IOWA STATE UNIVERSITY
Extension and Outreach

Iowa Farm Outlook

Department of Economics
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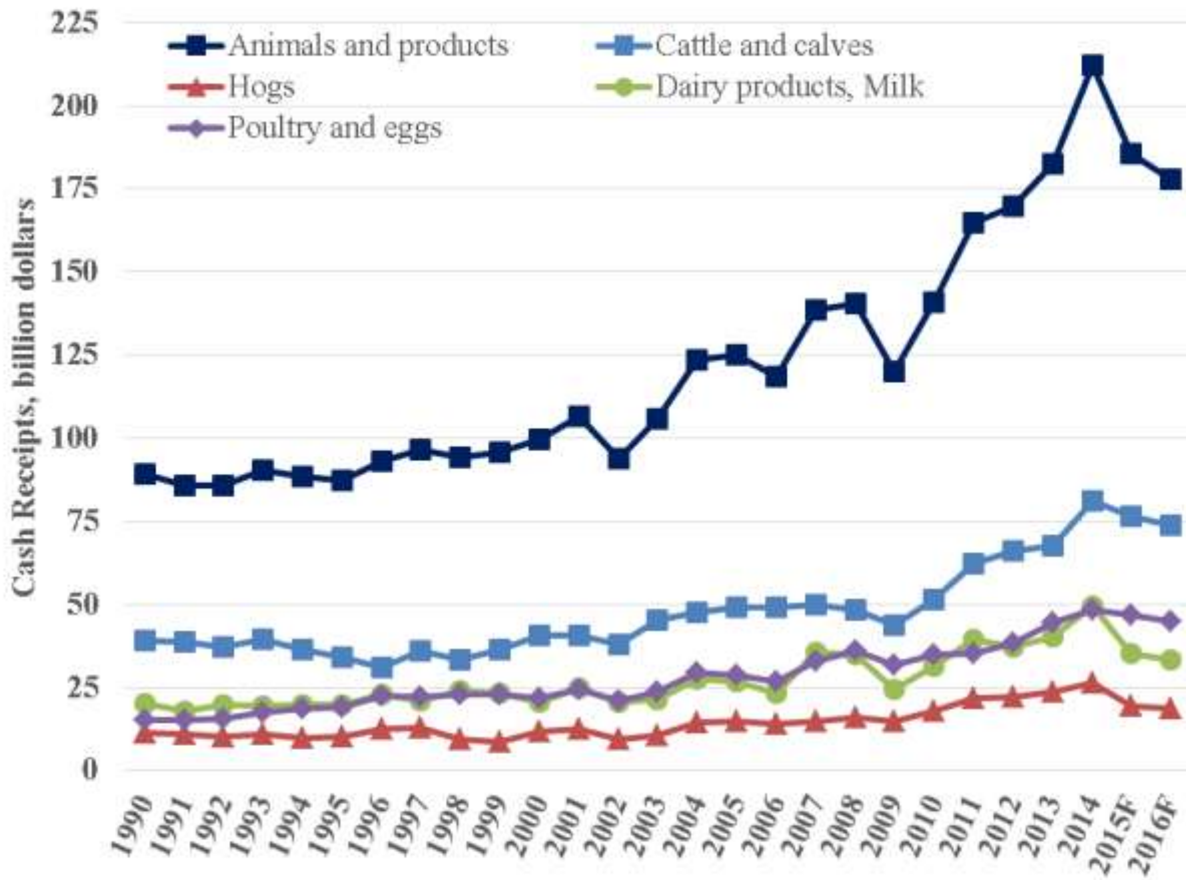
Tighter Margins Call for Improved Risk Management

Feed is the biggest cost in most livestock operations. High crop prices, as we saw prior to 2014, boost crop earnings, but squeeze livestock profits. Tumbling feed costs typically boost livestock earnings, but squeeze crop profits. That teeter totter makes it hard for crop producers and livestock producers to capture good earnings at the same time.

Unfortunately, this year drag from lower livestock and milk prices will likely more than offset advantages of continuing lower feed costs. This suggests lower profits and perhaps financial difficulties for some livestock producers.

More weakness in livestock cash receipts
USDA's Economic Research Service estimates U.S. livestock cash receipts rose by 79% from 2006 to 2014, before slipping 12% in 2015 (figure 1). The 2015 decline reflects lower prices for most major commodities, including dairy, hogs, and cattle and calves. In 2016, livestock cash receipts will likely dip an additional 4% as prices decline further.

Figure 1. U.S. Cash Receipts by Selected Commodity, 1990-2016, Nominal (current dollars)



Data Source: USDA-ERS. F = Forecast values. Data as of February 9, 2016

Record milk, cattle and hog prices fueled 2014's historic high cash income for dairy, beef and swine farms. Milk cash receipts dropped 28% in 2015 and are expected to dip another 6% in 2016 as declining prices continue to outweigh an expected rise in milk production. Cash receipts from cattle production in 2016 are also expected to decline for a second consecutive year, falling 4% on further declines in cattle and calf prices. Hog production is expected to continue rising. However, hog prices are expected to drop again in 2016 following a decline in 2015, leading to a 5% drop in 2016 hog cash receipts.

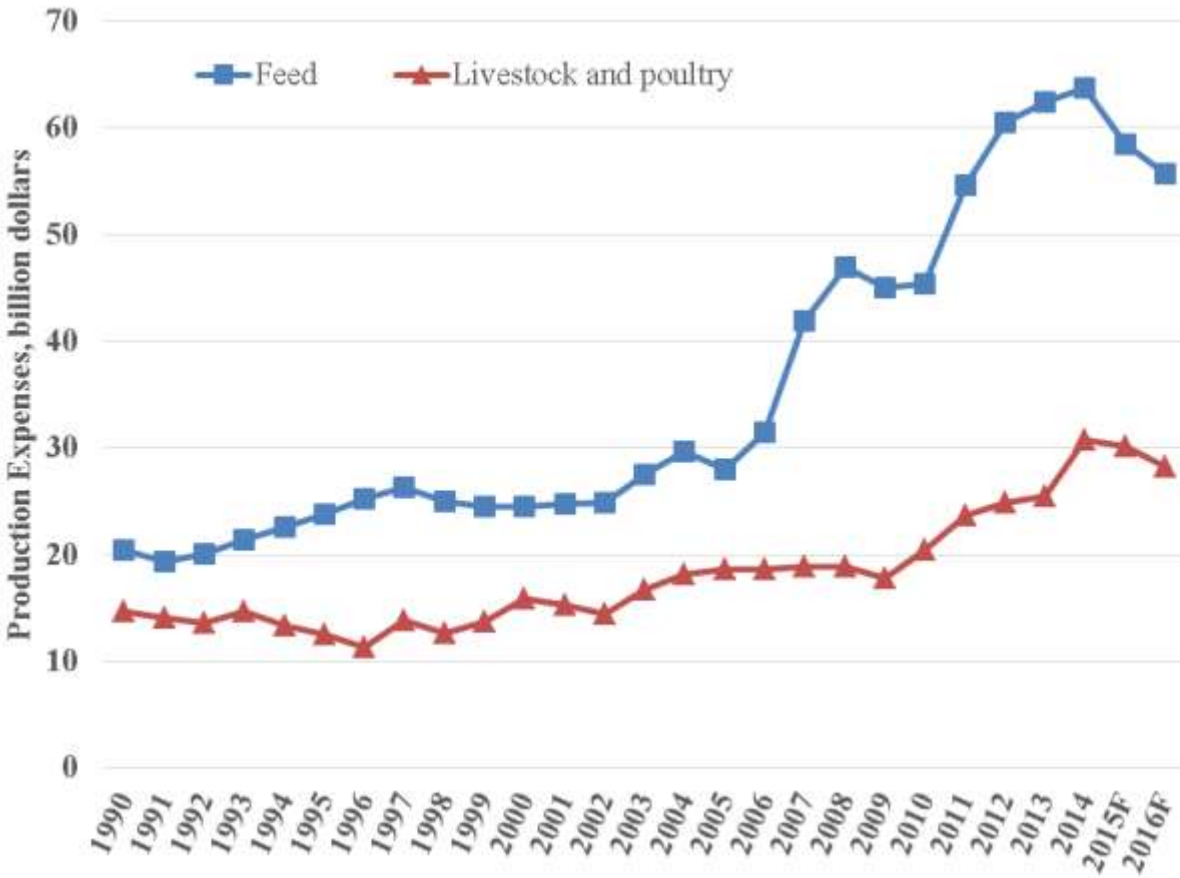
Lower expenses ease the squeeze

Changes in livestock input prices typically lag upswings and down moves in prices of cattle, hogs and milk. Lower production expenses in 2016 will likely alleviate, but not completely offset, the drop in cash receipts. The result will be tighter livestock margins.

USDA forecasts livestock purchases will decline by 6% in 2016 due to lower feeder cattle and wean/feeder pig prices (figure 2). Rising feeder cattle supplies will ease placement costs for feedlots, but will trim cow-calf earnings to more typical levels.

Feed expenses are forecast 5% lower in 2016 due to lower feed prices. This follows the 12% drop in estimated feed crop cash receipts in 2015 and forecasted 1% drop in 2016.

Figure 2. U.S. Production Expenses by Category, 2010-2016, Nominal (current dollars)



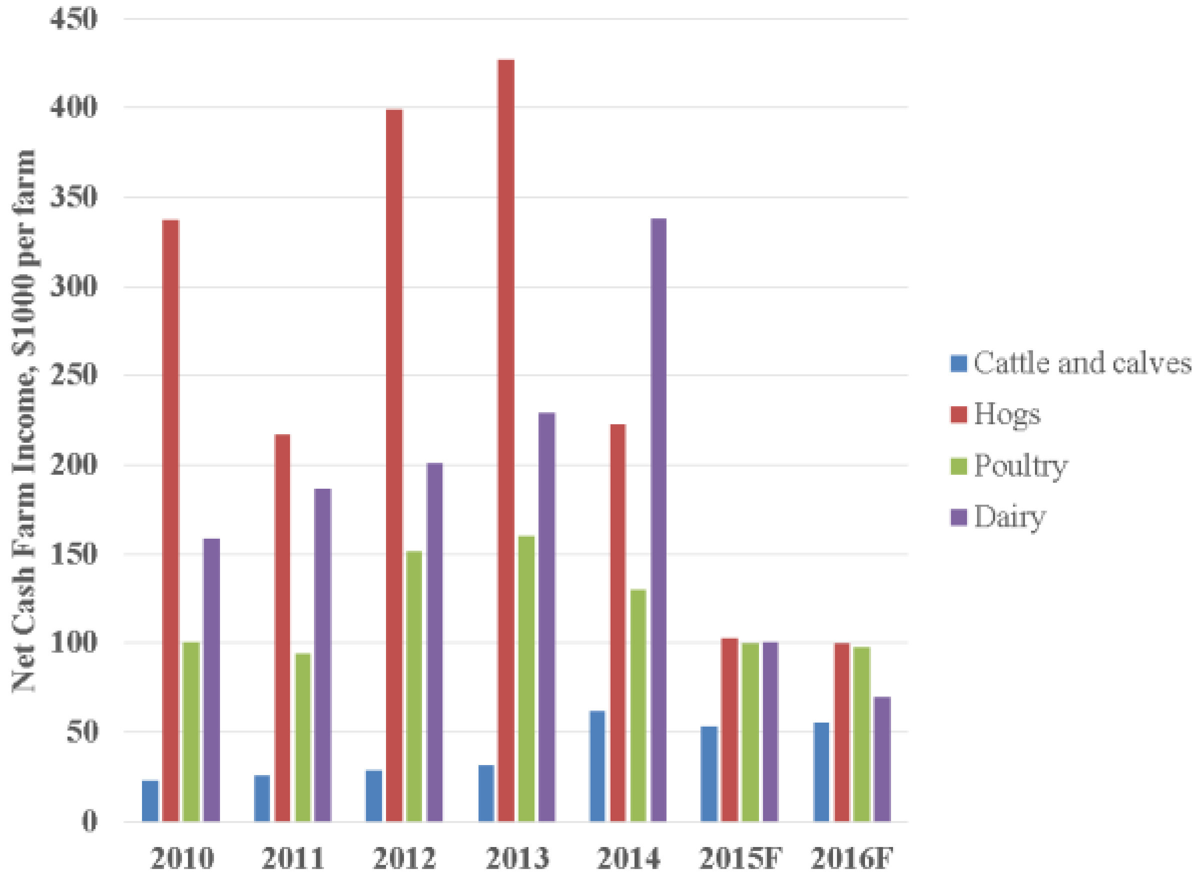
Data Source: USDA-ERS. F = Forecast values. Data as of February 9, 2016

USDA projects lower average Net Cash Farm Income (NCFI) for most farm businesses specializing in livestock production in 2016 (figure 3). NCFI compares cash receipts to cash expenses. As such it is a cash flow measure representing the amount of cash available to pay down debt, pay family living expenses, and make new investments.

Dairy farms will likely see a sharp 31% plunge in NCFI below the 2015 estimate. On hog farms, NCFI is forecasted to decline by 3% in 2016.

Beef is the sole livestock sector where USDA projects higher NCFI in 2016. The forecast 3% gain reflects the still above average profitability of the cow-calf sector and the improved situation for the feedlot sector.

Figure 3. U.S. Farm Business Average Net Cash Income by Commodity Specialization, 2010-2016, Nominal (current dollars)



Data Source: USDA-ERS. F = Forecast values. Data as of February 9, 2016

Tips for using forecasts

The old saying goes that if you don't know where you are going, any road will take you there. Most producers want to produce, and market, at a profit. Price and income forecasts provide value in looking down the road. Having some idea of what the future will bring on prices provides a benchmark to plan future production levels and set market price targets. Forecasts of lower profitability serve as a reminder of the need for price risk management in a marketing plan.

Producers have many factors to consider in attempting to reduce price risk and uncertainty. A short list includes: enterprise combination, cash flow needs, and financial situation, as well as their personality and attitude toward risk.

One key goal is to reduce the variability of income over time, or at least guarantee a minimum level of cash flow. This allows more accurate planning for items such as debt payment, replacing capital assets and operation growth.

A second goal is to ensure some minimum income level to meet family living expenses and other fixed expenses.

A third reason for minimizing price risk is to enhance the survival of the operation. Making a business judgement on how much loss a business can withstand is a key to putting a price risk management plan in place.

Profitability for any producer is contingent on favorable production, proper marketing and price risk management skills. Tightening 2016 margins are putting those necessary skills to the test.

Lee Schulz

An Early Look at 2016

USDA's first forecast for the 2016 crops was released at the end of last month. In the forecast, USDA continued to find a scenario leading to high crop production and low crop prices. Before going through the numbers though, a word of caution is warranted. The projections for 2016 cover the upcoming crops to be planted later this spring and the demand for those crops from Sept. 1, 2016 to Aug. 31, 2017. This first set of projections is strictly based on agricultural and economic models, and does not include any survey data from farmers or adjustments for weather events. So these numbers can change a lot over the course of a growing season and a marketing year.

Leading off with corn, USDA expects a few planted acres this spring. With the addition of 2 million more acres, the corn market is facing roughly 90 million acres in corn. In a typical year, about 92% of planted acres are harvested. That would imply 82 million harvested corn acres this fall. USDA's corn yield trend puts the 2016 estimate at 168 bushels per acre. That would be 0.4 bushels below last year's yield and 3 bushels off of the record set in 2014. The combination of 82 million harvested acres and 168 bushel yield indicates a potential corn crop of 13.825 billion bushels, which would be in the running for the 2nd largest U.S. corn crop on record (roughly the same size as the 2013 crop). This would continue the run of exceptional corn crops, with the four largest corn crops this country has ever seen being grown in the last four years. So corn supplies are projected to be at record levels as we enter the 2016/17 marketing year. With beginning stocks of 1.8 billion bushels and a small amount of corn imports, total corn supplies will top 15.7 billion bushels.

Figure 1. U.S. Corn Supply and Use. Source: USDA.

		2012	2013	2014	2015	2016
Area Planted	(mil. acres)	97.3	95.4	90.6	88.0	90.0
Yield	(bu./acre)	123.1	158.1	171.0	168.4	168.0
Production	(mil. bu.)	10,755	13,829	14,216	13,601	13,825
Beg. Stocks	(mil. bu.)	989	821	1,232	1,731	1,837
Imports	(mil. bu.)	160	36	32	50	40
Total Supply	(mil. bu.)	11,904	14,686	15,479	15,382	15,702
Feed & Residual	(mil. bu.)	4,315	5,040	5,315	5,300	5,425
Ethanol	(mil. bu.)	4,641	5,124	5,209	5,225	5,225
Food, Seed, & Other	(mil. bu.)	1,397	1,369	1,359	1,370	1,375
Exports	(mil. bu.)	730	1,920	1,864	1,650	1,700
Total Use	(mil. bu.)	11,083	13,454	13,748	13,545	13,725
Ending Stocks	(mil. bu.)	821	1,232	1,731	1,837	1,977
Season-Average Price	($/bu.)	6.89	4.46	3.70	3.60	3.45

But while supplies are large, demand is also substantial. With projected expansions in all of the major livestock species, feed demand is projected to grow by 125 million bushels, reaching 5.425 billion bushels. Corn usage for ethanol is expected to stabilize at 5.225 billion bushels as energy prices remain low. Food, seed, and other industrial usage of corn nudges up to 1.375 billion bushels. And, in the sector I'm watching most closely, corn export demand is forecast to rebound slightly, with 1.7 billion bushels headed to other countries. This export turnaround is likely based on some livestock expansion in other parts of the world. Combined, that totals to 13.725 billion bushels worth of corn demand, which is nearly at record levels.

But since supplies exceed demand, corn stocks are projected to continue building, reaching just shy of two billion bushels to finish out the 2016/17 marketing year. And with those increasing stocks, USDA lowered their projected season-average price to $3.45 per bushel. The low prices will likely trigger payments from the ARC and PLC farm bill programs for the 2015 and 2016 corn crops.

For soybeans, the last couple of years have been record-setting. And these projections show that the trend for strong production continues. Planted acreage is forecast at 82.5 million acres, down just 200,000 acres from last year. Roughly 99% of all soybean planted acres are harvested in a normal year, so that would imply 81.6 million harvested soybean acres. With a trend yield of 46.7 bushels per acre, that would result in 3.81 billion bushels of soybeans, which would be the 3rd largest crop in history (following the 2014 and 2015 crops). And with beginning stocks of 450 million bushels and imports of 30 million bushels, total soybean supplies to start the 2016/17 marketing year would stand just under 4.3 billion bushels, another record.

Figure 2. U.S. Soybean Supply and Use. Source: USDA.

		2012	2013	2014	2015	2016
Area Planted	(mil. acres)	77.2	76.8	83.3	82.7	82.5
Yield	(bu./acre)	40.0	44.0	47.5	48.0	46.7
Production	(mil. bu.)	3,042	3,358	3,927	3,930	3,810
Beg. Stocks	(mil. bu.)	169	141	92	191	450
Imports	(mil. bu.)	41	72	33	30	30
Total Supply	(mil. bu.)	3,252	3,570	4,052	4,151	4,289
Crush	(mil. bu.)	1,689	1,734	1,873	1,880	1,900
Seed & Residual	(mil. bu.)	105	107	145	131	125
Exports	(mil. bu.)	1,317	1,638	1,843	1,690	1,825
Total Use	(mil. bu.)	3,111	3,478	3,861	3,701	3,850
Ending Stocks	(mil. bu.)	141	92	191	450	440
Season-Average Price	($/bu.)	14.40	13.00	10.10	8.80	8.50

But just as with corn, USDA's projections show a rebound in demand. Domestic crush is expected to grow by 20 million bushels to 1.9 billion. The expansion in the livestock industry, along with growth in biodiesel production, is supportive of that estimate. Seed and residual demand is expected to drop slightly. But the big story looks to be in the export sector as USDA projects a resurgence to near record exports. The export story will hinge on China, as that country still represents over half of the export demand. Total use is set at 3.85 billion bushels, just 11 million bushels the record set during the 2014/15 marketing year.

But while demand in this case is high enough to lower ending stocks by 10 million bushels, to 440 million, USDA continues to see soybean prices falling for the 4th year in a row. The first projection for the 2016/17 season-average price was set at $8.50 per bushel, down 30 cents from the previous year and down $5.90 from the 2012 record. And while the lower soybean prices will trigger some farm bill payments, those would only come through the ARC program, as PLC payments are not triggered until prices fall below $8.40 per bushel.

And as we enter March, the crop markets are in rough agreement with the USDA price projections. Based on futures on March 4th, corn was pricing in $3.60 range and soybeans were around $8.50. So the markets were a little more optimistic for corn and neutral for soybeans. Given that crop costs have moved down a little, these price projections indicate crop margin will remain tight for some and negative for others for another year. Cash flows will be an issue throughout the year and some farms will drain some equity. There has been a lot of discussion about production costs and margin management over the winter, as farmers prepare to enter the fields. These projections show that the discussion was not in vain.

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