

# **U.S. Baseline Briefing Book**

## **Projections for Agricultural and Biofuel Markets**

*March 2015*

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Prepared by the Integrated Policy Group, Division of Applied Social Sciences

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The crop, biofuel, government cost and farm income projections in this report were prepared by the team at FAPRI-MU, including Pat Westhoff ([westhoffp@missouri.edu](mailto:westhoffp@missouri.edu)), Scott Gerlt ([gerlts@missouri.edu](mailto:gerlts@missouri.edu)), Jarrett Whistance ([whistancejl@missouri.edu](mailto:whistancejl@missouri.edu)), Julian Binfield ([binfieldj@missouri.edu](mailto:binfieldj@missouri.edu)), Wyatt Thompson ([thompsonw@missouri.edu](mailto:thompsonw@missouri.edu)), Sera Chiuchiarelli ([chiuchiarellis@missouri.edu](mailto:chiuchiarellis@missouri.edu)) and Deepayan Debnath ([debnathd@missouri.edu](mailto:debnathd@missouri.edu)).

The livestock, poultry, dairy and consumer price projections were prepared by the MU Agricultural Markets and Policy (AMAP) team, including Scott Brown ([browns@missouri.edu](mailto:browns@missouri.edu)) and Daniel Madison ([madisondc@missouri.edu](mailto:madisondc@missouri.edu)).

FAPRI-MU and AMAP are both part of the Integrated Policy Group in the MU Division of Applied Social Sciences.

U.S. crop trade figures reported here were prepared with the help of Mike Helmar ([mhelmar@cabnr.unr.edu](mailto:mhelmar@cabnr.unr.edu)) at the University of Nevada, Reno, Eric Wailes ([ewailes@uark.edu](mailto:ewailes@uark.edu)) and Eddie C. Chavez ([echavez@uark.edu](mailto:echavez@uark.edu)) at the University of Arkansas and Darren Hudson ([Darren.hudson@ttu.edu](mailto:Darren.hudson@ttu.edu)) at Texas Tech University.

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](http://www.afpc.tamu.edu)).

The authors would like to thank participants in a workshop reviewing a preliminary version of these estimates in Washington in December 2014. Any remaining errors are those of the authors.

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# Summary

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Lower prices have resulted in a large decline in crop producer income and could result in significant federal spending under new programs established by the 2014 farm bill. After reaching record levels in 2014, most livestock sector prices are also expected to decline in 2015. As a result, net farm income is projected to fall sharply.

These baseline projections for agricultural and biofuel markets were prepared using market information available in January 2015. Macroeconomic assumptions are based on forecasts by IHS Global Insight which suggest moderate growth in the U.S. and global economies. After declining sharply in late 2014, forecasted oil prices increase steadily.

The baseline incorporates the Agricultural Act of 2014 (the new farm bill). The analysis requires important assumptions about how people will respond to new program options. As more information becomes available, these assumptions and estimates will need to be revisited.

The figures reported here represent the average of 500 alternative outcomes based on different assumptions about the weather, oil prices and other factors. In some of the 500 outcomes, prices, quantities and values are much higher or much lower than the reported averages.

Some key results:

- Record production of corn and soybeans in 2014 has pushed down prices of all major grains and oilseeds.
- In response to lower expected prices, U.S. producers are projected to reduce corn, wheat and cotton acreage in 2015, while slightly increasing soybean area. The total area devoted to major crops declines in 2015, but remains above the average that prevailed over the 2008-13 life of the previous farm bill.
- Average projected corn prices recover to \$3.89 per bushel for the 2015/16 marketing year in response to reduced U.S. production. Wheat and soybean prices both fall in 2015/16, to \$5.17 per bushel and \$9.29 per bushel, respectively, given continued large global supplies.
- Between 2016/17 and 2024/25, corn prices average \$4.06 per bushel and soybeans \$10.09 per bushel, similar to projections made last year. Wheat prices average \$5.57 per bushel, and cotton prices average 63 cents per pound.
- Milk, hog and poultry prices are all projected to decline in 2015 as producers respond to lower feed costs and the record output prices of 2014 by significantly increasing production. Cattle and beef supplies remain tight in 2015, but prices begin to fall in 2016 as beef production starts to expand again.
- Lower prices translate into reduced farm income, as both crop and livestock cash receipts decline in 2015. Lower feed and fuel costs result in a modest reduction in total farm production expenses. Net farm income falls to \$79 billion, a 27 percent decline from 2014.
- Payments under 2014 farm bill programs increase when crop prices fall. A projected \$3.9 billion in Agriculture Risk Coverage (ARC) and Price Loss Coverage (PLC) payments for the 2014 crop will be made after fiscal year (FY) 2016 begins on October 1, 2015.
- Projected average ARC and PLC payments peak with the 2015 crop at about \$6.5 billion, but decline to \$3.4 billion for the 2018 crop. Actual ARC and PLC spending in any given year is likely to differ greatly from these projected averages, given price and yield volatility.
- Crop insurance net outlays are projected to average more than \$8 billion per year over the next ten years.
- Projected food price inflation drops to 1.6 percent in 2015, and averages 2 percent per year from 2016-2024.

## Key results

Marketing year	2008/09-2013/14 average	2014/15	2015/16	2016/17-2024/25 average
<b>Crop prices</b>				
Corn farm price, dollars per bushel	5.06	3.63	3.89	4.06
Soybean farm price, dollars per bushel	11.79	10.02	9.29	10.09
Wheat farm price, dollars per bushel	6.54	6.13	5.17	5.57
Upland cotton farm price, cents per pound	71.8	61.8	60.0	63.1
<b>Crop area planted, million acres</b>				
Corn	90.9	90.6	87.9	90.9
Soybeans	76.6	83.7	84.2	83.4
Wheat	56.8	56.8	55.1	54.8
Upland cotton	11.0	10.8	9.5	9.5
12 major crops*	256.6	262.7	258.3	260.0
<hr/>				
Calendar year except as noted	2008-2013 average	2014	2015	2016-2024 average
<b>Livestock sector prices</b>				
Fed steers, 5-area direct, dollars per cwt	105.81	154.56	156.07	129.23
Barrows and gilts, 51-52% lean, dollars per cwt	55.86	76.03	62.11	56.07
National wholesale broiler, cents per pound	84.32	104.87	94.53	95.55
All milk, dollars per cwt	17.78	23.97	17.59	18.68
<b>Biofuel production, billion gallons</b>				
Ethanol	12.4	14.3	14.2	15.2
Corn starch-based ethanol	12.1	14.2	14.0	14.9
Biomass-based diesel	0.9	1.6	1.3	1.8
<b>Government outlays, billion dollars, fiscal year</b>				
Commodity Credit Corporation net outlays	9.4	12.2	7.7	8.0
Major commodity programs	5.9	5.1	1.6	5.0
CRP, disaster and all other CCC net outlays	3.5	7.1	6.0	3.0
Crop insurance net outlays	7.0	8.3	7.0	8.6
<b>Net farm income, billion dollars</b>	92.7	108.0	79.3	71.9
<b>Annual consumer food price inflation</b>	2.6%	2.4%	1.6%	2.0%

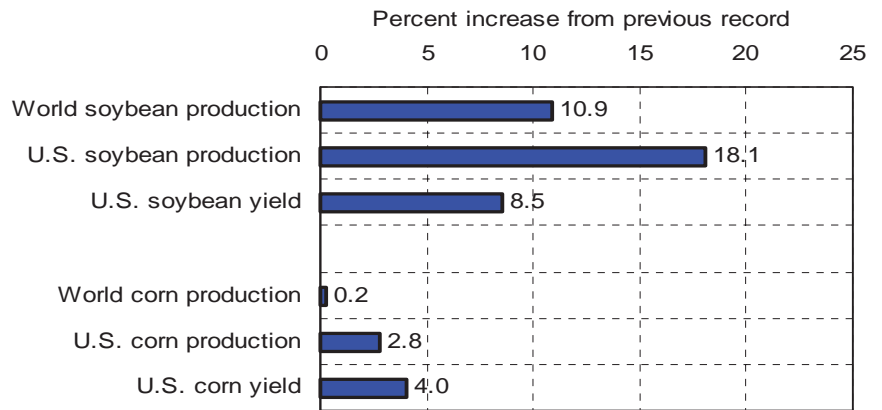
\*Includes corn, soybeans, wheat, upland cotton, sorghum, barley, oats, rice, peanuts, sunflowers, sugarcane and sugar beets.

Note: The estimates are based on market information available in January 2015 and incorporate provisions of the Agricultural Act of 2014, the new farm bill. Projections are averages across 500 outcomes.

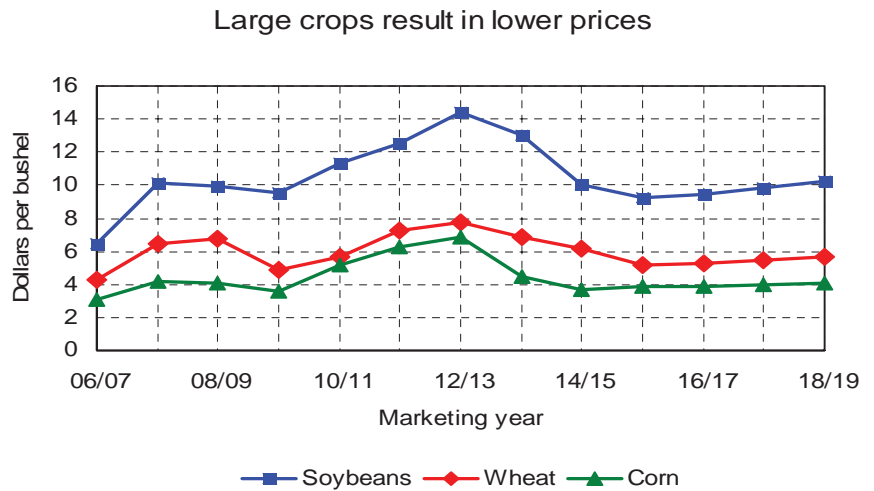
# Crop production, prices and farm income

## 2014 corn and soybean crops set records

- U.S. producers harvested record corn and soybean crops in 2014.
- Both crops saw record yields, and soybean area was also at an all-time high.
- World production of both crops also increased in 2014, breaking records set in 2013.
- These large crops are the primary reason grain and oilseed prices have declined sharply from records set during the 2012/13 marketing year.



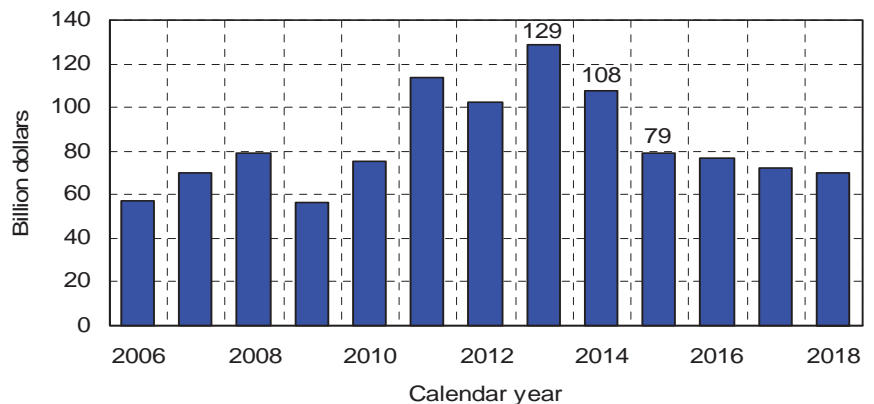
- Corn prices declined from \$6.89 per bushel in 2012/13 to about half that level at harvest time last fall.
- If yields return to more normal levels in 2015, corn prices may recover, but average projected prices remain below \$4.00 per bushel until 2017/18.



- Soybean and wheat prices have also declined since 2012/13, and both could drop again in 2015/16 in the face of continued large global supplies.

## Net farm income declines from 2013 record

- Nominal net farm income reached record highs in 2013. Net farm income declined in 2014 because of lower crop prices.
- In 2015, lower prices lead to a projected decline in both crop and livestock receipts.
- Even though lower feed and fuel costs reduce production expenses, the sharp drop in receipts results in a 27 percent decline in net farm income in 2015.



- Net farm income declines further from 2016-2018, to levels not seen since 2009.

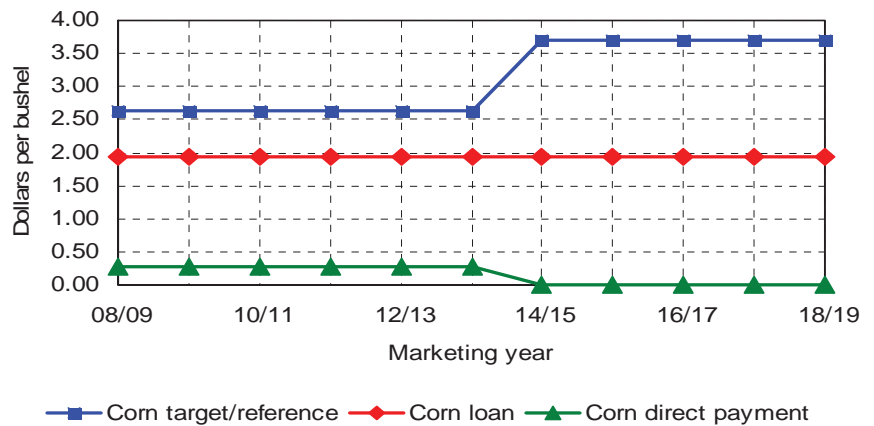
# New farm bill provisions and effects

- The baseline incorporates provisions of the Agricultural Act of 2014, the new farm bill.

- For crop producers, this includes the elimination of direct and countercyclical (DCP) payments and the average crop revenue election (ACRE) program.

- It also includes the creation of two new options, price loss coverage (PLC) and agriculture risk coverage (ARC), as well as new crop insurance policies and more.

Baseline incorporates 2014 farm bill provisions

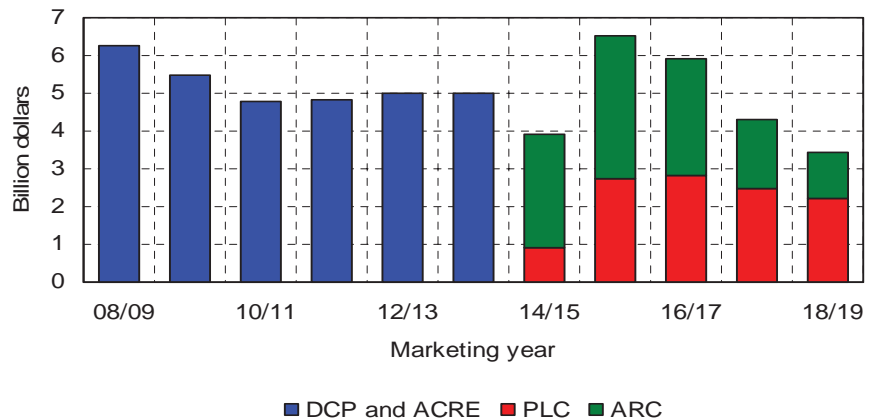


- The new PLC and ARC programs cost little when crop prices and revenues are high, but could make large payments when prices or revenues are low.

- Given all of the assumptions of the baseline, average PLC and ARC payments for the 2014-2018 crops are just under \$5 billion per year.

- ARC spending is greatest in 2015/16 but declines in later years as the moving averages that determine benchmark revenues adjust.

New crop payments replace DCP and ACRE

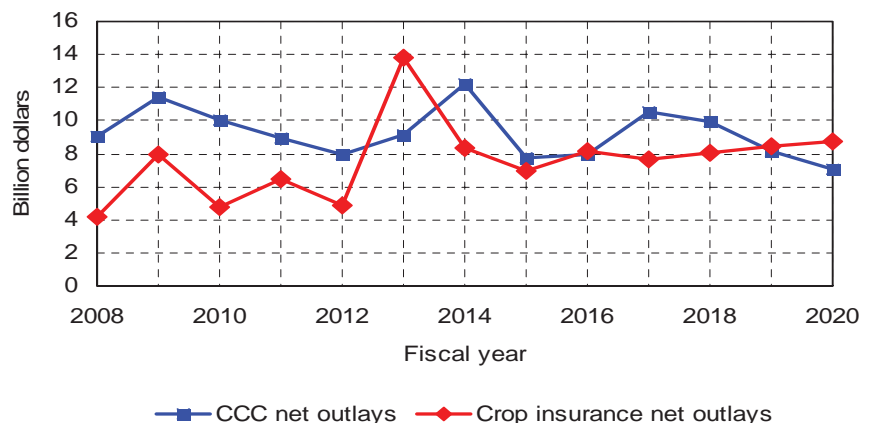


- Crop insurance net outlays peaked in FY 2013 because of 2012 drought losses. Projected crop insurance costs average \$8 billion per year from FY 2015-FY 2020.

- Net Commodity Credit Corporation (CCC) outlays (covering commodity and disaster programs, the conservation reserve and more) reached \$12 billion in FY 2014.

- Projected net CCC outlays exceed \$10 billion again in FY 2017, when ARC and PLC payments associated with the 2015 crop will be made.

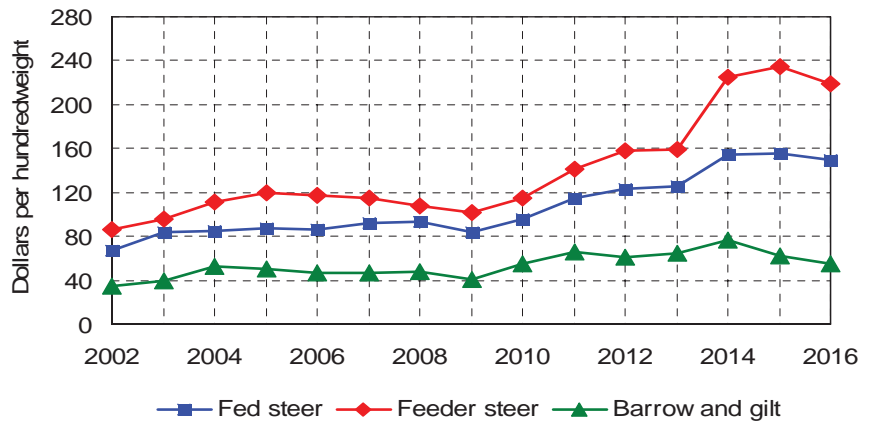
Crop insurance costs can exceed other programs



# Livestock and dairy outlook highlights

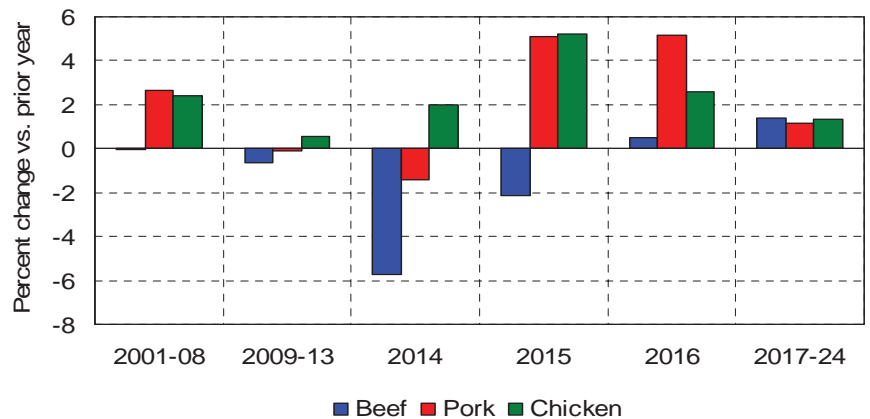
- The combination of tight supply and strong domestic meat demand resulted in record prices for many livestock products in 2014.
- The record output prices coincided with sharply lower feed costs, allowing for record high profitability for many producers in 2014.
- Recent profitability levels follow what was a very difficult set of years financially for many producers for all or most of 2008-2013.

Record high prices for cattle and hogs in 2014



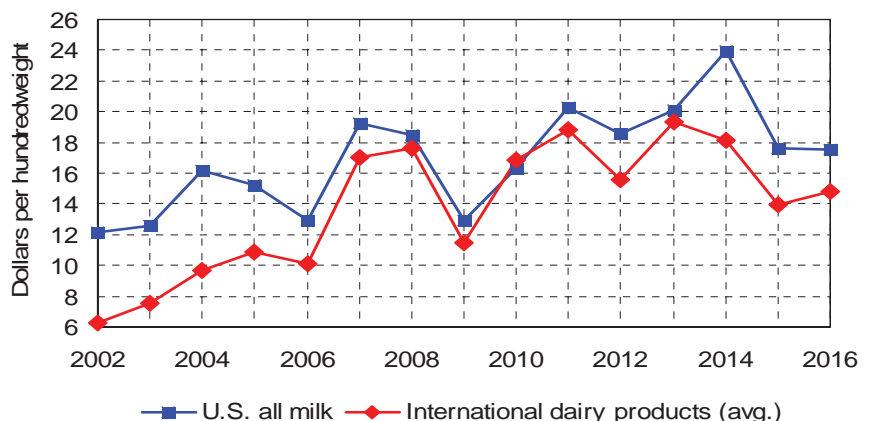
- Record levels of profitability will result in more meat production in coming years.
- Pork and poultry production will increase in 2015 and 2016, as larger breeding herds and improved productivity combine for sharp increases in output.
- It will take longer for beef production to increase due to the time required to raise a new animal to market weight once a decision has been made to expand output.

Meat production will grow, but at varying rates



- International dairy product prices decreased for most of 2014, as demand weakened and milk supplies recovered in many exporting nations.
- U.S. product prices remained well above international levels for much of 2014, allowing for a record high all milk price near \$24 per hundredweight.
- U.S. prices have begun to decline in recent months, as markets catch up to the international supply and demand situation and domestic milk supplies increase.

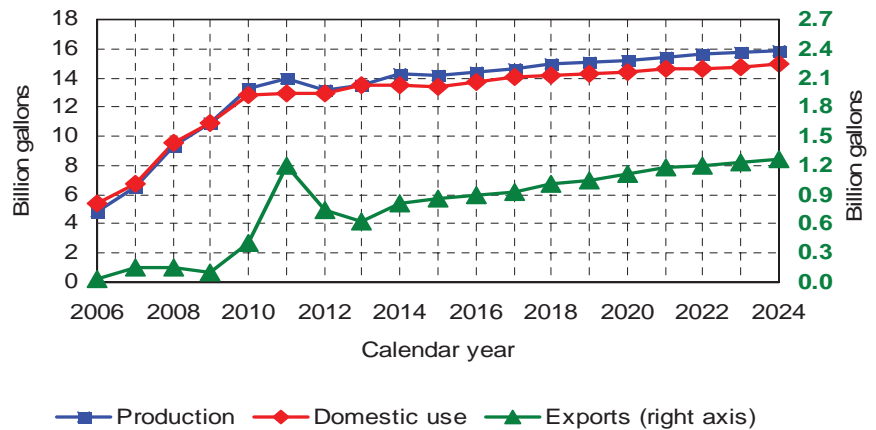
Weak international dairy markets affect milk price





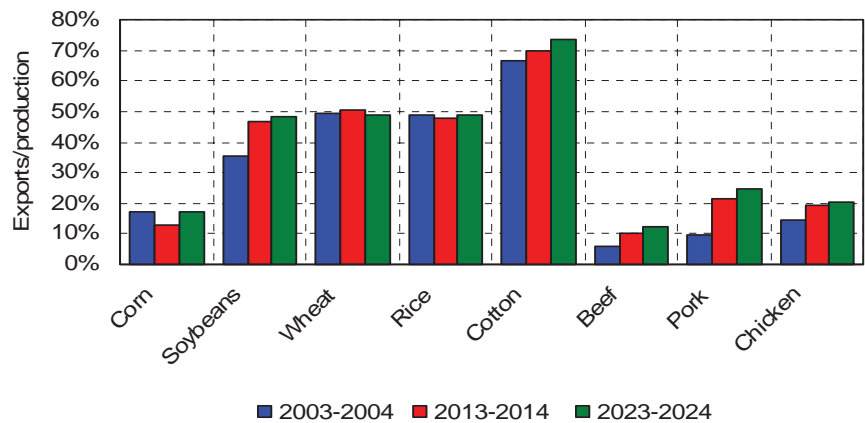
# Other highlights: Biofuels, exports and food prices

Ethanol production and use grow slowly



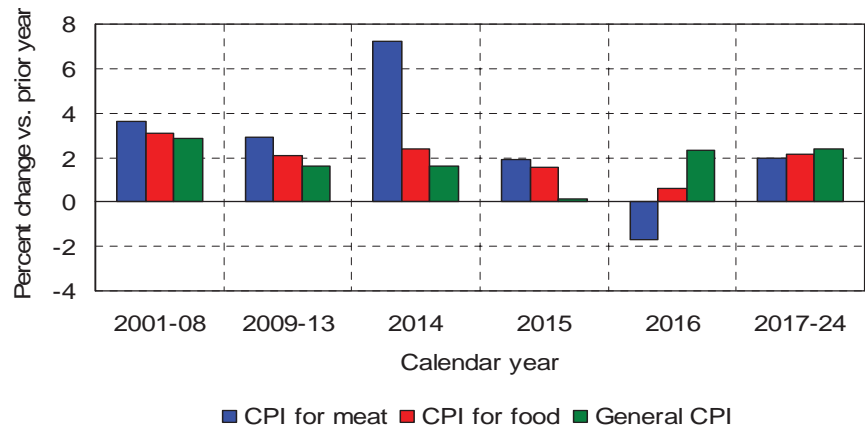
- Ethanol production dips slightly in 2015 due to tighter margins but resumes a path of modest growth in the years that follow.
- In the near term, lower oil prices result in an increase in motor fuel use, so more ethanol can be used in 10 percent blends.
- U.S. exports (right axis) are projected to grow steadily as U.S. ethanol prices remain competitive globally.
- Results are sensitive to assumptions about implementation of the Renewable Fuel Standard (RFS).

Share of production exported varies



- Exports account for a much larger share of production for cotton, soybeans, wheat and rice than for corn, beef, pork or chicken.
- Continued growth is expected in the share of beef, pork and chicken which is exported.
- For corn and soybeans, the share exported would be larger if one considered exports of feeds, biofuels, vegetable oils, and other products derived from corn and soybeans.

Meat prices outpace other inflation one more year



- Meat price inflation was much greater in 2014 than inflation for other food items.
- CPIs for beef (up 12.1 percent), pork (9.1) and eggs (8.4) far outpaced price increases for fruits and vegetables (1.5), cereal and bakery items (0.2) and sugar and sweets (-0.8).
- Although beef prices increase more than other food prices in 2015, the difference is much smaller than in 2014.

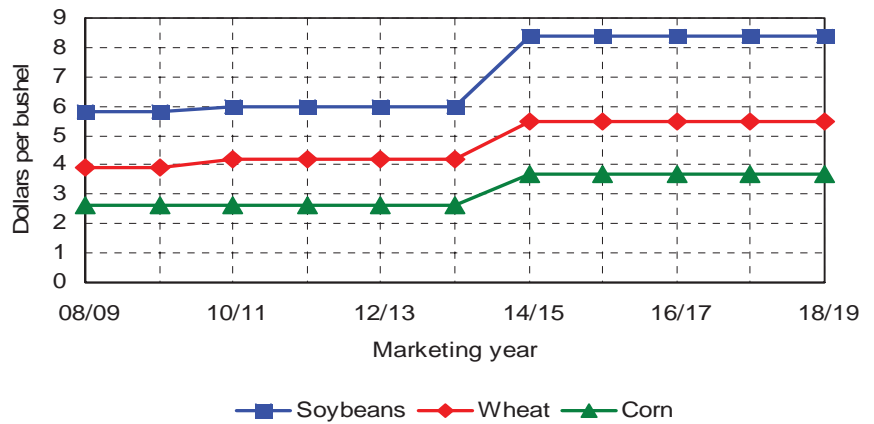
# Policy assumptions under the new farm bill

- The 2014 farm bill eliminates the DCP and ACRE programs and creates several new programs.

- PLC is one new option for grain and oilseed producers. Participating producers receive a payment when national season-average farm prices fall below fixed reference prices.

- The new reference prices are higher than the target prices that were used in calculating countercyclical payments under the previous farm bill.

Reference prices exceed old target prices

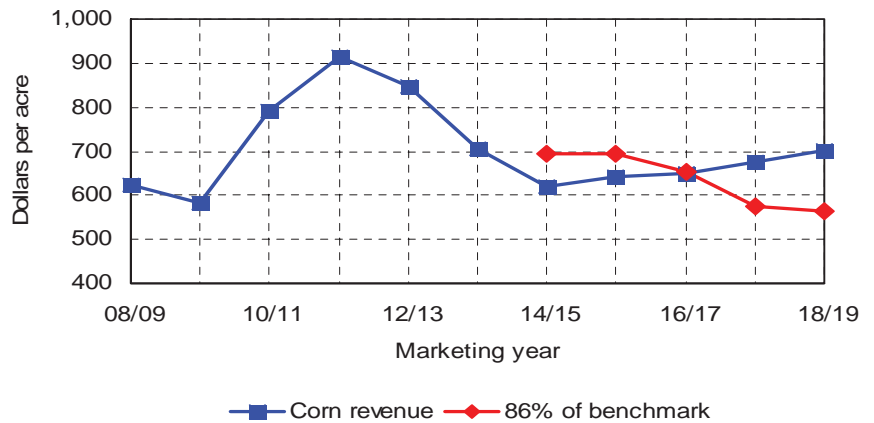


- ARC is the other new option for grain and oilseed producers. Payments occur when county or farm-level revenues per acre fall below 86 percent of a benchmark.

- The benchmark depends on moving five-year Olympic averages of national prices and county or farm yields.

- To illustrate, consider a county where corn yields match the national average. At our average projected prices, the 2014-2016 crops would earn ARC payments, but the 2017 and 2018 crops would not.

ARC benchmarks depend on moving averages



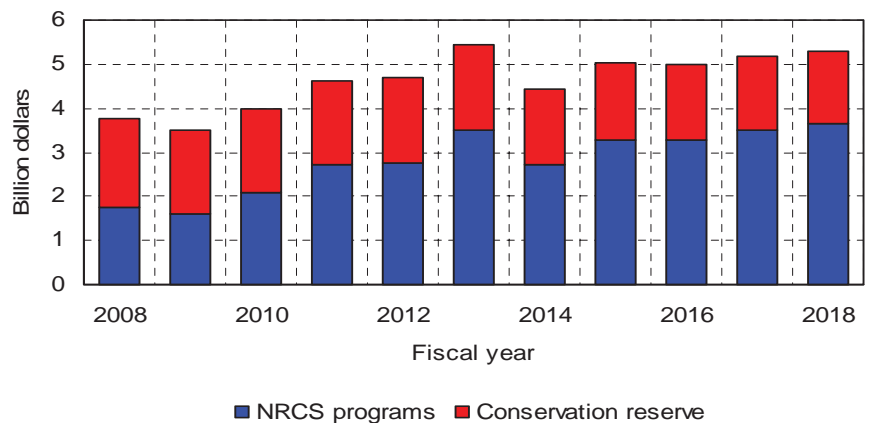
Conservation programs total \$5 billion per year

- The 2014 farm bill reauthorizes and consolidates conservation programs.

- The Conservation Reserve Program is operated by the Farm Service Agency and funded by the CCC.

- The Environmental Quality Incentives Program and the Conservation Stewardship Program are operated by the Natural Resources Conservation Service.

- Total projected spending on these programs is around \$5 billion per year.



## Selected policy assumptions, 2014-2024

Policy	Description																				
Direct, countercyclical and ACRE payments	Not available for 2014 and subsequent crop years																				
Price loss coverage (PLC)	<p>Makes payments when marketing year average price falls below fixed reference prices:</p> <table style="margin-left: 20px;"> <tr><td>Corn</td><td>\$3.70/bu.</td></tr> <tr><td>Soybeans</td><td>\$8.40/bu.</td></tr> <tr><td>Wheat</td><td>\$5.50/bu.</td></tr> <tr><td>Rice</td><td>\$14.00/cwt (\$16.10/cwt for Japonica)</td></tr> <tr><td>Sorghum</td><td>\$3.95/bu.</td></tr> <tr><td>Barley</td><td>\$4.95/bu.</td></tr> <tr><td>Oats</td><td>\$2.40/bu.</td></tr> <tr><td>Peanuts</td><td>\$535/ton</td></tr> <tr><td>Sunflowers</td><td>20.15 cents/lb.</td></tr> <tr><td>Cotton</td><td>not available</td></tr> </table> <p>Paid on 85% of base acreage and program yields</p>	Corn	\$3.70/bu.	Soybeans	\$8.40/bu.	Wheat	\$5.50/bu.	Rice	\$14.00/cwt (\$16.10/cwt for Japonica)	Sorghum	\$3.95/bu.	Barley	\$4.95/bu.	Oats	\$2.40/bu.	Peanuts	\$535/ton	Sunflowers	20.15 cents/lb.	Cotton	not available
Corn	\$3.70/bu.																				
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Oats	\$2.40/bu.																				
Peanuts	\$535/ton																				
Sunflowers	20.15 cents/lb.																				
Cotton	not available																				
Agriculture Risk Coverage (ARC)	<p>Makes payments when county or farm per-acre revenues fall below 86% of a benchmark</p> <p>County option benchmark: 5-year Olympic average price multiplied by 5-year Olympic average yield</p> <p>Farm option benchmark: 5-year Olympic average of weighted farm revenue per acre</p> <p>Maximum payment is 10% of benchmark value</p> <p>Paid on 85% (county option) or 65% (farm option) of base acreage</p> <p>Alternative to price loss coverage</p> <p>Available for program crops (not upland cotton)</p>																				
Sequestration	<p>Assumed to apply to PLC and ARC payments and certain conservation payments</p> <p>Rate: 7.0% for 2015 crop payments, declining to 5.8% for 2018-24 crop payments</p>																				
Marketing loan program	Continues 2008 farm bill provisions for crops other than upland cotton																				
Supplemental coverage option	<p>Available for program crops not enrolled in ARC beginning in 2015</p> <p>Area crop insurance available as a supplement to conventional insurance</p> <p>Covers range between 86% and individual coverage level</p> <p>65% of premium subsidized</p>																				
Upland cotton	<p>Stacked income protection program (STAX)</p> <p style="margin-left: 20px;">Area crop insurance available in addition to conventional insurance</p> <p style="margin-left: 20px;">80% of premium subsidized</p> <p>Transition payment in 2014 (STAX not available until 2015)</p> <p>Loan rate varies in range depending on recent world cotton prices</p> <p>No cotton PLC or ARC programs</p> <p>Former cotton base (now "generic base") eligible for PLC or ARC if planted to other crops</p>																				
Sugar	<p>Continues 2008 farm bill provisions</p> <p>Incorporates stylized version of agreement with Mexico</p>																				
Conservation reserve	Caps conservation reserve acreage at 24 million acres by 2017																				
Dairy	<p>Margin insurance program established</p> <p>MILC no longer available</p> <p>Dairy product price support program not available for 2014 and subsequent years</p>																				

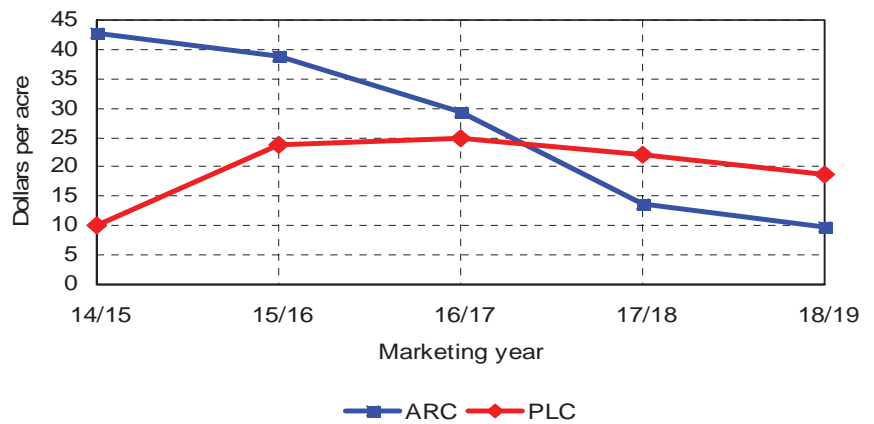
# Crop program participation under the new farm bill

- Under the new farm bill, producers must make a one-time choice to participate in ARC or PLC for the 2014-2018 crops.

- Projected national average ARC payments for corn producers exceed PLC payments for the first three years, but the opposite is true for the last two.

- Expected payments may be very different in different counties. For example, high 2014 yields may mean no 2014 crop ARC payments for corn in some counties.

Paths differ for projected average corn payments

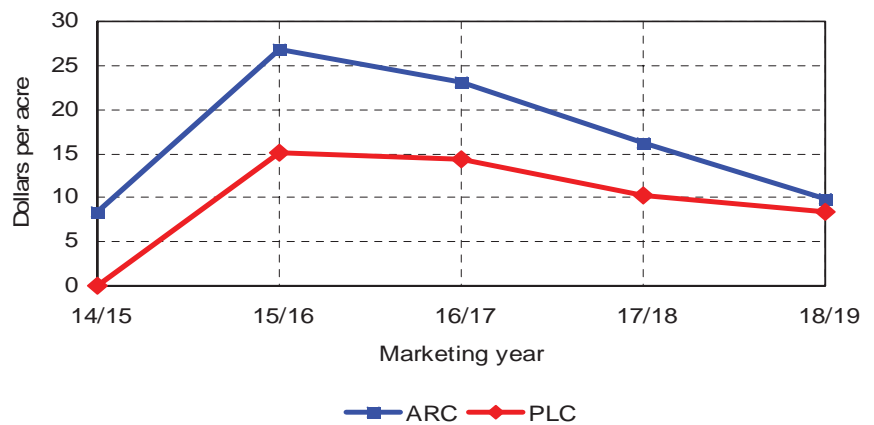


- For soybeans, expected average ARC payments exceed PLC payments for all five years of the 2014 farm bill.

- Producers would also need to consider possible SCO benefits, which are only available to PLC participants.

- Producers can enroll in the county-based ARC program, which pays on 85 percent of base area, or in the farm-based ARC, which considers all program crops on a farm and pays on 65 percent of base area.

Expected ARC payments exceed PLC for soybeans

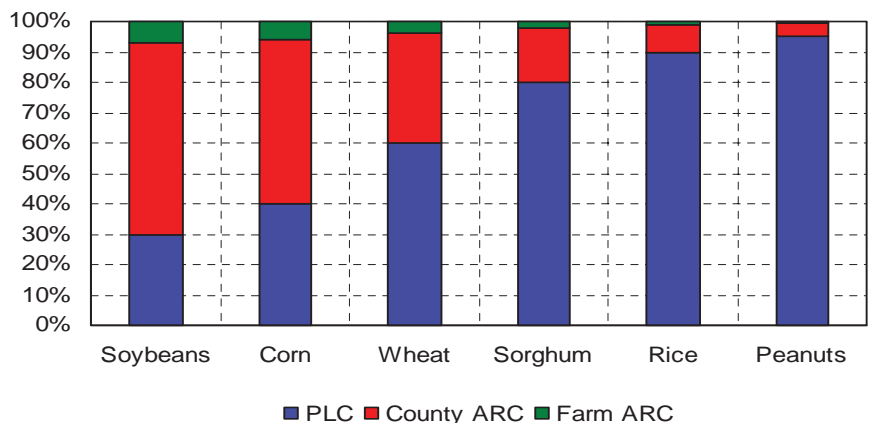


- Price expectations, yield histories and risk attitudes will affect producer enrollment choices.

- Based in part on projected average payments, the baseline assumes most producers of wheat, sorghum, rice and peanuts will enroll in PLC.

- Most soybean and corn producers are assumed to elect ARC. Of those enrolled in ARC, 90 percent are assumed to choose the county-based option.

Greater PLC enrollment assumed for most crops



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**ARC and PLC participation  
(share of base acres)**

	PLC	ARC	
		County	Farm
Corn	40.0%	54.0%	6.0%
Soybeans	30.0%	63.0%	7.0%
Wheat	60.0%	36.0%	4.0%
Upland cotton	n.a.	n.a.	n.a.
Sorghum	80.0%	18.0%	2.0%
Barley	75.0%	22.5%	2.5%
Oats	50.0%	45.0%	5.0%
Rice	90.0%	9.0%	1.0%
Peanuts	95.0%	4.5%	0.5%

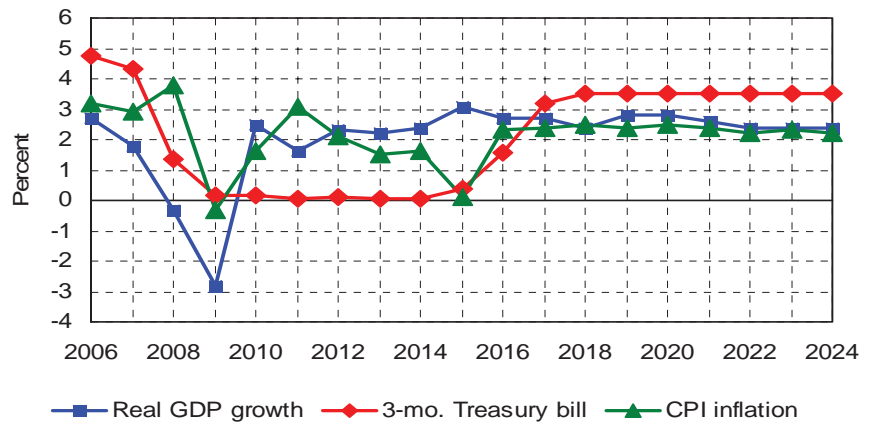
**Payments per participating  
acre, 2014-2018 average**

	ARC	PLC
Corn	\$26.83	\$19.92
Soybeans	\$16.91	\$9.57
Wheat	\$11.16	\$13.66
Upland cotton	n.a.	n.a.
Sorghum	\$11.00	\$20.82
Barley	\$10.09	\$21.70
Oats	\$1.96	\$1.38
Rice	\$4.19	\$66.02
Peanuts	\$44.91	\$138.38

# Macroeconomic assumptions and farm prices paid

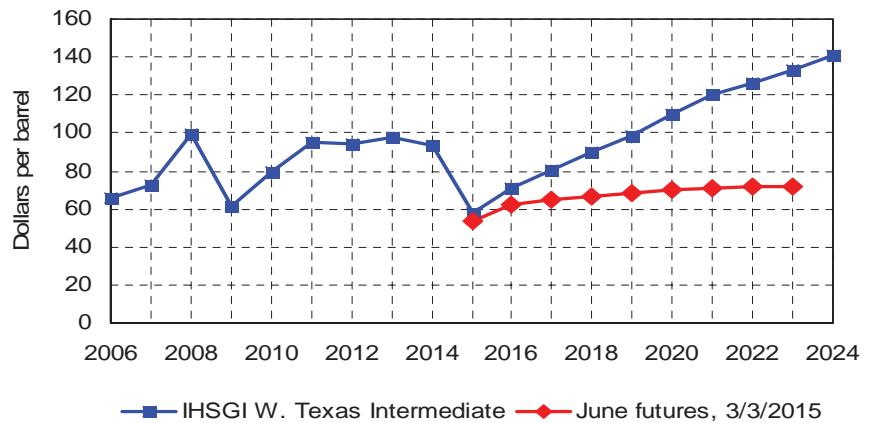
- IHS Global Insight forecasted in January that U.S. real GDP growth would accelerate in 2015 to 3.1 percent.
- Growth averages 2.6 percent per year between 2016 and 2024.
- Lower oil prices reduce inflation in 2015.
- The unemployment rate continues to decline slowly.
- Short-term interest rates increase to near pre-recession levels by 2017.

Faster U.S. growth and low inflation expected in 2015



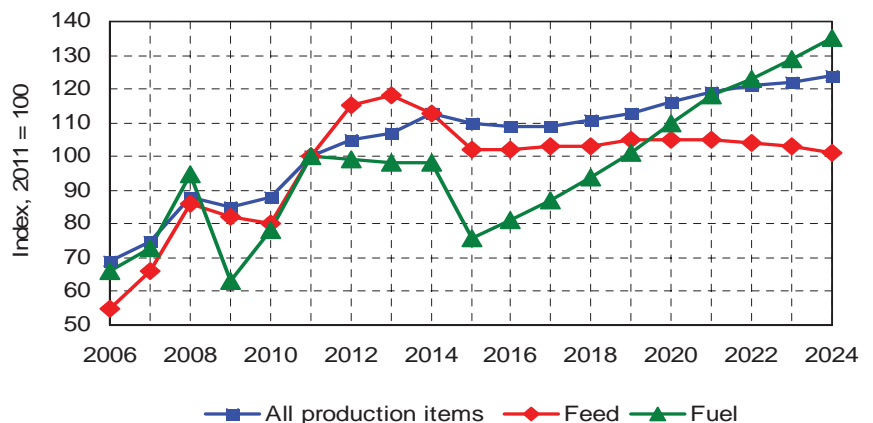
- Oil prices declined sharply in the final months of 2014.
- IHS Global Insight forecasts that oil prices will recover, exceeding \$140 per barrel by 2024.
- Futures markets in early March 2015 suggested a much smaller increase.
- Our stochastic simulations (see the end of this report) examine a range of energy prices around the IHS Global Insight figures.

Oil prices recover after sharp decline



- Lower feed and fuel prices reduce farm production expenses in 2015.
- Fertilizer prices are also expected to decline in 2015, offsetting cost increases for some other inputs.
- Projected increases in fuel prices and general inflation in the economy contribute to an increase in overall farm input prices after 2017.

Lower feed, fuel prices reduce 2015 production costs



## Macroeconomic assumptions

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Real GDP growth	(Percentage change from previous year)										
United States	2.4	3.1	2.7	2.7	2.4	2.8	2.8	2.6	2.4	2.4	2.4
China	7.3	6.5	6.7	6.8	7.1	7.3	7.3	6.9	6.7	6.2	6.0
World	2.7	3.0	3.4	3.5	3.6	3.7	3.8	3.7	3.6	3.5	3.4
Population growth											
United States	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7
World	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	0.9	0.9
U.S. CPI, all urban consumers	1.6	0.1	2.3	2.4	2.5	2.4	2.5	2.4	2.2	2.3	2.2
U.S. unemployment rate	(Percent)										
3-month Treasury bill rate	0.0	0.4	1.6	3.2	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Prime interest rate	3.3	3.5	4.6	6.3	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Petroleum prices	(Dollars per barrel)										
West Texas intermediate	93.01	58.24	71.07	80.64	89.90	98.69	109.47	119.86	126.36	133.40	141.39
Refiners' acquisition cost	91.54	55.71	68.16	77.25	86.18	94.93	105.58	115.63	121.69	128.46	136.16
Natural gas price	(Dollars per million BTU)										
Henry Hub	4.37	3.73	3.85	4.25	4.54	4.60	4.83	4.70	4.56	4.75	4.83
Exchange rates	(Currency per dollar)										
Euro	0.75	0.83	0.81	0.77	0.76	0.75	0.74	0.74	0.74	0.73	0.73
Chinese yuan	6.16	6.23	6.27	6.25	6.20	6.12	6.05	6.02	6.03	6.05	6.08

Source: IHS Global Insight, Jan. 2015, except exchange rates and non-U.S. economic and population growth are from IHS Global Insight, Dec. 2014.

## Indices of prices paid by farmers

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Production items, interest, taxes and wages</b>	(2011=100)										
Production items	112	109	109	110	112	114	117	120	122	124	127
Feed	113	102	102	103	103	105	105	105	104	103	101
Livestock & poultry	154	158	141	126	117	115	116	120	123	126	130
Seeds	114	113	114	115	118	121	125	128	131	134	136
Fertilizer	96	91	89	89	90	93	96	97	96	96	95
Mixed fertilizer	87	85	84	84	85	87	90	91	90	89	88
Nitrogen fertilizer	104	95	92	91	93	97	100	101	100	99	98
Potash and phosph.	100	99	98	98	99	101	104	105	105	106	106
Agricultural chemicals	110	109	110	113	117	121	126	130	133	136	139
Fuels	98	76	81	87	94	101	110	118	123	129	135
Supplies & repairs	106	108	109	111	113	115	118	120	122	123	125
Autos & trucks	104	105	108	110	112	115	117	118	120	122	123
Farm machinery	111	110	112	113	117	121	125	128	131	134	136
Building material	107	107	110	113	115	117	119	120	121	123	124
Farm services	109	110	113	116	120	124	128	132	136	140	144
Interest*	101	103	107	114	117	119	122	125	127	130	133
Taxes**	105	105	107	109	112	115	120	123	127	131	135
Wage rates	108	110	113	117	121	125	129	134	138	143	147

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

\*\*Farm real estate taxes payable per acre.

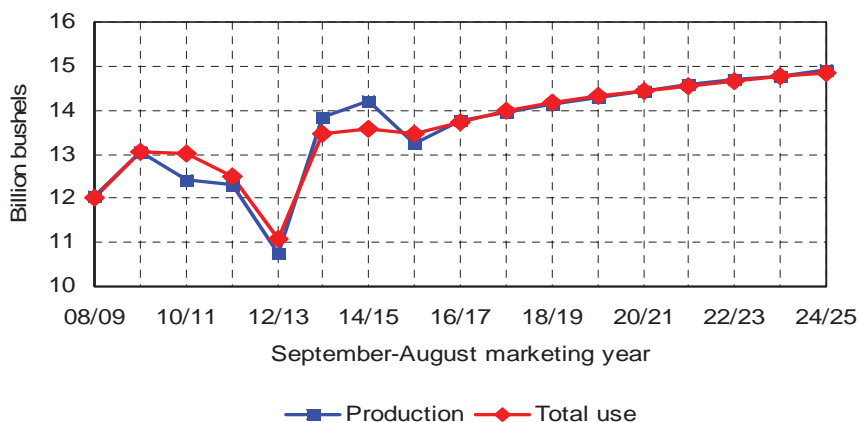
# Corn

## Corn production sets record again in 2014/15

- 2014 is the second year in a row of record U.S. corn production. Although area was the lowest it has been since 2010, yields were at an all-time high.

- Corn production topped 14.2 billion bushels in 2014. This is a 32% increase from two years ago.

- The larger corn crops in 2013 and 2014 after three years of drought are the primary cause of lower corn prices.



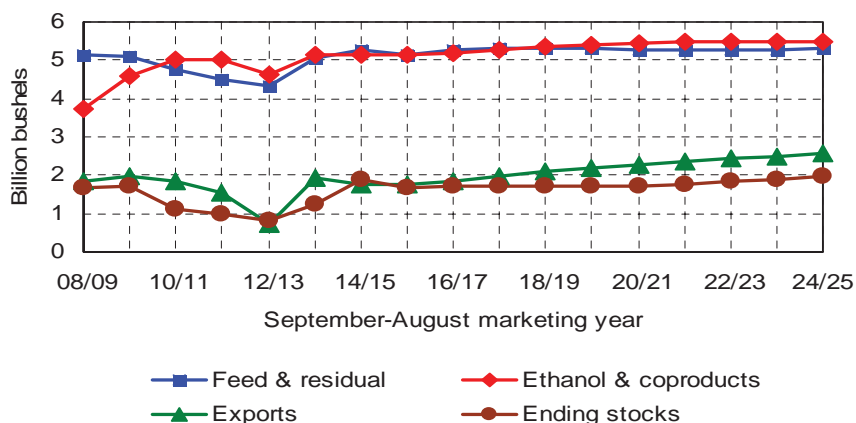
## Corn stocks increase again, other use remains flat

- High prices caused by the drought resulted in reduced use of corn during the 2012/13 marketing year.

- Increased production for the 2013/14 marketing year allowed use to recover, and use remains largely flat for the 2014/15 marketing year.

- Ending stocks in 2014/15 increase for the second year in a row, putting downward pressure on prices for the near-term.

- The main source of demand growth into the future comes from export markets.

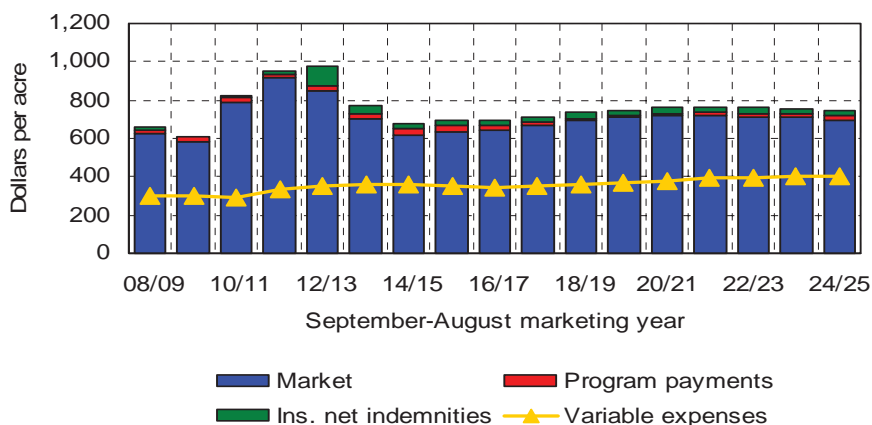


## Corn returns decline for a second straight year

- After several years of record returns, market revenues fell in 2013/14 and again in 2014/15. Lower prices more than offset the yield increases.

- Variable expenses (which exclude land costs) fall in the short term as fertilizer and fuel prices moderate.

- Projected farm program payments rise in the short term with the new farm bill and decreasing prices, but remain small relative to revenues.





## Corn supply and use

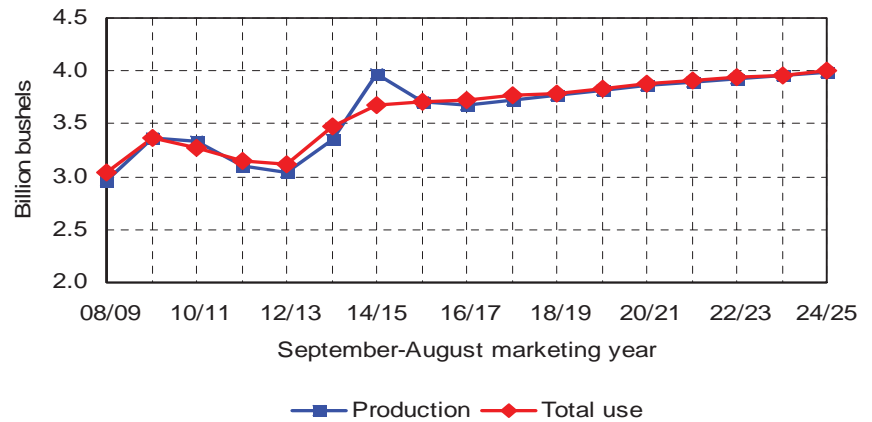
September-August year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>	(Million acres)										
Planted area	90.6	87.9	90.3	90.7	91.1	91.2	91.1	91.1	91.1	90.9	90.7
Harvested area	83.1	80.2	82.3	82.7	83.0	83.1	83.1	83.1	83.0	82.9	82.7
<b>Yield</b>	(Bushels per harvested acre)										
	171.0	165.1	167.0	168.7	170.2	171.9	173.8	175.5	176.9	178.4	180.4
<b>Supply</b>	(Million bushels)										
Beginning stocks	1,232	1,890	1,691	1,729	1,723	1,707	1,703	1,725	1,776	1,830	1,886
Production	14,216	13,237	13,751	13,952	14,137	14,295	14,444	14,587	14,690	14,783	14,928
Imports	25	25	25	25	25	25	25	25	25	25	25
<b>Domestic use</b>	11,831	11,707	11,888	12,016	12,089	12,128	12,183	12,221	12,231	12,244	12,266
Feed and residual	5,278	5,162	5,284	5,312	5,321	5,311	5,283	5,271	5,269	5,286	5,314
Ethanol and coproducts	5,152	5,146	5,196	5,284	5,341	5,382	5,457	5,499	5,503	5,491	5,476
HFCS	491	488	492	497	499	501	503	504	505	505	505
Seed	22	23	23	23	23	23	23	23	23	23	23
Food and other	888	887	894	900	904	910	917	924	932	939	947
<b>Exports</b>	1,751	1,755	1,849	1,967	2,089	2,196	2,265	2,341	2,429	2,507	2,592
<b>Total use</b>	13,582	13,462	13,737	13,983	14,178	14,324	14,447	14,561	14,660	14,752	14,858
<b>Ending stocks</b>	1,890	1,691	1,729	1,723	1,707	1,703	1,725	1,776	1,830	1,886	1,982
CCC inventory	0	0	0	0	0	0	0	0	0	0	0
Under loan	179	167	175	168	157	153	154	163	170	177	196
Other stocks	1,711	1,524	1,554	1,555	1,550	1,551	1,572	1,612	1,661	1,709	1,786
<b>Prices, program provisions</b>	(Dollars per bushel)										
Farm price	3.63	3.89	3.90	4.01	4.12	4.17	4.18	4.16	4.07	4.01	3.90
Loan rate	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95
Reference price	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
<b>Base area + allocated generic</b>	(Million acres)										
	90.7	90.6	90.7	90.8	90.8	90.8	90.8	90.8	90.8	90.7	90.7
<b>PLC program yield</b>	(Bushels per acre)										
	125.0	125.1	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0
<b>PLC participation rate</b>	(Percent)										
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
<b>ARC participation rate</b>	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
<b>Returns and payments</b>	(Dollars)										
Gross market revenue/a.	621.32	635.36	644.48	668.87	693.46	709.00	719.44	721.45	712.77	708.25	697.57
Variable expenses/a.	363.63	350.34	346.64	349.70	356.79	367.47	380.24	390.50	395.49	399.53	403.15
Market net return/a.	257.69	285.03	297.84	319.17	336.66	341.53	339.20	330.95	317.27	308.72	294.42
Marketing loan benefits/a.*	0.00	0.22	0.12	0.12	0.15	0.05	0.04	0.08	0.01	0.04	0.18
<b>Payments to participants</b>	(Dollars)										
PLC/base a.*	9.96	23.82	24.91	22.13	18.80	16.50	17.18	20.24	20.58	21.82	28.00
ARC/base a.*	42.64	38.83	29.39	13.60	9.69	8.50	10.29	12.44	13.92	15.71	17.90
Insurance net indemnities/a.*	24.47	23.47	23.56	24.81	26.80	27.77	29.11	28.88	29.50	29.89	29.13

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

# Soybeans

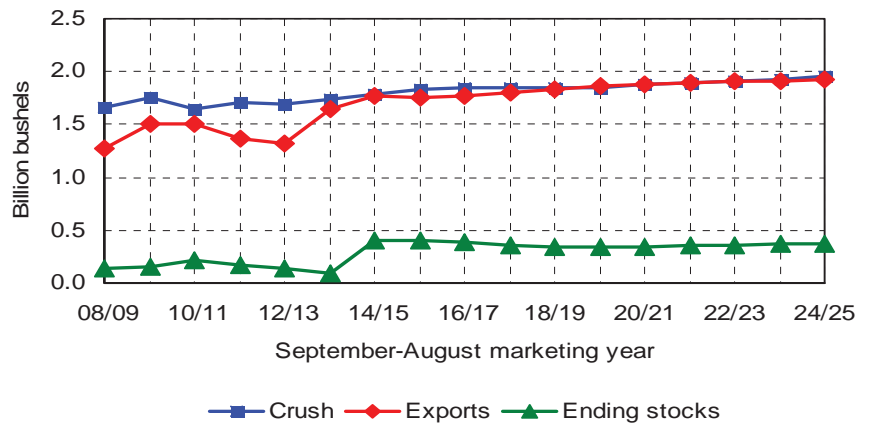
Soybean production sets record in 2014

- The 2014 soybean crop exceeded the previous record by over 18%. This was achieved by both a record yield and area.
- Soybean area is expected to set a new record in 2015 and remain high given strong global demand.
- Even with increased use in 2014/15, the consumption of soybeans cannot match the record production.
- If yields decline to more normal levels in 2015, production and use of soybeans may be in closer balance.



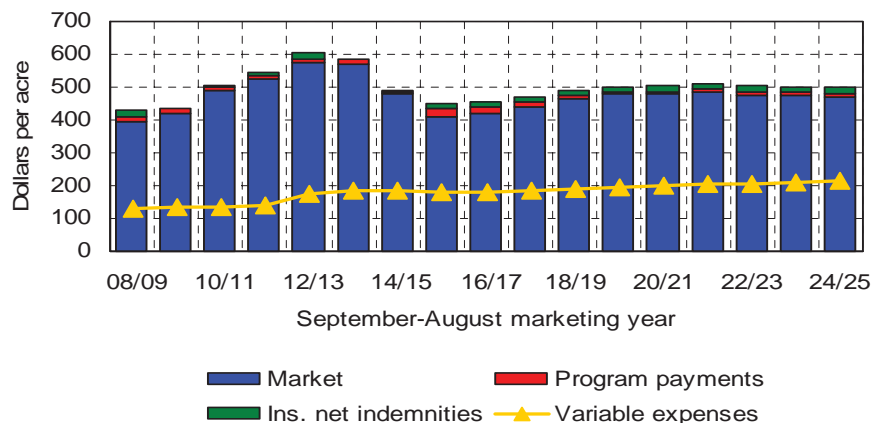
Soybean ending stocks increase sharply

- Increasing demand from China is the primary cause of increases in U.S. soybean exports.
- Domestic soybean crush also increases in response to rising demand for U.S. soybean meal and soybean oil.
- Ending stocks jump sharply in 2014/15 after a very low carry-out in 2013/14.
- Prices have fallen sharply in 2014/15, and a smaller decline is expected in 2015/16.



Soybean returns dip in 2014/15

- In 2014/15, the decrease in the soybean price is more than enough to offset the increased yield. This results in lower market returns.
- Total and net returns decline again in 2015/16, as prices decline and yields are assumed to return to the long-term trend.
- Program payments with the new farm bill could increase in 2015/16, but continue to be small relative to soybean market returns.



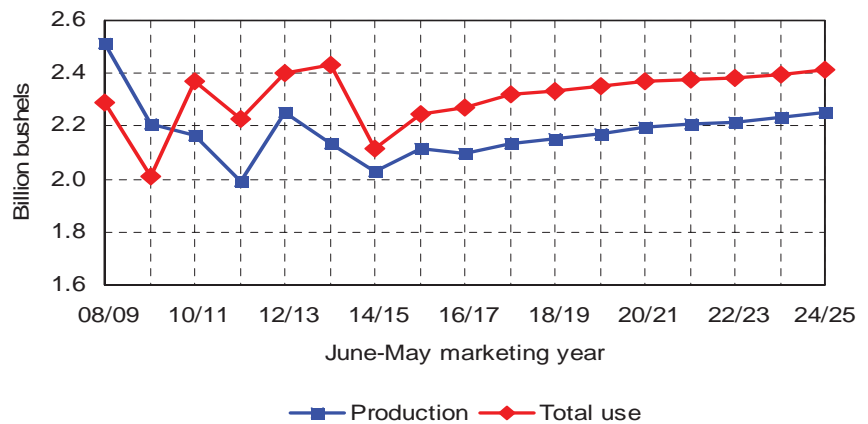
## Soybean supply and use

September-August year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>	(Million acres)										
Planted area	83.7	84.2	82.6	82.8	83.1	83.5	83.7	83.7	83.8	83.7	83.7
Harvested area	83.1	83.4	81.8	82.0	82.3	82.7	82.9	82.9	83.0	82.9	82.9
<b>Yield</b>	(Bushels per harvested acre)										
	47.8	44.5	45.0	45.4	45.8	46.2	46.6	47.0	47.4	47.7	48.1
<b>Supply</b>	(Million bushels)										
Beginning stocks	4,076	4,121	4,105	4,124	4,141	4,184	4,224	4,256	4,294	4,329	4,371
Production	92	398	411	387	360	349	345	347	350	359	365
Imports	3,969	3,708	3,679	3,722	3,766	3,820	3,865	3,893	3,930	3,955	3,991
<b>Domestic use</b>	15	15	15	15	15	15	15	15	15	15	15
Crush	1,905	1,949	1,955	1,962	1,963	1,969	1,993	2,005	2,023	2,052	2,077
Seed and residual	1,790	1,837	1,843	1,849	1,850	1,855	1,877	1,888	1,903	1,931	1,954
<b>Exports</b>	115	112	112	113	113	114	116	117	120	121	123
<b>Total use</b>	1,772	1,760	1,763	1,803	1,829	1,870	1,884	1,901	1,913	1,911	1,926
<b>Ending stocks</b>	3,678	3,709	3,718	3,765	3,792	3,839	3,877	3,906	3,936	3,964	4,003
CCC inventory	398	411	387	360	349	345	347	350	359	365	368
Under loan	0	0	0	0	0	0	0	0	0	0	0
Other stocks	14	24	24	22	20	20	21	22	24	26	28
<b>Prices, program provisions</b>	(Dollars per bushel)										
Farm price	10.02	9.29	9.44	9.79	10.26	10.45	10.36	10.45	10.18	9.99	9.87
Illinois processor price	10.35	9.75	9.90	10.24	10.69	10.88	10.79	10.87	10.61	10.44	10.32
Loan rate	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Reference price	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.40
<b>Base area + allocated generic</b>	(Million acres)										
	62.0	62.2	62.2	62.2	62.2	62.2	62.2	62.3	62.3	62.3	62.3
<b>PLC program yield</b>	(Bushels per acre)										
	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4
<b>PLC participation rate</b>	(Percent)										
	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
<b>ARC participation rate</b>	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0
<b>Returns and payments</b>	(Dollars)										
Gross market revenue/a.	478.92	409.19	420.69	440.66	465.17	477.75	479.51	485.90	477.43	472.52	470.64
Variable expenses/a.	185.14	180.74	182.23	185.20	188.89	193.15	198.61	203.43	206.63	209.75	212.61
Market net return/a.	293.77	228.46	238.46	255.47	276.28	284.61	280.90	282.47	270.81	262.77	258.03
Marketing loan benefits/a.*	0.00	0.30	0.12	0.06	0.22	0.15	0.18	0.29	0.04	0.37	0.10
Payments to participants	(Dollars)										
PLC/base a.*	0.00	15.04	14.30	10.16	8.33	7.93	6.81	8.51	9.21	11.47	11.20
ARC/base a.*	8.46	26.88	23.10	16.24	9.85	6.82	6.52	8.16	9.84	11.10	11.29
Insurance net indemnities/a.*	4.03	15.39	14.05	15.00	16.03	17.09	17.41	17.81	18.07	17.97	18.05
<b>Crush margin</b>	(Dollars per bushel)										
	1.99	1.82	1.76	1.75	1.70	1.66	1.78	1.72	1.71	1.80	1.77

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

# Wheat

Wheat production falls in 2014/15

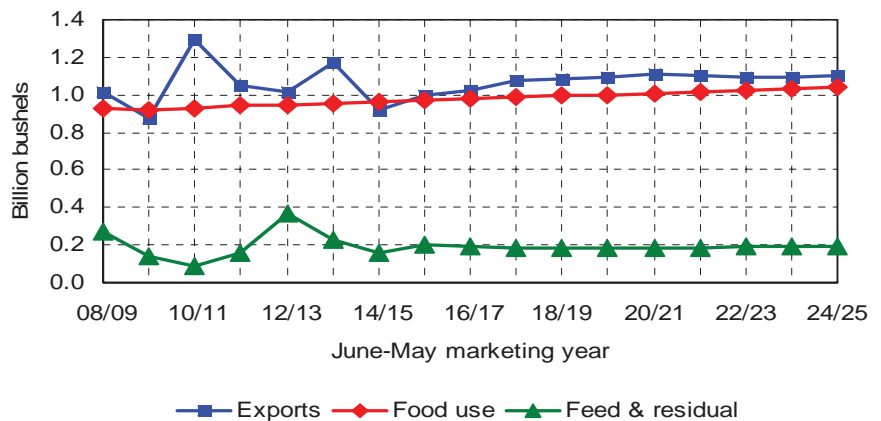


- Unlike corn and soybeans, U.S. wheat yields were down in 2014, resulting in a second straight year of declining production.

- Even though projected planted wheat acreage is down in 2015, more typical weather might allow more of the crop to be harvested and yields to increase.

- Imports, primarily from Canada, explain the continuing difference between production and total use.

Wheat non-food use declines in 2014/15



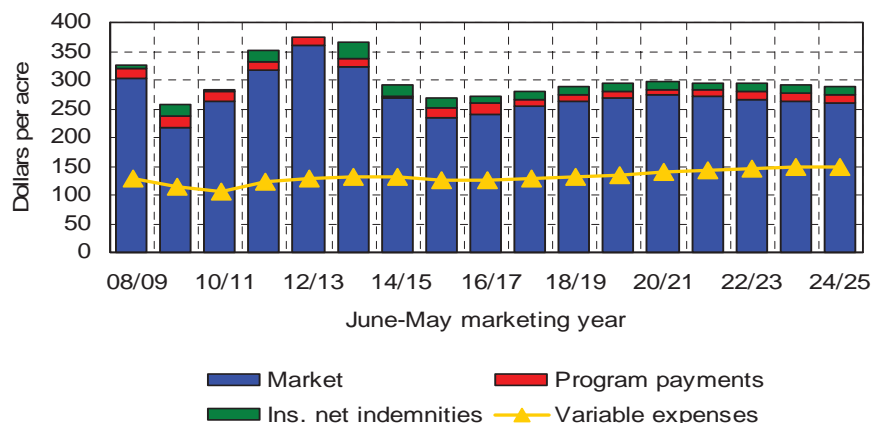
- The weakening of the corn price has led to less wheat being used for feed in 2013/14 and 2014/15.

- Exports declined sharply in 2014/15 because of strong competition from other exporters and cheaper U.S. corn.

- Exports slowly rebuild beginning in 2015/16, but competing exporters will continue to capture most of the world wheat market.

- Food use of wheat increases with population.

Wheat net returns drop for three straight years



- Although U.S. wheat production was down in 2014/15, abundant domestic supplies of other crops and plentiful foreign production suppressed the price.

- Lower prices and yields result in reduced receipts in 2014/15. Projected prices and returns fall further in 2015/16.

- Net returns to U.S. wheat producers remain well above pre-2007 levels.

## Wheat supply and use

June-May year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>	(Million acres)										
Planted area	56.8	55.1	54.1	54.5	54.7	54.7	54.9	55.0	54.8	55.0	55.1
Harvested area	46.4	46.6	45.8	46.1	46.2	46.2	46.4	46.4	46.3	46.4	46.5
<b>Yield</b>	(Bushels per harvested acre)										
	43.7	45.4	45.8	46.2	46.5	46.9	47.2	47.5	47.8	48.1	48.4
<b>Supply</b>	(Million bushels)										
Beginning stocks	2,796	2,971	2,998	3,034	3,041	3,050	3,070	3,083	3,096	3,121	3,154
Production	590	683	727	728	715	705	699	698	704	713	727
Imports	2,026	2,118	2,100	2,133	2,152	2,169	2,195	2,209	2,217	2,234	2,254
	180	169	171	173	175	176	176	175	175	174	174
<b>Domestic use</b>	1,190	1,246	1,249	1,246	1,250	1,257	1,264	1,277	1,290	1,301	1,310
Feed and residual	157	201	196	186	182	182	181	186	189	191	192
Seed	73	72	73	74	74	74	74	75	75	75	75
Food and other	960	972	980	986	994	1,001	1,008	1,017	1,026	1,034	1,043
<b>Exports</b>	923	998	1,021	1,073	1,087	1,094	1,107	1,101	1,094	1,093	1,104
<b>Total use</b>	2,113	2,243	2,270	2,319	2,336	2,351	2,371	2,378	2,384	2,394	2,414
<b>Ending stocks</b>	683	727	728	715	705	699	698	704	713	727	741
CCC inventory	0	0	0	0	0	0	0	0	0	0	0
Under loan	23	40	40	36	34	33	33	34	36	39	41
Other stocks	660	687	688	679	671	666	666	670	676	688	699
<b>Prices, program provisions</b>	(Dollars per bushel)										
Farm price	6.13	5.17	5.28	5.48	5.66	5.77	5.81	5.70	5.59	5.46	5.36
Loan rate	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94	2.94
Reference price	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
<b>Base area + allocated generic</b>	(Million acres)										
	73.8	73.8	73.7	73.7	73.7	73.7	73.7	73.8	73.8	73.8	73.8
<b>PLC program yield</b>	(Bushels per acre)										
	37.3	37.3	37.3	37.3	37.4	37.4	37.4	37.4	37.3	37.3	37.3
<b>PLC participation rate</b>	(Percent)										
	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
<b>ARC participation rate</b>	(Percent)										
	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
<b>Returns and payments</b>	(Dollars)										
Gross market revenue/a.	267.76	233.97	241.26	252.97	262.89	269.94	273.74	270.54	267.05	262.51	259.14
Variable expenses/a.	131.17	124.98	126.34	128.43	131.59	135.58	140.19	143.71	145.47	147.19	148.79
Market net return/a.	136.59	108.99	114.92	124.54	131.30	134.36	133.55	126.84	121.57	115.32	110.35
Marketing loan benefits/a.*	0.00	0.27	0.46	0.25	0.51	0.53	0.44	0.38	0.40	0.77	1.26
Payments to participants	(Dollars)										
PLC/base a.*	0.00	19.14	19.97	15.35	13.86	13.33	12.53	13.41	15.40	17.32	18.85
ARC/base a.*	8.79	14.89	14.34	10.40	7.37	6.07	6.08	7.00	7.94	8.59	8.90
Insurance net indemnities/a.*	21.02	18.04	11.36	12.02	12.65	13.10	13.34	13.44	13.33	13.07	13.27

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

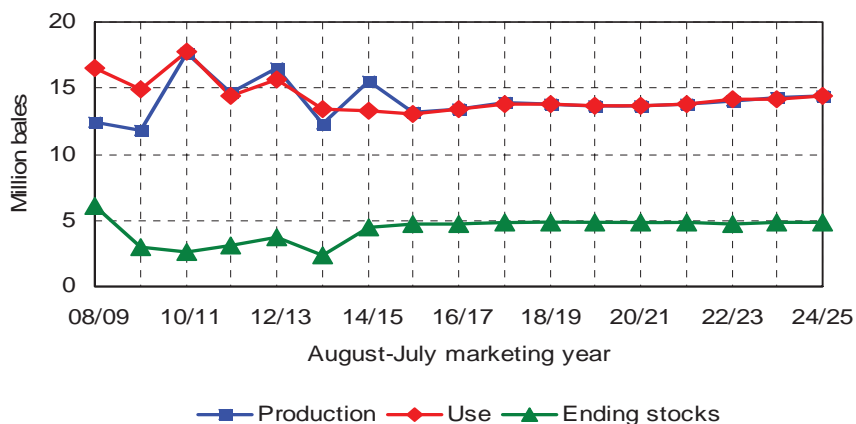
# Upland cotton

Cotton acreage, production fall in 2015

Upland cotton acreage is likely to fall sharply in 2015, given low cotton returns in absolute terms and relative to competing crops.

Large international stocks limit export and price prospects. Domestic mill use is relatively flat and accounts for a small share of total use of U.S. cotton.

U.S. cotton competes well on quality terms, supporting export sales.

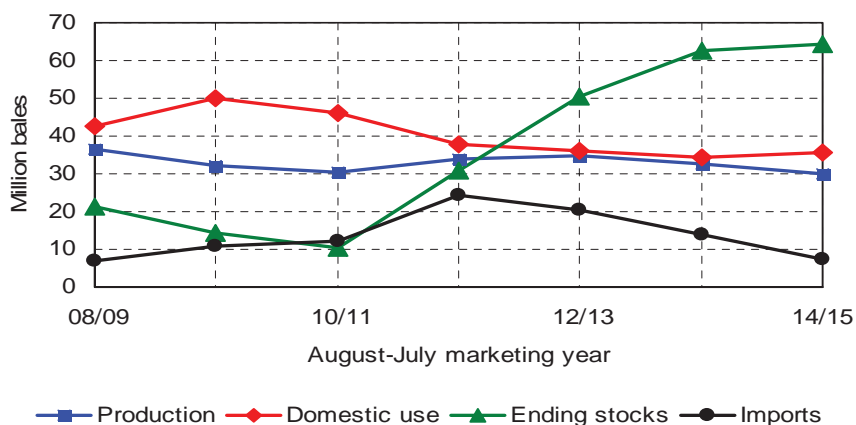


China continues to be the main source of uncertainty in world cotton markets.

China's end-of-year cotton stocks are now almost twice as large as the amount of cotton China produces or uses each year.

Recent policy changes in China should end stock accumulation, but it is not clear when and how existing stocks will be reduced.

China's cotton stocks remain a source of uncertainty



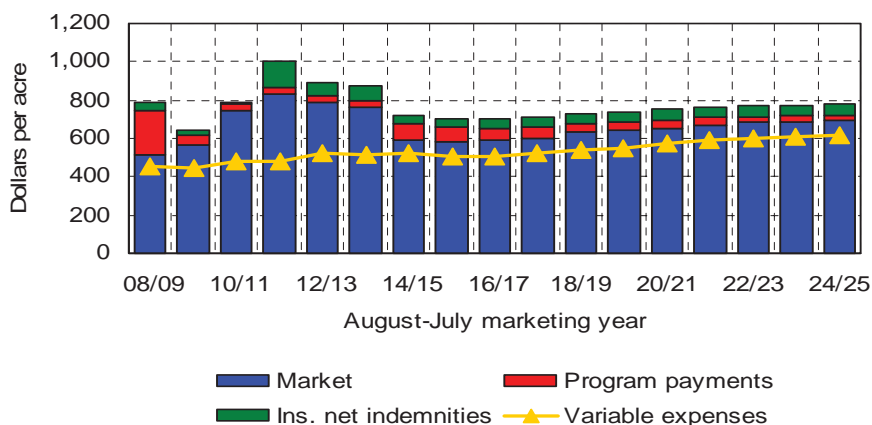
Cotton revenues per acre harvested fall in 2014/15, as both prices and yields decline.

Cotton returns stay below 2013/14 levels through the baseline.

Cotton prices sometimes drop enough to trigger marketing loan benefits.

Transition payments provide support in 2014, and a new crop insurance program, STAX, is available in 2015.

Cotton profit margins remain tight



## Upland cotton supply and use

August-July year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>	(Million acres)										
Planted area	10.85	9.54	9.64	9.83	9.65	9.46	9.37	9.37	9.48	9.50	9.53
Harvested area	9.52	7.92	7.97	8.14	7.98	7.84	7.76	7.75	7.84	7.88	7.90
<b>Yield</b>	(Pounds per harvested acre)										
	781	799	806	816	826	833	841	850	859	867	876
<b>Supply</b>	(Million bales)										
Beginning stocks	2.33	4.53	4.71	4.77	4.90	4.83	4.81	4.82	4.84	4.76	4.88
Production	15.50	13.21	13.42	13.88	13.76	13.65	13.64	13.77	14.07	14.28	14.46
Imports	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
<b>Domestic mill use</b>	3.76	3.88	3.95	3.98	3.97	3.93	3.89	3.85	3.80	3.76	3.71
<b>Exports</b>	9.54	9.16	9.42	9.77	9.87	9.74	9.74	9.90	10.36	10.41	10.73
<b>Total use</b>	13.30	13.04	13.37	13.76	13.84	13.67	13.63	13.75	14.16	14.16	14.44
<b>Ending stocks</b>	4.53	4.71	4.77	4.90	4.83	4.81	4.82	4.84	4.76	4.88	4.90
CCC inventory	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other stocks	4.53	4.71	4.77	4.90	4.83	4.81	4.82	4.84	4.76	4.88	4.90
<b>Prices, program provisions</b>	(Cents per pound)										
Farm price	61.8	60.0	60.3	60.3	62.0	62.8	63.2	63.8	65.2	64.7	65.2
Adjusted world price	48.7	50.6	51.1	51.3	53.9	54.4	54.8	55.5	58.0	57.2	58.1
Loan rate	52.0	52.0	49.0	49.1	49.2	49.3	49.9	49.9	49.9	50.3	50.4
<b>Cottonseed price</b>	(Dollars per ton)										
	199.69	191.66	188.50	192.36	200.06	203.98	204.83	203.64	198.88	195.86	192.40
<b>Base area</b>	(Million acres)										
	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Returns and payments</b>	(Dollars)										
Gross market revenue/a.	594.30	586.57	592.84	603.32	630.06	644.27	655.52	665.07	681.78	681.43	690.35
Variable expenses/a.	523.10	503.88	509.17	521.12	536.12	552.26	572.40	587.68	597.29	608.65	618.68
Market net return/a.	71.20	82.69	83.67	82.20	93.94	92.01	83.12	77.39	84.49	72.78	71.67
Marketing loan benefits/a.*	53.50	71.31	58.56	58.50	44.62	43.62	43.04	42.91	31.86	35.90	31.55
Transition payments/base a.*	33.33	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Insurance net indemnities/a.	40.53	44.29	49.49	49.53	50.40	52.22	53.55	54.35	55.65	56.22	56.91

\*Marketing loan benefits, transition payments and insurance net indemnities are averaged across all acres.  
All projections are averages across 500 stochastic outcomes.

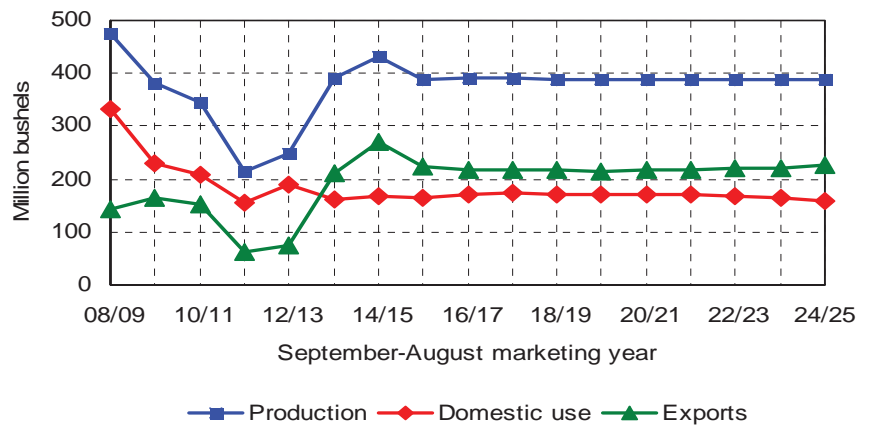
# Sorghum and barley

- U.S. sorghum production rebounded in 2013 and 2014. Stronger export demand helps sustain the higher production levels.

- China accounts for the big increase in sorghum exports. This has allowed sorghum to sell at a premium to corn in 2014/15.

- The baseline assumes China's demand for sorghum imports will abate enough that sorghum prices will return to a more typical relationship to corn prices. There are no guarantees this will occur.

Sorghum production and exports increase in 2013/14

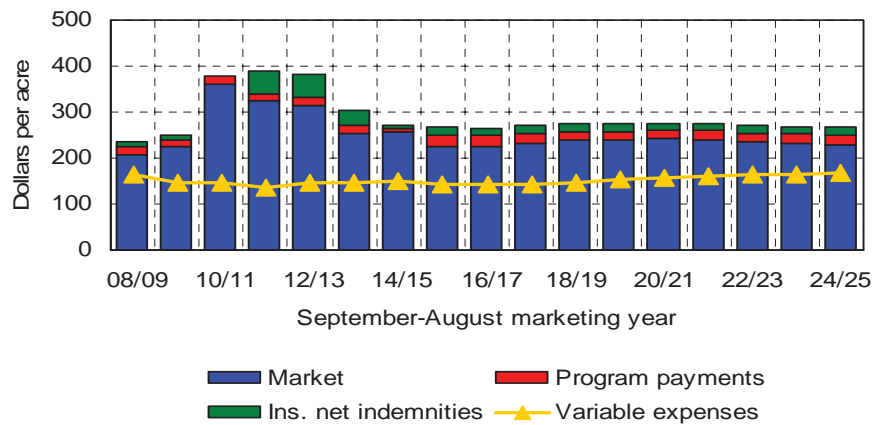


- As with several other crops, sorghum returns have been declining since 2012/13.

- Projected average sorghum prices are near or below the levels that trigger PLC payments.

- Higher PLC participation rates for sorghum allow more acres to be eligible for SCO, thereby increasing crop insurance net indemnities.

Sorghum returns

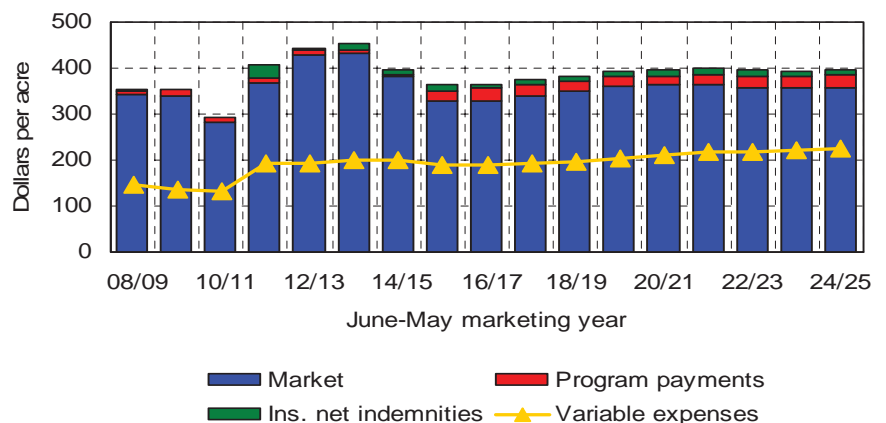


- Unlike other crops, barley returns have remained strong, dipping only slightly in 2014/15.

- Like sorghum, average barley projected prices are near or below levels that trigger PLC payments.

- High expected PLC payments discourage ARC participation and encourage SCO enrollment.

Barley returns





## Sorghum supply and use

September-August year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>											
	(Million acres)										
Planted area	7.14	7.56	7.60	7.57	7.56	7.55	7.53	7.53	7.53	7.56	7.58
Harvested area	6.40	6.16	6.18	6.16	6.16	6.14	6.13	6.14	6.14	6.15	6.17
<b>Yield</b>											
	(Bushels per harvested acre)										
	67.6	62.8	62.8	63.0	62.9	62.9	63.1	63.0	62.9	62.5	62.5
<b>Supply and use</b>											
	(Million bushels)										
Production	433	388	390	390	389	388	388	389	388	387	388
Imports	0	0	0	0	0	0	0	0	0	0	0
Domestic use	167	166	171	173	172	172	171	170	167	164	159
Exports	269	225	218	218	217	215	217	217	220	222	227
Ending stocks	31	27	28	27	27	27	28	29	30	31	33
<b>Prices, returns and payments</b>											
	(Dollars)										
Farm price/bu.	3.80	3.62	3.67	3.76	3.86	3.89	3.88	3.86	3.80	3.76	3.71
Market net return/a.	107.74	81.80	84.93	89.11	90.91	87.78	83.47	76.99	71.19	66.33	60.50
Marketing loan benefits/a.*	0.00	0.44	0.55	0.28	0.36	0.38	0.27	0.20	0.23	0.17	0.24
Payments to participants											
PLC/base a.*	7.71	26.79	24.95	23.84	20.82	20.09	20.38	23.01	22.63	23.80	26.01
ARC/base a.*	11.26	17.81	11.94	7.23	6.76	6.76	6.76	7.45	8.18	8.64	9.22
Insurance net indemnities/a.*	6.63	18.73	15.73	15.93	16.85	16.60	16.07	15.68	15.63	15.26	15.33

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

## Barley supply and use

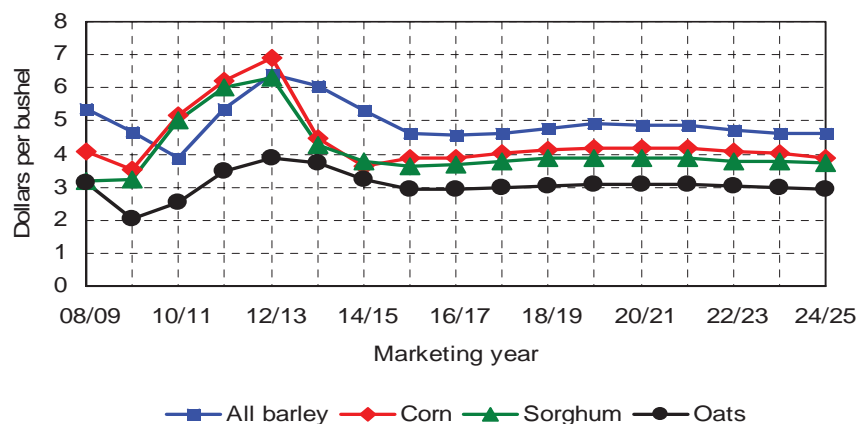
June-May year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>											
	(Million acres)										
Planted area	2.98	3.33	3.43	3.39	3.33	3.29	3.27	3.21	3.17	3.06	2.99
Harvested area	2.44	2.87	2.95	2.91	2.85	2.82	2.80	2.76	2.72	2.62	2.56
<b>Yield</b>											
	(Bushels per harvested acre)										
	72.4	71.8	72.5	73.2	73.7	74.2	75.0	75.8	76.7	77.5	78.4
<b>Supply and use</b>											
	(Million bushels)										
Production	177	206	214	214	211	210	211	209	209	203	201
Imports	35	30	21	20	20	20	21	22	23	25	26
Domestic use	202	216	213	212	211	209	211	210	212	210	209
Exports	10	14	19	21	21	21	20	19	18	17	16
Ending stocks	83	90	93	93	92	92	93	95	96	96	98
<b>Prices, returns and payments</b>											
	(Dollars)										
All barley farm price/bu.	5.30	4.61	4.57	4.64	4.76	4.90	4.87	4.85	4.70	4.64	4.60
Feed barley price/bu.	3.41	3.23	3.21	3.29	3.39	3.48	3.47	3.45	3.35	3.29	3.23
Market net return/a.	185.12	140.19	138.98	144.54	151.39	157.46	152.66	148.57	139.62	136.05	134.16
Marketing loan benefits/a.*	0.00	0.58	1.13	1.18	0.92	0.60	0.59	0.90	0.98	0.73	1.60
Payments to participants											
PLC/base a.*	0.00	25.14	29.68	29.06	24.61	22.60	23.66	25.94	27.55	28.13	31.37
ARC/base a.*	3.13	12.66	13.30	12.58	8.79	6.81	7.57	8.00	9.21	9.36	9.99
Insurance net indemnities/a.*	11.13	12.08	10.57	11.30	12.11	12.16	12.58	12.62	12.75	12.08	11.85

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

# Oats and hay

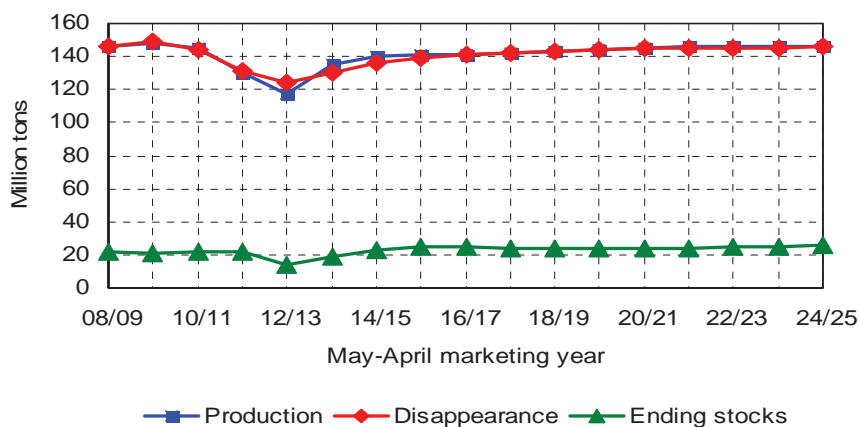
- Reduced total supplies have helped keep oat prices from falling as much as prices for corn and sorghum since 2012/13.
- Prices of all the major coarse grains move together in the baseline.
- Projected prices for oats remain around \$3.00 per bushel, and projected program payments are smaller than for other program crops.

Oat prices decline less than corn



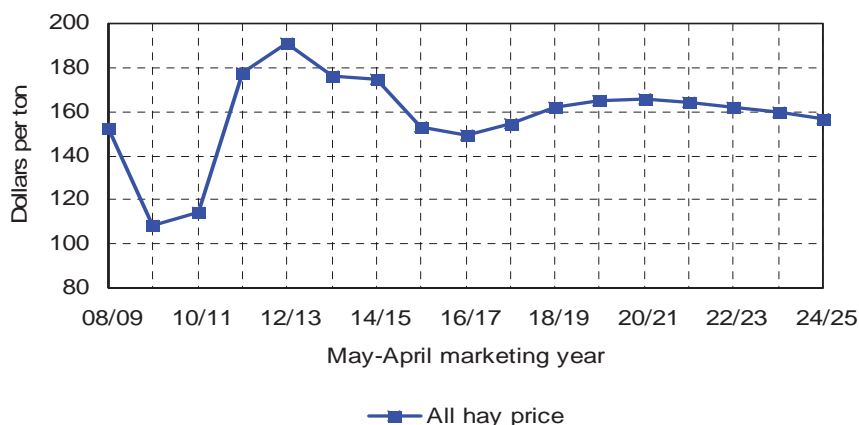
- Hay yields and production increased in 2013 and 2014 after the drought-reduced hay crop of 2012.
- Hay production is expected to increase as lower returns for other crops allow land to revert to hay and cattle numbers increase.
- Increased production in 2013 and 2014 allowed stocks to rebuild.

Hay stocks stay high



- National average hay prices have declined in recent months to the lowest levels in four years.
- If production and stocks rebuild as projected, national average hay prices could continue to drop to about \$150 per ton.
- Hay markets are particularly fragmented. National average prices might not reflect local conditions.

Hay prices decline with increased production



## Oats supply and use

June-May year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>	(Million acres)										
Planted area	2.72	2.60	2.61	2.60	2.59	2.56	2.55	2.57	2.59	2.62	2.64
Harvested area	1.03	1.01	1.01	0.99	0.98	0.96	0.96	0.96	0.97	0.98	0.99
<b>Yield</b>	(Bushels per harvested acre)										
	67.7	64.4	65.0	65.7	66.2	66.6	67.2	67.7	68.2	68.5	68.9
<b>Supply and use</b>	(Million bushels)										
Production	70	66	66	66	65	64	65	65	66	68	69
Imports	100	98	97	98	98	98	98	97	96	95	94
Domestic use	162	160	160	161	161	161	160	160	160	160	159
Exports	2	2	2	2	2	2	2	2	2	2	2
Ending stocks	31	32	33	33	33	33	33	34	35	36	37
<b>Prices, returns and payments</b>	(Dollars)										
Farm price/bu.	3.25	2.92	2.92	2.97	3.03	3.06	3.08	3.07	3.03	2.98	2.95
Market net return/a.	104.65	79.04	81.75	85.06	87.28	86.86	85.83	82.61	80.07	76.54	73.43
Marketing loan benefits/a.*	0.00	0.00	0.03	0.01	0.03	0.00	0.00	0.01	0.00	0.00	0.00
Payments to participants	(Dollars)										
PLC/base a.*	0.00	1.27	2.25	1.70	1.69	1.29	1.26	1.44	1.61	1.58	2.27
ARC/base a.*	0.15	2.54	2.50	2.58	2.02	1.77	1.58	1.66	1.80	1.89	1.96
Insurance net indemnities/a.*	0.23	2.12	1.90	1.95	1.93	1.90	1.96	1.87	1.85	1.85	1.86

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

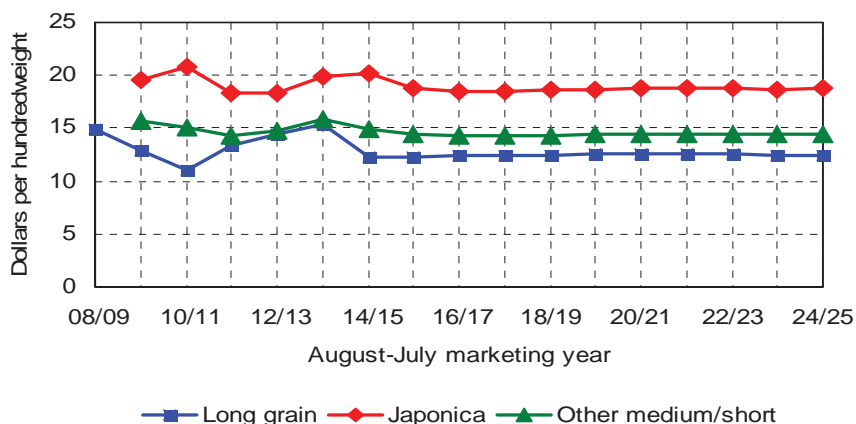
## Hay supply and use

May-April year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Harvested area</b>	(Million acres)										
	56.8	58.5	58.4	58.4	58.7	59.0	59.1	59.1	59.1	59.0	58.9
<b>Yield</b>	(Tons per acre)										
	2.46	2.41	2.42	2.43	2.43	2.44	2.45	2.46	2.47	2.48	2.48
<b>Supply and use</b>	(Million tons)										
Production	139.8	141.0	141.2	141.8	142.8	144.0	145.0	145.6	145.8	146.0	146.2
Disappearance	136.0	139.2	141.1	142.3	143.2	144.1	144.8	145.2	145.4	145.5	145.7
Ending stocks	22.9	24.7	24.8	24.3	23.9	23.8	24.0	24.3	24.8	25.3	25.8
<b>All hay farm price</b>	(Dollars per ton)										
	174.92	152.95	149.02	154.69	161.76	165.31	165.98	164.45	161.99	159.76	156.96

# Rice and sugar

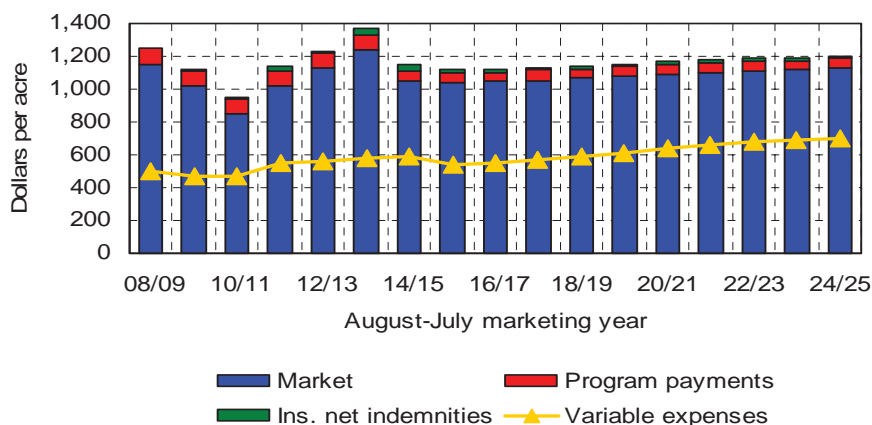
- Long grain rice area and production increased in 2014, and competitor rice prices remained below U.S. prices.
- As a result, long grain rice prices drop below \$13 per hundredweight in 2014/15. Projected prices are steady for 2015-2024.
- Japonica rice, produced in California, commands a large premium to other classes of rice.
- Future production and prices of Japonica rice depend on water availability.

Long grain rice prices remain near 2014/15 level



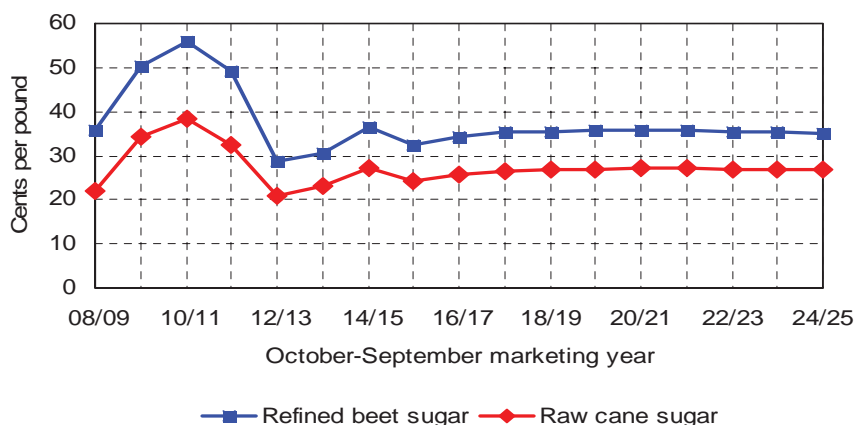
- High prices and yields resulted in record levels of per-acre revenues for U.S. rice producers in 2013/14.
- Declines in rice prices in 2014/15 and 2015/16 reduce producer returns.
- Projected average long grain rice prices drop below the levels that trigger PLC payments.

Rice returns peak in 2013/14, then decline



- Despite a dip in 2015/16, sugar prices remain above the low prices experienced in 2012/13.
- The U.S.-Mexico agreement on sugar trade is incorporated in this baseline, resulting in lower expected exports from Mexico to the U.S.
- Average sugar prices remain above loan rates, but there are a few stochastic outcomes in which prices fall to support levels in years with big crops.

Sugar prices remain above recent lows



## Rice supply and use

August-July year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>	(Million acres)										
Planted area	2.94	2.80	2.91	2.92	2.91	2.86	2.84	2.82	2.82	2.82	2.82
Harvested area	2.92	2.78	2.89	2.90	2.89	2.84	2.81	2.80	2.79	2.80	2.80
<b>Yield</b>	(Pounds per harvested acre)										
	7,572	7,523	7,618	7,694	7,760	7,816	7,873	7,939	8,005	8,067	8,130
<b>Supply and use</b>	(Million hundredweight)										
Production	221.0	209.3	220.1	223.2	224.2	222.2	221.6	222.2	223.6	225.7	227.8
Imports	22.1	23.2	23.6	24.2	24.8	25.3	25.9	26.3	26.7	27.1	27.4
Domestic use	131.1	132.8	133.6	135.0	136.0	137.4	138.7	140.1	141.4	142.8	144.1
Exports	103.5	100.7	107.9	110.6	112.1	110.7	109.5	109.0	109.1	109.8	110.8
Ending stocks	40.4	39.4	41.5	43.3	44.2	43.6	42.9	42.4	42.2	42.4	42.8
<b>Prices, returns and payments</b>	(Dollars)										
Farm price/cwt.	13.87	13.86	13.72	13.71	13.74	13.82	13.90	13.91	13.85	13.84	13.88
Long grain	12.22	12.31	12.43	12.38	12.50	12.54	12.57	12.55	12.51	12.46	12.50
Japonica	20.24	18.73	18.55	18.53	18.57	18.68	18.80	18.81	18.73	18.71	18.76
Other medium/short	14.88	14.41	14.27	14.25	14.28	14.37	14.46	14.47	14.41	14.39	14.43
Market net return/a.	464.21	502.78	494.67	486.40	476.92	468.26	455.53	442.30	433.19	426.03	424.67
Marketing loan benefits/a.*	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/base a.*	66.40	67.12	65.29	67.49	63.79	62.69	60.69	62.80	64.50	65.04	64.33
ARC/base a.*	0.23	2.18	7.25	6.45	4.86	3.61	3.62	4.31	4.49	4.99	5.07
Insurance net indemnities/a.*	43.38	19.37	19.73	19.50	19.10	18.63	18.38	18.27	18.19	18.39	18.25

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

## Sugar supply and use

October-September year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>	(Million acres)										
Sugar cane harvested	0.829	0.864	0.841	0.831	0.824	0.814	0.804	0.796	0.789	0.783	0.777
Sugar beet planted	1.162	1.252	1.204	1.225	1.227	1.214	1.209	1.202	1.202	1.198	1.197
Sugar beet harvested	1.147	1.222	1.175	1.196	1.198	1.185	1.180	1.173	1.174	1.170	1.169
<b>Supply and use</b>	(Thousand tons)										
Production	8,609	9,207	9,005	9,161	9,263	9,279	9,325	9,354	9,429	9,478	9,569
Cane sugar	3,739	3,817	3,733	3,705	3,692	3,669	3,641	3,616	3,594	3,577	3,572
Beet sugar	4,869	5,390	5,272	5,456	5,571	5,611	5,685	5,738	5,835	5,901	5,997
Imports	3,557	3,457	3,362	3,378	3,405	3,457	3,512	3,571	3,629	3,689	3,751
Domestic use	12,127	12,202	12,217	12,282	12,396	12,478	12,572	12,659	12,781	12,899	13,044
Exports	250	250	251	250	250	249	249	249	249	249	249
Ending stocks	1,584	1,796	1,696	1,703	1,725	1,734	1,750	1,766	1,794	1,813	1,840
<b>Prices</b>	(Cents per pound)										
N.Y. spot raw sugar	27.26	24.26	25.69	26.54	26.66	26.97	27.13	27.16	26.94	26.89	26.66
Refined beet sugar	36.48	32.26	34.18	35.31	35.40	35.78	35.93	35.93	35.55	35.43	35.05

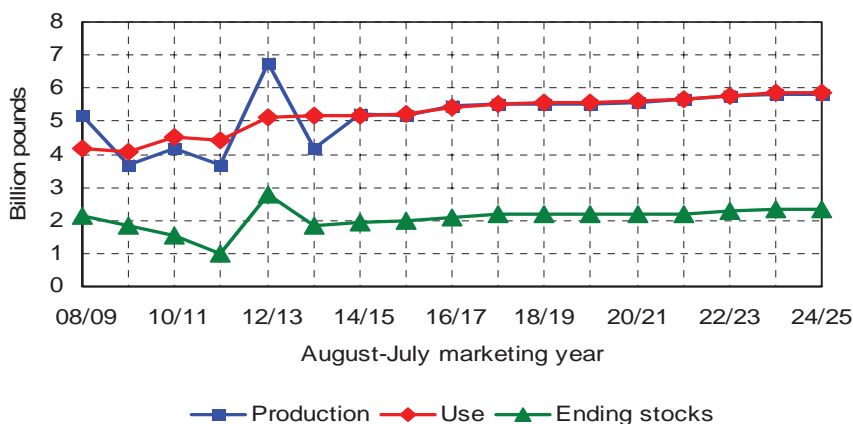
# Peanuts and sunflower seed

## Reduced production draws down peanut stocks

After the record crop of 2012, producers sharply reduced peanut area and production in 2013. 2014 production reverted to the long-term average.

Peanut yields were above the long-term trend for the third straight year in 2014.

2015 area is expected to increase as prices for competing crops weaken. More typical yields would offset this effect on production.

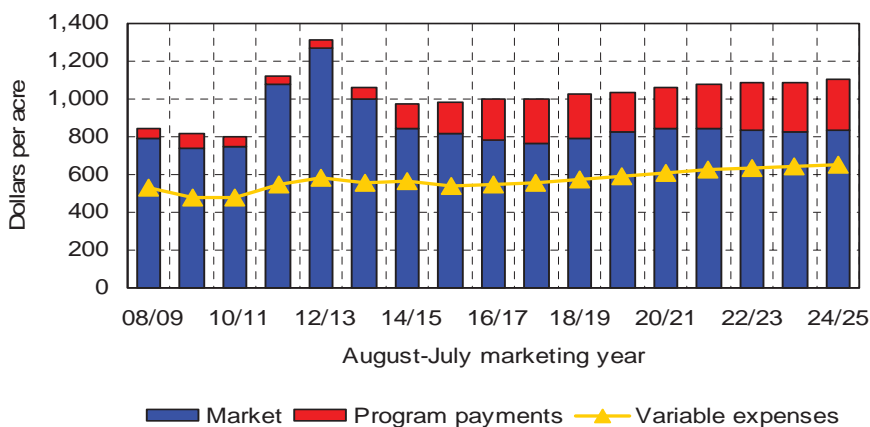


Peanut returns have declined from the record levels of 2012/13.

With average projected market prices significantly below the reference price, PLC payments could be quite large for peanuts.

PLC payments are tied to base acres. Only in the case of generic base (former cotton base acreage) do actual plantings affect PLC payments.

## Peanut payments represent a higher share of income

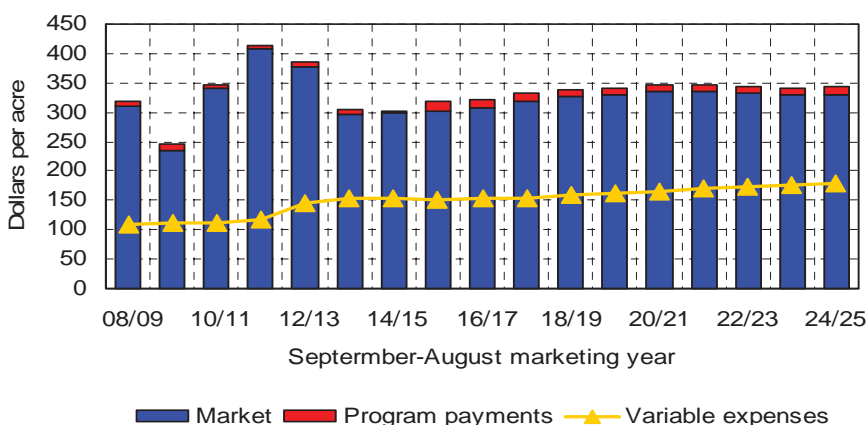


## Sunflower returns also decline with lower prices

Sunflower seed prices declined in 2013/14 in response to larger global oilseed supplies and lower vegetable oil prices.

In 2014/15, a further decline in sunflower seed prices was offset by a recovery in average yields, so returns are largely unchanged.

Projected average sunflower seed prices are below the reference price.



## Peanut supply and use

August-July year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>											
	(Million acres)										
Planted area	1.35	1.41	1.46	1.46	1.43	1.41	1.41	1.41	1.42	1.42	1.40
Harvested area	1.33	1.37	1.42	1.42	1.40	1.38	1.37	1.38	1.38	1.39	1.37
<b>Yield</b>											
	(Pounds per harvested acre)										
	3,932	3,771	3,827	3,882	3,936	3,991	4,045	4,100	4,151	4,202	4,253
<b>Supply and use</b>											
	(Million pounds)										
Production	5,210	5,178	5,443	5,525	5,494	5,502	5,562	5,650	5,749	5,829	5,829
Imports	65	65	65	65	65	65	65	65	65	65	65
Domestic use	4,122	4,155	4,287	4,375	4,417	4,444	4,483	4,539	4,606	4,671	4,710
Exports	1,052	1,056	1,108	1,148	1,143	1,129	1,133	1,142	1,157	1,170	1,163
Ending stocks	1,960	1,992	2,105	2,172	2,172	2,166	2,176	2,210	2,261	2,313	2,334
<b>Prices, returns and payments</b>											
	(Dollars)										
Farm price/ton	428.08	437.75	413.50	398.59	407.30	416.41	421.41	417.94	407.56	396.52	397.43
Market net return/a.	278.69	275.02	232.67	205.22	220.78	233.68	233.75	223.41	203.91	183.55	188.63
Marketing loan benefits/a.*	0.00	42.42	85.36	96.72	96.29	84.89	90.62	106.54	124.84	129.92	128.56
<b>Payments to participants</b>											
PLC/base a.*	142.09	127.71	136.88	147.09	138.12	135.87	133.69	132.51	132.09	142.12	145.02
ARC/base a.*	29.62	45.18	54.70	52.85	42.21	39.19	37.51	38.22	39.09	42.45	45.20

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

## Sunflower seed supply and use

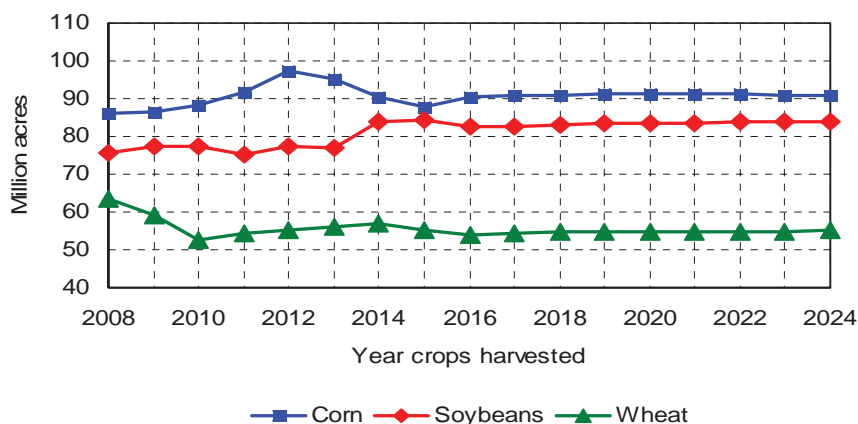
September-August year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Area</b>											
	(Million acres)										
Planted area	1.56	1.70	1.74	1.74	1.74	1.71	1.70	1.69	1.67	1.65	1.64
Harvested area	1.51	1.57	1.61	1.61	1.61	1.59	1.57	1.56	1.54	1.53	1.52
<b>Yield</b>											
	(Pounds per harvested acre)										
	1,469	1,551	1,558	1,570	1,574	1,580	1,589	1,596	1,598	1,605	1,615
<b>Supply and use</b>											
	(Million pounds)										
Production	2,215	2,447	2,512	2,531	2,535	2,512	2,506	2,499	2,467	2,455	2,452
Imports	130	130	130	130	130	130	130	130	130	130	130
Domestic use	2,013	2,094	2,149	2,168	2,172	2,162	2,181	2,217	2,237	2,270	2,303
Exports	354	455	484	494	494	479	451	406	356	307	273
Ending stocks	178	206	215	214	214	214	219	225	230	237	243
<b>Prices, returns and payments</b>											
	(Dollars)										
Farm price/lb.	0.205	0.196	0.198	0.204	0.208	0.211	0.212	0.211	0.208	0.206	0.205
Market net return/a.	145.62	151.30	154.05	163.44	167.90	169.61	168.89	164.38	158.48	153.08	151.19
Marketing loan benefits/a.*	0.00	0.04	0.13	0.01	0.07	0.16	0.13	0.10	0.03	0.08	0.10
<b>Payments to participants</b>											
PLC/base a.*	0.06	16.84	17.02	14.25	12.76	11.05	10.88	12.81	13.23	14.41	14.36
ARC/base a.*	5.73	10.04	8.05	5.36	4.19	4.14	4.99	5.70	6.60	7.11	6.90

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

# Land use

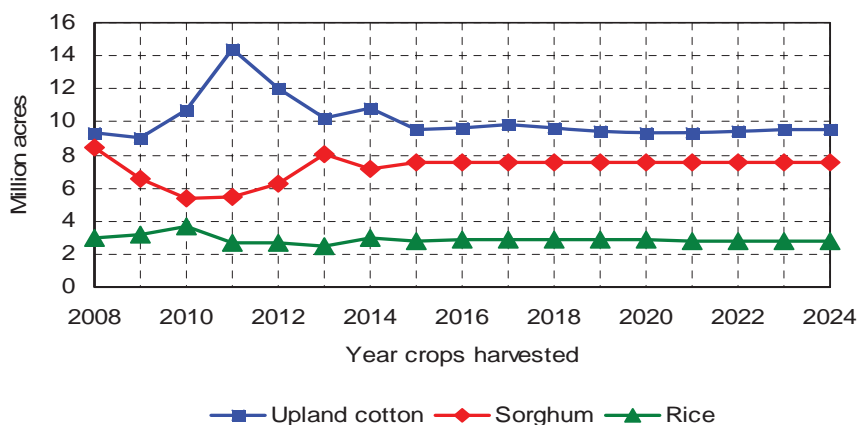
- Lower corn prices lead to a reduction in corn area planted in 2015.
- Soybean area increased sharply in 2014, and is projected to set another record high in 2015.
- Wheat area is likely to decrease in 2015, as USDA reports that winter wheat seedings were down by 2 million acres.
- Low prices and returns will likely reduce the total amount of land devoted to corn and soybeans in 2015.

Corn area falls in 2015, soybean area increases



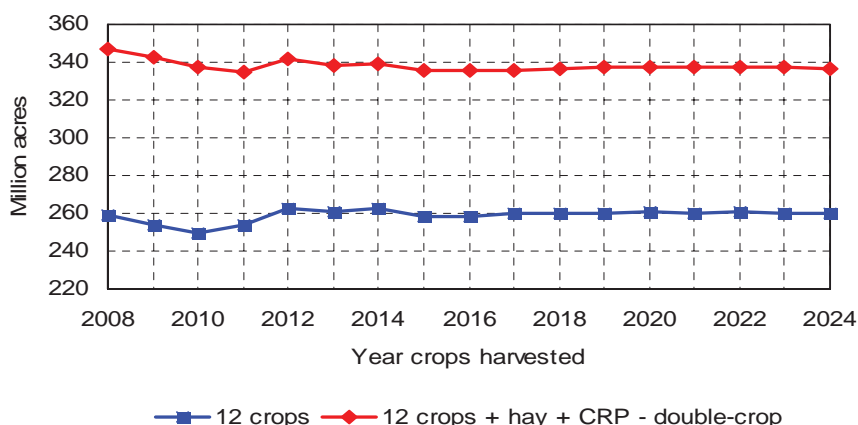
- Cotton acreage increased slightly in 2014, but declines in 2015 because of weak returns.
- Sorghum acreage is projected to increase slightly in 2015 in response to strong prices relative to other crops.
- Continued drought in California coupled with lower prices elsewhere push rice acreage down in the short-term.

Cotton acreage planted decreases in 2015



- Land planted to 12 major crops increased in 2014 as soybean area increased by about 7 million acres.
- Lower expected returns in 2015 put downward pressure on area.
- The CRP cap is lower under the new farm bill, allowing more potential acres for crop production.

12 crop planted area likely to fall





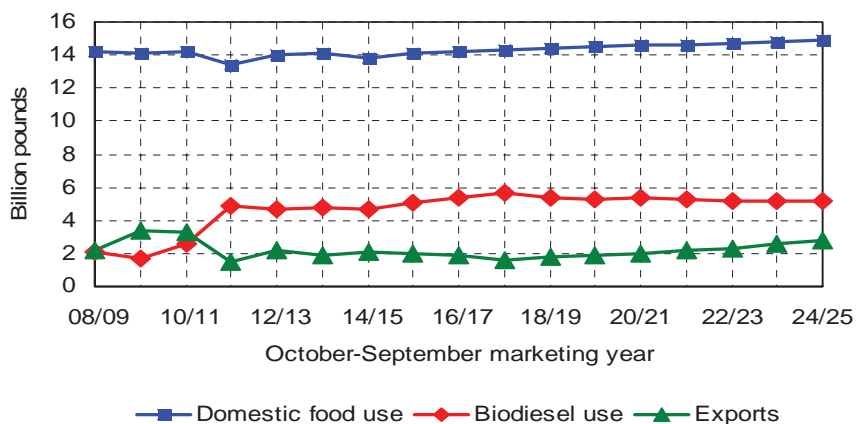
## Land use for major crops and the conservation reserve

Marketing year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>Planted area</b>	(Million acres)										
Corn	90.60	87.92	90.29	90.70	91.05	91.21	91.14	91.13	91.09	90.92	90.71
Soybeans	83.70	84.17	82.59	82.80	83.10	83.53	83.66	83.68	83.79	83.71	83.74
Wheat	56.82	55.06	54.11	54.50	54.69	54.74	54.94	54.96	54.85	54.97	55.08
Upland cotton	10.85	9.54	9.64	9.83	9.65	9.46	9.37	9.37	9.48	9.50	9.53
Sorghum	7.14	7.56	7.60	7.57	7.56	7.55	7.53	7.53	7.53	7.56	7.58
Barley	2.98	3.33	3.43	3.39	3.33	3.29	3.27	3.21	3.17	3.06	2.99
Oats	2.72	2.60	2.61	2.60	2.59	2.56	2.55	2.57	2.59	2.62	2.64
Rice	2.94	2.80	2.91	2.92	2.91	2.86	2.84	2.82	2.82	2.82	2.82
Sunflowers	1.56	1.70	1.74	1.74	1.74	1.71	1.70	1.69	1.67	1.65	1.64
Peanuts	1.35	1.41	1.46	1.46	1.43	1.41	1.41	1.41	1.42	1.42	1.40
Sugar beets	1.16	1.25	1.20	1.22	1.23	1.21	1.21	1.20	1.20	1.20	1.20
Sugar cane (harvested)	0.88	0.92	0.89	0.88	0.87	0.86	0.85	0.84	0.84	0.83	0.82
<b>12 crop planted area</b>	<b>262.70</b>	<b>258.26</b>	<b>258.47</b>	<b>259.63</b>	<b>260.14</b>	<b>260.40</b>	<b>260.47</b>	<b>260.43</b>	<b>260.44</b>	<b>260.26</b>	<b>260.15</b>
<b>Hay (harvested)</b>	<b>56.84</b>	<b>58.46</b>	<b>58.37</b>	<b>58.44</b>	<b>58.68</b>	<b>58.96</b>	<b>59.12</b>	<b>59.13</b>	<b>59.06</b>	<b>58.99</b>	<b>58.92</b>
<b>12 crops + hay</b>	<b>319.53</b>	<b>316.72</b>	<b>316.84</b>	<b>318.06</b>	<b>318.82</b>	<b>319.36</b>	<b>319.59</b>	<b>319.56</b>	<b>319.50</b>	<b>319.24</b>	<b>319.07</b>
<b>Conservation reserve (CRP)</b>	<b>25.45</b>	<b>24.21</b>	<b>23.94</b>	<b>22.89</b>	<b>22.86</b>	<b>22.84</b>	<b>22.82</b>	<b>22.81</b>	<b>22.80</b>	<b>22.79</b>	<b>22.77</b>
<b>12 crops + hay + CRP</b>	<b>344.98</b>	<b>340.93</b>	<b>340.78</b>	<b>340.95</b>	<b>341.68</b>	<b>342.20</b>	<b>342.41</b>	<b>342.37</b>	<b>342.29</b>	<b>342.04</b>	<b>341.85</b>
<b>Double-crop soybeans</b>	<b>5.61</b>	<b>5.09</b>	<b>4.94</b>	<b>4.99</b>	<b>5.05</b>	<b>5.09</b>	<b>5.10</b>	<b>5.08</b>	<b>5.05</b>	<b>5.01</b>	<b>4.98</b>
<b>12 crops + hay + CRP - double-crop soybeans</b>	<b>339.37</b>	<b>335.84</b>	<b>335.84</b>	<b>335.97</b>	<b>336.64</b>	<b>337.11</b>	<b>337.30</b>	<b>337.29</b>	<b>337.24</b>	<b>337.03</b>	<b>336.87</b>

# Soybean products

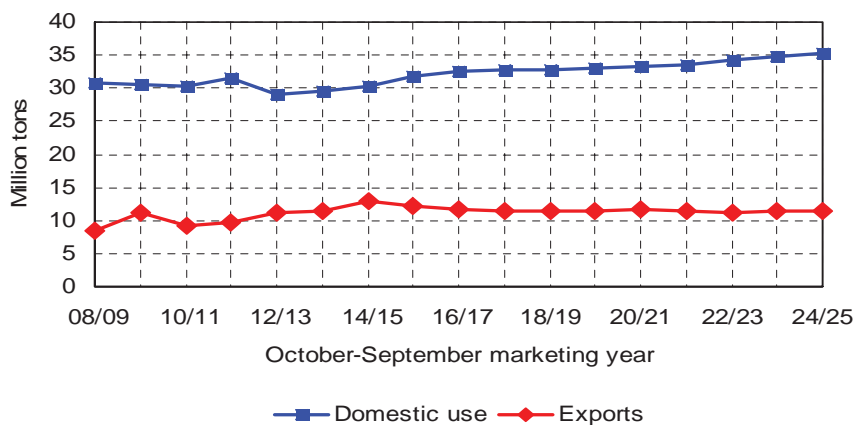
- Future biodiesel use of soybean oil is constrained by competition from corn oil and other biodiesel feedstocks.
- Per-capita domestic use of soybean oil for purposes other than biofuel production remains around 43 pounds per year between 2014/15 and 2024/25.
- Soybean oil exports increase after 2020. Foreign use of vegetable oil in fuel increases because of rising petroleum prices.

Expansion in biodiesel use of soybean oil ends



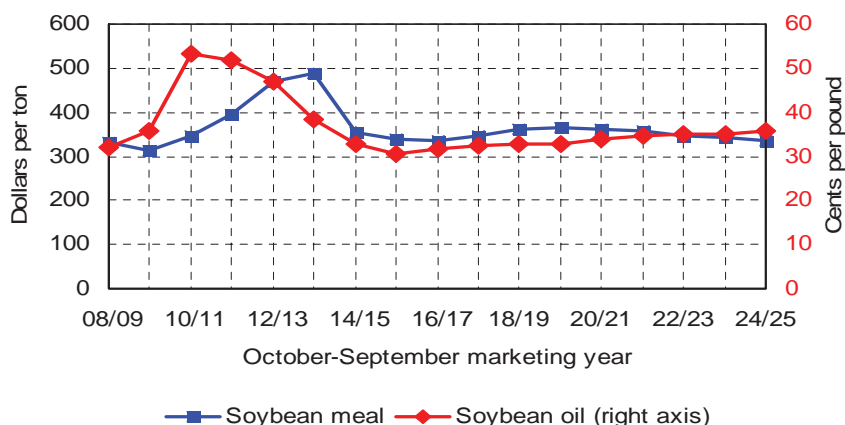
- Stagnant livestock and poultry production and competition from distillers grains have limited domestic use of soybean meal in recent years.
- Projected increases in soybean meal use result from resumed growth in poultry and pork production and slower expansion of distillers grains use.
- Soybean meal exports remain stable as growing world demand is met by Argentina and other competitors.

Soybean meal use grows with livestock production



- Soybean meal and oil prices have declined in 2014/15 because of large global oilseed supplies, and a further decline in 2015/16 is projected.
- After 2020, vegetable oil prices are supported by rising petroleum prices.
- Projected crushing margins (the difference between the value of soybean meal and oil and the cost of soybeans) average \$1.75 per bushel from 2015-2024. This is slightly less than the 2011-2014 average.

Soybean meal and oil prices fall in 2014/15, 2015/16



## Soybean oil supply and use

October-September year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
	(Million pounds)										
<b>Supply</b>	21,999	22,879	23,244	23,353	23,422	23,522	23,827	23,934	24,125	24,464	24,741
Beginning stocks	1,165	1,429	1,724	1,763	1,819	1,869	1,919	1,900	1,907	1,926	1,934
Production	20,674	21,290	21,361	21,430	21,443	21,494	21,748	21,874	22,058	22,378	22,647
Imports	160	160	160	160	160	160	160	160	160	160	160
<b>Domestic use</b>	18,476	19,201	19,555	19,949	19,744	19,737	19,968	19,888	19,900	19,974	20,023
Biodiesel	4,651	5,110	5,372	5,670	5,366	5,236	5,381	5,244	5,174	5,165	5,161
Food and other	13,825	14,091	14,183	14,278	14,378	14,501	14,587	14,644	14,726	14,809	14,862
<b>Exports</b>	2,094	1,955	1,926	1,586	1,810	1,866	1,958	2,139	2,298	2,556	2,772
<b>Total use</b>	20,570	21,156	21,481	21,534	21,553	21,603	21,927	22,027	22,199	22,530	22,796
<b>Ending stocks</b>	1,429	1,724	1,763	1,819	1,869	1,919	1,900	1,907	1,926	1,934	1,945
	(Cents per pound)										
<b>Price</b>											
Decatur	32.77	30.50	31.64	32.28	32.84	32.97	34.04	34.84	34.93	35.02	35.63

## Soybean meal supply and use

October-September year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
	(Thousand tons)										
<b>Supply</b>	43,548	44,282	44,431	44,578	44,603	44,705	45,229	45,495	45,877	46,543	47,099
Beginning stocks	250	299	303	308	307	305	306	313	318	325	330
Production	43,048	43,733	43,878	44,020	44,046	44,151	44,673	44,932	45,310	45,968	46,519
Imports	250	250	250	250	250	250	250	250	250	250	250
<b>Domestic use</b>	30,357	31,706	32,563	32,770	32,801	32,973	33,294	33,634	34,310	34,805	35,364
<b>Exports</b>	12,892	12,273	11,560	11,501	11,498	11,426	11,623	11,543	11,242	11,408	11,398
<b>Total use</b>	43,249	43,979	44,123	44,271	44,299	44,399	44,916	45,177	45,552	46,213	46,763
<b>Ending stocks</b>	299	303	308	307	305	306	313	318	325	330	337
	(Dollars per ton)										
<b>Price</b>											
Decatur, 48% protein	355.76	337.65	335.61	346.32	360.88	366.46	362.48	359.34	347.67	343.58	334.37

# Corn products

- Along with conventional ethanol production, there is modest growth in distillers dried grains with solubles (DDGS) production.

- Domestic use is sustained by rising livestock feed demand overall, but limited by competition from other feeds.

- Net exports remain flat throughout the projection period. Disputes regarding approved corn varieties make DDGS exports to China a key source of uncertainty.

- Prices for DDGS generally move with corn prices and slightly exceed them in the projection period.

- Export demand lends support to DDGS prices. China is a major source of uncertainty for U.S. exports and prices.

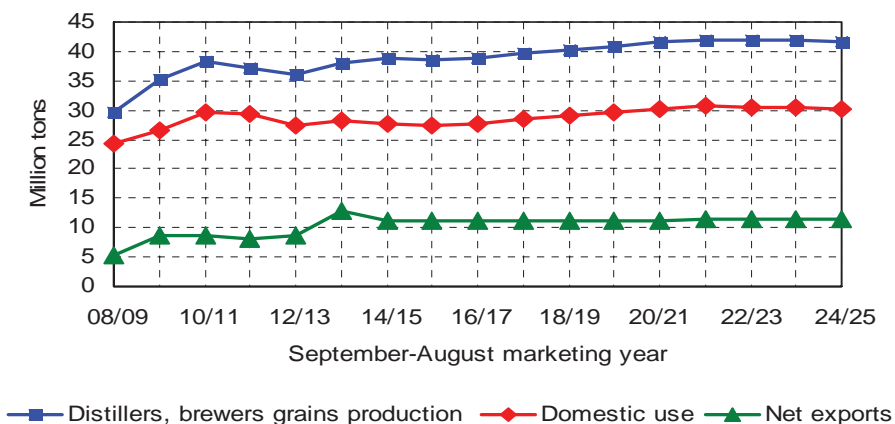
- Wet mills produce ethanol, HFCS and other products including food-grade corn oil. Dry mills can extract nonfood-grade corn oil from distillers grains.

- The baseline projects a further increase in the share of dry mill ethanol plants that extract corn oil.

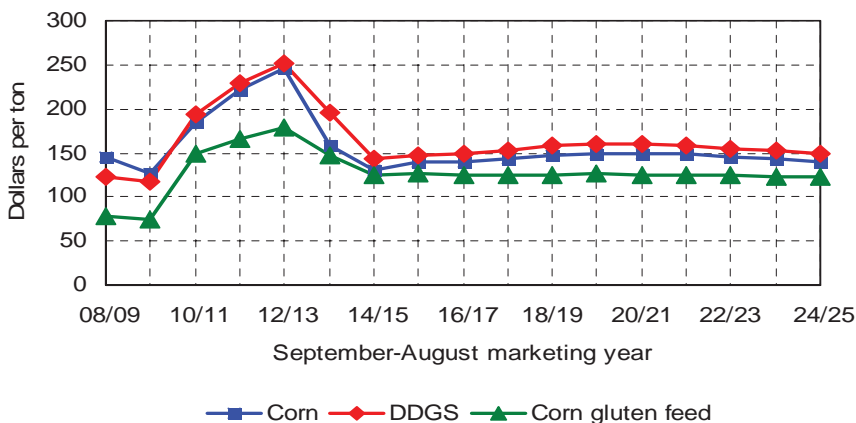
- The oil removed in dry mill plants is used in feed rations and biodiesel production.

- A growing share of corn oil goes to these nonfood uses.

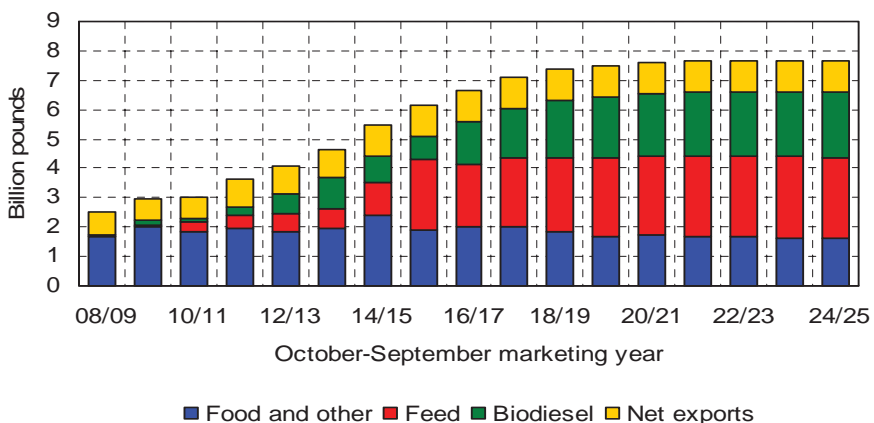
Distillers grains production expands with ethanol



DDGS prices generally follow corn prices



Nonfood uses of corn oil increase



## Corn product supply and use

Marketing year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
<b>High-fructose corn syrup</b>	(Thousand tons, Oct.-Sep. year)										
Production	8,630	8,601	8,682	8,791	8,840	8,897	8,946	8,998	9,019	9,047	9,059
Domestic use	7,367	7,328	7,363	7,430	7,436	7,455	7,465	7,479	7,461	7,450	7,423
Net exports	1,263	1,273	1,319	1,361	1,404	1,442	1,481	1,519	1,558	1,597	1,636
	(Cents per pound, Oct.-Sep. year)										
Price, 42% Midwest	23.11	22.55	23.11	23.72	23.80	24.06	24.15	24.10	23.94	23.93	23.73
HFCS price/ref. sugar price	63%	70%	68%	67%	67%	67%	67%	67%	67%	68%	68%
<b>Distillers, brewers grains</b>	(Thousand tons, Sep.-Aug. year)										
Production (dry equiv.)	38,882	38,648	38,839	39,668	40,367	40,914	41,581	41,939	41,966	41,844	41,661
Domestic use	27,609	27,338	27,559	28,402	29,114	29,651	30,278	30,606	30,604	30,472	30,272
Net exports	11,273	11,310	11,280	11,266	11,253	11,263	11,303	11,333	11,363	11,372	11,389
	(Dollars per ton, Sep.-Aug. year)										
Price, IL points	144.18	147.82	149.15	153.68	158.61	160.69	159.57	158.26	154.37	152.46	148.82
DDGS price/corn price	111%	106%	107%	107%	108%	108%	107%	106%	106%	106%	107%
<b>Com gluten feed</b>	(Thousand tons, Sep.-Aug. year)										
Production	8,803	8,894	9,075	9,036	8,890	8,770	8,772	8,809	8,856	8,919	9,000
Domestic use	7,852	7,942	8,122	8,062	7,906	7,790	7,799	7,861	7,944	8,025	8,136
Net exports	952	953	953	974	984	979	973	948	912	894	864
	(Dollars per ton, Sep.-Aug. year)										
Price, 21%, IL points	125.04	126.04	125.06	124.92	125.71	126.09	125.22	125.35	124.70	123.64	122.53
CGF price/corn price	96%	91%	90%	87%	86%	85%	84%	84%	86%	86%	88%
<b>Com gluten meal</b>	(Thousand tons, Sep.-Aug. year)										
Production	2,317	2,341	2,388	2,378	2,339	2,308	2,309	2,318	2,331	2,347	2,368
Domestic use	1,209	1,216	1,251	1,236	1,194	1,155	1,144	1,143	1,142	1,147	1,156
Net exports	1,108	1,125	1,137	1,142	1,146	1,153	1,164	1,175	1,189	1,200	1,212
	(Dollars per ton, Sep.-Aug. year)										
Price, 60%, IL points	496.96	475.13	472.10	485.20	503.38	510.73	506.15	502.41	488.42	483.42	472.21
CGM price/soymeal price	140%	141%	141%	140%	139%	139%	140%	140%	140%	141%	141%
<b>Com oil</b>	(Million pounds, Oct.-Sep. year)										
Production	5,515	6,204	6,662	7,133	7,415	7,513	7,598	7,651	7,667	7,669	7,670
Domestic use	4,412	5,085	5,567	6,038	6,333	6,439	6,530	6,585	6,600	6,603	6,606
Biodiesel	893	768	1,439	1,681	1,951	2,055	2,120	2,178	2,176	2,206	2,267
Feed	1,127	2,436	2,136	2,344	2,562	2,688	2,699	2,722	2,761	2,751	2,712
Food/other	2,393	1,881	1,992	2,013	1,819	1,696	1,712	1,685	1,664	1,646	1,626
Net exports	1,068	1,077	1,075	1,073	1,071	1,070	1,067	1,065	1,066	1,066	1,065
Ending stocks	199	241	261	283	295	299	301	301	302	302	300
	(Cents per pound, Oct.-Sep. year)										
Chicago price	34.49	32.11	33.04	33.71	34.37	34.59	35.64	36.40	36.44	36.48	37.01
Corn oil price/soy oil price	105%	105%	104%	104%	105%	105%	105%	104%	104%	104%	104%

# Ethanol and biofuel policy

- Record margins in 2014 led to a recovery in ethanol production relative to 2012 and 2013.

- Production is projected to decline slightly in 2015 as margins become tighter.

- Beyond 2015, ethanol production grows slowly as RFS requirements increase and production margins recover.

- Cellulosic and non-corn ethanol production levels contribute relatively minor quantities to the total.

- Sugarcane ethanol imports from Brazil continue at a very low level in 2015 before climbing in 2016.

- Growing RFS requirements for advanced biofuel and low-carbon fuel requirements in California motivate sugar-based ethanol imports at modest levels.

- Exports rebounded in 2014 and continue steady growth with domestic conventional ethanol prices competitive in the global market.

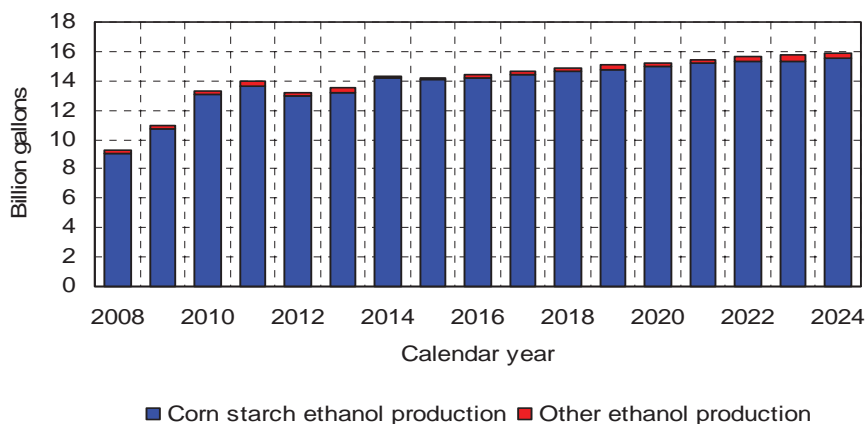
- RFS percent requirements are unknown. These projections assume growth to 10 percent of motor fuel use.

- Declining motor fuel use in later years implies a slight decline in volume requirements.

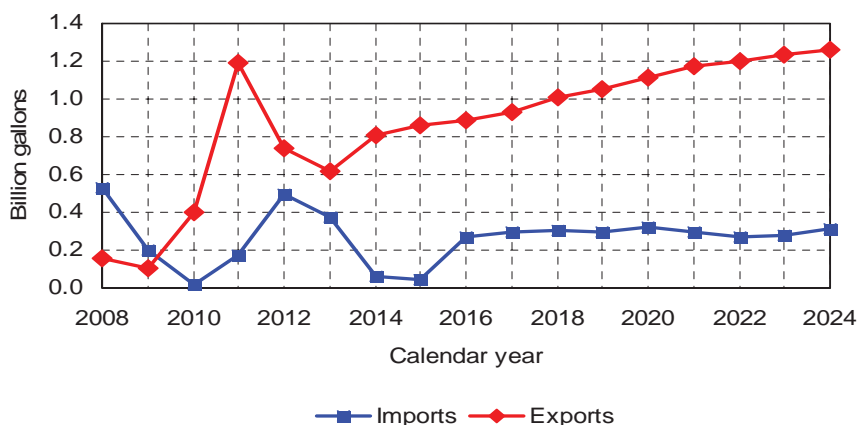
- Biomass-based diesel requirements remain slightly above 1.28 billion gallons based on estimated motor fuel use.

- RIN prices increase in the near term before declining in later years as market conditions make the RFS easier to meet.

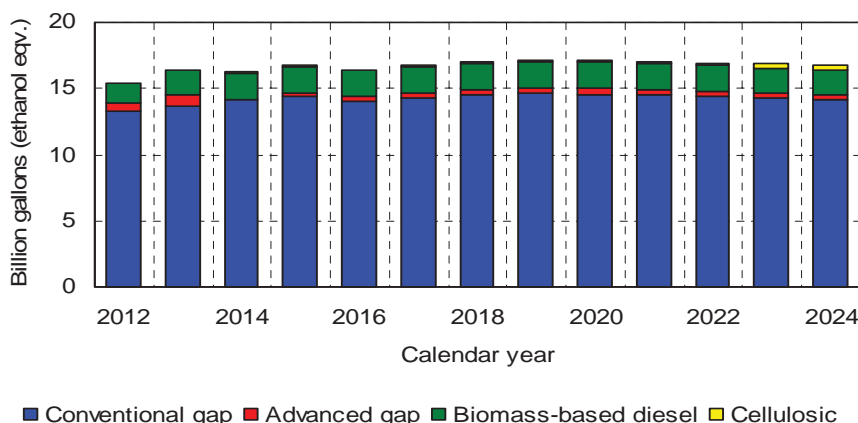
Ethanol production resumes modest growth



Steady growth in U.S. ethanol export demand



RFS volume requirements hold steady



## Ethanol supply and use

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Petroleum fuel prices</b>											
	(Dollars per barrel)										
Petroleum, W. Texas interm.	93.01	58.24	71.07	80.64	89.90	98.69	109.47	119.86	126.36	133.40	141.39
Petroleum, refiners' acquis.	91.54	55.71	68.16	77.25	86.18	94.93	105.58	115.63	121.69	128.46	136.16
	(Dollars per gallon)										
Unl. gasoline, FOB Omaha	2.66	1.71	1.94	2.14	2.36	2.58	2.86	3.13	3.31	3.49	3.68
Unleaded gasoline, retail	3.37	2.37	2.63	2.83	3.04	3.26	3.53	3.79	3.96	4.14	4.33
	(Million gallons)										
<b>Motor gasoline use*</b>	137,460	138,364	139,662	140,666	140,464	139,462	137,726	135,463	133,042	130,615	128,257
<b>Ethanol supply and use</b>											
Production	14,334	14,190	14,375	14,669	14,922	15,075	15,222	15,466	15,606	15,733	15,905
From corn	14,175	14,047	14,194	14,449	14,674	14,806	14,935	15,156	15,269	15,365	15,500
Other conventional	158	137	156	169	173	171	170	170	175	183	194
Cellulosic	1	6	26	52	75	97	117	139	162	186	210
Imports	60	45	267	299	302	298	321	293	270	281	316
Domestic disappearance	13,481	13,369	13,750	14,031	14,211	14,311	14,419	14,576	14,669	14,766	14,952
Exports	811	861	887	930	1,005	1,053	1,115	1,174	1,197	1,238	1,260
Ending stocks	791	797	803	810	819	827	836	846	855	865	875
<b>Ethanol prices</b>											
	(Dollars per gallon)										
Conventional rack, Omaha	2.34	1.77	1.88	1.93	1.95	1.96	1.98	1.99	2.00	2.03	2.06
Other advanced rack	2.40	1.77	1.88	1.93	1.95	1.96	1.98	1.99	2.00	2.03	2.06
Effective retail	2.56	1.89	1.84	1.91	2.00	2.10	2.25	2.37	2.48	2.58	2.66
Ethanol/gasoline retail	76%	80%	70%	68%	66%	64%	64%	62%	62%	62%	62%
<b>RIN values</b>											
Conventional ethanol	0.49	0.55	0.73	0.71	0.64	0.54	0.39	0.28	0.18	0.10	0.05
Advanced ethanol	0.54	0.55	0.73	0.71	0.64	0.54	0.39	0.28	0.18	0.10	0.05

\* Includes fuel ethanol

## Renewable Fuel Standard

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Applicable percent standard</b>											
Overall	9.50%	9.55%	9.35%	9.48%	9.63%	9.73%	9.80%	9.85%	9.90%	9.95%	10.00%
Advanced biofuels	1.33%	1.35%	1.38%	1.40%	1.42%	1.44%	1.47%	1.49%	1.51%	1.53%	1.56%
Cellulosic biofuel	0.01%	0.02%	0.05%	0.07%	0.09%	0.11%	0.13%	0.14%	0.16%	0.18%	0.18%
Biomass-based diesel	1.13%	1.13%	1.13%	1.13%	1.13%	1.13%	1.13%	1.13%	1.13%	1.13%	1.13%
<b>Required volume</b>											
	(Million gallons)										
Overall	16,231	16,717	16,437	16,800	17,070	17,188	17,157	17,053	16,953	16,842	16,722
Advanced biofuels	2,095	2,368	2,418	2,475	2,516	2,547	2,565	2,575	2,586	2,594	2,600
Cellulosic biofuel	33	38	62	100	129	156	181	208	237	265	295
Biomass-based diesel	1,321	1,319	1,325	1,335	1,335	1,330	1,319	1,305	1,290	1,275	1,260
Gaps: Conventional	14,136	14,349	14,018	14,325	14,554	14,641	14,591	14,477	14,367	14,248	14,122
Advanced	80	351	368	374	385	396	405	410	414	416	415

# Biomass-based diesel and biofuel plant returns

- The outlook assumes the RFS percent requirements for biomass-based diesel remain at 1.13 percent going forward. This implies a volume requirement slightly above 1.28 billion gallons.

- Biomass-based diesel production falls further in 2015 without the blenders tax credit in place but recovers in later years to meet RFS requirements.

- Corn oil based biodiesel and renewable diesel production increase from their current levels.

- Domestic biomass-based diesel use falls just below the RFS requirement in 2015. RIN stocks are used to make up the difference.

- In later years, biomass-based diesel is used beyond its own requirement to help meet the advanced or overall mandates.

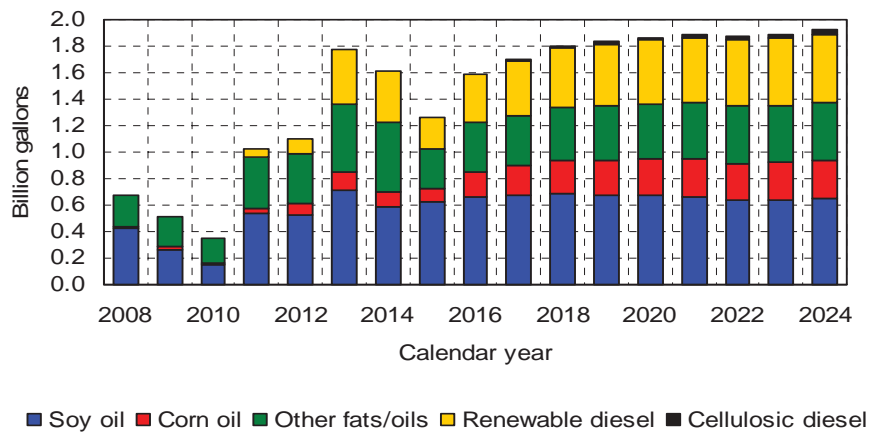
- The U.S. remains a small net importer of biomass-based diesel in the near term, but is projected to be a small net exporter in later years.

- Average dry mill ethanol net returns over operating costs fall sharply in 2015 before recovering in 2016.

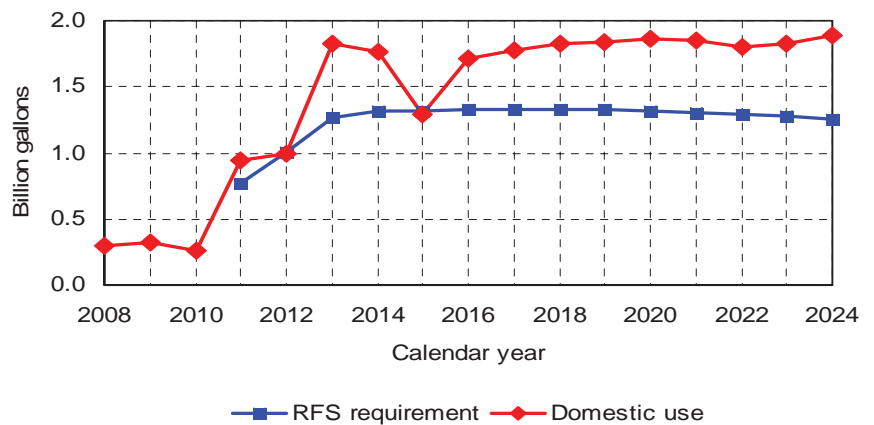
- Biomass-based diesel net returns continue their descent in 2015 without the blenders tax credit in place. They recover in 2016 and remain near the level of dry mill net returns.

- RFS implementation and the costs of selling larger volumes of fuels with more than 10 percent ethanol remain important sources of uncertainty.

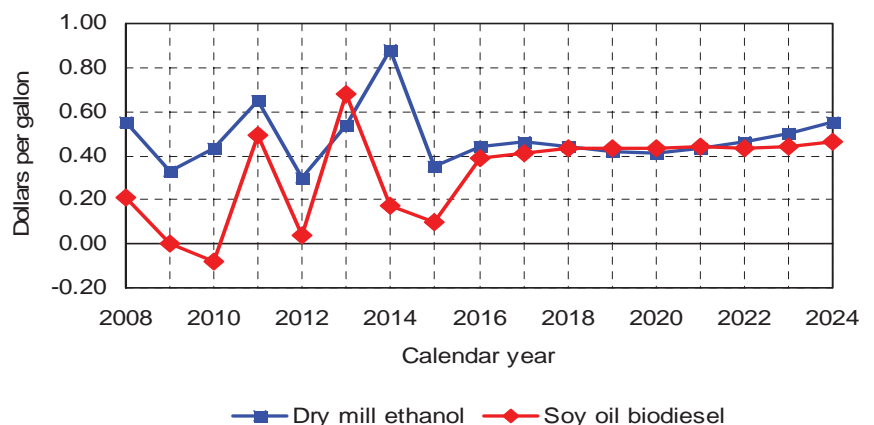
Biomass-based diesel production recovers



Biomass-based diesel use exceeds RFS mandate



Biofuel net returns hold steady beyond 2016





## Biomass-based diesel sector

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Biomass-based diesel supply</b>											
	(Million gallons)										
Production	1,617	1,260	1,594	1,699	1,799	1,832	1,866	1,890	1,873	1,885	1,921
From soybean oil	585	619	663	680	690	674	673	663	635	633	648
From corn oil	116	100	187	218	253	267	275	283	283	286	294
From other fats and oils	530	307	373	381	395	405	417	426	427	431	439
From cellulosic diesel	0	0	2	9	12	15	18	21	24	27	30
Renewable diesel	387	234	368	411	449	471	483	496	504	508	510
<b>Biomass-based diesel use</b>											
Domestic disappearance	1,768	1,296	1,711	1,780	1,830	1,842	1,869	1,847	1,803	1,820	1,883
Net exports	-96	-109	-105	-76	-29	-9	-4	43	70	65	38
Ending stocks	136	208	196	191	190	189	189	189	189	189	189
<b>Fuel prices and tax credit</b>											
	(Dollars per gallon)										
Biodiesel, rack	3.47	3.04	3.21	3.34	3.42	3.47	3.50	3.60	3.64	3.68	3.73
#2 Diesel, refiner sales	2.81	1.86	2.10	2.29	2.51	2.73	3.01	3.28	3.46	3.64	3.84
#2 Diesel, retail	3.83	2.83	3.20	3.40	3.62	3.84	4.12	4.39	4.56	4.74	4.94
Biodiesel tax credit	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>RIN values</b>											
Per RIN gallon	0.56	0.55	0.73	0.71	0.64	0.54	0.39	0.28	0.18	0.10	0.05
Per physical gallon	0.84	0.82	1.09	1.06	0.96	0.80	0.59	0.42	0.27	0.15	0.07

## Biofuel plant returns

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Biodiesel costs and returns</b>											
	(Dollars per gallon)										
Biodiesel value	3.47	3.04	3.21	3.34	3.42	3.47	3.50	3.60	3.64	3.68	3.73
Glycerin value	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Soyoil cost	-2.84	-2.47	-2.35	-2.44	-2.51	-2.55	-2.57	-2.66	-2.71	-2.73	-2.74
Other operating costs	-0.57	-0.58	-0.58	-0.59	-0.59	-0.60	-0.61	-0.61	-0.62	-0.62	-0.63
Net operating return	0.17	0.10	0.39	0.41	0.43	0.43	0.43	0.44	0.43	0.44	0.46
<b>Corn milling for ethanol</b>											
	(Million bushels)										
Corn wet milled for ethanol	576	482	548	555	527	497	475	468	464	468	486
Corn dry milled for ethanol	4,662	4,644	4,624	4,700	4,800	4,868	4,927	5,004	5,039	5,060	5,082
(Share de-oiling DDGS)	89%	92%	94%	95%	96%	97%	98%	98%	98%	98%	98%
<b>Dry mill ethanol costs, returns</b>											
	(Dollars per gallon)										
Ethanol value	2.34	1.77	1.88	1.93	1.95	1.96	1.98	1.99	2.00	2.03	2.06
Distillers grains value	0.51	0.43	0.44	0.44	0.46	0.47	0.47	0.47	0.46	0.45	0.44
Corn oil value*	0.07	0.04	0.06	0.05	0.05	0.06	0.05	0.06	0.06	0.06	0.06
Corn cost	-1.50	-1.36	-1.42	-1.43	-1.47	-1.50	-1.51	-1.50	-1.49	-1.46	-1.42
Fuel and electricity cost	-0.20	-0.20	-0.18	-0.19	-0.21	-0.21	-0.22	-0.21	-0.21	-0.22	-0.22
Other operating costs	-0.34	-0.34	-0.35	-0.35	-0.35	-0.36	-0.36	-0.36	-0.37	-0.37	-0.37
Net operating return	0.88	0.35	0.44	0.46	0.44	0.42	0.41	0.43	0.46	0.50	0.55

\* Weighted by share of dry mills de-oiling DDGs

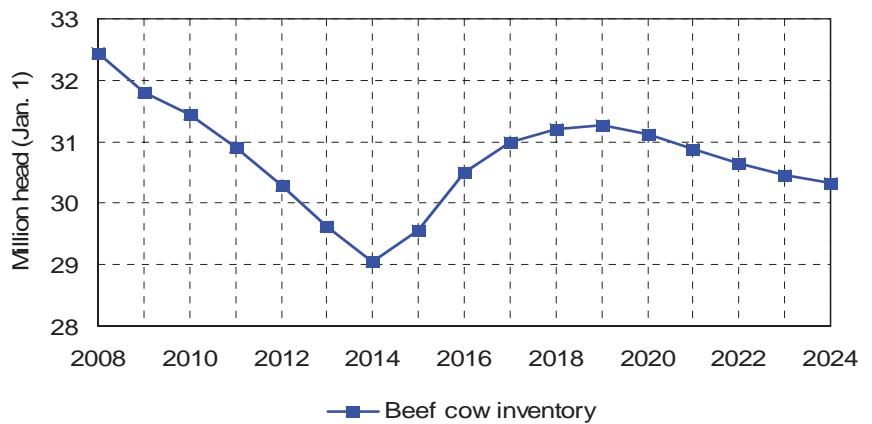
# Cattle and hogs

The beef cow herd increased during 2014

- The annual cattle inventory report released by USDA in early 2015 showed a 2.1 percent increase in beef cows, only the third annual increase since 1996 and the largest increase since 1994.

- Further increases are expected due to strong profitability levels and improved pasture conditions.

- Despite the expected growth, the beef cow herd will still remain smaller than the levels seen prior to 2010.

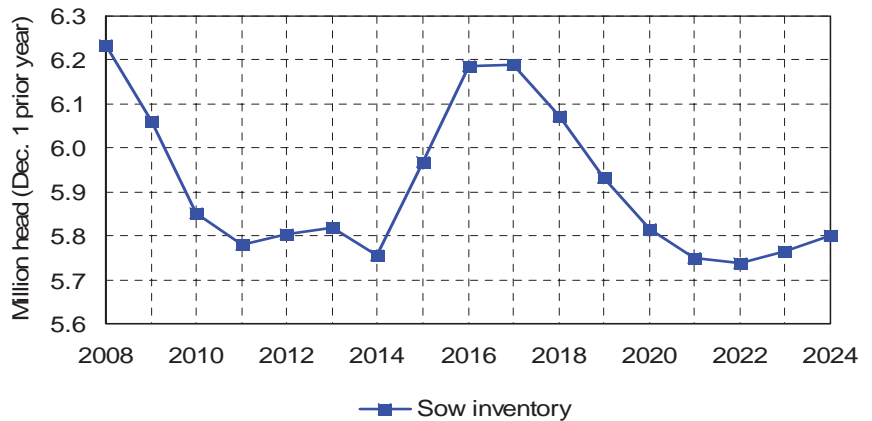


Sow inventory grows by largest amount since 1998

- The December 2014 quarterly hog inventory report noted a sharp increase in the U.S. sow herd.

- The 3.7 percent year-over-year increase is the largest in more than 16 years.

- Farrow-finish profitability was strongly positive throughout 2014, and as returns are projected to be positive in 2015, further growth in the herd is expected.

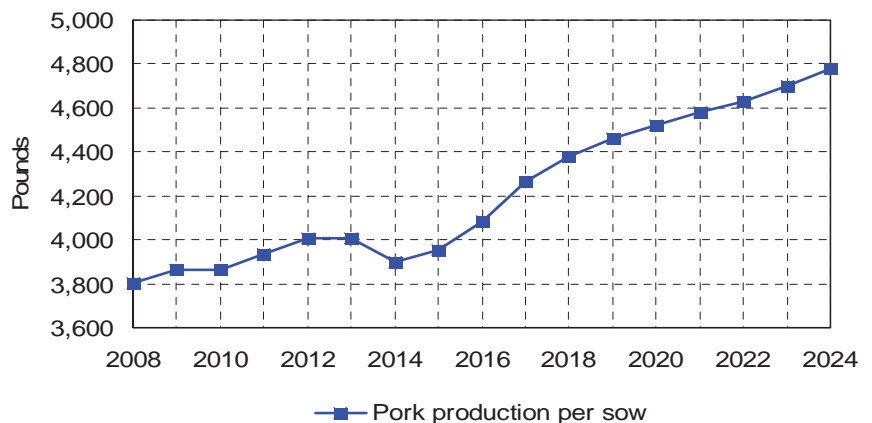


Pork productivity begins to recover in 2015

- The porcine epidemic diarrhea virus (PEDv) greatly impacted the number of pigs saved per litter in the first half of 2014.

- Disease impacts have waned recently, and in the absence of a further significant outbreak, the amount of pork produced per sow is expected to stabilize in 2015 and return to normal growth in 2016.

- The combination of a larger sow herd and more pork production per sow will result in a sharply higher pork supply.



## Cattle and hogs

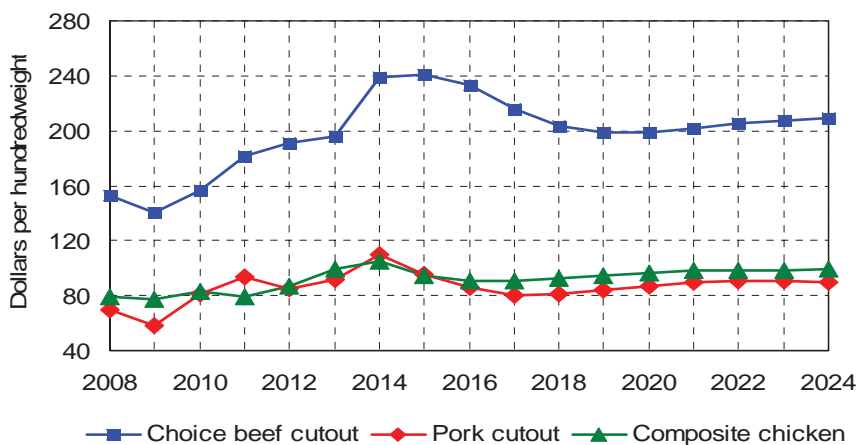
Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>CATTLE</b>											
	(Million head)										
Beef cows (Jan. 1)	29.0	29.6	30.5	31.0	31.2	31.3	31.1	30.9	30.6	30.5	30.3
Dairy cows (Jan. 1)	9.2	9.3	9.4	9.4	9.4	9.3	9.3	9.3	9.3	9.3	9.4
Cattle and calves (Jan. 1)	87.7	88.3	90.5	93.2	94.9	95.2	94.8	93.9	93.0	92.4	92.1
Cattle on feed (Jan. 1)	12.7	12.7	12.6	13.0	13.6	14.0	14.1	14.0	13.9	13.7	13.5
Calf crop	33.5	34.1	34.9	35.3	35.5	35.5	35.4	35.1	35.0	34.8	34.7
Cattle slaughter	30.9	30.0	30.3	31.7	33.1	34.0	34.3	34.0	33.6	33.3	32.9
Cattle imports	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Cattle exports	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<b>Prices</b>											
Total all grades,	(Dollars per hundredweight)										
5-Area direct steers	154.56	156.07	149.83	136.29	126.33	121.87	121.62	123.68	126.24	127.89	129.31
600 - 650 #, Oklahoma City											
Feeder steers	225.21	234.16	219.45	191.68	170.55	159.74	157.87	161.80	167.23	171.53	175.05
Utility cows, Sioux Falls	104.10	107.09	97.81	85.31	77.83	74.14	73.85	74.94	76.64	77.40	77.99
<b>Cow-calf returns</b>											
	(Dollars per cow)										
Receipts	1,173.71	1,216.35	1,136.58	998.09	896.88	845.27	836.81	855.25	880.95	900.55	916.56
Feed expenses	246.01	241.75	251.91	254.68	261.88	268.21	270.01	268.62	266.17	262.69	260.09
Non-feed expenses	519.38	526.85	537.83	541.24	540.43	544.18	552.62	561.94	569.04	575.98	582.73
Net returns	408.31	447.75	346.84	202.17	94.57	32.88	14.18	24.70	45.73	61.88	73.73
<b>HOGS</b>											
	(Million head)										
Hogs for breeding (Dec. 1*)	5.76	5.97	6.19	6.19	6.07	5.93	5.82	5.75	5.74	5.76	5.80
Market hogs (Dec. 1*)	59.0	60.1	64.4	67.4	67.9	67.3	66.6	66.2	66.4	67.2	68.1
Sows farrowed	11.35	11.89	12.15	12.10	11.88	11.66	11.52	11.48	11.53	11.63	11.73
Pig crop	112.7	121.8	127.8	129.3	128.6	127.5	127.2	128.0	129.9	132.2	134.6
Barrow and gilt slaughter	103.8	109.4	116.3	120.0	120.4	119.6	119.1	119.4	120.5	122.5	124.6
Hog imports	4.9	5.1	5.1	5.2	5.2	5.3	5.3	5.4	5.4	5.4	5.4
Hog exports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Prices</b>											
Natl. base 51-52% lean equiv.	(Dollars per hundredweight)										
Barrows & gilts	76.03	62.11	54.91	51.77	52.49	54.72	57.13	58.76	59.16	58.24	57.49
IA-S. Minn. #1-2, 300-400 #											
Sows	73.52	55.07	49.34	47.08	47.70	49.54	51.60	52.87	53.30	52.69	52.28
<b>Farrow-finish returns</b>											
	(Dollars per hundredweight)										
Receipts	81.23	66.51	58.96	55.53	56.01	58.02	60.37	61.91	62.32	61.40	60.64
Feed expenses	35.35	30.46	31.84	32.29	33.56	34.83	35.37	35.28	34.95	34.10	33.56
Non-feed expenses	22.97	22.61	22.83	23.08	23.33	23.61	23.91	24.17	24.37	24.59	24.82
Net returns	22.91	13.44	4.29	0.16	-0.89	-0.41	1.09	2.46	3.00	2.70	2.25

\* Preceding year

# Meat

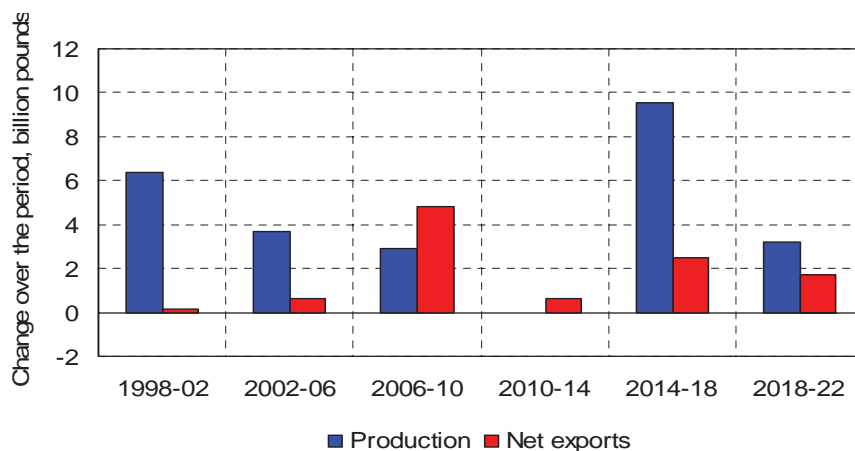
## More pork and chicken production impacts prices

- The total of U.S. beef, pork, chicken and turkey production should increase at the fastest rate since 2002 in 2015.
- All of the growth will come from the pork and poultry sectors.
- Beef production will decline for the fifth consecutive year as producers hold back more animals from market to rebuild the beef cow herd.
- This will lead to an even wider spread between beef and other meat prices.



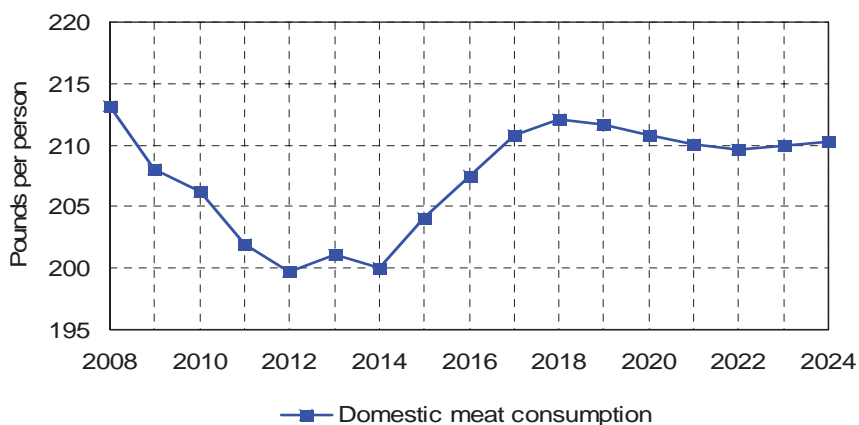
## Domestic meat supply is set to increase

- U.S. meat export volumes remained stable in recent years despite sharply higher prices and a strengthening U.S. dollar against most currencies.
- Some signs of weakening export levels began to appear in the final months of 2014, and meat imports (particularly beef) were higher than in recent years.
- With strong growth in domestic meat production projected for the next few years, the U.S. meat sector will need to expand international shipments to keep prices from declining sharply.



## Meat demand strength will be crucial to prices

- The amount of meat per person available in the domestic market fell by nearly 20 pounds (8.8 percent) from 2007-2012.
- Domestic meat availability is now projected to grow at rates not seen since the early 2000s.
- Future meat demand strength will play a large part in determining how far prices fall in light of additional supplies.



## Meat sector

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Beef</b>											
	(Million pounds)										
Production	24,320	23,801	23,923	25,053	26,229	26,965	27,279	27,197	26,995	26,796	26,642
Imports	2,928	2,772	2,753	2,699	2,644	2,617	2,634	2,671	2,711	2,758	2,794
Domestic use	24,718	24,088	24,063	24,883	25,831	26,436	26,672	26,609	26,430	26,257	26,132
Exports	2,584	2,511	2,602	2,825	2,998	3,119	3,230	3,260	3,282	3,301	3,306
Ending stocks	530	503	513	558	601	627	638	638	632	629	627
<b>Pork</b>											
Production	22,866	24,036	25,281	26,133	26,290	26,189	26,143	26,315	26,635	27,188	27,750
Imports	1,000	925	913	916	923	939	957	968	981	986	987
Domestic use	19,114	19,787	20,693	21,354	21,360	21,130	20,948	20,958	21,108	21,451	21,805
Exports	4,829	5,145	5,449	5,657	5,852	6,009	6,161	6,325	6,501	6,705	6,913
Ending stocks	540	569	621	657	659	647	638	638	646	663	681
<b>Broiler</b>											
Production	38,173	40,176	41,209	41,868	42,389	42,812	43,279	43,867	44,499	45,202	45,895
Domestic use	30,989	32,835	33,745	34,227	34,506	34,701	34,946	35,303	35,732	36,237	36,733
Exports	7,291	7,407	7,556	7,753	8,005	8,240	8,462	8,691	8,894	9,090	9,289
Ending stocks	675	726	752	760	759	754	752	754	757	765	772
<b>Turkey</b>											
Production	5,739	6,001	6,155	6,280	6,349	6,384	6,417	6,470	6,533	6,607	6,680
Domestic use	5,006	5,166	5,334	5,453	5,517	5,541	5,557	5,591	5,636	5,692	5,748
Exports	799	814	830	842	854	870	888	906	924	942	960
Ending stocks	200	248	268	282	289	292	295	299	304	310	316
<b>Wholesale prices</b>											
	(Dollars per hundredweight)										
Boxed beef cutout	239.26	240.73	232.98	215.87	203.75	198.89	199.05	201.90	205.31	207.28	208.86
Pork cutout	110.19	95.87	85.94	80.23	80.70	83.67	87.10	89.58	90.89	90.26	89.61
National wholesale broiler	104.87	94.53	90.78	90.71	92.39	94.75	96.84	98.05	98.69	98.78	98.93
Natl. wholesale turkey hens	107.64	101.85	95.85	93.29	93.56	95.37	97.50	98.89	99.74	100.04	100.38
<b>Retail prices</b>											
	(Dollars per pound)										
Beef	5.97	6.20	6.15	6.02	5.89	5.86	5.86	6.03	6.18	6.31	6.44
Pork	4.02	3.90	3.76	3.68	3.72	3.83	3.99	4.09	4.14	4.13	4.12
Broiler	1.96	1.97	1.96	1.96	2.01	2.06	2.11	2.14	2.15	2.15	2.15
Turkey	1.63	1.62	1.59	1.58	1.60	1.63	1.67	1.70	1.72	1.74	1.76
<b>Per capita consumption</b>											
	(Pounds, retail)										
Beef	54.3	52.5	52.0	53.3	54.9	55.8	55.8	55.3	54.5	53.7	53.1
Pork	46.5	47.8	49.6	50.7	50.3	49.4	48.6	48.2	48.2	48.6	49.1
Broiler	83.5	87.8	89.5	90.0	90.0	89.8	89.7	90.0	90.4	91.0	91.5
Turkey	15.7	16.1	16.5	16.7	16.8	16.7	16.6	16.6	16.6	16.6	16.7
Total	200.0	204.1	207.5	210.8	212.0	211.7	210.8	210.0	209.6	209.9	210.3

# Dairy

## 2014 was a profitable year for the dairy industry

- A decline in input costs coupled with a record high all milk price led to profitability at or near record levels in 2014.

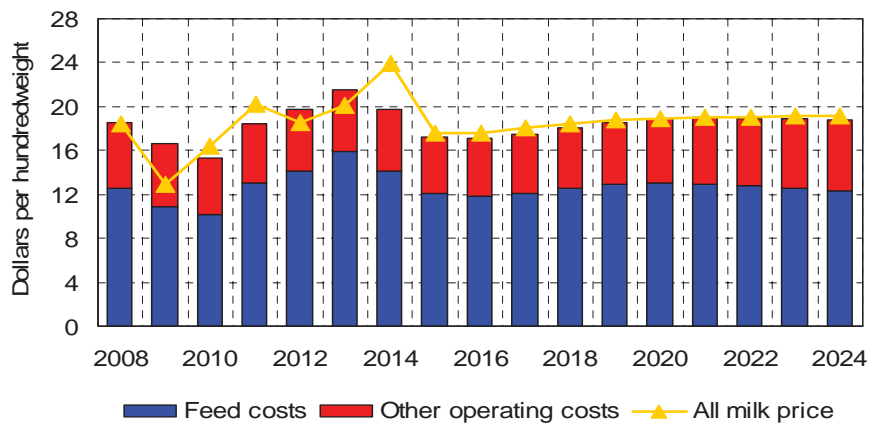
- Input costs are projected to decline further in 2015, but an even larger drop in projected milk prices will cause 2015 profitability levels to be more in line with the historical average.

- The milk price outlook depends upon the strength of international demand for dairy products. China has sharply increased its purchases of milk powders this decade, but its slowdown in purchases in 2014 led to price declines.

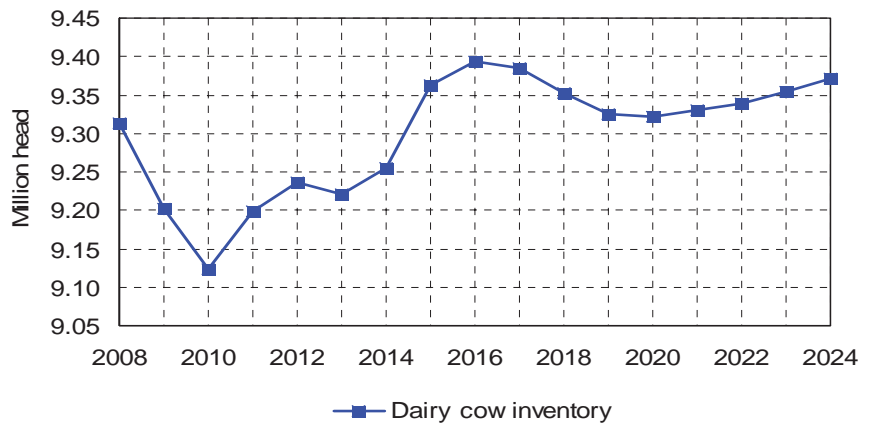
- The U.S. dairy herd added 100 thousand cows (1.1 percent) during 2014.

- Further increases are expected during the first portion of 2015, though the rate at which prices decline will have an effect.

- Milk production per cow increased by 2.0 percent in 2014, the second highest growth in yields since 2005.



## Producers have responded by building the dairy herd

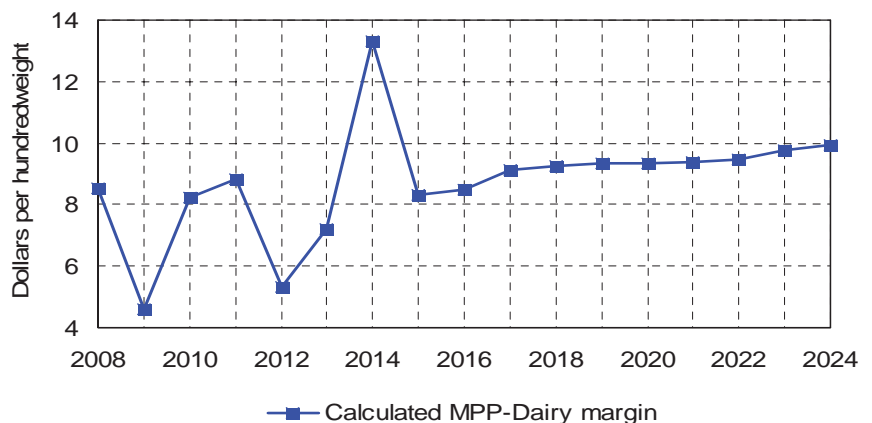


## Margins retreat in 2015 and 2016

- The Margin Protection Program-Dairy (MPP-Dairy) became operational late last year.

- Enrollment information recently released by USDA shows that about half of U.S. licensed dairy operations signed up for 2015 coverage.

- If dairy margins fall at least as much as projected in 2015, participation could increase in 2016. Producers must enroll by September 30, 2015 to be eligible for 2016.



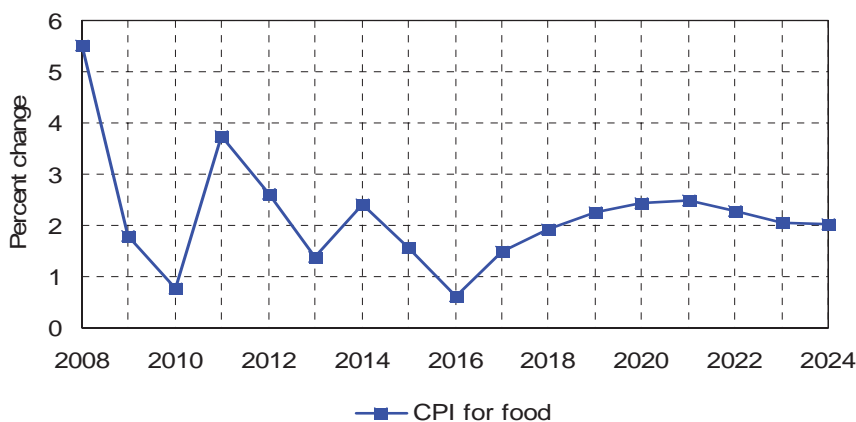
## Dairy sector

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Milk supply</b>											
Dairy cows (thou. head)	9,255	9,362	9,393	9,385	9,353	9,325	9,323	9,330	9,339	9,354	9,371
California	1,780	1,786	1,782	1,776	1,765	1,756	1,753	1,752	1,754	1,757	1,762
Wisconsin	1,270	1,281	1,284	1,283	1,280	1,278	1,279	1,283	1,285	1,288	1,289
New York	615	621	620	616	611	607	606	605	606	606	608
Idaho	575	588	596	601	603	605	607	611	614	617	621
Pennsylvania	530	532	529	523	518	513	511	509	508	508	508
Minnesota	460	464	465	463	461	458	457	456	455	454	454
Texas	462	472	478	481	483	484	486	488	490	491	493
Michigan	390	401	408	412	416	419	423	427	431	435	439
New Mexico	323	326	326	325	323	322	321	321	320	320	320
Ohio	266	269	270	269	267	265	264	264	263	262	262
Rest of U.S.	2,584	2,621	2,635	2,635	2,627	2,618	2,615	2,615	2,614	2,614	2,616
Milk yield (lbs. per cow)	22,258	22,567	22,886	23,231	23,541	23,853	24,147	24,434	24,714	24,990	25,270
Milk production (bil. lbs.)	206.0	211.3	215.0	218.0	220.2	222.4	225.1	228.0	230.8	233.8	236.8
<b>Min. FMMO class prices</b> (Dollars per hundredweight)											
Class I mover	23.29	16.99	16.94	17.39	17.84	18.22	18.41	18.49	18.56	18.69	18.79
Class II	23.34	15.74	15.94	16.48	16.79	17.17	17.29	17.37	17.53	17.71	17.84
Class III	22.34	16.08	15.90	16.32	16.70	17.13	17.32	17.34	17.33	17.34	17.27
Class IV	22.09	15.04	15.24	15.78	16.09	16.47	16.59	16.67	16.83	17.01	17.14
<b>All milk price</b>	23.97	17.59	17.55	18.01	18.39	18.79	18.96	19.02	19.07	19.16	19.19
<b>Actual dairy prod. margin</b>	13.32	8.33	8.50	9.12	9.26	9.34	9.33	9.38	9.49	9.79	9.96
<b>Wholesale prices</b> (Dollars per pound)											
Butter, CME	2.16	1.52	1.40	1.42	1.44	1.48	1.47	1.47	1.47	1.46	1.45
Cheese, Amer., 40#, CME	2.11	1.59	1.57	1.61	1.65	1.69	1.71	1.71	1.71	1.71	1.70
Nonfat dry milk, AA	1.74	1.23	1.32	1.37	1.40	1.42	1.44	1.45	1.47	1.49	1.51
Evaporated milk	2.24	2.07	2.05	2.07	2.11	2.14	2.16	2.18	2.20	2.22	2.24
<b>Dairy product production</b> (Million pounds)											
American cheese	4,510	4,606	4,660	4,691	4,716	4,740	4,785	4,839	4,887	4,935	4,992
Other cheese	6,897	7,087	7,233	7,353	7,460	7,585	7,721	7,877	8,030	8,188	8,355
Butter	1,823	1,886	1,943	1,988	2,019	2,043	2,070	2,096	2,122	2,148	2,174
Nonfat dry milk	2,194	2,165	2,277	2,365	2,429	2,491	2,564	2,643	2,716	2,792	2,868
<b>Dairy product exports</b>											
American cheese	229	230	248	256	259	263	267	272	277	282	287
Other cheese	577	560	584	595	599	603	609	616	623	630	638
Butter	139	139	154	160	156	154	158	162	165	169	173
Nonfat dry milk	1,198	1,152	1,211	1,273	1,299	1,326	1,358	1,393	1,425	1,457	1,486
<b>Per-capita consumption</b> (Pounds)											
Butter	5.4	5.4	5.5	5.6	5.7	5.7	5.8	5.8	5.8	5.8	5.9
Nonfat dry milk	2.9	3.1	3.2	3.3	3.4	3.4	3.5	3.6	3.7	3.8	3.9
Total cheese	33.7	34.2	34.6	34.8	34.9	35.1	35.3	35.6	35.9	36.2	36.5
American	13.4	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.6
Other	20.4	20.8	21.0	21.2	21.4	21.6	21.8	22.1	22.4	22.6	22.9
Total fluid milk	185.6	183.6	181.9	181.3	180.0	179.3	178.6	177.5	176.7	176.0	175.2
Ice cream	26.3	27.3	27.4	27.3	27.2	27.2	27.1	27.0	27.0	27.0	27.0

# Food prices and expenditures

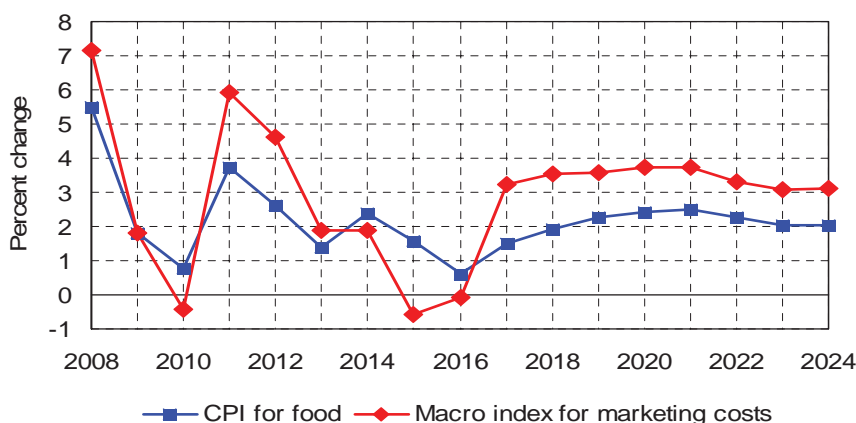
## Food inflation slows in 2015

- The CPI for food increased by 2.4 percent in 2014, despite growth of 7.2 percent in the CPI for meat.
- As additional meat supplies lead to reduced prices for most meat products in 2015, the CPI for food is projected to grow by only 1.6 percent.
- Food price growth should fall further in 2016 as lower commodity prices this year are not immediately passed through to the retail level.



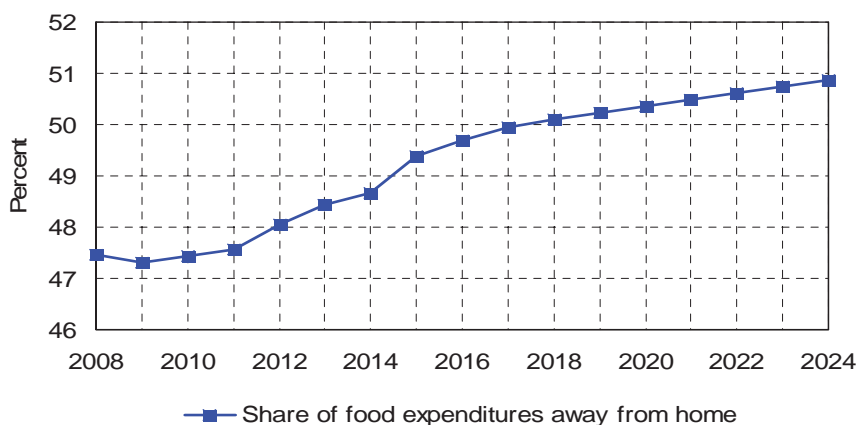
- Raw commodity values only account for 15-20 percent of U.S. consumer food spending.
- The cost of transforming raw farm commodities to finished food products is highly dependent on a number of macroeconomic factors.
- Sharply lower energy prices and modest wage rate growth help to keep the costs of finished food products from growing much through 2016.

## Slow growth in food marketing costs through 2016



## Spending on food away from home increases

- Continued improvement in the U.S. economy has contributed to higher food price inflation for food away from home in recent months.
- Economic growth is one factor behind the long term trend of an increasing share of U.S. consumer food spending directed to food consumed away from home.
- Food away from home expenditures only accounted for 40-42 percent of total food spending from 1986-1992, but will soon account for more than half of the total.





## Consumer price indices for food

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	(1982-84=100)										
<b>Total food</b>	242.7	246.6	248.0	251.7	256.6	262.4	268.8	275.5	281.8	287.6	293.4
(Inflation rate)	2.4%	1.6%	0.6%	1.5%	1.9%	2.3%	2.4%	2.5%	2.3%	2.1%	2.0%
<b>Food at home</b>	239.5	241.6	241.5	244.9	249.7	255.5	261.9	268.6	274.8	280.4	286.1
Cereal and bakery	271.1	270.0	272.1	276.9	282.8	288.8	295.1	301.3	306.7	311.6	316.8
Meat	253.0	257.9	253.5	252.3	254.1	259.3	266.6	274.7	282.4	289.0	295.6
Dairy	225.3	221.0	220.3	225.6	231.2	237.0	242.4	247.7	252.4	256.9	261.5
Fruit and vegetables	294.4	300.2	304.3	312.4	321.1	330.2	339.5	349.1	357.9	366.3	375.0
Other food at home	206.2	208.1	208.6	211.7	216.0	220.4	224.9	229.6	233.9	237.9	241.7
Sugar and sweets	209.3	210.6	211.1	214.3	219.4	224.0	228.7	233.4	237.7	241.6	245.6
Fats and oils	229.7	229.8	229.2	233.7	239.3	245.0	251.0	257.3	263.3	268.9	274.6
Other prepared items	219.9	222.3	223.2	226.3	230.5	234.9	239.6	244.3	248.8	252.8	256.6
Non-alc. beverages	166.0	167.8	167.9	170.5	174.5	178.3	182.1	186.2	189.9	193.2	196.6
<b>Food away from home</b>	249.0	255.2	258.9	263.1	268.0	273.7	280.1	286.8	293.3	299.3	305.4

## Consumer expenditures for food

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	(Dollars per person)										
<b>Total food per capita</b>	4,358	4,381	4,420	4,535	4,660	4,786	4,917	5,048	5,168	5,281	5,396
Food at home	2,236	2,217	2,224	2,270	2,325	2,382	2,441	2,499	2,552	2,601	2,651
Food away from home	2,121	2,164	2,196	2,265	2,334	2,404	2,476	2,549	2,616	2,680	2,745
Multiply by population for:	(Billion dollars)										
<b>Total U.S. food expenditures</b>	1,389	1,408	1,432	1,481	1,534	1,588	1,645	1,702	1,755	1,807	1,861

# Government costs

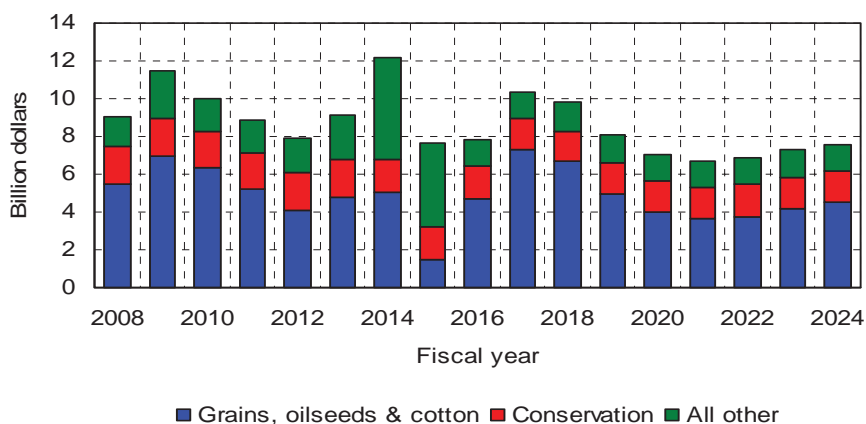
CCC outlays total \$79 billion over FY 2015-24

- Net CCC outlays were \$12 billion in FY 2014, with direct payments and livestock disaster assistance accounting for most of the spending.

- Under the 2014 farm bill, direct payments end and ARC and PLC payments begin in FY 2016.

- Average projected ARC and PLC spending peaks with the 2015 crop, and those payments are made in FY 2017.

- Net CCC outlays between FY 2015 and FY 2024 total \$79 billion.

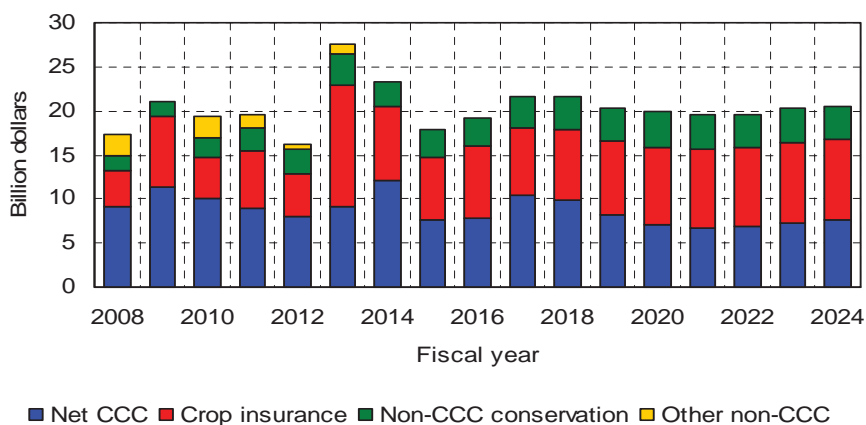


10-year crop insurance outlays total \$85 billion

- Mandatory government outlays under the crop insurance program and certain conservation and disaster programs are not included in the CCC account.

- Like ARC and PLC outlays, crop insurance spending can vary a lot from year to year.

- Crop insurance net outlays total almost \$85 billion between FY 2015 and FY 2024.

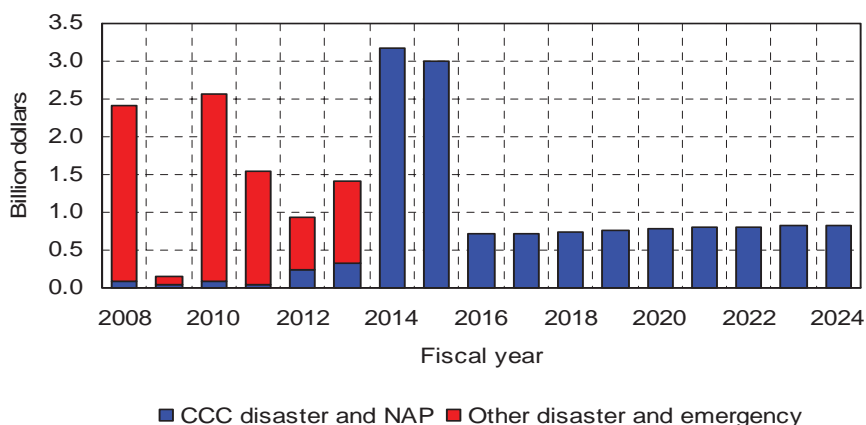


Livestock aid totals almost \$6 billion over FY 2014-15

- Livestock forage assistance totals an estimated \$5.7 billion in FY 2014 and FY 2015.

- USDA projects that livestock aid and the non-insured assistance program (NAP) will have annual outlays of over \$700 million between FY 2016 and FY 2024.

- Other disaster aid from FY 2008-FY 2013 was provided from non-CCC accounts.



## Net government outlays

Fiscal year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Feed grains</b>	(Million dollars)										
Corn	2,093	145	2,656	2,915	2,435	1,483	1,161	1,024	1,151	1,368	1,462
Sorghum	181	3	90	263	234	215	189	183	186	209	207
Barley	74	1	11	157	181	175	146	133	141	153	163
Oats	3	0	0	6	8	7	6	5	5	5	6
<b>Food grains</b>											
Wheat	1,089	88	319	1,262	1,284	986	838	782	753	825	947
Rice	350	-1	267	269	266	274	259	254	246	255	261
<b>Oilseeds</b>											
Soybeans	591	12	388	1,431	1,250	886	577	440	412	508	601
Peanuts	46	9	328	380	416	434	394	401	423	450	452
Other oilseeds	18	5	2	48	48	40	36	31	31	36	38
<b>Other commodities</b>											
Upland cotton	607	1,192	630	546	546	429	418	406	403	323	356
Sugar, feedstock flexibility	1	0	35	8	6	8	6	7	7	9	10
Dairy	6	190	104	54	97	128	136	123	99	133	124
<b>CCC conservation</b>											
Conservation reserve	1,732	1,748	1,698	1,670	1,626	1,648	1,616	1,678	1,720	1,706	1,678
Other CCC conservation	5	5	5	5	1	1	1	1	1	1	1
<b>Tobacco trust fund</b>	1,093	278	0	0	0	0	0	0	0	0	0
<b>Other CCC</b>											
Disaster payments, NAP	3,184	2,990	716	723	748	769	789	799	810	821	833
Other net costs	1,129	996	595	653	666	629	485	463	463	464	466
<b>Net CCC outlays</b>	12,202	7,661	7,846	10,391	9,811	8,112	7,057	6,728	6,849	7,266	7,606
<b>NRCS conservation</b>	2,720	3,276	3,298	3,510	3,657	3,789	4,059	3,803	3,723	3,784	3,704
<b>Crop insurance</b>	8,311	6,971	8,121	7,694	8,064	8,487	8,794	8,996	9,063	9,176	9,220
<b>Total mandatory outlays</b>	23,233	17,908	19,265	21,595	21,533	20,388	19,909	19,527	19,635	20,226	20,531

Note: "NRCS Conservation" denotes mandatory spending on conservation programs authorized by the 2002, 2008 and 2014 farm bills that is not included in reported CCC outlays. Fiscal years begin on Oct.1 of the previous calendar year (FY 2015: Oct. 1, 2014-Sep. 30, 2015).

All projections are averages across 500 outcomes.

# Payments and crop insurance

- With the new farm bill in place, PLC and ARC replace DCP and ACRE for grain and oilseed producers.

- Projected ARC and PLC payments peak in 2015/16. After 2015/16, program rules force ARC revenue benchmarks to adjust downward for many crops and counties.

- Payments generally move inversely with prices, explaining both the decline from 2015-2020 and the increase from 2020-2024.

- Cotton and peanuts receive most of the projected marketing loan benefits.

- Crop insurance indemnities spiked because of the 2012 drought.

- The projections include the new STAX policy for cotton and SCO for program crops.

- Projected average indemnity payments for losses top \$10 billion per year.

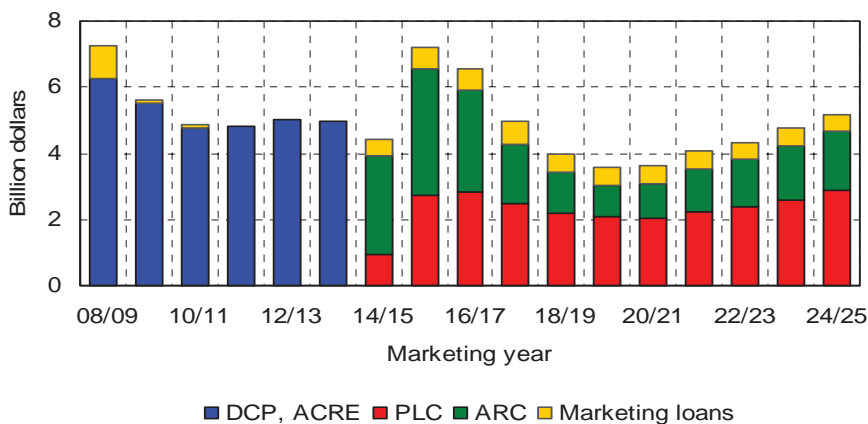
- The average annual loss ratio (total indemnities divided by total premiums) over the next 10 years is 0.93.

- The crop insurance program has grown in importance relative to other farm programs.

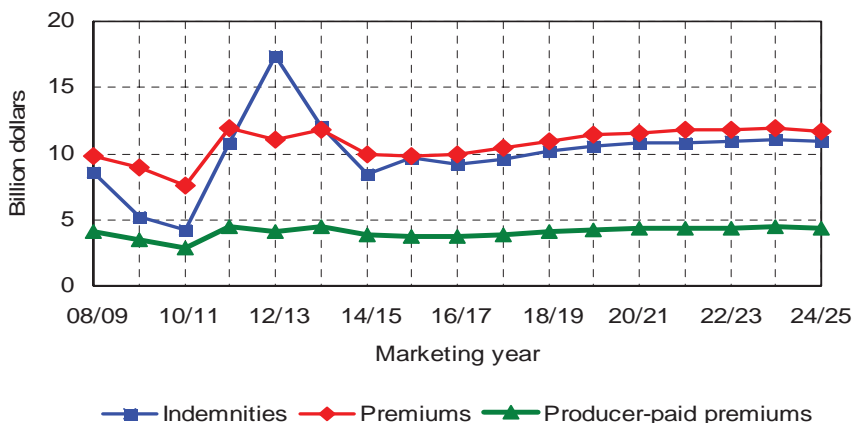
- Projected net indemnities (indemnities minus producer-paid premiums) exceed the projected value of crop payments under Title I (PLC, ARC and marketing loans) of the new farm bill after 2016/17.

- Actual crop insurance indemnities will vary greatly from year to year, as will Title I benefits.

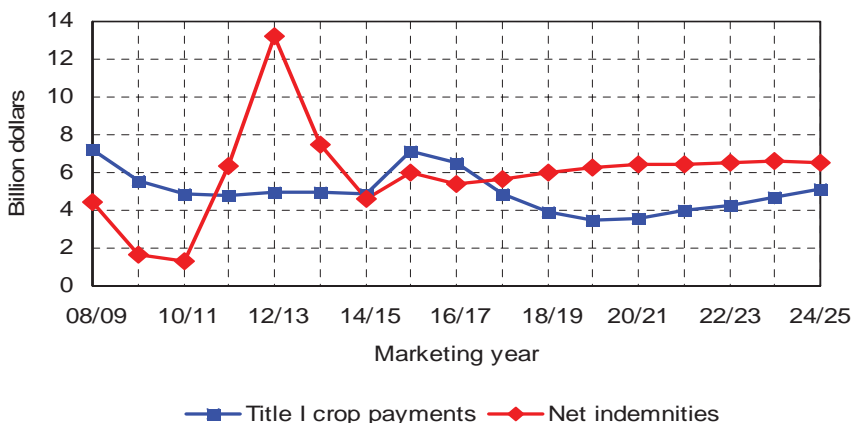
PLC and ARC replace DCP and ACRE



Indemnities exceed \$10 billion most years



Net indemnities exceed Title I payments after 2016



## Selected direct government payments

Marketing year	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
	(Million dollars)										
ARC payments	2,984	3,798	3,096	1,809	1,218	977	1,063	1,282	1,469	1,642	1,782
PLC payments	931	2,742	2,829	2,484	2,202	2,072	2,042	2,257	2,375	2,573	2,880
Marketing loans	509	667	644	653	546	509	505	534	472	531	505
Cotton transition payments	531	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Total</b>	<b>4,955</b>	<b>7,207</b>	<b>6,568</b>	<b>4,947</b>	<b>3,966</b>	<b>3,559</b>	<b>3,610</b>	<b>4,073</b>	<b>4,316</b>	<b>4,746</b>	<b>5,166</b>

Note: Includes selected payments for feed grains, food grains, oilseeds, and upland cotton.  
All projections are averages across 500 outcomes.

## Crop insurance

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	(Million dollars, crop year)										
<b>Total premiums</b>	10,036	9,813	9,949	10,454	10,986	11,443	11,660	11,799	11,870	11,939	11,785
Producer-paid premiums	3,844	3,716	3,719	3,908	4,109	4,280	4,361	4,413	4,439	4,465	4,406
Premium subsidies	6,192	6,097	6,230	6,546	6,878	7,163	7,299	7,386	7,432	7,474	7,379
<b>Total indemnities</b>	8,469	9,728	9,196	9,649	10,177	10,568	10,821	10,906	11,037	11,101	11,008
<b>Loss ratio</b>	0.84	0.99	0.92	0.92	0.93	0.92	0.93	0.92	0.93	0.93	0.93
	(Million dollars, crop year)										
<b>Net indemnities</b>	4,625	6,012	5,478	5,740	6,068	6,288	6,460	6,492	6,598	6,636	6,602
Corn	2,217	2,063	2,127	2,250	2,440	2,533	2,653	2,632	2,687	2,717	2,643
Soybeans	337	1,296	1,161	1,242	1,332	1,428	1,457	1,491	1,514	1,504	1,511
Wheat	1,194	993	615	655	692	717	733	738	731	718	731
Upland cotton	440	422	477	487	486	494	502	509	527	534	542
All other	436	1,237	1,098	1,106	1,118	1,116	1,116	1,122	1,138	1,162	1,175
	(Million dollars, fiscal year)										
<b>Net outlays</b>	8,313	6,971	8,121	7,694	8,064	8,487	8,794	8,996	9,063	9,176	9,220

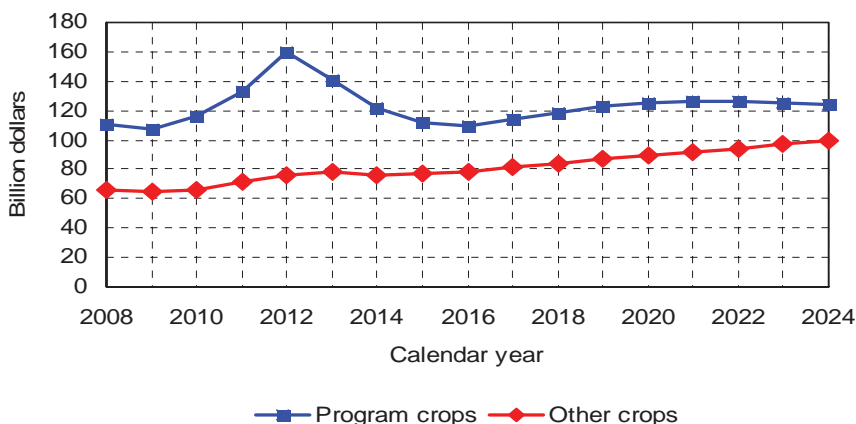
# Farm receipts and expenses

- Lower prices reduce cash receipts from sales of current and former program crops (grains, oilseeds, cotton and sugar) for the third straight year in 2015 and drop again in 2016.

- Increasing production and slightly higher prices result in a small increase in program crop receipts from 2016 to 2021.

- Receipts for other crops (including vegetables, fruits, nursery crops, hay and biomass crops) dipped slightly in 2014, but rise steadily in the future.

Program crop receipts return to recession lows

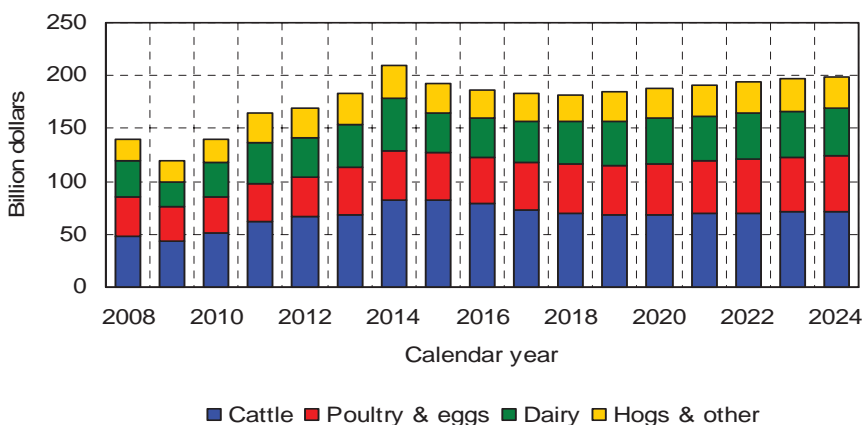


- Livestock, dairy and poultry sector receipts peaked at \$209 billion in 2014, a \$90 billion increase from 2009.

- Lower prices for poultry products, hogs and milk result in lower receipts in 2015.

- Cattle prices decline in 2016, and total livestock sector receipts reach their lowest point in 2018.

Livestock receipts decline from 2014 record high

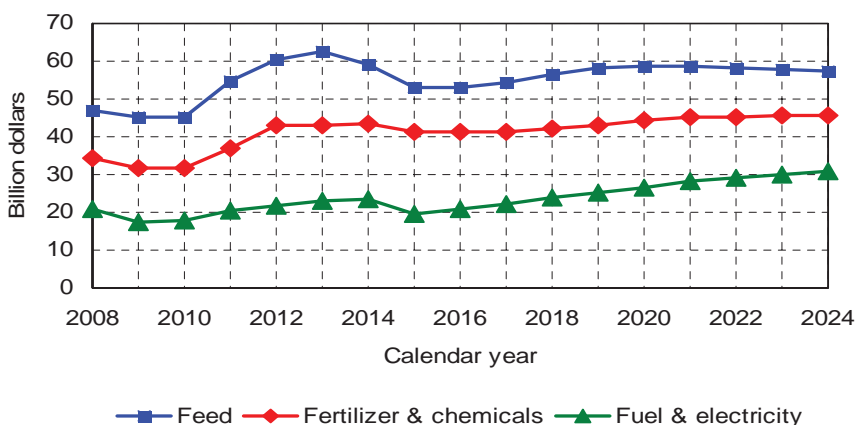


- Fuel, feed and fertilizer expenses are all projected to decline in 2015, resulting in the first year-over-year decline in total farm production expenses since 2009.

- Fuel prices and expenses increase steadily from 2016-2024.

- Feed costs increase between 2016 and 2020 in response to increased livestock production and higher prices for corn, soybean meal and other feeds.

Fuel, feed and fertilizer expenses decline in 2015



## Farm cash receipts

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	(Billion dollars)										
Feed grains	66.10	60.54	60.93	63.36	66.27	68.74	70.21	70.92	70.79	70.24	69.55
Food grains	15.85	13.99	13.67	14.24	14.78	15.15	15.39	15.35	15.18	15.00	14.89
Oilseeds	40.68	37.85	35.79	36.84	38.73	40.35	41.05	41.42	41.30	40.74	40.48
Cotton	6.05	5.23	4.97	5.14	5.30	5.35	5.38	5.43	5.58	5.68	5.74
Sugar	3.10	3.20	3.20	3.32	3.40	3.44	3.47	3.49	3.49	3.50	3.50
Other crops	66.43	67.74	69.98	72.28	74.56	76.91	79.40	81.87	84.24	86.68	89.18
Cattle	81.53	81.79	78.54	73.57	69.95	68.25	68.32	69.23	70.25	70.85	71.36
Hogs	25.31	22.46	20.88	20.33	20.71	21.50	22.40	23.19	23.63	23.74	23.92
Dairy products	49.15	36.90	37.51	39.07	40.30	41.59	42.48	43.14	43.83	44.59	45.26
Poultry, eggs	47.52	45.54	44.49	44.79	45.87	47.29	48.66	49.78	50.73	51.43	52.21
Other livestock	5.68	5.48	5.48	5.50	5.56	5.66	5.78	5.91	6.03	6.13	6.24
Total cash receipts	407.39	380.72	375.45	378.44	385.44	394.24	402.54	409.75	415.06	418.59	422.33

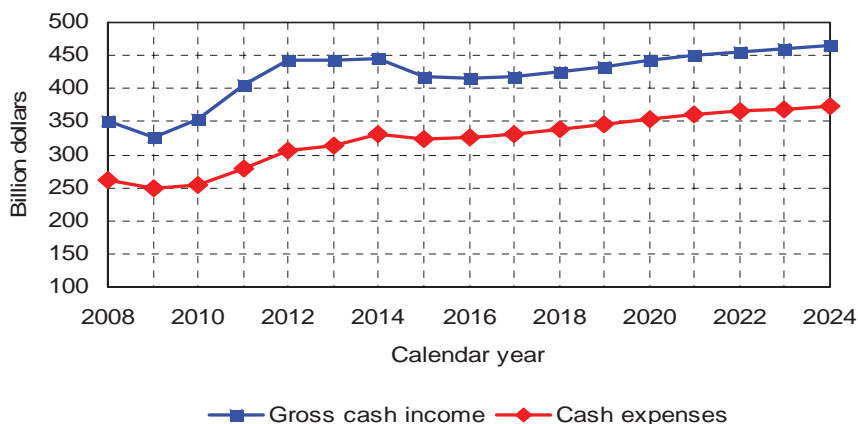
## Farm production expenses

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	(Billion dollars)										
Feed	59.21	53.02	53.19	54.49	56.46	58.10	58.81	58.83	58.44	57.72	57.19
Purchased livestock	32.84	34.18	32.66	30.10	27.94	26.65	26.38	26.75	27.22	27.61	27.94
Seed	22.68	22.55	22.66	22.96	23.37	23.88	24.54	25.25	25.86	26.32	26.73
Fertilizer and chemicals	43.28	41.43	41.20	41.38	42.05	43.17	44.55	45.32	45.41	45.51	45.52
Fuels and electricity	23.43	19.70	20.79	22.28	23.75	25.08	26.68	28.09	28.95	29.91	30.89
Interest	17.63	19.30	20.70	22.05	22.91	23.55	24.17	24.71	25.19	25.70	26.19
Contract and hired labor	34.86	35.56	36.63	37.80	39.00	40.22	41.44	42.71	44.02	45.37	46.79
Capital consumption	33.29	33.91	34.17	34.38	34.60	34.88	35.23	35.64	36.08	36.57	37.08
Rent to non-operators	17.39	17.20	16.94	16.83	16.90	17.01	17.14	17.23	17.28	17.29	17.26
All other	83.30	84.55	85.86	87.70	89.58	91.52	93.64	95.56	97.18	98.85	100.45
Total production expenses	367.93	361.40	364.79	369.97	376.56	384.07	392.57	400.09	405.63	410.85	416.05

# Farm income

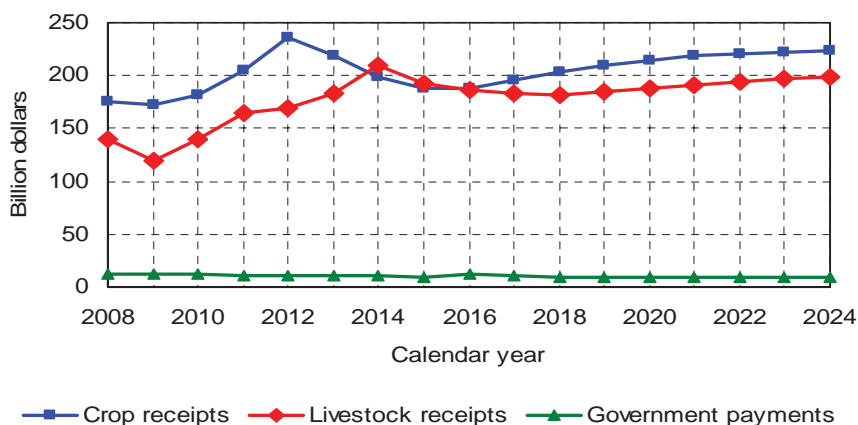
## Cash income and expenses decline in 2015

- Gross cash income (sales receipts and government payments) was steady at record levels between 2012 and 2014.
- Lower prices for many farm commodities sharply reduce gross cash income in 2015.
- The much smaller drop in 2015 cash production expenses causes net cash income declines from \$115 billion in 2014 to \$95 billion in 2015.
- Net cash income averages about \$90 billion per year for 2015-2024.



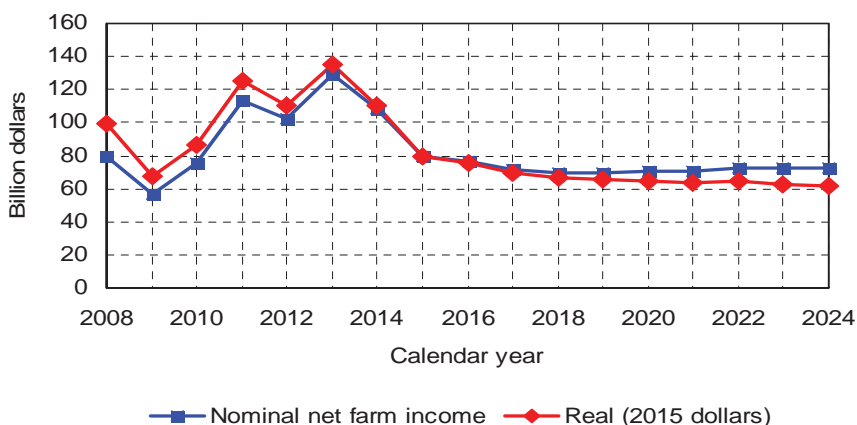
## Crop and livestock receipts both fall in 2015

- For the first time since 2005, livestock receipts exceeded crop receipts in 2014.
- Projected crop and livestock receipts both decline in 2015, and livestock receipts do not hit their lowest point until 2018.
- Government payments average about \$10 billion per year between 2015 and 2024, accounting for about 2 percent of gross cash income.



## Net farm income declines sharply in 2014 and 2015

- After reaching record levels in nominal terms in 2013, net farm income fell sharply in 2014 and another large decline is expected in 2015.
- After correcting for inflation, 2013 real net farm income was the highest since the 1970s.
- Real net farm income in 2015 is only slightly above the recession low of 2009.
- Nominal net farm income from 2016-24 averages about \$72 billion per year.





## Farm income statistics

Calendar year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	(Billion dollars)										
1. Farm receipts	434.72	408.34	403.26	406.76	414.65	424.26	433.24	440.91	446.64	450.56	454.52
Crops	198.21	188.54	188.54	195.18	203.04	209.95	214.90	218.49	220.59	221.85	223.35
Livestock	209.18	192.18	186.90	183.26	182.40	184.29	187.65	191.26	194.48	196.75	198.98
Farm-related	27.33	27.62	27.81	28.32	29.21	30.02	30.70	31.16	31.58	31.96	32.19
2. Government payments	10.76	9.77	11.76	11.22	9.65	8.84	8.63	8.57	8.95	9.31	9.63
3. Gross cash income (1 + 2)	445.48	418.11	415.01	417.99	424.30	433.10	441.87	449.48	455.59	459.87	464.14
4. Nonmoney income	24.04	24.13	23.67	22.76	22.00	21.72	21.97	22.51	23.16	23.92	24.74
5. Value of inventory Change	6.38	-1.57	2.95	1.20	0.03	-0.87	-0.69	-1.10	-0.60	-0.42	-0.17
6. Gross farm income (3 + 4 + 5)	475.89	440.67	441.64	441.95	446.32	453.95	463.15	470.90	478.14	483.36	488.72
7. Cash expenses	330.34	322.95	326.09	331.11	337.52	344.73	352.79	359.78	364.74	369.33	373.85
8. Total expenses	367.93	361.40	364.79	369.97	376.56	384.07	392.57	400.09	405.63	410.85	416.05
9. Net cash income (3 - 7)	115.13	95.17	88.93	86.88	86.78	88.37	89.08	89.71	90.84	90.54	90.29
10. Realized net farm inc (3 + 4 - 8)	101.59	80.84	73.89	70.78	69.74	70.75	71.27	71.90	73.12	72.93	72.84
11. Net farm income (6 - 8)	107.96	79.27	76.84	71.98	69.76	69.88	70.58	70.81	72.51	72.51	72.67
Deflated (2015 \$)	110.44	79.27	75.43	69.50	66.62	65.78	65.02	63.71	64.25	63.00	61.44

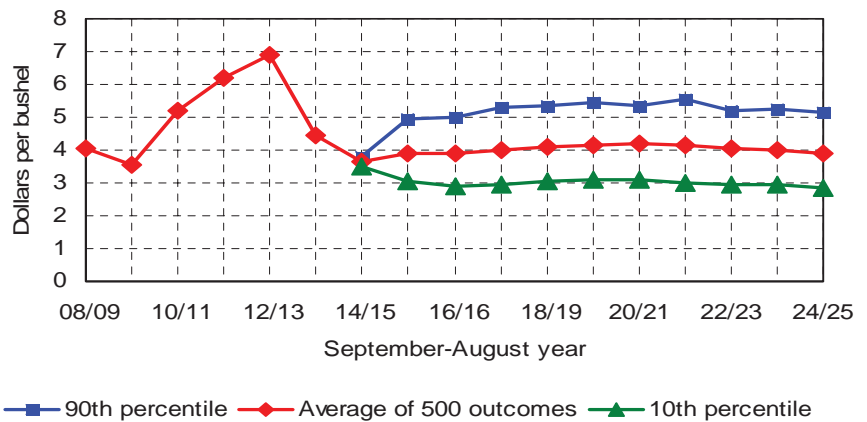
# Ranges from the 500 alternative futures

- Corn prices depend on weather, energy prices, income growth and much more.

- To examine alternative futures for agricultural markets, we considered 500 different combinations of assumptions about factors driving commodity prices.

- Although corn prices average about \$4 per bushel across the stochastic outcomes, there are some combinations of assumptions for any given year that lead to prices over \$5 per bushel and some where prices drop below \$3 per bushel.

Corn prices depend on weather and much more

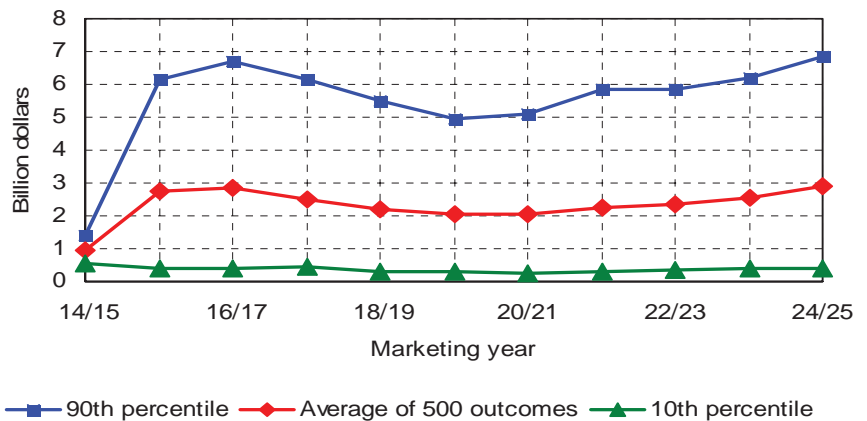


- PLC program costs are uncertain. If season-average market prices are above reference prices, no payments occur, but payments can be large if prices drop far below reference prices.

- Given all the assumptions of this analysis, average PLC costs average less than \$1 billion for the 2014/15 crop but increase to almost \$3 billion in 2016/17.

- In some of the stochastic outcomes program spending is near zero. In others, it is more than twice the average level.

PLC program costs are uncertain

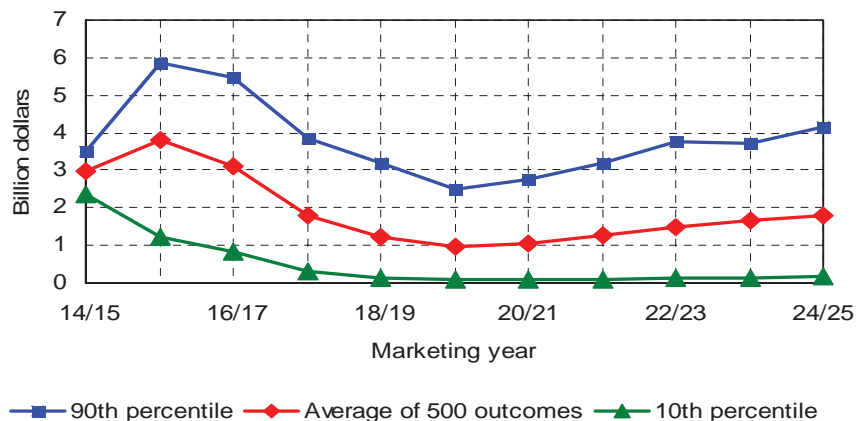


- Given assumed participation rates and the projected paths of average market prices and yields, average ARC payments increase from \$3 billion for the 2014/15 crop to almost \$4 billion in 2015/16, but then decline in subsequent years.

- As with PLC, spending can be far above or below the average for any given year.

- The provision that limits ARC payments to 10 percent of the benchmark revenue per acre puts an upper cap on program payments.

ARC payments can also vary greatly



# Ranges from the 500 alternative futures

- Given the uncertainty over spending on the new PLC and ARC programs, net CCC outlays can be far greater or less than the projected average.

- If prices are above reference prices and revenues are above average recent averages, the conservation reserve program and livestock disaster aid may be the only major CCC outlays.

- In contrast, low prices or per-acre revenues could trigger payments that exceed the levels of recent years.

- Volatility in commodity yields and prices creates uncertain outlays for the crop insurance program.

- Higher crop prices, production and coverage levels increase crop insurance premiums and premium subsidies.

- In any given year, outlays will depend on yields, prices and resulting indemnities.

- In extreme weather years, indemnities and outlays can far exceed the average, as in FY 2013.

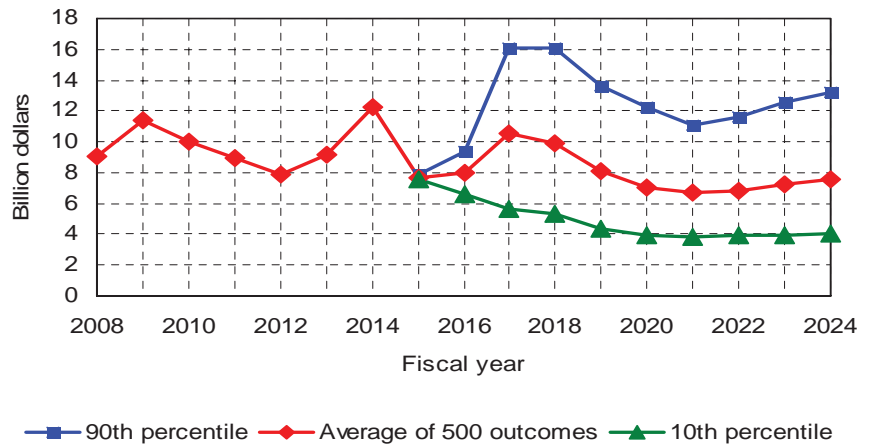
- Net farm income depends on production levels and the prices of agricultural outputs and inputs, all of which are uncertain.

- As a result, future levels of net farm income are also quite uncertain.

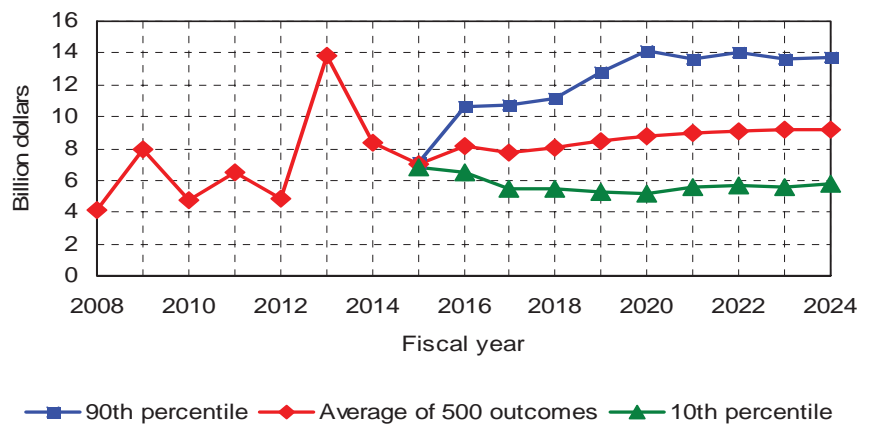
- The sources of uncertainty considered in this analysis lead to a wide range of possible farm income levels for any given year.

- There are certain to be risks not captured in these 500 alternative futures.

CCC net outlays could vary greatly from averages



Crop insurance net outlays are also uncertain



Net farm income likely to stay below 2011-14 levels

