indemnities per acre*	10.58	19.92	17.73	17.47	17.73	18.20	18.37	18.60	18.54	18.91	19.19
Crush margin	(Dollars per bushel)										
	2.26	2.23	2.25	2.31	2.25	2.26	2.34	2.34	2.30	2.33	2.36

* Marketing loan benefits and insurance net indemnities are averaged across all acres. ARC and PLC payments are per participating acre. All projections are averages across 500 stochastic outcomes.

Soybean oil supply and use

October-September year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
	(Million pounds)										
Supply	29,134	30,473	31,353	31,863	32,167	32,566	32,993	33,284	33,515	33,857	34,219
Beginning stocks	1,602	1,521	1,523	1,448	1,470	1,566	1,615	1,628	1,671	1,725	1,774
Production	27,062	28,584	29,461	30,042	30,331	30,636	31,014	31,295	31,489	31,775	32,090
Imports	469	369	370	373	367	363	364	362	356	357	356
Domestic use	27,294	28,494	29,488	29,974	30,124	30,451	30,864	31,075	31,206	31,314	31,537
Biofuel	13,053	14,185	15,193	15,723	15,812	16,063	16,445	16,607	16,668	16,732	16,917
Food and other	14,241	14,308	14,295	14,252	14,312	14,388	14,419	14,468	14,538	14,582	14,620
Exports	319	457	417	418	477	500	501	538	584	769	880
Total use	27,613	28,951	29,905	30,393	30,601	30,951	31,365	31,613	31,790	32,083	32,418
Ending stocks	1,521	1,523	1,448	1,470	1,566	1,615	1,628	1,671	1,725	1,774	1,801
	(Cents per pound)										
Price											
Decatur	54.10	52.55	54.28	55.23	54.21	53.68	54.41	54.19	53.67	54.02	54.42

All projections are averages across 500 stochastic outcomes.

Soybean meal supply and use

October-September year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
	(Thousand tons)										
Supply	55,200	58,037	59,815	60,982	61,562	62,171	62,927	63,490	63,879	64,452	65,081
Beginning stocks	371	401	428	436	440	440	440	443	446	447	449
Production	54,229	57,036	58,786	59,946	60,522	61,132	61,887	62,447	62,834	63,405	64,033
Imports	600	600	600	600	600	600	600	600	600	600	600
Domestic use	39,462	41,346	42,558	43,191	43,580	44,076	44,668	45,206	45,706	46,153	46,594
Exports	15,336	16,263	16,820	17,351	17,542	17,655	17,816	17,838	17,726	17,850	18,037
Total use	54,799	57,609	59,378	60,542	61,123	61,731	62,484	63,044	63,432	64,003	64,631
Ending stocks	401	428	436	440	440	440	443	446	447	449	451
	(Dollars per ton)										
Price											
Decatur, 48% protein	378.24	302.26	285.19	285.70	293.60	294.33	291.91	288.98	290.32	290.51	290.18

All projections are averages across 500 stochastic outcomes.

Peanut supply and use

August-July year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Planted area	1.65	1.71	1.68	1.65	1.63	1.61	1.61	1.60	1.61	1.60	1.60
Harvested area	1.57	1.64	1.62	1.59	1.57	1.55	1.55	1.55	1.55	1.54	1.54
	(Pounds per harvested acre)										
Yield	3,742	4,024	4,038	4,054	4,072	4,088	4,103	4,119	4,134	4,148	4,164
Supply and use	(Million pounds)										
Production	8,032	8,646	8,912	8,987	8,987	8,949	8,915	8,897	8,888	8,862	8,838
Imports	109	109	109	109	109	109	109	109	109	109	109
Domestic use	4,799	5,016	5,063	5,072	5,078	5,082	5,096	5,108	5,129	5,146	5,166
Exports	1,298	1,353	1,406	1,411	1,418	1,412	1,394	1,402	1,399	1,398	1,410
Ending stocks	1,935	2,277	2,443	2,504	2,491	2,455	2,425	2,388	2,359	2,319	2,262
Prices, program provisions	(Dollars per ton)										
Farm price	560.83	511.78	485.52	474.34	472.68	474.21	477.59	484.93	486.72	491.76	501.32
Target/effective reference price	535.00	535.00	535.00	535.00	535.00	535.00	535.00	535.00	535.00	535.00	535.00
Market net return per acre	317.93	326.84	304.14	292.24	286.57	284.10	286.78	296.62	293.49	294.62	304.34
Marketing loan benefits per acre*	0.00	1.65	2.71	3.81	3.36	3.27	3.72	3.83	3.17	2.94	2.55
Payments to participants											
PLC per base acre*	0.95	55.74	81.78	96.98	99.24	97.10	94.36	88.54	92.53	86.20	75.13
ARC per base acre*	15.02	21.04	27.70	31.38	28.59	29.85	30.91	28.64	26.67	24.50	21.99

* Marketing loan benefits are averaged across all acres. ARC and PLC payments are per participating acre.

All projections are averages across 500 stochastic outcomes.

Canola supply and use

September-August year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Planted area	2.34	2.31	2.46	2.56	2.60	2.64	2.69	2.74	2.78	2.82	2.86
Harvested area	2.32	2.27	2.40	2.50	2.56	2.58	2.64	2.67	2.72	2.76	2.79
	(Pounds per harvested acre)										
Yield	1,793	1,932	1,938	1,963	1,972	1,987	2,003	2,027	2,036	2,046	2,063
Supply and use	(Million pounds)										
Production	4,157	4,474	4,768	5,003	5,146	5,253	5,402	5,515	5,662	5,766	5,894
Imports	877	612	696	756	809	854	871	894	899	922	934
Domestic use	4,676	4,658	5,017	5,296	5,496	5,642	5,797	5,931	6,075	6,198	6,328
Exports	396	381	438	444	448	454	465	466	474	478	489
Ending stocks	184	178	216	220	219	221	225	223	219	213	207
Prices, returns and payments	(Dollars)										
Farm price per pound	0.245	0.199	0.215	0.212	0.212	0.212	0.212	0.210	0.210	0.209	0.210
Market net return per acre	102.92	62.67	104.02	106.04	104.37	102.87	103.28	99.76	97.18	92.09	91.11
Marketing loan benefits per acre*	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.03	0.00
Payments to participants											
PLC per base acre*	0.00	16.73	11.49	17.40	23.07	13.68	12.60	13.75	15.43	15.70	15.10
ARC per base acre*	0.78	11.78	11.87	13.20	14.23	11.92	11.62	12.64	13.07	13.55	12.86

* Marketing loan benefits are averaged across all acres. ARC and PLC payments are per participating acre.

All projections are averages across 500 stochastic outcomes.

Sunflower seed supply and use

September-August year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Planted area	1.32	1.35	1.24	1.29	1.28	1.29	1.29	1.30	1.30	1.31	1.31
Harvested area	1.27	1.29	1.18	1.24	1.23	1.23	1.24	1.24	1.25	1.25	1.25
Yield	(Pounds per harvested acre)										
	1,786	1,691	1,703	1,715	1,725	1,738	1,750	1,760	1,771	1,777	1,790
Supply and use	(Million pounds)										
Production	2,264	2,191	2,017	2,125	2,115	2,142	2,168	2,190	2,211	2,225	2,242
Imports	370	354	397	391	391	399	405	416	423	434	445
Domestic use	2,594	2,456	2,344	2,386	2,394	2,426	2,461	2,495	2,526	2,555	2,586
Exports	118	124	109	110	110	109	107	104	102	99	96
Ending stocks	287	253	214	233	234	240	245	253	258	262	267
Prices, returns and payments	(Dollars)										
Farm price per pound	0.193	0.209	0.222	0.215	0.217	0.215	0.217	0.215	0.216	0.216	0.217
Market net return per acre	122.35	142.74	175.58	166.89	171.05	167.40	170.20	166.15	168.40	166.66	165.91
Marketing loan benefits per acre*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Payments to participants											
PLC per base acre*	9.42	2.62	0.93	2.46	2.31	2.14	1.89	2.49	2.46	2.54	2.27
ARC per base acre*	2.29	8.50	6.37	10.43	9.29	5.92	4.53	4.79	4.96	4.87	4.75

* Marketing loan benefits are averaged across all acres. ARC and PLC payments are per participating acre.
All projections are averages across 500 stochastic outcomes.

Cottonseed production and prices

August-July year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Production	(Thousand tons)										
	3,788	5,600	5,162	5,295	5,373	5,377	5,353	5,340	5,332	5,317	5,301
Price	(Dollars per ton)										
	229	209	211	209	209	208	208	206	206	206	206

All projections are averages across 500 stochastic outcomes.



Other crops

Upland cotton

Another year of drought in 2023 reduced cotton production to its lowest level in 14 years from lower area and yields. Even though less production was met with reduced exports and domestic mill use, ending stocks decline to their smallest level since 2013/14.

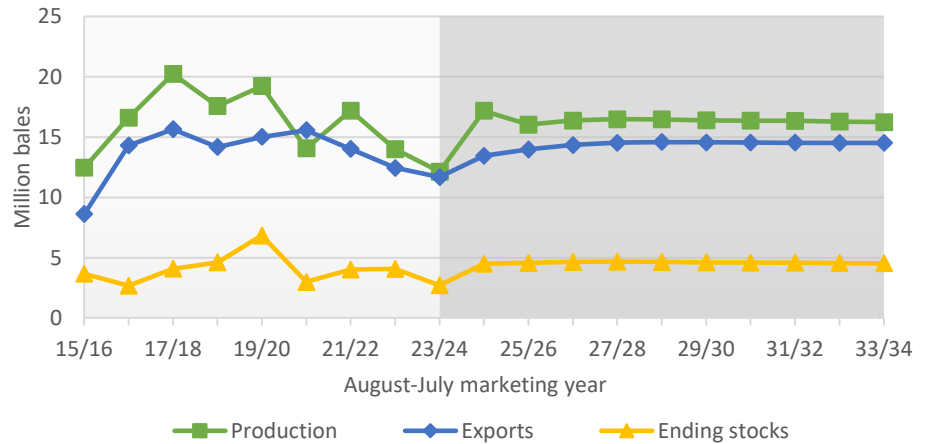
Production is projected to recover in 2024/25 on higher projected area, a return to trend yields, and below average abandonment. Abandonment is assumed to return to its longer-term average of 23% in 2025/26 and later years.

Upland cotton prices rose in 2021/22 with adjusted world prices hitting their highest point in 11 years. Despite weaker U.S. production in 2023/24, farm prices fell as total use declined. For 2024/25, farm prices continue to slide as increasing exports and domestic mill use are not enough to compensate for higher production.

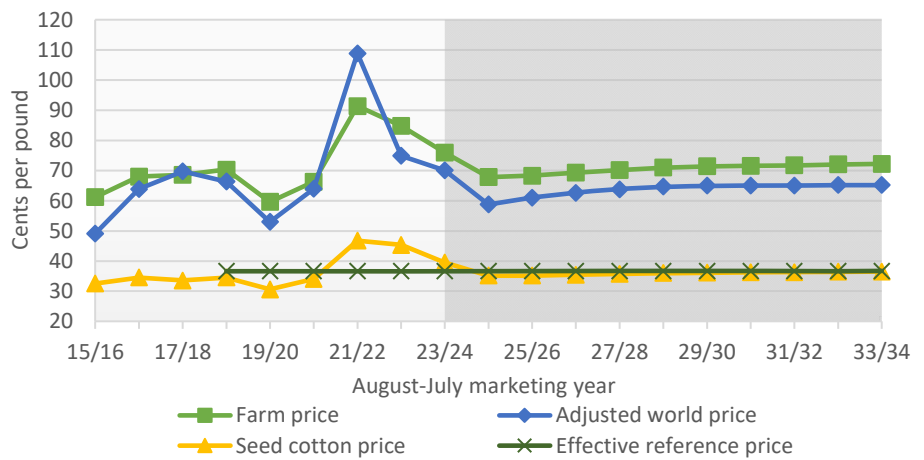
Seed cotton prices fall below the effective reference price in 2024/25 and remain there throughout the projection period. Lower lint and cottonseed prices mean a projected seed cotton price in 2024/25 of 35.2 cents per pound.

The widespread extreme drought in 2022 resulted in record large crop insurance benefits for 2022/23, although the higher seed cotton prices drove PLC payments to zero. For 2024/25 and later, crop insurance net indemnities average \$70 per acre. PLC payments average \$36 per base acre as projected average seed cotton prices are below the effective reference price in most years. Enrolled base acreage increases in 2024/25 as anticipated PLC payments exceed expected returns from the STAX crop insurance program.

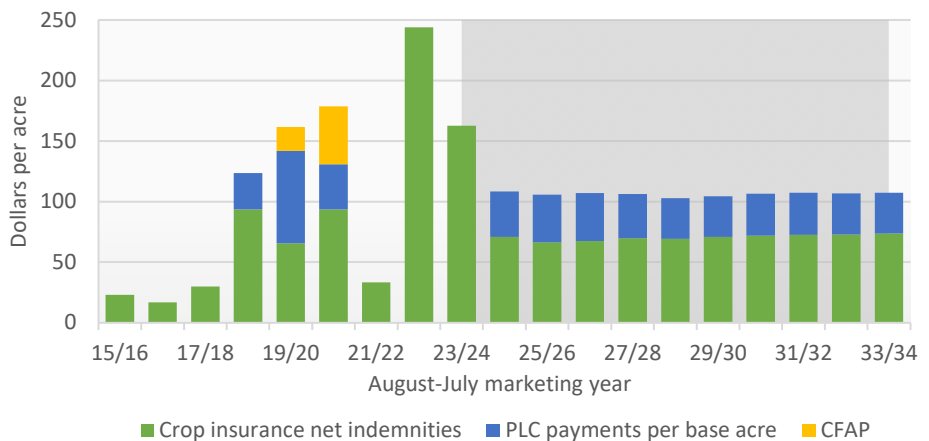
Cotton production and stocks build in 2024/25



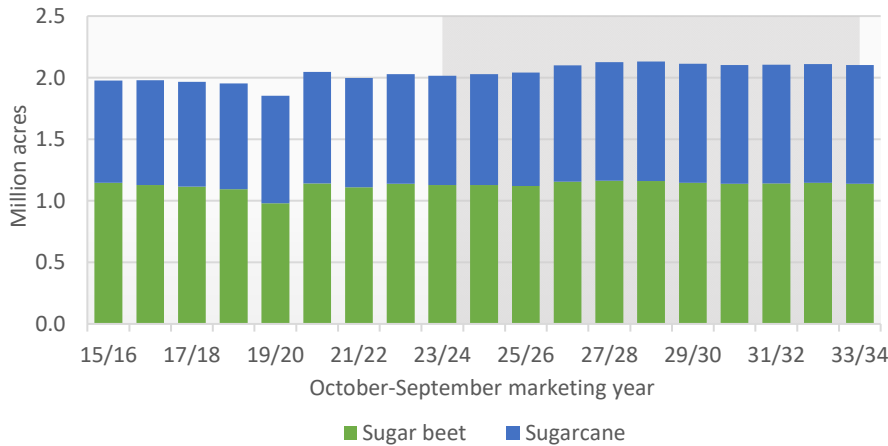
Cotton prices continue to slide in 2024/25



Indemnities are a majority of cotton program benefits



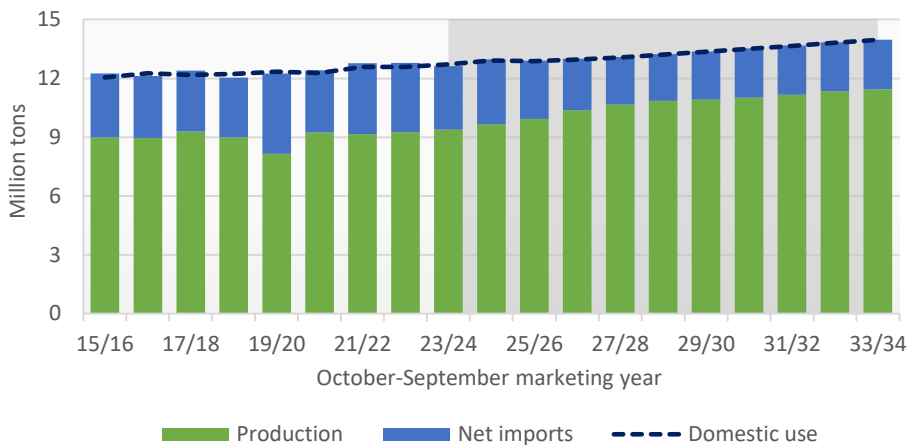
Sugar acres expand slightly over time



Sugar

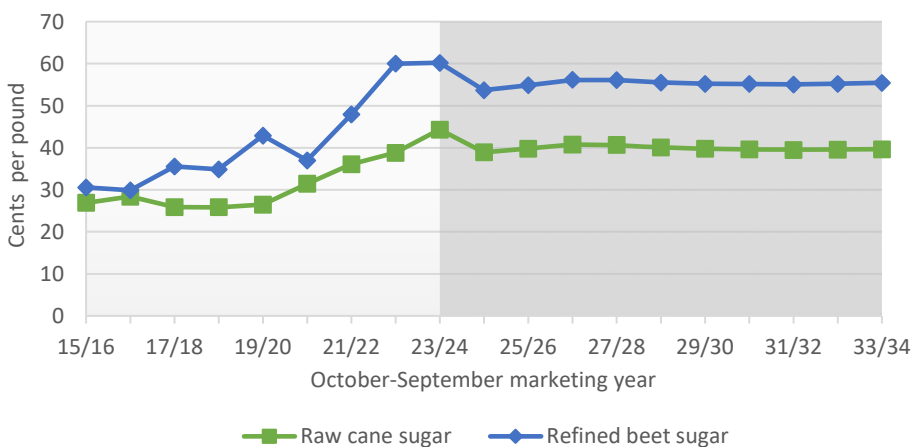
Sugarcane and sugar beet area harvested rises slightly relative to the recent 10-year average. Sugar beet acres top out at just over 1.16 million acres in 2028/29 and average about 1.14 million acres over the projection period. Sugarcane area averages 0.95 million acres for the projection period.

Imports are projected to play a smaller role



Projected domestic sugar use reaches 14.0 million tons by 2033/34, up from 12.7 million tons in 2023/24. This growth in demand is met primarily with additional domestic sugar production. As a result, the need for imported sugar beyond tariff rate quotas is projected to decline. Projected total imports fall from 3.2 million tons in 2023/24 to 2.5 million tons in 2033/34. We assume both a return to more normal weather in Mexico and less need for high-duty sugar imports over the course of the projection period.

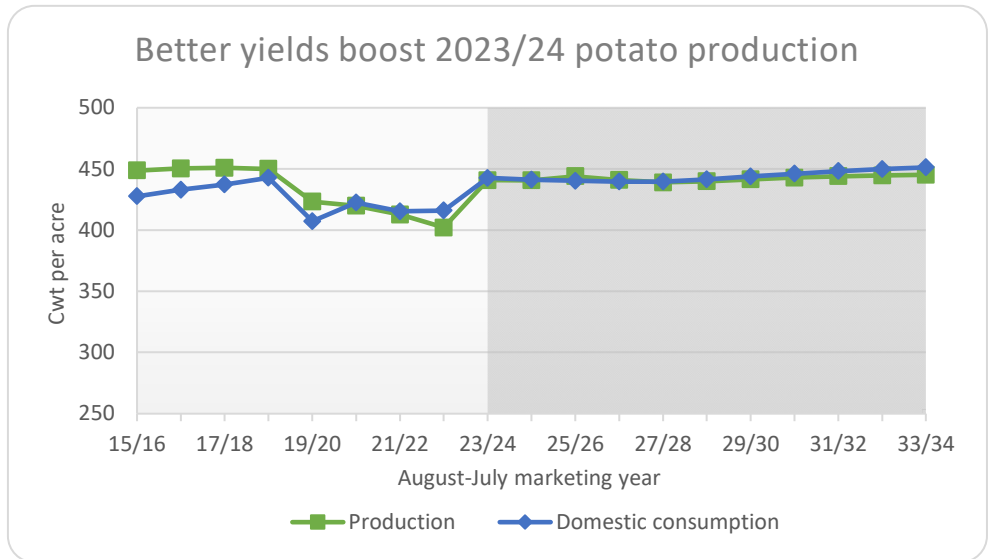
Sugar prices remain elevated



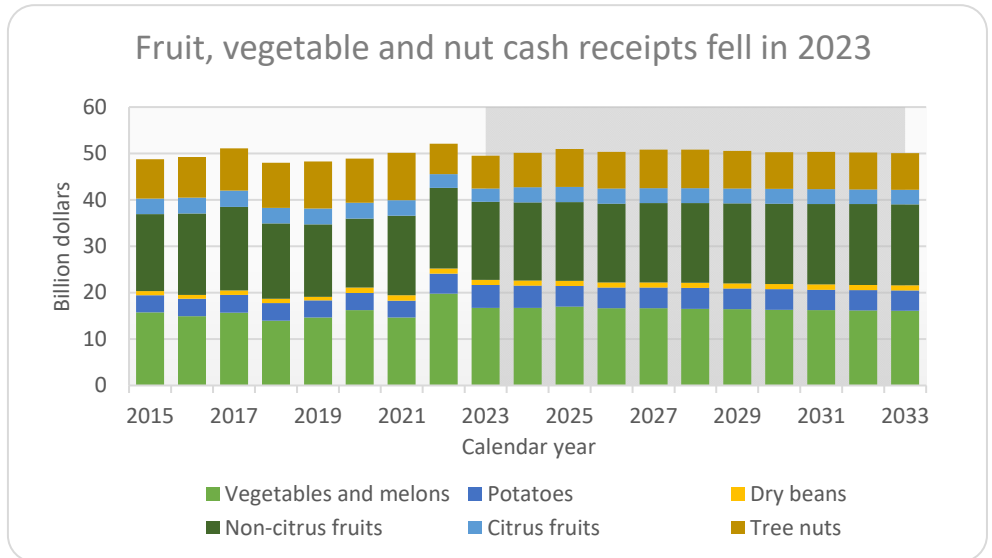
The projected price spread between raw sugar and refined sugar in the U.S. remains similar to recent years. The prices are projected to rise slightly in 2023/24 compared to 2022/23 before falling to an average of 40 cents per pound for raw sugar and 55 cents per pound for refined sugar. These prices remain well above the levels that would result in sugar program outlays.

Potatoes, fresh vegetables, fruits and nuts

After two years of drought in key potato growing states that limited yield potential and reduced potato production, yields recovered in 2023/24. With the rebound in production combined with a historically elevated price the 2023/24 receipts hit a new record to exceed \$4.8 billion.

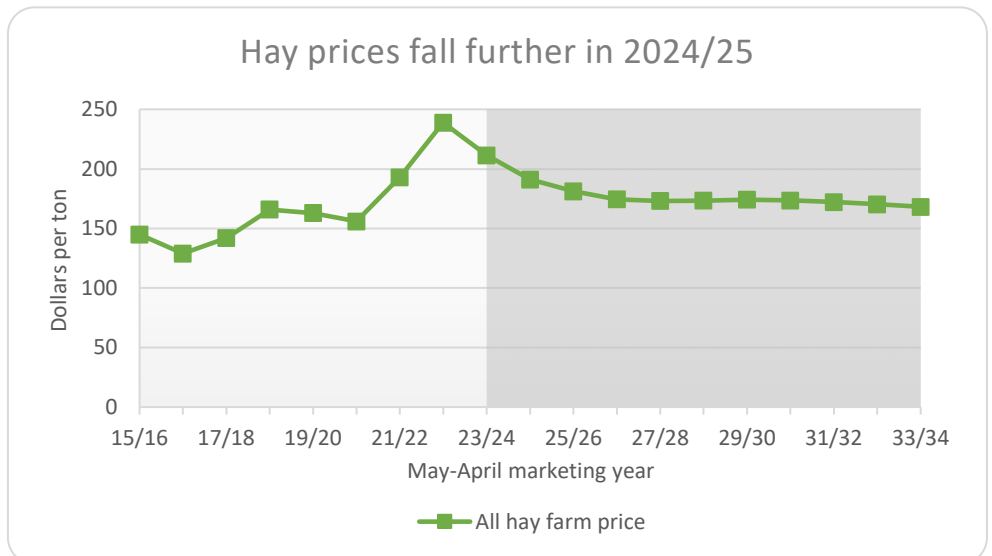


Total cash receipts for fruits, vegetables and tree nuts decreased by 5% in 2023 compared to 2022. Production improvements for non-citrus fruits, vegetables and melons categories were more than offset by weaker prices leading to lower receipts. Projected receipts bounce 1% higher in 2024 led by the recovery in citrus fruit receipts.



Hay

Hay prices peaked in 2022/23 because of drought-reduced production. Despite lower yield, production increased in 2023/24 due to higher area. The assumed return to trend yields in 2024/25 contributes to a further projected price decline. An increase in cattle numbers contributes to the support in prices after 2026/27. The all hay price is made up of alfalfa prices and other hay prices, which are higher and lower than the all hay price, respectively.



Upland cotton supply and use

August-July year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area (Million acres)											
Planted area	10.09	10.89	11.37	11.32	11.31	11.32	11.31	11.30	11.28	11.23	11.18
Harvested area	6.92	9.62	8.73	8.91	8.93	8.86	8.75	8.68	8.62	8.56	8.50
Yield (Pounds per harvested acre)											
	841	856	880	881	884	891	897	904	909	912	916
Supply (Million bales)											
Beginning stocks	4.08	2.72	4.49	4.58	4.65	4.67	4.65	4.61	4.60	4.58	4.56
Production	12.13	17.18	16.02	16.37	16.48	16.47	16.39	16.36	16.34	16.28	16.24
Imports	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Use											
Domestic mill use	1.90	1.95	1.97	1.95	1.93	1.90	1.86	1.83	1.81	1.79	1.77
Exports	11.69	13.45	13.97	14.34	14.53	14.59	14.56	14.54	14.54	14.52	14.51
Ending stocks											
	2.72	4.49	4.58	4.65	4.67	4.65	4.61	4.60	4.58	4.56	4.53
Prices, program provisions (Cents per pound)											
Farm price	75.97	67.85	68.29	69.31	70.18	70.99	71.45	71.57	71.74	72.05	72.22
Adjusted world price	70.03	58.76	61.04	62.65	63.81	64.69	65.02	64.98	65.04	65.22	65.18
Loan rate	52.00	52.00	52.00	51.99	51.82	51.81	51.82	51.86	51.90	51.90	51.92
Returns and payments (Dollars per ton)											
Gross market revenue per acre	763.87	695.97	723.81	732.39	743.78	756.40	765.36	770.89	776.59	782.46	787.24
Variable expenses per acre	579.94	538.70	525.20	527.83	537.15	545.01	551.94	558.76	567.74	578.84	591.05
Market net return per acre	183.92	157.27	198.61	204.56	206.63	211.39	213.43	212.12	208.85	203.62	196.20
Marketing loan benefits per acre*	0.00	20.56	17.62	15.60	12.54	10.03	11.22	11.33	10.05	9.81	10.48
Insurance net indemnities per acre*	162.51	70.88	66.29	67.42	69.58	69.26	70.63	71.89	72.52	72.78	73.67

* Marketing loan benefits and insurance net indemnities are averaged across all acres.

All projections are averages across 500 stochastic outcomes.

Seed cotton indicators

October-September year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Marketing year average price (Cents per pound)											
Marketing year average price	39.48	35.21	35.16	35.47	35.73	36.04	36.21	36.22	36.29	36.43	36.50
Effective reference price	36.70	36.70	36.70	36.71	36.73	36.70	36.70	36.70	36.70	36.70	36.70
Enrolled base area (Million acres)											
Enrolled base area	8.28	11.13	12.62	12.84	12.66	12.50	12.37	12.31	12.27	12.19	12.13
PLC program yield (Pounds per acre)											
PLC program yield	1,896	1,735	1,738	1,742	1,739	1,737	1,736	1,735	1,734	1,733	1,732
PLC participation rate (Percent of base acres)											
PLC participation rate	73.2	97.3	94.6	94.9	94.6	95.2	95.1	94.7	94.1	94.1	94.1
ARC participation rate	26.8	2.7	5.4	5.1	5.4	4.8	4.9	5.3	5.9	5.9	5.9
Payments to participants (Dollars)											
PLC per base*	0.00	37.30	39.37	39.46	36.60	33.52	33.83	34.57	34.78	33.84	33.67
ARC per base acre*	29.97	8.73	11.13	10.48	14.79	7.74	10.69	9.29	9.97	9.95	8.25

*ARC and PLC payments are per participating acre.

All projections are averages across 500 stochastic outcomes.

Sugar supply and use

October-September year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Million acres)										
Sugar cane harvested	0.887	0.901	0.920	0.945	0.963	0.971	0.969	0.964	0.964	0.967	0.966
Sugar beet planted	1.137	1.152	1.145	1.181	1.189	1.186	1.171	1.164	1.165	1.170	1.163
Sugar beet harvested	1.127	1.127	1.121	1.156	1.164	1.161	1.146	1.139	1.140	1.145	1.138
Yield	(Tons per harvested acre)										
Cane sugar	4.49	4.65	4.80	4.88	4.96	5.03	5.11	5.18	5.24	5.30	5.36
Beet sugar	4.79	4.85	4.92	4.99	5.06	5.13	5.21	5.29	5.36	5.43	5.50
Supply and use	(Thousand tons)										
Production	9,382	9,658	9,926	10,379	10,669	10,850	10,916	11,019	11,167	11,336	11,436
Cane sugar	3,981	4,186	4,416	4,612	4,776	4,890	4,946	4,995	5,053	5,120	5,173
Beet sugar	5,401	5,471	5,510	5,767	5,893	5,960	5,970	6,024	6,114	6,216	6,262
Imports	3,316	3,366	3,006	2,648	2,467	2,422	2,495	2,545	2,547	2,538	2,572
Domestic deliveries	12,707	12,905	12,871	12,953	13,068	13,212	13,361	13,512	13,657	13,816	13,955
Exports	80	63	39	37	39	39	39	39	40	40	41
Ending stocks	1,755	1,810	1,832	1,869	1,898	1,920	1,931	1,944	1,961	1,978	1,990
Prices	(Cents per pound)										
NY spot raw sugar	44.30	38.89	39.78	40.77	40.66	40.08	39.75	39.64	39.49	39.53	39.63
Refined beet sugar	60.20	53.68	54.86	56.17	56.13	55.50	55.20	55.15	55.07	55.22	55.43

All projections are averages across 500 stochastic outcomes.

Potato supply and use

August-July year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Area	(Thousand acres)										
Planted area	965	972	974	960	949	945	942	939	936	931	926
Harvested area	960	960	961	949	938	934	932	929	925	921	916
Yield	(Hundredweight per harvested acre)										
	459	459	462	465	468	471	474	477	480	483	486
Supply and use	(Million hundredweight)										
Production	441	441	444	441	439	440	441	443	444	445	445
Imports	69	69	70	71	71	72	73	73	74	74	74
Domestic disappearance	443	441	440	440	440	441	444	446	448	450	451
Exports	75	77	79	80	82	83	84	85	87	87	87
Prices	(Dollars per hundredweight)										
Farm price	12.19	11.78	10.63	10.99	11.19	11.14	11.02	10.91	10.80	10.72	10.63
Crop insurance participation	(Percent of acres)										
	81	82	82	82	82	82	82	82	82	82	82
Cash receipts	(Million dollars)										
	4,880	4,826	4,485	4,415	4,495	4,507	4,483	4,452	4,420	4,392	4,362
Returns and payments	(Dollars)										
Gross market revenue per acre	5,593	5,403	4,911	5,107	5,237	5,243	5,223	5,202	5,184	5,177	5,166
Variable expenses per acre	3,140	2,980	2,846	2,890	2,990	3,068	3,103	3,136	3,175	3,239	3,313
Market net return per acre	2,454	2,423	2,065	2,217	2,246	2,175	2,120	2,066	2,009	1,938	1,853
Premium subsidy per acre	73	79	76	68	71	74	74	74	73	73	73

All projections are averages across 500 stochastic outcomes.

Vegetable and melon supply and use

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Harvested area	(Million acres)										
Vegetable	3.86	3.87	3.85	3.85	3.84	3.84	3.83	3.83	3.83	3.82	3.82
Melon	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.14
Yield	(Tons per harvested acre)										
Vegetable	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.5	8.5
Melon	16.3	16.4	16.6	16.8	16.9	17.1	17.2	17.4	17.6	17.7	17.9
Vegetable supply and use	(Million tons)										
Production	32.4	32.7	32.5	32.5	32.5	32.4	32.4	32.4	32.3	32.3	32.3
Imports	11.2	11.3	11.6	11.8	12.0	12.3	12.5	12.8	13.0	13.3	13.5
Domestic use	40.7	41.0	41.1	41.3	41.4	41.6	41.8	42.0	42.2	42.4	42.6
Exports	2.9	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.2
Melon supply and use	(Million tons)										
Production	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6
Imports	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Domestic use	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7
Exports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prices	(Cents per pound)										
Vegetable	24.99	22.38	21.58	22.11	21.64	21.65	21.51	21.41	21.29	21.20	21.13
Dry bean	38.53	35.59	34.07	34.13	33.97	33.83	33.71	33.57	33.43	33.33	33.23
Melon	23.65	23.38	23.49	22.92	22.65	22.32	22.03	21.59	21.23	20.88	20.53
Cash receipts	(Million dollars)										
Vegetable	15,553	15,518	15,804	15,501	15,474	15,365	15,289	15,198	15,130	15,075	15,022
Dry bean	1,138	1,113	1,094	1,098	1,102	1,104	1,106	1,108	1,109	1,110	1,112
Melon	1,169	1,163	1,171	1,149	1,140	1,129	1,119	1,103	1,090	1,077	1,064
Total receipts	17,860	17,794	18,069	17,748	17,717	17,598	17,514	17,409	17,330	17,263	17,198

Fruit and tree nut supply and use

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Bearing area (Million acres)											
Non-citrus fruit	1.83	1.83	1.84	1.85	1.84	1.84	1.84	1.84	1.85	1.85	1.85
Citrus fruit	0.59	0.60	0.61	0.61	0.61	0.60	0.60	0.59	0.59	0.59	0.59
Tree nut	2.70	2.65	2.62	2.67	2.66	2.68	2.72	2.77	2.79	2.82	2.85
Yield (Tons per bearing acre)											
Non-citrus fruit	8.75	8.87	8.90	8.93	8.96	8.99	9.01	9.04	9.07	9.10	9.13
Citrus fruit	8.33	10.38	10.01	10.40	10.32	10.42	10.42	10.47	10.49	10.52	10.55
Tree nut	0.82	0.82	0.82	0.83	0.83	0.83	0.83	0.84	0.84	0.84	0.84
Non-citrus fruit supply and use (Million tons)											
Production	16.0	16.3	16.4	16.5	16.5	16.6	16.6	16.7	16.7	16.8	16.9
Imports	11.6	11.7	11.8	11.8	11.9	12.0	12.1	12.2	12.2	12.3	12.4
Domestic use	26.0	26.2	26.4	26.5	26.6	26.7	26.9	27.0	27.1	27.3	27.4
Exports	1.6	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Citrus fruit supply and use											
Production	4.9	6.2	6.1	6.4	6.3	6.3	6.2	6.2	6.2	6.2	6.2
Imports	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0
Domestic use	6.1	7.5	7.4	7.7	7.6	7.6	7.6	7.6	7.7	7.7	7.7
Exports	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Tree nut supply and use											
Production	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4
Imports	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Domestic use	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
Exports	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6
Prices (Cents per pound)											
Non-citrus fruit	52.68	51.76	51.79	51.65	51.80	51.92	51.98	51.99	51.97	51.94	51.88
Citrus fruit	29.94	26.44	26.97	25.51	25.63	25.84	25.69	25.73	25.57	25.41	25.28
Tree nut	156.49	166.82	185.13	175.98	183.97	183.42	174.10	166.92	168.50	164.12	159.71
Cash receipts (Million dollars)											
Non-citrus fruit	16,822	16,821	16,958	17,024	17,106	17,186	17,261	17,330	17,394	17,459	17,513
Citrus fruit	2,940	3,302	3,306	3,253	3,245	3,237	3,216	3,201	3,177	3,154	3,131
Tree nut	7,040	7,421	8,163	7,932	8,282	8,325	8,068	7,892	8,038	7,945	7,847
Total receipts	26,801	27,543	28,427	28,209	28,633	28,748	28,545	28,423	28,609	28,558	28,491

Hay supply and use

May-April year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
	(Million acres)										
Harvested area	52.8	52.3	52.0	51.7	51.6	51.6	51.7	51.8	51.9	51.9	51.9
	(Tons per acre)										
Yield	2.25	2.40	2.42	2.43	2.44	2.45	2.45	2.46	2.46	2.47	2.47
	(Million tons)										
Supply and use											
Production	118.8	125.5	125.8	125.7	125.8	126.2	126.7	127.3	127.8	128.0	128.3
Domestic disappearance	113.0	117.7	119.2	119.6	120.4	121.1	121.6	122.1	122.4	122.6	122.6
Net exports	4.1	4.8	5.0	5.3	5.3	5.3	5.3	5.2	5.3	5.3	5.3
Ending stocks	16.2	19.3	20.8	21.6	21.8	21.6	21.4	21.3	21.4	21.6	21.9
	(Dollars per ton)										
All hay farm price	211.53	191.18	181.32	174.57	173.22	173.50	174.28	173.51	172.17	170.35	168.26

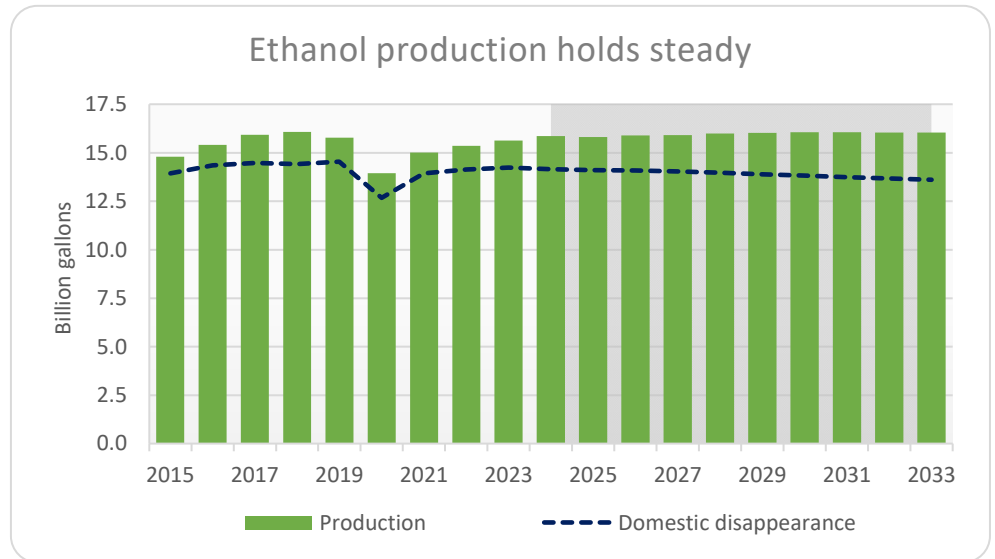
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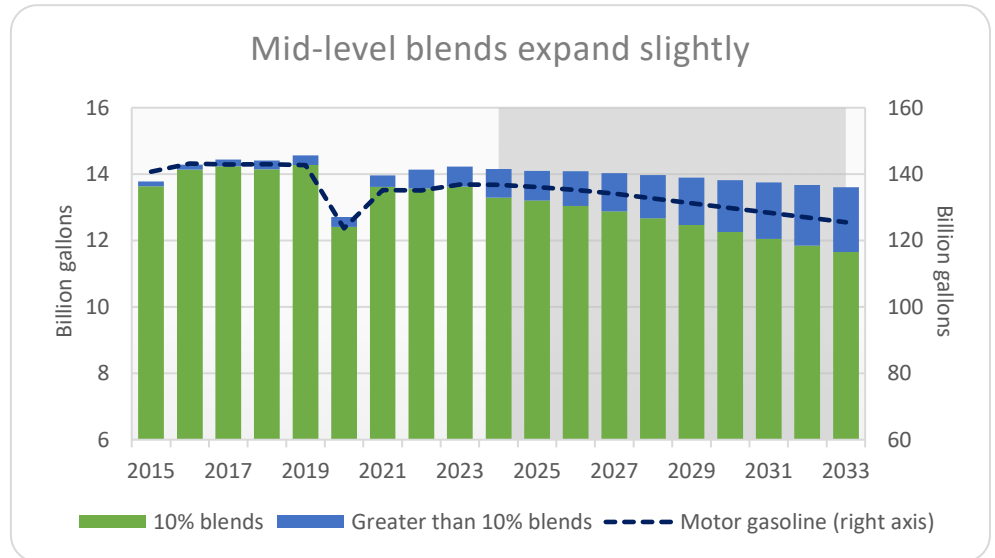
Biofuels

Ethanol

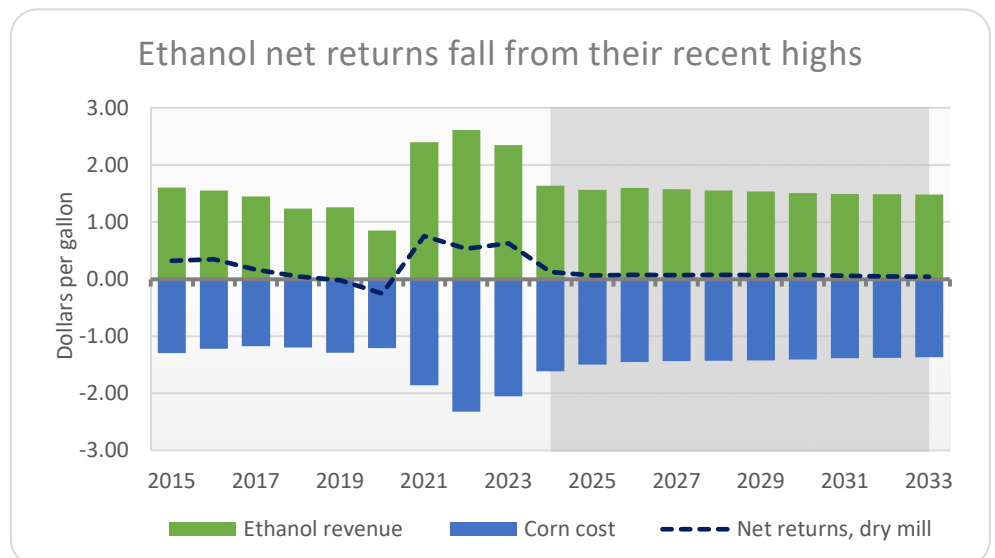
U.S. ethanol production is projected to rise from a little over 15.6 billion gallons in 2023 to just over 16.0 billion gallons by 2033. Nearly all domestic production comes from corn starch, with only minor quantities of cellulosic based fuel. Domestic use falls slightly in the projections as overall motor gasoline use declines faster than blend rates increase.



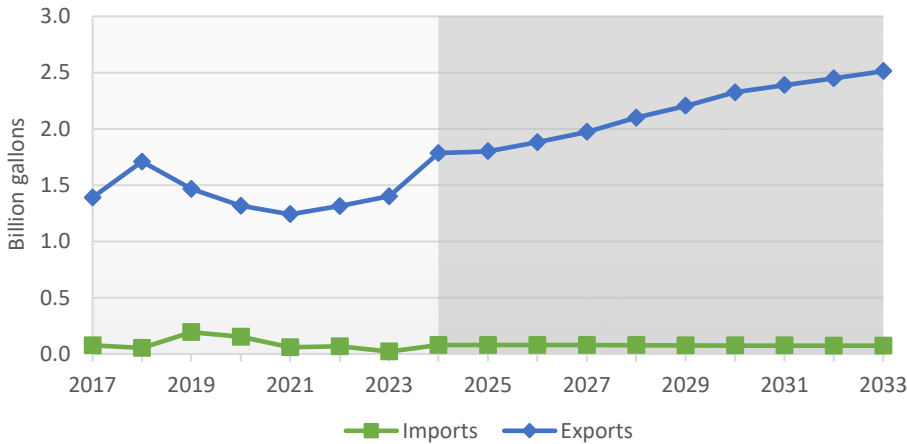
Motor gasoline use declines over the projection period due to improvements in vehicle fuel efficiency, among other factors. Projected ethanol use peaks at around 14.1 billion gallons in 2024 before trending down. The relative rate of decline in ethanol use is less than the reduction in gasoline use as the mid-level blends (e.g., E15) expand their share in the fuel pool. The projected pace of E15 adoption is based on price signals alone and does not include new rules or legislation related to the Reid vapor pressure waiver for E15.



Dry-mill ethanol net returns remained strong in 2023. However, projected net returns fall to a lower, but still marginally positive, level as both corn input costs and revenues from ethanol fall similarly.

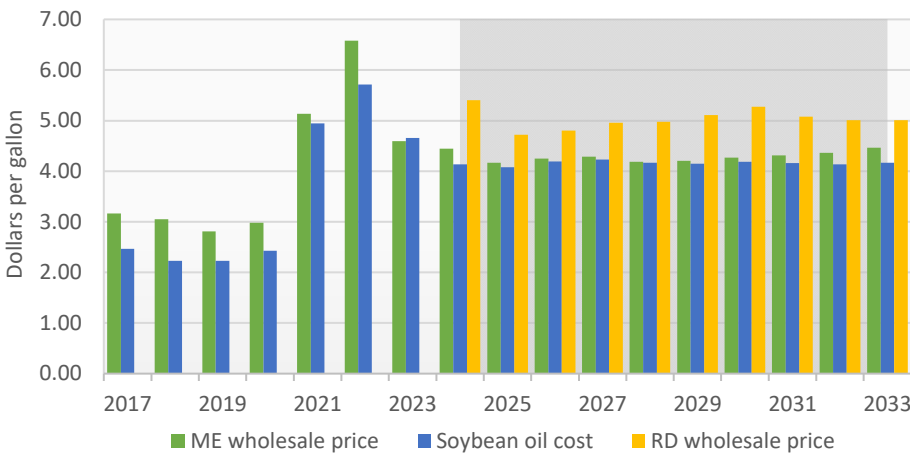


U.S. ethanol exports continue their upward trend



As petroleum prices and global incomes rise, projected international ethanol demand increases and pushes U.S. ethanol exports to near 2.5 billion gallons by 2033. U.S. imports of ethanol remain limited to small quantities brought in to help meet state-level Low Carbon Fuel Standard (LCFS) requirements.

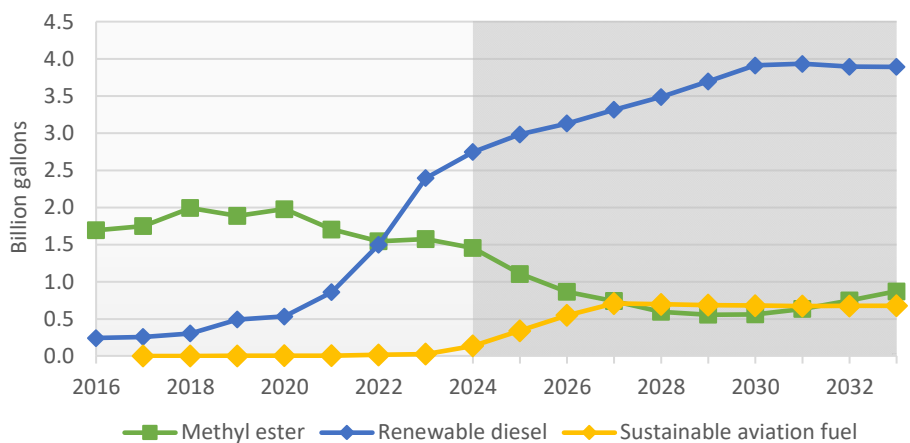
Price premium for renewable diesel falls slightly



Biomass-based diesel

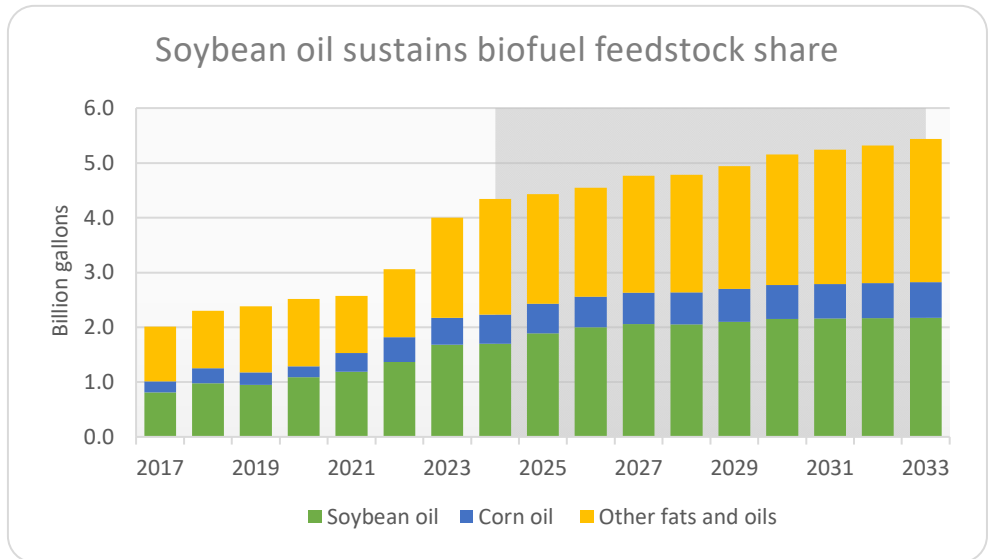
Despite lower Renewable Identification Number (RIN) prices and LCFS credit prices, renewable diesel (RD) maintains a distinct production advantage over methyl ester (ME) biodiesel. The spread between projected soybean oil prices (per gallon of renewable fuel produced) and ME prices averages \$0.13 per gallon, while the spread between projected soybean oil prices and RD prices averages \$0.87 per gallon.

Renewable diesel production continues to climb



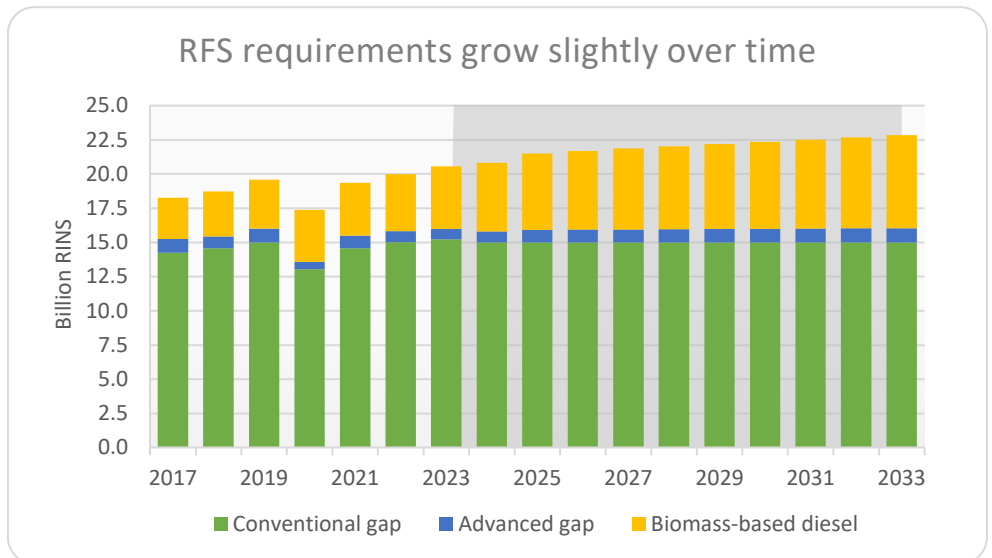
Projected domestic RD production increases steadily in the near term before leveling off beyond 2030. As ME biodiesel struggles to compete with renewable diesel, there is an initial downward trend to ME production before demand and policy incentives encourage a slight return to growth. Sustainable aviation fuel is also projected to grow steadily through 2027 and then remain flat as tax credits are assumed to sunset. Overall biomass-based diesel production is projected to rise from 4.5 billion gallons in 2024 to 5.4 billion gallons in 2033.

Projected use of soybean oil as a renewable fuel feedstock rises from 13.1 billion pounds in the 2023/24 marketing year to 16.9 billion pounds by the end of the period. This equates to around 2.2 billion gallons of biomass-based diesel and is about 40% of the feedstock share. Distillers corn oil makes up a mostly flat share of feedstock use, at around 12%, while the share of other fats and oils declines from 49% to around 44% in 2026 before rising back to 48% by 2033.

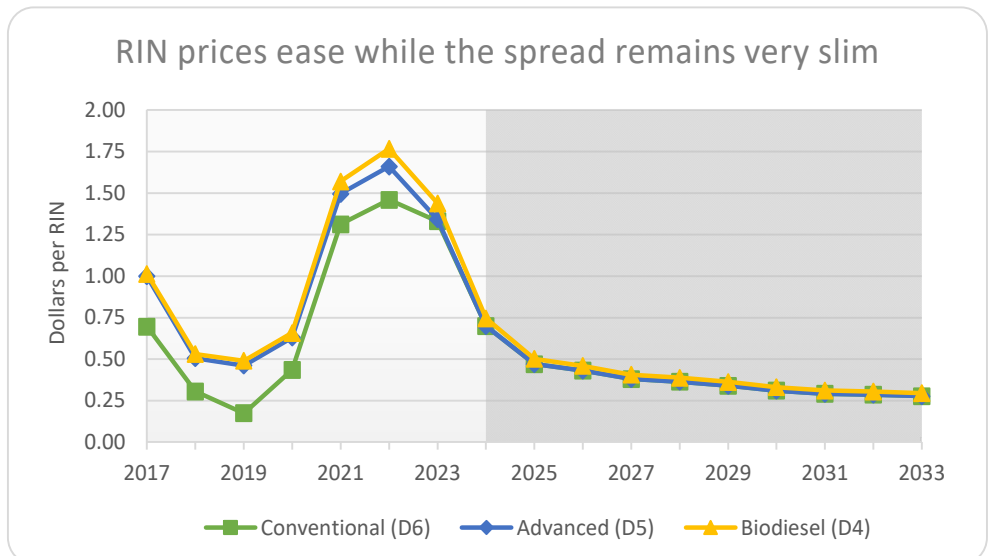


Renewable fuel standard

The final RFS requirements for 2023-25 are included in this outlook, and we assume modest growth in requirements beyond 2025. As part of those requirements, the conventional gap was expanded to 15.2 billion gallons for 2023 though it returns to 15.0 billion gallons for 2024 and 2025, and that is where we keep it for the rest of the projection period.



The prices for all RIN categories peaked in 2022 at \$1.50 per RIN for D6 (ethanol) category and \$1.77 per RIN for the D4 (biodiesel) category. Those prices fell substantially in 2023, to \$0.77 per RIN for all three main categories. Going forward, projected D6 and D5 (advanced biofuel) RIN prices decline to around \$0.28 per RIN in 2033. D4 RINs follow a similar trajectory but remain 2 to 3 cents per RIN higher than D5 and D6 RINs over the course of the projection period.



Ethanol supply and use

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Petroleum fuel prices											
	(Dollars per barrel)										
Petroleum, West Texas Intermediate	78.32	80.34	70.71	76.83	80.39	82.98	85.20	87.31	89.47	91.74	93.73
Petroleum, refiners' acquisition	78.66	81.96	73.33	80.05	83.18	85.25	87.23	89.17	91.17	93.23	95.18
	(Dollars per gallon)										
Unleaded gasoline, FOB Omaha	2.80	2.83	2.60	2.73	2.82	2.88	2.94	3.00	3.07	3.13	3.20
Unleaded gasoline, retail	3.67	3.37	3.25	3.38	3.47	3.53	3.60	3.66	3.73	3.80	3.87
	(Million gallons)										
Motor gasoline use	136,892	136,820	136,169	135,301	134,129	132,739	131,270	129,803	128,365	126,939	125,562
Ethanol supply and use											
Production	15,637	15,862	15,817	15,891	15,921	15,991	16,022	16,069	16,062	16,051	16,042
From corn	15,612	15,833	15,756	15,794	15,805	15,871	15,904	15,955	15,953	15,943	15,933
Other conventional	24	28	60	96	114	118	116	112	107	105	105
Cellulosic	1	1	1	2	2	2	2	2	3	3	3
Imports	22	80	81	80	80	78	77	76	75	75	75
Domestic disappearance	14,230	14,159	14,100	14,092	14,030	13,972	13,896	13,820	13,750	13,677	13,605
Exports	1,401	1,786	1,801	1,882	1,973	2,099	2,204	2,325	2,388	2,449	2,512
Ending stocks	931	928	925	923	921	920	919	918	918	917	917
Ethanol prices											
	(Dollars per gallon)										
Conventional rack, Omaha	2.35	1.64	1.57	1.60	1.58	1.55	1.54	1.51	1.49	1.49	1.48
Other advanced rack	2.36	1.64	1.57	1.60	1.58	1.55	1.54	1.51	1.49	1.49	1.48
Effective retail	1.89	1.47	1.74	1.81	1.84	1.84	1.85	1.85	1.86	1.87	1.88
Ethanol/gasoline retail	52%	44%	54%	54%	53%	52%	51%	51%	50%	49%	49%
RIN values											
Conventional ethanol	1.33	0.70	0.47	0.43	0.38	0.36	0.34	0.31	0.29	0.29	0.28
Advanced ethanol	1.34	0.70	0.47	0.43	0.38	0.36	0.34	0.31	0.29	0.29	0.28

* Includes fuel ethanol

All projections are averages across 500 stochastic outcomes.

Renewable fuel standard

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Applicable standard											
Overall	11.96%	12.23%	12.79%	13.01%	13.24%	13.47%	13.72%	13.96%	14.20%	14.44%	14.67%
Advanced biofuels	3.39%	3.79%	4.31%	4.46%	4.61%	4.76%	4.91%	5.06%	5.21%	5.36%	5.51%
Cellulosic biofuel	0.48%	0.63%	0.81%	0.85%	0.88%	0.92%	0.95%	0.99%	1.02%	1.06%	1.09%
Biomass-based diesel	2.58%	2.82%	3.15%	3.28%	3.40%	3.53%	3.65%	3.78%	3.90%	4.03%	4.15%
Applied standard											
	(Million gallons)										
Overall	21,246	21,737	22,623	22,823	23,011	23,195	23,364	23,526	23,694	23,860	24,025
Advanced biofuels	6,022	6,737	7,623	7,823	8,011	8,195	8,364	8,526	8,694	8,860	9,025
Cellulosic biofuel	674	909	1,136	1,142	1,148	1,154	1,160	1,166	1,172	1,178	1,184
Biomass-based diesel	4,583	5,012	5,571	5,744	5,908	6,069	6,218	6,361	6,508	6,653	6,797
Gaps: Conventional	15,224	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Advanced	765	815	915	936	955	972	986	999	1,014	1,029	1,043

All projections are averages across 500 stochastic outcomes.

Biomass-based diesel sector

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Biomass-based diesel supply	(Million gallons)										
Production	3,997	4,340	4,431	4,546	4,765	4,781	4,941	5,152	5,241	5,319	5,441
Biodiesel	1,601	1,593	1,447	1,415	1,450	1,292	1,243	1,240	1,306	1,423	1,548
Renewable diesel	2,396	2,747	2,985	3,131	3,315	3,489	3,698	3,912	3,935	3,896	3,893
(Production by feedstock)											
From soybean oil	1,681	1,700	1,890	2,001	2,056	2,053	2,097	2,149	2,160	2,166	2,175
From corn oil	495	532	538	556	579	585	603	623	631	639	646
From other fats and oils	1,822	2,107	2,003	1,989	2,131	2,142	2,240	2,381	2,450	2,514	2,620
Net imports	549	324	287	264	235	205	191	183	175	168	169
Biomass-based diesel use											
Domestic disappearance	4,516	4,656	4,714	4,807	4,997	4,985	5,130	5,333	5,414	5,486	5,608
Ending stocks	150	158	162	165	169	170	172	175	176	178	180
Fuel prices and tax credit	(Dollars per gallon)										
Biodiesel, rack	4.60	4.45	4.17	4.25	4.29	4.18	4.20	4.27	4.31	4.36	4.46
Renewable diesel, rack	7.45	5.41	4.72	4.80	4.96	4.98	5.11	5.27	5.08	5.01	5.12
#2 diesel, refiner sales	2.88	2.72	2.59	2.72	2.81	2.88	2.94	3.00	3.06	3.13	3.20
Biodiesel tax credit	1.00	1.00	0.60	0.60	0.60	0.00	0.00	0.00	0.00	0.00	0.00
RIN values											
Per RIN gallon	1.44	0.75	0.50	0.46	0.41	0.39	0.36	0.33	0.31	0.30	0.30
Per physical gallon	2.16	1.12	0.75	0.69	0.61	0.58	0.54	0.50	0.47	0.46	0.44

All projections are averages across 500 stochastic outcomes.

Biofuel plant returns

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Biodiesel costs and returns	(Dollars per gallon)										
Biodiesel value	4.60	4.45	4.17	4.25	4.29	4.18	4.20	4.27	4.31	4.36	4.46
Glycerin value	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Soybean oil cost	-4.66	-4.13	-4.08	-4.20	-4.23	-4.17	-4.15	-4.18	-4.16	-4.14	-4.17
Other operating costs	-0.65	-0.65	-0.66	-0.67	-0.68	-0.68	-0.69	-0.70	-0.71	-0.71	-0.72
Net operating return	-0.65	-0.28	-0.51	-0.56	-0.56	-0.60	-0.57	-0.55	-0.49	-0.43	-0.37
Corn milling for ethanol	(Million gallons)										
Corn wet milled for ethanol	423	401	382	376	372	368	365	363	360	358	357
Corn dry milled for ethanol	4,845	4,979	4,967	4,981	4,984	5,006	5,015	5,030	5,027	5,021	5,015
(Share de-oiling DDGS)	93%	95%	97%	98%	98%	98%	98%	98%	98%	98%	98%
Dry mill ethanol costs, returns	(Dollars per gallon)										
Ethanol value	2.35	1.64	1.57	1.60	1.58	1.55	1.54	1.51	1.49	1.49	1.48
Distillers grains value	0.64	0.47	0.43	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Corn oil value	0.24	0.20	0.19	0.17	0.18	0.18	0.19	0.19	0.19	0.19	0.19
Corn cost	-2.06	-1.61	-1.50	-1.45	-1.44	-1.43	-1.42	-1.41	-1.39	-1.38	-1.37
Fuel and electricity cost	-0.12	-0.15	-0.18	-0.23	-0.22	-0.20	-0.19	-0.18	-0.18	-0.19	-0.19
Other operating costs	-0.42	-0.43	-0.43	-0.43	-0.44	-0.44	-0.45	-0.45	-0.46	-0.47	-0.47
Net operating return	0.63	0.12	0.07	0.07	0.07	0.08	0.07	0.07	0.06	0.05	0.04

* Weighted by share of dry mills de-oiling DDGS

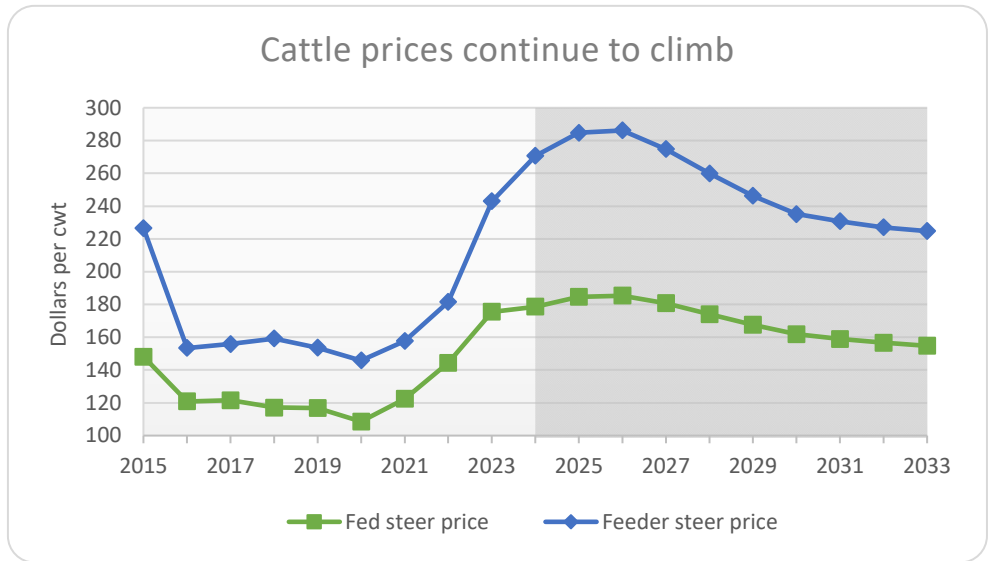
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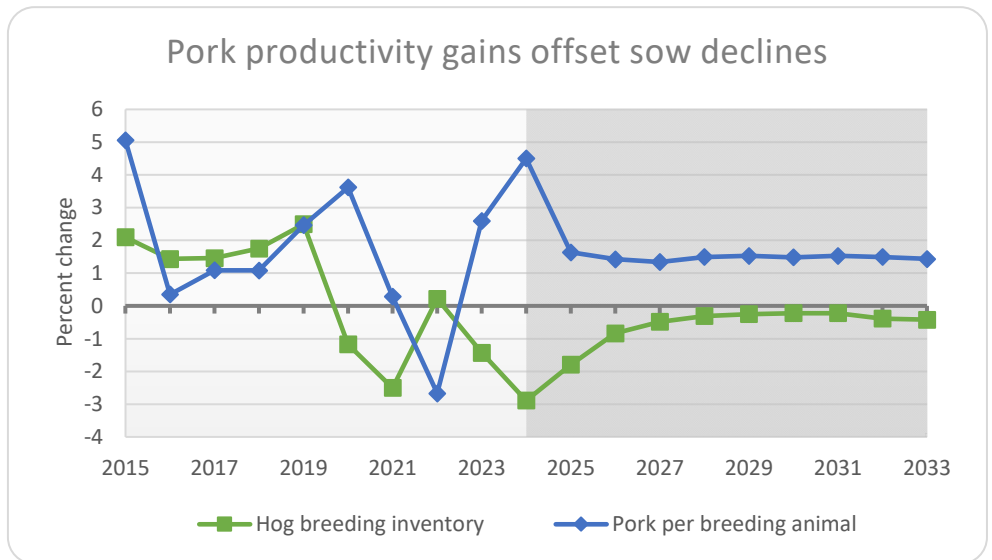
Livestock & dairy

Cattle and hogs

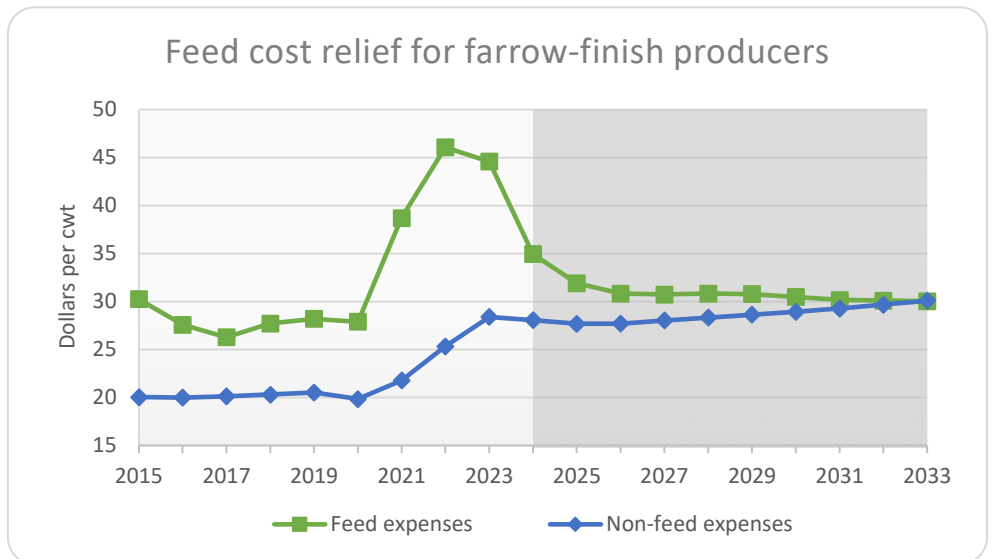
As supplies of cattle continue to decline, prices continue to increase. There were economic incentives to increase calf production for most producers in 2023 but much of the country was still too dry for herd expansion. If drought conditions moderate enough to allow for meaningful expansion, cattle and beef supplies could become even tighter for a period of time, as operators hold back cows from market to increase their production base. Declining feed prices have also propped up feeder steer values relative to fed cattle.



Even though sow inventory has been declining during the past four years, increases in productivity, primarily pigs per litter, allowed pork production to increase in 2023. Another modest gain in production is expected this year, which keeps hog prices similar to 2023. An important determinant to pork output and prices moving forward will be the extent to which the industry can continue to increase the amount of pork produced from each breeding animal.



Even as hog prices remain relatively similar in 2024, industry profitability should improve dramatically compared to the deep financial losses of 2023. Feed expenses, which account for the majority of production costs on a typical farrow-finish operation, are expected to decline by more than 20%. Non-feed expenses, which have also increased rapidly since 2020, are less likely to post substantial declines. Additional cost relief is expected after 2024, though a return to pre-2020 production cost levels is unlikely.



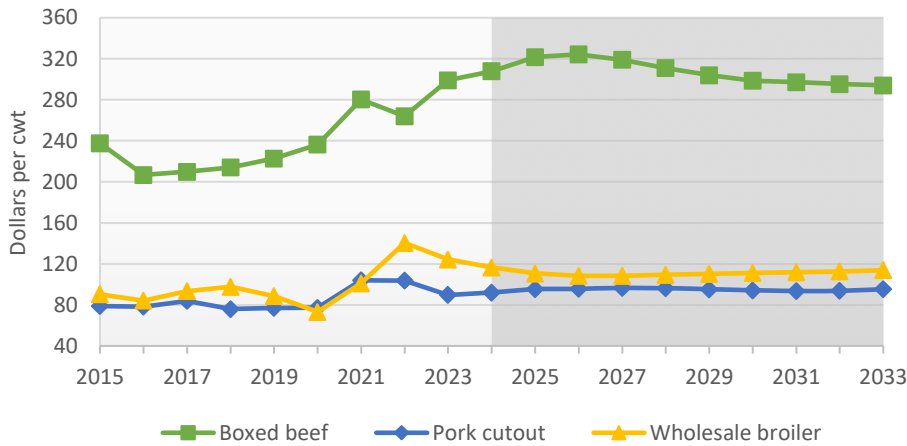
Meat

Other than in 2022, when beef prices pulled back following a sharp gain in 2021, choice beef wholesale prices have increased every year since 2017. With beef supplies continuing to decline until beef cow herd rebuilding can take hold, more years of price increases are ahead. There has been little sign that a widening gap between beef and other meat prices have harmed consumer demand for beef. It would likely take a prolonged economic setback for most consumers to switch beef purchases to cheaper meat alternatives.

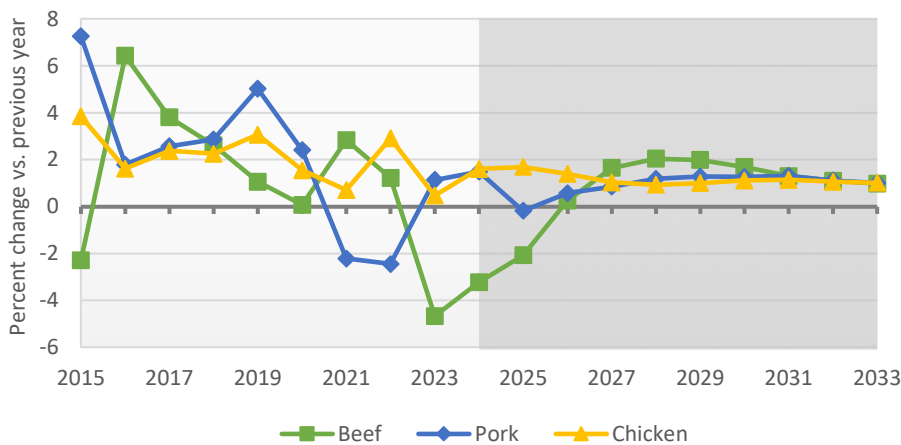
The largest annual decline in beef production since 2014 occurred in 2023. That decrease was large enough to outweigh modest gains in pork, chicken and turkey production, causing total U.S. meat output to fall for the first time in nine years. Though total meat production is expected to resume growth this year, annual gains will remain modest until beef production recovers. Slowing meat production growth has coincided with generally weaker meat demand relative to 2021 and 2022.

A slowdown in U.S. meat production growth, a stronger dollar against the currencies of many important trading partners and economic challenges in many key import markets have caused meat exports to remain below the 2021 record. Shipments to Asia, especially, struggled in 2023. With beef values remaining historically high, beef exports are expected to remain below the 2022 level for many more years. Pork and chicken exports are expected to grow modestly. A high degree of uncertainty surrounds export projections as animal disease outbreaks are always a threat.

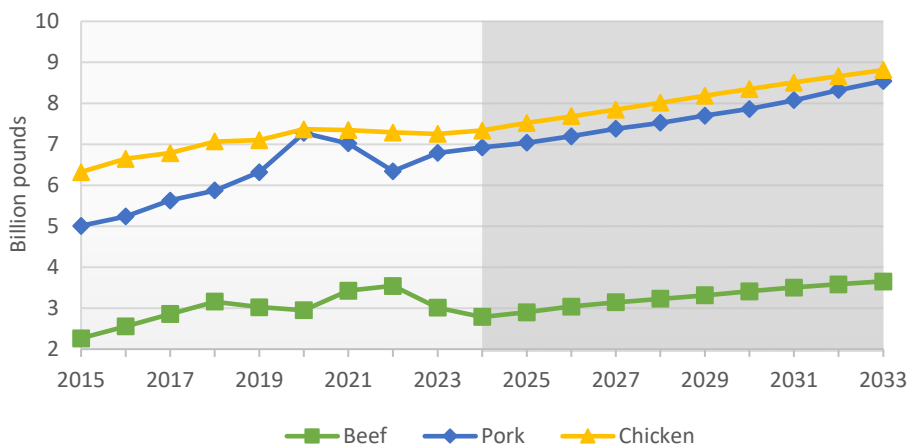
Beef price increases relative to other meats



Beef production declines continue



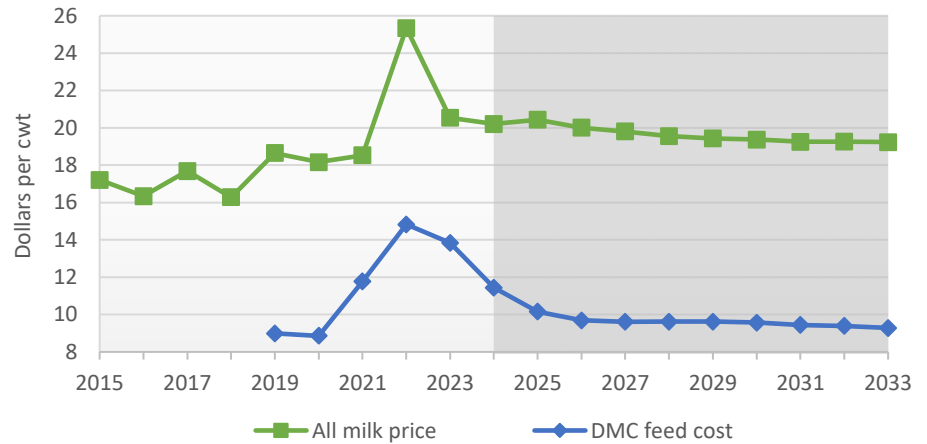
Total meat export growth resumes in 2025



Dairy

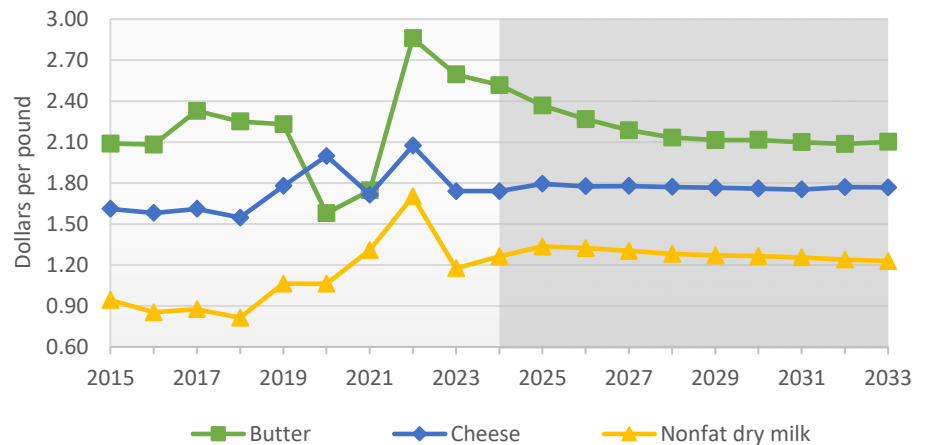
Even with the all milk price averaging above \$20 per hundredweight, the Dairy Margin Coverage (DMC) program paid out more than \$1 billion on payments last year as feed costs remained well above average. Though little change is expected for milk prices in the next couple of years, declining feed expenses will allow finances to improve for many operations. Producers wishing to sign up for DMC coverage in 2024 have until April 29 to do so.

Milk profitability improves as feed costs decline



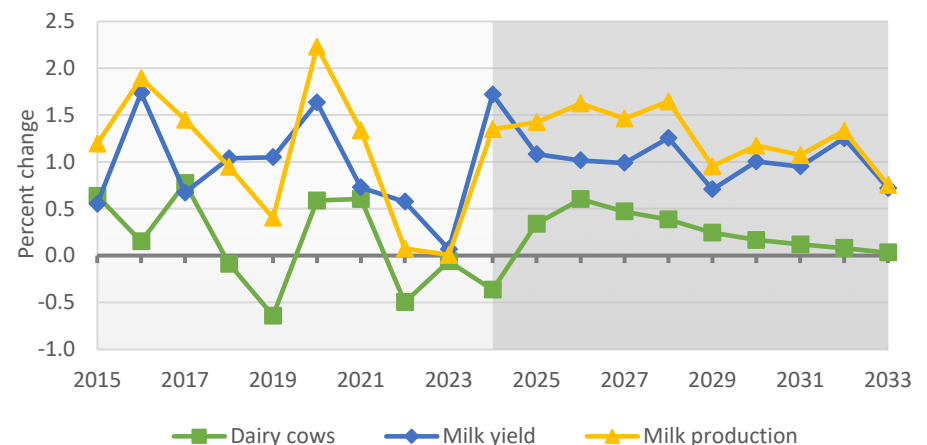
Dairy product prices fell in 2023 from the lofty levels of the previous year as domestic demand weakened and exports declined for most products. Butter prices are expected to remain well above most historical years as strong domestic demand remains a key driver. Nonfat dry milk prices should see continued recovery as international demand improves following a lull in 2023. Cheese prices could struggle to grow much as increased cheese production capacity may be outpacing domestic demand growth.

Dairy product prices remain below 2022 highs



Monthly U.S. dairy cow inventories posted their third lowest level since the spring of 2016 to begin 2024. Even as profitability improves with declining feed costs this year, it is expected to take a little time for producers to again increase the milk cow herd. Milk yields are expected to bounce back after 2023 saw the weakest growth since 2001. Milk production is expected to grow at an average rate of 1.5% for the next few years, which will require export growth to resume and some domestic demand expansion to keep milk prices at projected levels.

Dairy cow numbers decline again in 2024



Cattle sector

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	(Million head)										
Beef cows (Jan. 1)	28.9	28.2	27.9	27.9	28.3	28.8	29.3	29.6	29.9	30.0	30.1
Dairy cows (Jan. 1)	9.4	9.4	9.4	9.4	9.5	9.5	9.5	9.6	9.6	9.6	9.6
Cattle and calves (Jan. 1)	89.3	87.9	87.3	87.5	88.0	88.5	89.1	89.6	89.9	90.1	90.3
Cattle on feed (Jan. 1)	14.2	14.5	14.1	13.9	13.9	14.0	14.2	14.3	14.4	14.5	14.5
Calf crop	33.8	33.2	32.9	33.0	33.4	33.9	34.3	34.6	34.8	34.9	35.0
Calf death loss	33.3	31.9	30.9	30.8	31.1	31.6	32.1	32.5	32.7	32.9	33.1
Cattle imports	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Cattle exports	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Prices	(Dollars per hundredweight)										
Total all grades, 5-area direct steers	175.54	178.57	184.59	185.38	180.78	174.05	167.52	161.85	158.92	156.65	154.76
600-650#, Oklahoma City feeder steers	242.99	270.70	284.74	286.19	274.76	259.88	246.25	235.10	230.80	227.04	224.71
Utility cows, Sioux Falls	95.62	98.10	101.85	101.83	98.12	92.36	86.77	81.99	79.46	77.55	76.03
Cow-calf returns	(Dollars per cow)										
Receipts	1,219.11	1,291.25	1,341.10	1,331.23	1,273.56	1,204.27	1,142.13	1,096.71	1,076.33	1,059.37	1,050.55
Feed expenses	531.81	498.86	474.18	465.89	466.06	470.42	474.59	477.55	478.50	480.21	480.92
Non-feed expenses	375.51	405.09	397.85	385.42	381.19	378.64	376.65	375.90	379.12	382.81	387.57
Net returns	311.80	387.30	469.07	479.92	426.31	355.21	290.89	243.27	218.71	196.36	182.06

All projections are averages across 500 stochastic outcomes.

Hog sector

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	(Million head)										
Breeding herd (Dec. 1*)	6.20	6.00	5.85	5.79	5.75	5.73	5.72	5.70	5.69	5.68	5.65
Market hogs (Dec. 1*)	68.8	69.0	67.6	67.2	67.3	67.7	68.2	68.7	69.2	69.6	70.0
Sows farrowed	11.84	11.53	11.35	11.28	11.26	11.25	11.25	11.26	11.26	11.25	11.23
Pig crop	135.2	134.2	133.9	134.4	135.4	136.5	137.8	139.1	140.3	141.2	142.1
Barrow and gilt slaughter	124.5	125.1	124.1	124.3	124.9	125.9	127.1	128.3	129.4	130.4	131.2
Hog imports	6.8	6.7	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.7	6.7
Hog exports	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Prices	(Dollars per hundredweight)										
National base 51-52% lean equivalent barrows and gilts	58.59	58.97	61.07	61.35	61.96	60.45	58.97	58.10	57.61	57.80	58.53
Farrow-finish returns	(Dollars per hundredweight)										
Receipts	64.06	64.19	65.33	65.61	66.22	64.69	63.20	62.32	61.81	62.01	62.75
Feed expenses	44.58	34.95	31.91	30.83	30.73	30.84	30.78	30.49	30.17	30.11	30.04
Non-feed expenses	28.40	28.08	27.69	27.71	28.03	28.35	28.63	28.93	29.28	29.68	30.09
Net returns	-8.92	1.16	5.72	7.07	7.46	5.50	3.78	2.90	2.36	2.22	2.62

* Preceding year

All projections are averages across 500 stochastic outcomes.

Meat sector

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Beef											
	(Million pounds)										
Production	27,035	26,162	25,619	25,687	26,111	26,644	27,174	27,634	27,994	28,302	28,579
Imports	3,708	3,774	3,737	3,661	3,592	3,532	3,482	3,453	3,426	3,411	3,400
Domestic use	27,822	27,180	26,470	26,299	26,539	26,925	27,319	27,655	27,899	28,114	28,313
Exports	3,015	2,789	2,902	3,043	3,147	3,230	3,318	3,414	3,507	3,585	3,653
Ending stocks	630	598	582	589	605	625	646	664	678	692	705
Pork											
Production	27,317	27,723	27,672	27,831	28,068	28,400	28,763	29,127	29,508	29,835	30,136
Imports	1,169	1,210	1,168	1,125	1,087	1,074	1,076	1,080	1,081	1,082	1,084
Domestic use	21,752	22,007	21,808	21,752	21,769	21,937	22,124	22,328	22,496	22,579	22,661
Exports	6,789	6,925	7,038	7,198	7,379	7,525	7,701	7,865	8,078	8,326	8,548
Ending stocks	450	450	445	450	457	469	484	498	513	525	536
Broiler											
Production	45,926	46,663	47,451	48,112	48,610	49,064	49,555	50,108	50,681	51,218	51,738
Domestic use	38,844	39,479	40,081	40,580	40,934	41,219	41,541	41,929	42,346	42,730	43,102
Exports	7,255	7,334	7,522	7,690	7,844	8,017	8,187	8,351	8,507	8,662	8,813
Ending stocks	850	864	880	893	897	897	899	902	907	911	913
Turkey											
Production	5,462	5,496	5,605	5,677	5,715	5,739	5,764	5,794	5,828	5,854	5,877
Domestic use	5,010	5,063	5,146	5,209	5,245	5,264	5,281	5,302	5,327	5,350	5,370
Exports	490	500	508	516	524	532	540	548	556	560	564
Ending stocks	195	191	207	219	225	228	232	236	240	244	248
Wholesale prices											
	(Dollars per hundredweight)										
Boxed beef cutout	299.04	307.74	321.59	324.19	318.87	310.92	303.95	298.51	297.14	295.26	293.95
Pork cutout value	89.80	92.15	95.62	95.70	96.87	96.34	95.25	94.31	93.70	93.86	95.39
	(Cents per pound)										
National wholesale broiler	124.36	116.67	110.76	108.39	108.37	109.37	110.44	111.14	112.03	112.71	113.96
National wholesale turkey hens	140.11	124.04	117.87	115.44	115.86	117.10	117.99	118.71	119.60	120.06	121.27
Retail prices											
	(Dollars per pound)										
Beef	7.98	8.25	8.47	8.58	8.52	8.39	8.27	8.17	8.13	8.11	8.08
Pork	4.81	4.83	4.93	5.02	5.05	5.03	5.01	4.98	4.96	4.99	5.06
Broiler	2.46	2.41	2.35	2.33	2.34	2.36	2.39	2.42	2.45	2.48	2.52
Per-capita consumption											
	(Pounds)										
Beef	58.1	56.4	54.7	54.1	54.3	54.8	55.3	55.7	55.9	56.1	56.2
Pork	50.3	50.7	50.0	49.6	49.4	49.5	49.7	49.9	50.0	49.9	49.9
Broiler	99.5	100.6	101.6	102.4	102.7	102.9	103.2	103.7	104.2	104.6	105.1
Turkey	14.9	15.0	15.2	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.2
Total	222.9	222.8	221.5	221.3	221.7	222.5	223.5	224.5	225.4	225.9	226.4

All projections are averages across 500 stochastic outcomes.

Dairy sector

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Milk supply											
Dairy cows (thousand head)	9,396	9,362	9,393	9,450	9,494	9,531	9,554	9,570	9,581	9,589	9,592
California	1,717	1,704	1,703	1,710	1,714	1,715	1,712	1,707	1,703	1,697	1,691
Wisconsin	1,269	1,261	1,260	1,260	1,261	1,262	1,262	1,261	1,260	1,259	1,258
New York	630	631	634	635	636	637	636	636	635	634	633
Idaho	666	670	679	691	701	709	716	722	728	732	735
Pennsylvania	466	463	462	462	461	460	457	455	453	450	446
Minnesota	452	451	452	453	453	454	454	454	454	454	454
Texas	642	647	662	679	693	707	718	728	736	743	750
Michigan	437	442	444	446	447	449	450	451	452	452	453
New Mexico	271	260	255	252	250	248	245	242	239	237	236
Ohio	253	252	252	252	251	251	250	248	247	245	243
Rest of U.S.	2,593	2,581	2,590	2,609	2,626	2,641	2,654	2,665	2,675	2,685	2,693
Milk yield (pounds per cow)	24,104	24,518	24,783	25,035	25,282	25,599	25,780	26,039	26,287	26,616	26,807
Milk production (billion pounds)	226.5	229.5	232.8	236.6	240.0	244.0	246.3	249.2	251.9	255.2	257.1
Minimum FMMO class prices (Dollars per hundredweight)											
Class I mover	19.20	18.94	19.23	18.85	18.57	18.28	18.14	18.09	17.96	17.91	17.89
Class II	20.10	19.95	19.93	19.41	18.89	18.48	18.30	18.26	18.11	17.91	17.89
Class III	17.02	17.21	17.81	17.56	17.52	17.35	17.25	17.18	17.08	17.19	17.16
Class IV	19.12	19.25	19.23	18.71	18.19	17.78	17.60	17.56	17.41	17.21	17.19
All milk price	20.54	20.21	20.43	20.01	19.80	19.56	19.43	19.37	19.25	19.26	19.23
Actual dairy production margin	6.70	8.77	10.28	10.32	10.19	9.94	9.81	9.80	9.81	9.87	9.95
Wholesale prices (Dollars per pound)											
Butter, CME	2.59	2.52	2.37	2.27	2.19	2.13	2.11	2.11	2.10	2.09	2.10
Cheese, American, 40#, CME	1.74	1.74	1.79	1.78	1.78	1.77	1.77	1.76	1.75	1.77	1.77
Nonfat dry milk, AA	1.18	1.26	1.34	1.32	1.30	1.28	1.27	1.26	1.25	1.24	1.23
Dairy product production (Million pounds)											
American cheese	5,734	5,847	5,959	6,086	6,209	6,340	6,439	6,546	6,650	6,772	6,853
Other cheese	8,399	8,505	8,657	8,822	8,983	9,158	9,282	9,413	9,540	9,691	9,805
Butter	2,104	2,183	2,270	2,351	2,428	2,498	2,520	2,568	2,610	2,669	2,688
Nonfat dry milk	2,445	2,551	2,682	2,838	2,943	3,026	3,084	3,140	3,199	3,261	3,306
Dairy product exports											
American cheese	203	203	218	233	245	259	271	283	295	306	317
Other cheese	758	776	800	825	848	872	896	919	942	965	988
Butter	65	73	93	110	124	135	143	150	158	166	172
Nonfat dry milk	1,782	1,867	2,015	2,171	2,293	2,390	2,464	2,533	2,604	2,677	2,735
Per-capita consumption (Pounds)											
Butter	6.4	6.6	6.7	6.9	7.1	7.2	7.2	7.3	7.4	7.5	7.5
Nonfat dry milk	2.1	2.0	2.0	1.9	1.9	1.8	1.8	1.7	1.7	1.7	1.6
Total cheese	40.2	40.5	41.0	41.5	42.0	42.6	43.0	43.3	43.7	44.2	44.5
American	16.6	16.8	17.0	17.2	17.4	17.7	17.9	18.1	18.2	18.5	18.6
Other	23.7	23.8	24.0	24.3	24.6	24.9	25.1	25.3	25.5	25.7	25.9
Total fluid milk	145.7	143.1	140.1	137.3	134.5	131.8	129.1	126.6	124.0	121.4	118.9

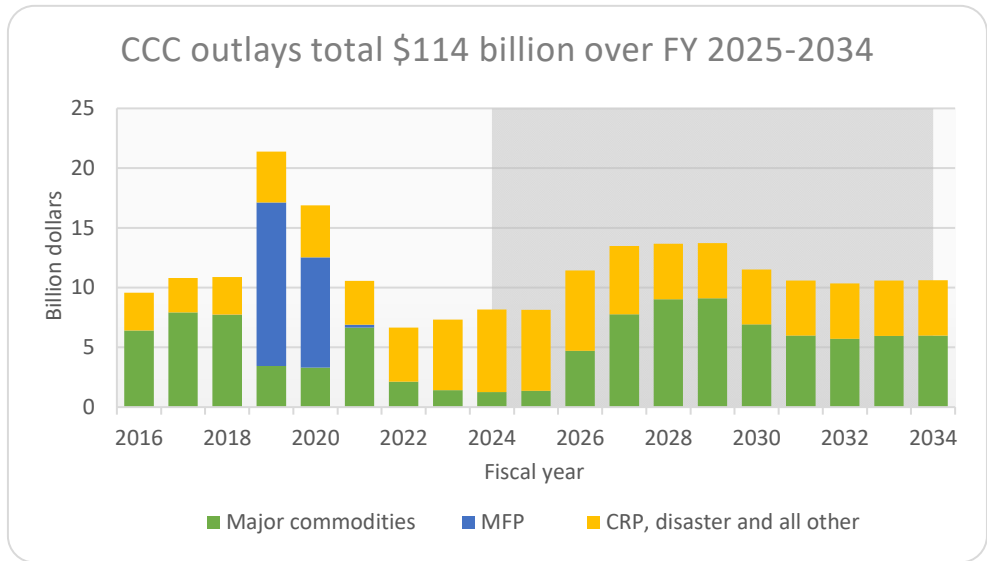
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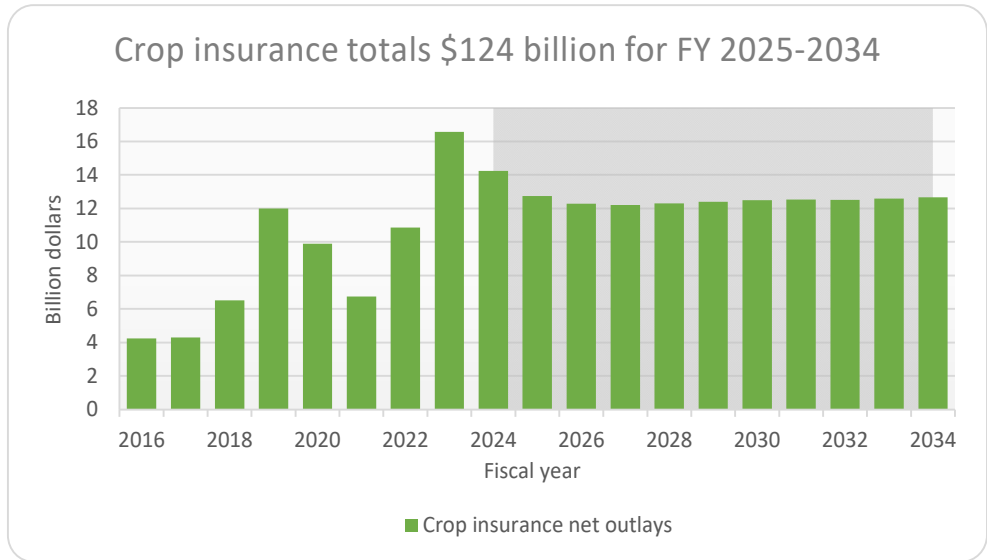
Aggregate indicators

Government costs

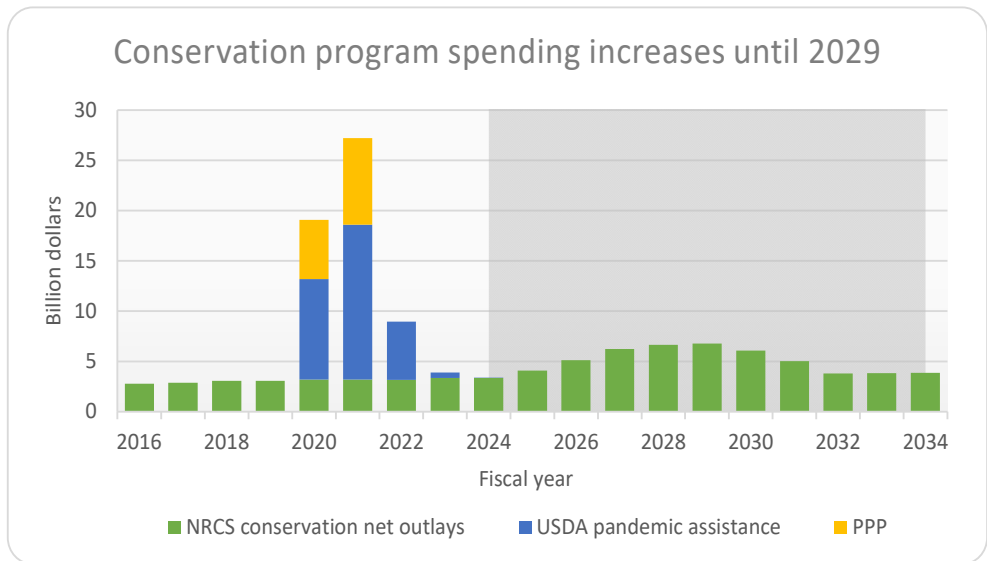
Net Commodity Credit Corporation (CCC) outlays increase to \$8.1 billion in FY 2024, even though ARC and PLC payments for crops harvested in 2023 are only 4% of these outlays. Between FY 2025 and 2034, net CCC outlays total \$114 billion, with major commodity programs accounting for \$62 billion. Disaster payments, CRP and the Secretary’s use of Charter Act authority account for most of the remaining outlays.



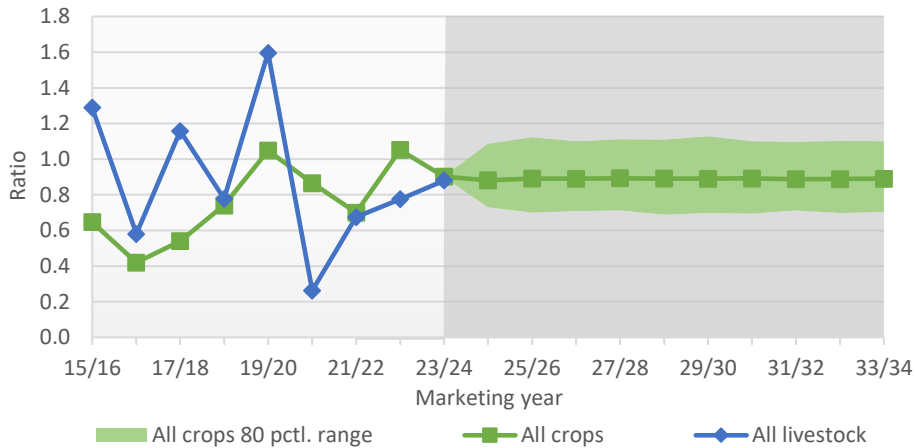
In FY 2024, lower market prices decreased the value of crops insured and thus the value of premium subsidies and other program costs. When combined with drought-induced production declines, this kept net outlays elevated. Baseline assumptions of more normal variability following FY 2024, particularly in yields, result in a projected average loss ratio of about 0.89, although this is still subject to large swings due to weather and other factors. Program fiscal costs total \$124 billion between FY 2025 and 2034.



CFAP is not treated as part of CCC outlays, and paycheck protection program (PPP) was not operated by USDA, but both provided substantial benefits to farmers. The Natural Resources Conservation Service (NRCS) operates several mandatory conservation programs. Spending on those programs total \$51.5 billion over FY 2025 to 2034, including spending authorized by the Inflation Reduction Act. The conservation reserve program (CRP) is managed by the Farm Service Agency, and its outlays are included in the CCC accounts.



Loss ratio generally ranges between 0.7 and 1.1

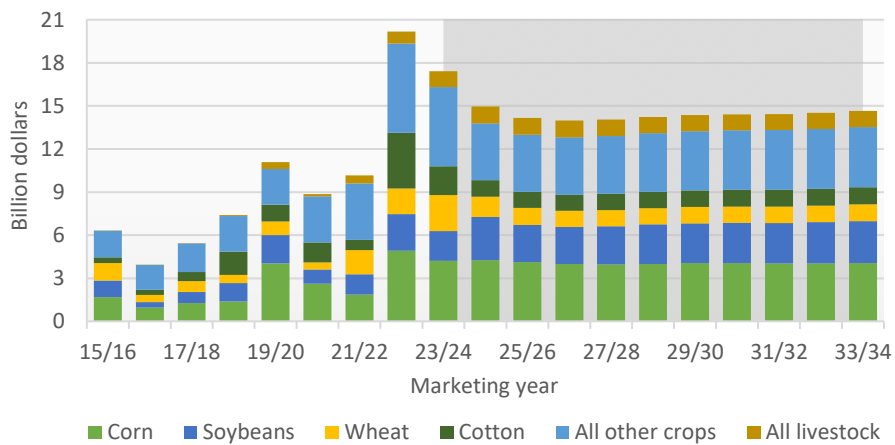


Crop insurance

The loss ratio (indemnity payments divided by total premiums, including both producer-paid and government subsidized premiums) is projected to fall below 1.0 in 2023 as elevated premiums were still larger than near-record losses.

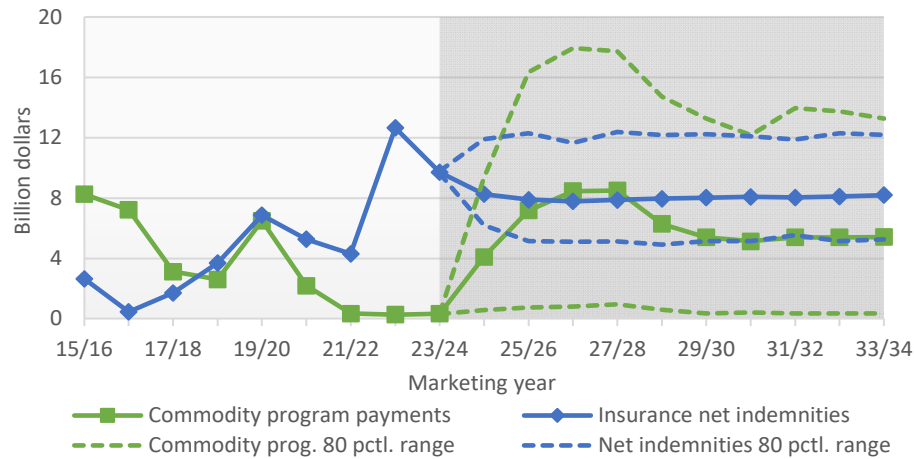
In the projection period, the distribution of yields, prices, and other factors results in an average loss ratio of near 0.89, though individual years or commodities may be much lower or higher.

Indemnities could be smaller in years ahead



Indemnities for losses reached a record \$20 billion occurred in 2022/23. Declining prices and other losses in 2023/24 are expected to keep total losses elevated but lower than the previous year. Possible lower prices ahead could lead to lower total indemnities as the value of insured crops shrink, though variation in many factors will make indemnities higher or lower than shown here. After 2023/24, total indemnities are projected to average \$13.2 billion dollars. Growth in the total book of insurance business contributes to average indemnity levels remaining above historical averages.

Program payments could increase after 2023/24

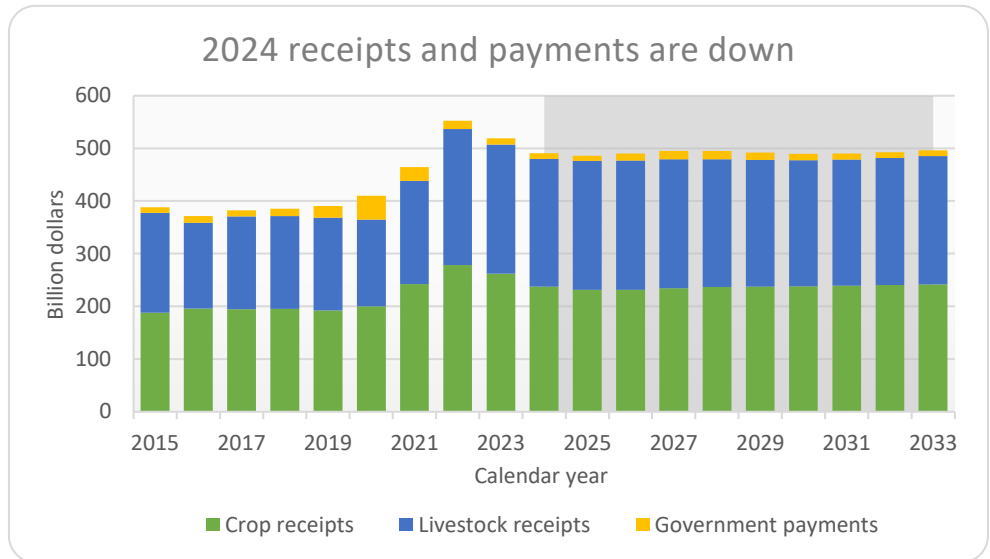


In recent years crop insurance net indemnities have exceeded commodity program payments as market prices and revenues generally stayed above the levels which trigger program payments.

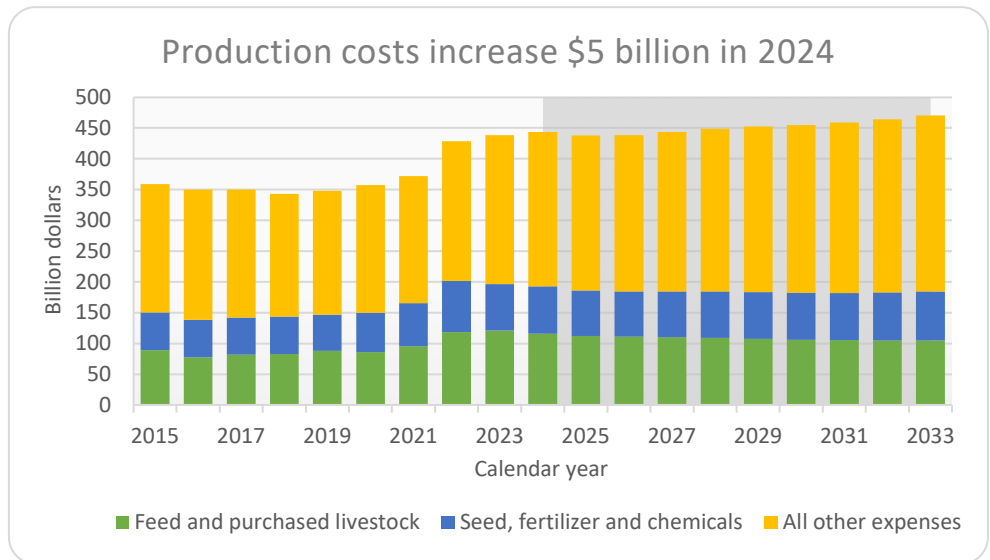
In the future, as market prices fall and policy trigger levels adjust higher, average crop commodity program payments could again approach similar levels as crop insurance net indemnities, though on average crop insurance net indemnities are expected to remain greater than commodity program payments.

Farm finances

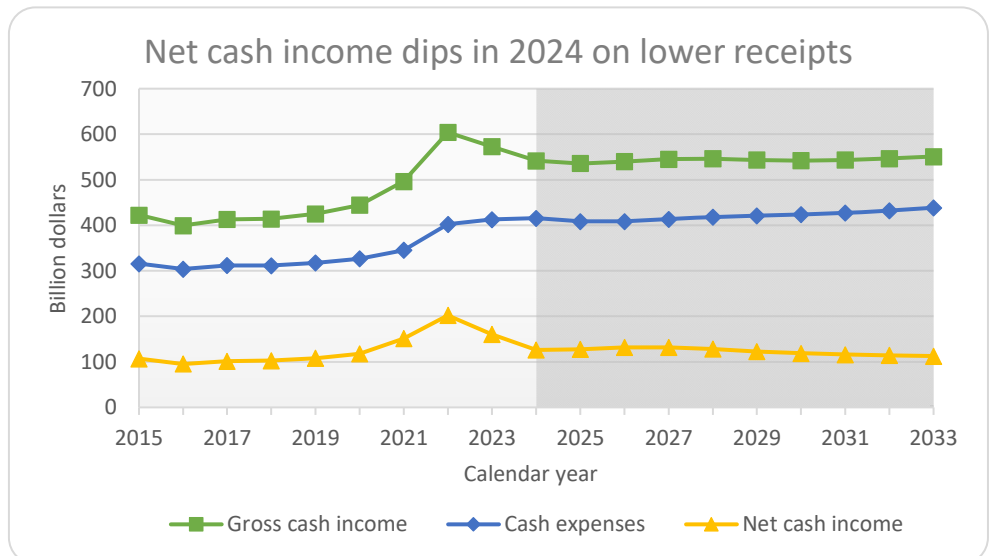
In 2023, farm cash receipts from both livestock and crop sales decreased, and when combined with lower government payments gross cash income declined by \$31.4 billion. Crop and livestock receipts decrease by a total of \$26.7 billion in 2024, and projected government payments decline by \$1.5 billion in the assumed absence of new programs. In later years, receipts increase at a modest pace, while payments are relatively stable.



Farm production expenses rose in 2023, largely because of higher purchased livestock and other expenses. In 2024 total expenses increase by \$5 billion (1%) with higher costs for interest, labor and purchased livestock expenses more than offsetting a decline in feed, fertilizer and fuel expenses. Projected production expenses increase by an average of 0.7% per year from 2024 to 2033, reflecting increasing production expenses following a decline in costs in 2025.

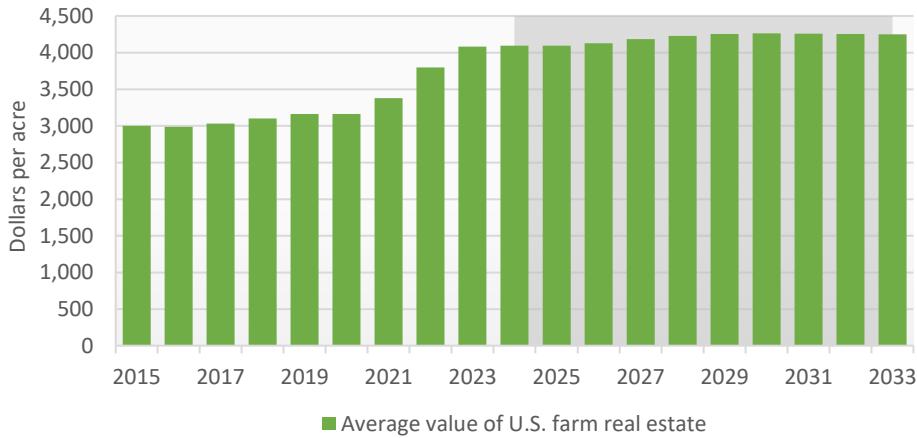


Net cash income for the farm sector decreased in 2023, as both crop receipts and livestock receipts dropped. Net cash income declines in 2024, as the reduction in government payments and the increase in production expenses combine with a decrease in cash receipts. Net cash income is up slightly in 2025, as lower expenses and higher livestock receipts more than offset lower crop receipts and government payments.



Net farm income is an alternative measure that accounts for non-monetary income, depreciation and inventory value changes.

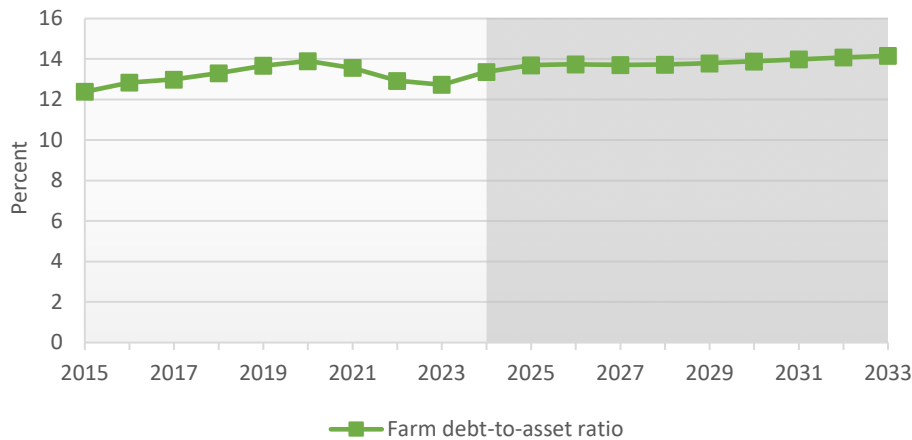
Farmland value growth slows in 2024



Farm assets and debt

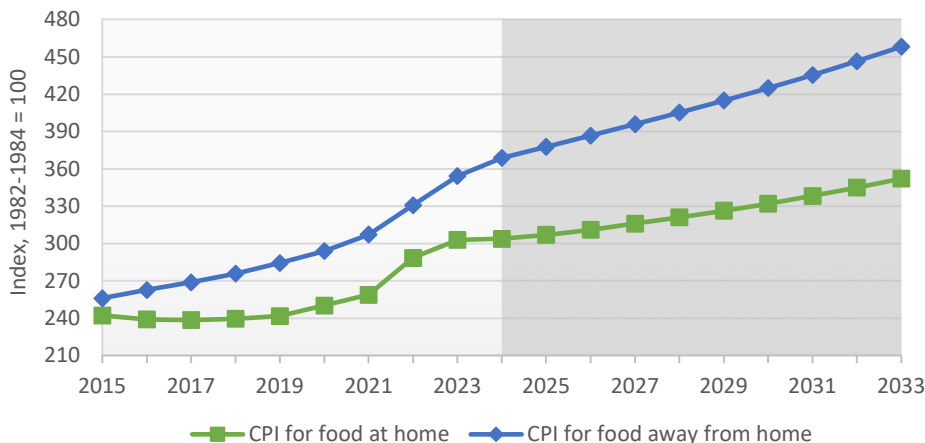
Reports suggest farmland values in many parts of the country continue to rise. Following the highest two years for farm income on record, 2023 saw a 7% increase in farm real estate value. In 2024, high interest rates and declining farm income slow growth. In 2025, declining interest rates offset the impact of lower farm income.

Farm debt-to-asset ratio edges higher in 2024



The national average farm debt-to-asset ratio dropped to its lowest level in decades in 2012, but then increased in every year through 2020. The projected increase in farm asset values in 2021, 2022 and 2023 allowed the debt-to-asset ratio to stabilize, and actually dip slightly. Beginning again in 2024, greater farm debt causes the ratio to resume its increase, suggesting that long-term concerns about the status of farm finances could grow.

Away-from-home prices outpace food at home



Food prices

After tracking similar growth rates for many decades, the CPI for food at home and the CPI for food away from home began to separate in 2015. This gap is expected to continue to widen moving forward. Consumers spend an ever larger percentage of their food dollars on away-from-home dining, and labor and other non-commodity costs remain elevated for dining establishments. Food-at-home prices grow much more slowly in 2024 than any year since 2020.

Net government outlays

Fiscal year	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Feed grains	(Million dollars)										
Corn	138	123	2,039	3,902	4,484	4,448	2,992	2,377	2,338	2,331	2,450
Sorghum	35	68	150	292	296	241	160	156	164	183	193
Barley	10	1	6	29	65	88	102	76	62	65	69
Oats	0	2	5	6	7	8	8	7	7	7	7
Food grains											
Wheat	126	96	337	872	1,338	1,583	1,242	1,164	1,122	1,265	1,241
Rice	31	-1	318	242	232	227	204	162	157	163	177
Oilseeds											
Soybeans	59	94	571	1,037	1,159	1,114	871	707	570	618	568
Peanuts	47	19	139	200	228	229	226	221	208	212	199
Other oilseeds	2	9	22	16	27	28	14	12	14	15	15
Other selected commodities											
Upland cotton and seed cotton	117	309	592	653	626	565	531	532	522	519	509
Dairy	701	638	523	521	564	568	561	572	557	588	550
Subtotal, selected commodities	1,267	1,358	4,702	7,768	9,026	9,101	6,911	5,987	5,720	5,966	5,979
Conservation reserve	1,897	1,905	1,889	1,893	1,866	1,852	1,834	1,820	1,850	1,850	1,850
Other CCC											
Disaster payments, NAP	1,423	1,320	1,320	1,320	1,267	1,267	1,267	1,267	1,267	1,267	1,267
All other (incl. Charter Act use)	3,585	3,559	3,515	2,511	1,515	1,517	1,511	1,511	1,511	1,512	1,513
Net CCC outlays	8,171	8,142	11,426	13,493	13,675	13,736	11,522	10,585	10,348	10,594	10,609
NRCS conservation	3,351	4,099	5,118	6,223	6,659	6,779	6,085	5,046	3,804	3,822	3,857
Crop insurance	14,245	12,737	12,290	12,199	12,295	12,404	12,495	12,529	12,515	12,579	12,670
Selected other non-CCC											
Pandemic assistance	30	0	0	0	0	0	0	0	0	0	0
Other non-CCC emergency	4,412	0	0	0	0	0	0	0	0	0	0
Total mandatory outlays	30,209	24,978	28,834	31,915	32,629	32,919	30,102	28,160	26,666	26,995	27,135

Note: "NRCS conservation" denotes mandatory spending on conservation programs authorized by the 2002, 2008, 2014 and 2018 farm bills that is not included in reported CCC outlays. "NAP" is noninsured crop disaster assistance program.

Fiscal years begin on October 1 of the previous calendar year (FY 2024: Oct. 1, 2023-Sep. 30, 2024).

All projections are averages across 500 stochastic outcomes.

Selected direct government payments

Marketing year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
	(Million dollars)										
ARC payments	324	2,411	2,596	3,037	3,235	1,985	1,685	1,445	1,376	1,336	1,382
PLC payments	8	1,476	4,370	5,193	5,059	4,121	3,483	3,496	3,808	3,893	3,861
Marketing loans	0	218	215	233	219	187	229	199	208	170	177
Total	362	4,105	7,181	8,462	8,512	6,293	5,397	5,139	5,392	5,398	5,420

Note: Includes payments for feed grains, food grains, oilseeds and cotton.

All projections are averages across 500 stochastic outcomes.

Crop and livestock insurance

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Crops	(Million dollars, crop year)										
Total premiums	18,094	15,664	14,665	14,468	14,562	14,775	14,952	15,016	15,040	15,140	15,274
Producer-paid premiums	6,777	5,875	5,514	5,442	5,474	5,554	5,619	5,642	5,651	5,689	5,739
Premium subsidies	11,317	9,789	9,151	9,027	9,089	9,221	9,334	9,374	9,389	9,451	9,535
Total indemnities	16,309	13,804	13,062	12,882	13,003	13,170	13,314	13,389	13,353	13,455	13,596
	(Ratio of indemnities to total premiums)										
Loss ratio	0.90	0.88	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Net indemnities	(Million dollars, crop year)										
Corn	1,871	2,462	2,473	2,399	2,409	2,420	2,430	2,426	2,381	2,393	2,421
Soybeans	885	1,758	1,544	1,533	1,572	1,626	1,644	1,668	1,669	1,709	1,742
Wheat	1,682	848	718	673	686	683	696	705	694	692	705
Upland cotton	1,639	772	754	763	787	784	799	812	818	817	824
All other	3,455	2,089	2,059	2,071	2,075	2,103	2,128	2,135	2,141	2,155	2,165
Livestock	(Million dollars, calendar year)										
Total premiums	1,088	1,252	1,319	1,326	1,322	1,302	1,282	1,270	1,268	1,273	1,279
Producer-paid premiums	668	774	816	820	817	804	791	783	782	784	788
Premium subsidies	419	478	503	506	505	498	491	487	487	489	491
Total indemnities	843	1,102	1,161	1,167	1,163	1,146	1,129	1,118	1,116	1,120	1,125
	(Ratio of indemnities to total premiums)										
Loss ratio	0.78	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Net indemnities	(Million dollars, crop year)										
	175	328	344	346	346	342	337	335	334	336	337
Net outlays	(Million dollars, fiscal year)										
	16,562	14,245	12,737	12,290	12,199	12,295	12,404	12,495	12,529	12,515	12,599

All projections are averages across 500 stochastic outcomes.

Farm cash receipts

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	(Billion dollars)										
Feed grains	91.15	76.27	73.11	72.41	72.52	72.99	73.25	73.04	72.74	72.74	72.68
Food grains	16.46	14.73	13.66	13.46	13.46	13.53	13.50	13.57	13.54	13.58	13.64
Oilseeds	61.08	52.26	49.65	50.38	51.83	52.90	53.41	53.71	54.17	54.95	55.80
Cotton	6.86	6.43	6.48	6.68	6.86	6.97	6.99	6.98	6.97	6.98	6.97
Sugar	3.73	3.72	3.65	3.85	4.01	4.06	4.10	4.16	4.22	4.29	4.36
Other crops	83.13	83.98	85.00	84.76	85.73	86.26	86.44	86.69	87.36	87.85	88.39
Cattle	99.45	101.58	104.66	105.85	104.19	101.02	97.92	95.32	94.47	93.95	93.70
Hogs	26.14	26.53	27.37	27.62	28.11	27.75	27.43	27.37	27.47	27.86	28.48
Dairy products	46.42	46.15	47.31	47.07	47.25	47.43	47.58	47.98	48.17	48.85	49.14
Poultry and eggs	64.56	60.47	57.27	56.28	56.88	57.84	58.88	59.81	60.82	61.76	62.99
Other livestock	7.80	7.92	8.09	8.24	8.36	8.45	8.54	8.65	8.79	8.96	9.14
Total cash receipts	506.78	480.03	476.25	476.61	479.20	479.20	478.05	477.26	478.72	481.76	485.29

All projections are averages across 500 stochastic outcomes.

Farm production expenses

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	(Billion dollars)										
Feed	79.86	69.47	64.14	63.03	63.32	64.11	64.56	64.65	64.68	64.99	65.23
Purchased livestock	41.14	46.14	48.02	48.33	46.91	44.79	42.81	41.19	40.58	40.12	39.83
Seed	25.68	25.95	25.98	25.91	25.99	26.18	26.45	26.72	26.97	27.18	27.53
Fertilizer	30.40	30.20	27.33	26.57	27.80	28.75	28.75	28.42	28.15	28.44	29.07
Chemicals	19.48	20.92	20.59	20.38	20.40	20.53	20.82	21.21	21.72	22.17	22.66
Fuels and electricity	23.04	22.14	21.45	22.00	22.94	23.64	24.22	24.75	25.34	26.14	26.90
Interest	34.17	36.23	35.73	34.87	34.82	34.98	35.15	35.30	35.44	35.56	35.69
Contract and hired labor	43.36	45.79	46.89	47.77	48.91	50.00	51.02	52.11	53.38	54.71	56.08
Capital consumption	21.90	23.73	24.62	25.18	25.66	26.09	26.45	26.73	26.95	27.14	27.33
Rent to landlords	16.86	16.96	16.75	16.56	16.65	16.82	16.94	16.92	16.84	16.75	16.69
All other	102.43	106.23	106.15	107.79	110.35	112.74	114.89	116.76	118.73	120.78	123.19
Total production expenses	438.32	443.76	437.64	438.38	443.76	448.62	452.06	454.74	458.79	463.99	470.20

All projections are averages across 500 stochastic outcomes.

Farm income indicators

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	(Billion dollars)										
1. Farm receipts	560.87	531.19	526.21	526.58	529.72	530.46	530.05	529.96	532.06	535.84	540.21
Crops	262.40	237.38	231.54	231.54	234.42	236.71	237.69	238.14	238.99	240.39	241.84
Livestock	244.37	242.65	244.71	245.07	244.78	242.50	240.35	239.13	239.73	241.38	243.45
Farm-related	54.09	51.17	49.96	49.96	50.52	51.26	52.01	52.69	53.34	54.08	54.92
2. Government payments	12.17	10.60	9.83	13.56	15.47	15.77	13.70	12.25	11.36	10.78	10.83
3. Gross cash income (1 + 2)	573.05	541.80	536.05	540.14	545.19	546.23	543.75	542.20	543.42	546.62	551.04
4. Non-money income	24.65	24.61	24.14	23.87	23.83	23.81	23.73	23.58	23.40	23.23	23.09
5. Value of inventory Change	-3.51	-4.29	-3.85	-3.03	-2.27	-1.58	-1.59	-1.81	-1.96	-2.16	-2.11
6. Gross farm income (3 + 4 + 5)	594.18	562.11	556.33	560.99	566.74	568.46	565.89	563.97	564.87	567.69	572.02
7. Cash expenses	412.61	415.63	408.36	408.55	413.55	418.05	421.13	423.53	427.37	432.41	438.47
8. Total expenses	438.32	443.76	437.64	438.38	443.76	448.62	452.06	454.74	458.79	463.99	470.20
9. Net cash income (3 - 7)	160.44	126.17	127.68	131.59	131.64	128.18	122.62	118.67	116.06	114.21	112.57
10. Realized net farm income (3 + 4 - 8)	159.38	122.64	122.55	125.64	125.26	121.42	115.43	111.04	108.04	105.86	103.93
11. Net farm income (6 - 8)	155.87	118.35	118.69	122.61	122.99	119.84	113.84	109.23	106.08	103.70	101.82
Deflated (2024 \$)	159.58	118.35	116.12	115.67	111.90	105.16	96.33	89.14	83.49	78.71	74.53

All projections are averages across 500 stochastic outcomes.

Land rental rates and real estate values

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Rental rates	(Dollars per acre)										
Cropland	155.00	155.61	154.09	152.57	153.44	154.94	156.07	155.98	155.43	154.75	154.31
Pasture	15.00	15.29	14.91	14.70	14.68	14.71	14.69	14.58	14.43	14.29	14.19
Value of farm real estate	4,080	4,093	4,093	4,128	4,186	4,229	4,256	4,263	4,259	4,252	4,251

All projections are averages across 500 stochastic outcomes.

Land use for major crops and the conservation reserve

Marketing year	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34
Planted area	(Million acres)										
Corn	94.64	90.11	92.71	92.27	91.70	91.12	90.96	90.71	90.36	90.00	89.70
Soybeans	83.60	88.24	87.10	87.74	88.69	89.36	89.50	89.67	89.98	90.40	90.78
Wheat	49.58	47.65	46.60	46.42	46.42	46.25	46.18	46.18	46.20	46.20	46.25
Upland cotton	10.09	10.89	11.37	11.32	11.31	11.32	11.31	11.30	11.28	11.23	11.18
Sorghum	7.20	6.80	6.84	6.91	6.93	6.96	6.98	6.98	6.98	6.99	7.00
Barley	3.10	3.11	3.22	3.08	3.02	2.99	2.95	2.90	2.87	2.84	2.81
Oats	2.56	2.59	2.80	2.84	2.87	2.90	2.93	2.96	2.98	3.00	3.02
Rice	2.89	2.66	2.63	2.71	2.73	2.74	2.76	2.77	2.76	2.76	2.74
Canola	2.34	2.31	2.46	2.56	2.60	2.64	2.69	2.74	2.78	2.82	2.86
Sunflowers	1.32	1.35	1.24	1.29	1.28	1.29	1.29	1.30	1.30	1.31	1.31
Peanuts	1.65	1.71	1.68	1.65	1.63	1.61	1.61	1.60	1.61	1.60	1.60
Sugar beets	1.14	1.15	1.15	1.18	1.19	1.19	1.17	1.16	1.17	1.17	1.16
Sugar cane (harvested)	0.94	0.95	0.97	1.00	1.02	1.03	1.03	1.02	1.02	1.02	1.02
13 crop planted area	261.03	259.52	260.76	260.98	261.39	261.39	261.35	261.29	261.30	261.36	261.45
Hay (harvested)	52.82	52.28	52.02	51.75	51.58	51.58	51.68	51.79	51.87	51.89	51.87
13 crops + hay	313.85	311.80	312.78	312.73	312.97	312.97	313.03	313.08	313.17	313.24	313.31
Conservation reserve (CRP)	22.93	24.80	25.99	26.59	26.40	26.26	26.12	26.00	25.90	25.80	25.70
13 crops + hay + CRP	336.78	336.60	338.77	339.32	339.38	339.23	339.15	339.08	339.06	339.04	339.01
Double-crop soybeans	3.59	3.71	3.42	3.43	3.46	3.46	3.46	3.46	3.47	3.48	3.50
13 crops + hay + CRP - double-crop soybeans	333.19	332.89	335.35	335.89	335.92	335.76	335.69	335.62	335.60	335.56	335.51

All projections are averages across 500 stochastic outcomes.

Balance sheet of the farm sector

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	(Billion dollars)										
Assets	4,090	4,092	4,065	4,089	4,137	4,173	4,190	4,190	4,184	4,178	4,177
Real estate	3,420	3,439	3,439	3,466	3,509	3,541	3,560	3,566	3,563	3,558	3,557
Other assets	670	653	626	624	628	632	629	624	621	620	621
Debts	521	547	557	562	567	573	578	582	585	588	591
Real estate	355	375	387	395	401	405	409	412	414	415	415
Other debts	166	172	169	167	167	168	169	170	171	173	176
Debt-to-asset ratio	12.7%	13.4%	13.7%	13.7%	13.7%	13.7%	13.8%	13.9%	14.0%	14.1%	14.2%

All projections are averages across 500 stochastic outcomes.

Consumer price indices for food

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	(1982-84 = 100)										
Total food	323.0	329.9	335.6	341.9	348.5	355.4	362.5	370.0	377.9	386.5	395.6
(Inflation rate)	5.8%	2.1%	1.7%	1.9%	2.0%	2.0%	2.0%	2.0%	2.2%	2.3%	2.3%
Food at home	302.9	303.8	306.9	311.1	316.0	321.1	326.4	332.0	338.2	345.0	352.2
Cereal and bakery	354.3	352.3	355.6	361.2	368.2	375.2	382.9	390.7	399.0	408.1	417.7
Meat	319.4	323.4	326.7	331.0	335.8	340.1	344.5	349.3	355.2	362.0	369.5
Dairy	269.5	269.7	273.8	277.3	281.2	286.0	291.2	296.8	302.9	309.5	316.6
Fruit and vegetables	350.2	350.1	352.7	356.2	360.3	365.1	370.2	375.6	381.2	387.3	393.7
Other food at home	269.7	272.2	275.0	279.0	283.9	288.8	294.0	299.4	305.1	311.1	317.6
Sugar and sweets	281.2	289.9	292.8	297.0	302.8	308.7	314.5	320.6	327.2	334.4	342.0
Fats and oils	310.1	314.0	316.9	321.9	328.5	335.1	342.2	350.0	358.2	366.7	375.9
Other prepared items	285.0	285.7	288.8	293.4	298.8	304.3	310.2	316.2	322.5	329.3	336.4
Non-alcoholic beverages	216.0	219.2	221.6	224.2	227.4	230.7	234.0	237.5	241.2	245.2	249.4
Food away from home	354.3	368.8	377.6	386.8	395.9	405.3	414.9	424.9	435.4	446.4	458.1

All projections are averages across 500 stochastic outcomes.

Consumer expenditures for food

Calendar year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	(Dollars per person)										
Total food per capita	7,543	7,646	7,770	7,929	8,126	8,340	8,560	8,784	9,017	9,261	9,517
Food at home	3,151	3,179	3,223	3,278	3,349	3,425	3,503	3,584	3,668	3,758	3,852
Food away from home	4,392	4,467	4,547	4,651	4,777	4,915	5,056	5,200	5,349	5,503	5,665
Multiply by population for:	(Billion dollars)										
Total U.S. food expenditures	2,529	2,577	2,632	2,700	2,781	2,869	2,959	3,052	3,148	3,249	3,354

All projections are averages across 500 stochastic outcomes.