



# Ag Decision Maker



A Business Newsletter for Agriculture

Vol. 21, No. 11

www.extension.iastate.edu/agdm

September 2017



## Financial stress in Iowa farms

By Alejandro Plastina, extension economist, (515) 294-6160, plastina@iastate.edu

Iowa farm financial conditions have deteriorated since 2012, but average indicators of liquidity and solvency remain close to their long term levels. However, average financial measures mask the variability across farms. A new publication “Financial Stress in Iowa Farms: 2014-2016” (FM1892R) (<https://store.extension.iastate.edu/product/15261>) from Iowa State University Extension and Outreach tracks the evolution of financial stress in Iowa farms using a panel of financial statements collected by the Iowa Farm Business Association<sup>1</sup>. The 273 farms analyzed in this study were selected based on the availability of complete and detailed financial statements for 2014, 2015, and 2016, and are representative of medium-size commercial farms largely managed by experienced farmers.

To ensure the comparability of financial indicators across farms

of different sizes, the assessment is conducted using the debt to asset ratio (total liabilities divided by total assets) as an indicator of solvency, and the current ratio (current assets divided by current liabilities) as an indicator of financial liquidity. At each point in time, each farm is assigned a solvency rating and a liquidity rating. Then, farms are grouped into different categories according to their ratings. The evolution of the farm financial situation is assessed by comparing the composition and characteristics of the different groups of farms through time.

### Changes in liquidity

In December 2014, almost half (47.3 percent) of the farms had a strong liquidity rating, and less than one third (31.5 percent) of the farms had vulnerable liquidity ratings (Figure 1). By December 2015, the percent of farms with vulnerable liquidity ratings

*continued on page 2*

### Handbook updates

For those of you subscribing to the handbook, the following updates are included.

**Change in Hog Prices by Two-week Period, 2007-2016**

– B2-15 (1 page)

**Change in Cattle Prices by Two-week Period, 2007-2016**

– B2-20 (1 page)

**Financial Performance Measures for Iowa Farms**

– C3-55 (8 pages)

Please add these files to your handbook and remove the out-of-date material.

*continued on page 6*

### Inside . . .

New grain bid comparison tool . . . . . Page 3

Crop revenue insurance proceeds – price loss versus yield loss . . . . . Page 5

National Farm Safety and Health Week, September 17 – 23, 2017 . . . . . Page 6

Financial stress in Iowa farms, continued from page 1

increased by 9.2 percentage points, and vulnerable farms accounted for about the same share as farms with strong liquidity ratings: 40.7 percent versus 41.4 percent. By December 2016, there were more farms with vulnerable liquidity ratings than farms with strong liquidity ratings, representing 42.9 percent versus 41.7 percent of the sample, respectively. More than two in five farms run the risk of not being able to pay off their obligations as they become due over the course of 2017.

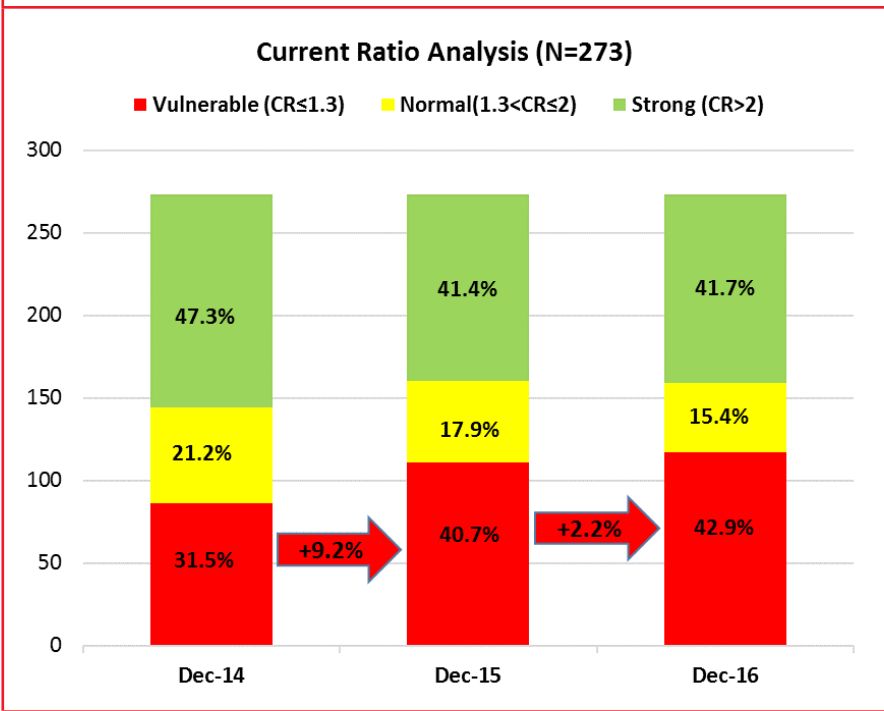
### Changes in solvency

In December 2014, only one in five farms (20.5 percent) was assigned a vulnerable solvency rating (Figure 2). But a year later, almost one in four farms (24.5 percent) had a vulnerable solvency rating. By December 2016, slightly more than one in four farms was highly leveraged. In any case, by comparing Figures 1 and 2 it becomes apparent that solvency issues are much less prevalent than liquidity issues. However, it must be noted that machinery, land and other long-lived assets are valued at their cost (or book) value, and therefore do not reflect the recent decline in asset values.

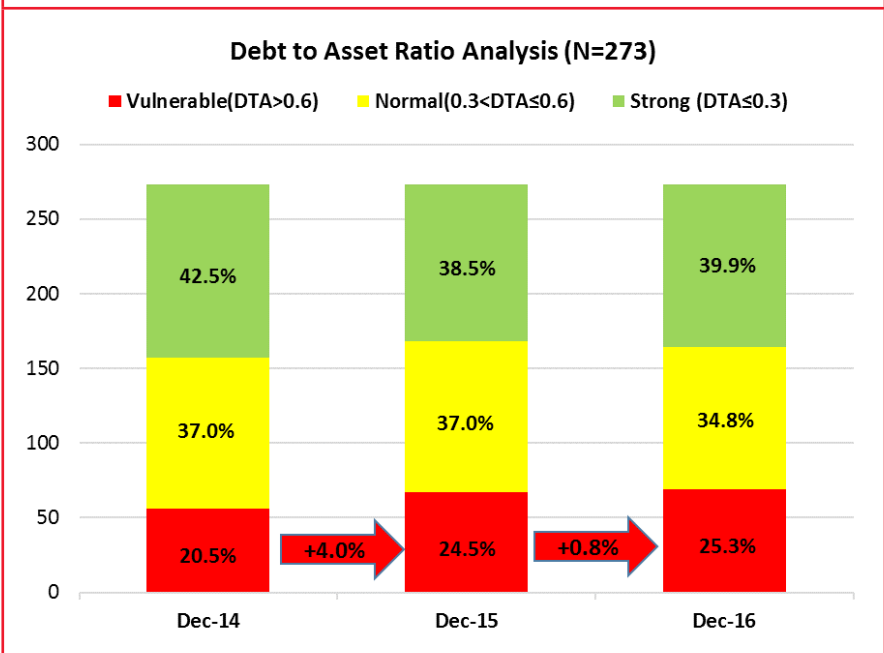
### Financially stressed farms

The share of financially stressed farms (vulnerable liquidity or solvency ratings) increased from 38 percent in December 2014 to 47 percent in December 2016. The average loss in working capital across all farms in the sample amounted to \$123 per acre in 2015 and \$57 per acre in 2016, accumulating a \$180 loss over the entire period. But farms with vulnerable liquidity ratings in December 2016 accumulated an average loss in working capital of \$347 per acre.

**Figure 1. Annual distribution of farms by liquidity rating**



**Figure 2. Annual distribution of farms by solvency rating**



Anecdotal evidence suggests that financially stressed farms are likely to have already tried a few or several strategies to improve their bottom line. So quick fixes are likely to have already been exhausted. These operations will have to reevaluate how they generate profits, by enterprise, parcel, leasing contract, and so on, to come up with a

Financial stress in Iowa farms, continued from page 2

bold, encompassing strategic plan to generate a solid stream of profits over the next few years that also accounts for the need of short term financing; or otherwise play the odds of going out of business. Planning can involve some tough choices, but the sooner it is tackled, the higher are the chances of success. In order to facilitate the planning process and to provide support to the people directly or indirectly related to financially stressed farms, the article in press by Iowa State University Extension and Outreach lists the resources available free of charge to help farmers with their farm financial

planning. For other farm financial resources, see the Ag Decision Maker website, [www.extension.iastate.edu/agdm/wdfirst.html](http://www.extension.iastate.edu/agdm/wdfirst.html).

<sup>1</sup> The Iowa Farm Business Association (IFBA) is an independent farm business management association, managed and controlled by its members. Because the IFBA data come from actual accounting records, they are generally more accurate and consistent than data obtained from cross-sectional surveys. However, because the data are not obtained using survey sampling methods, they may not be fully representative of the Iowa farm population.



### New grain bid comparison tool

By Steve Johnson, extension farm management specialist, (515) 957-5790, [sdjohns@iastate.edu](mailto:sdjohns@iastate.edu)

The 2016-17 crop marketing year ended on August 31 with U.S. corn ending stocks at the largest in nearly 30 years and soybean stocks at levels not seen in 10 years. The 2016 U.S. corn and soybean crops were record large as Iowa averaged 203 bushels/acre for corn and 60.5 bushels/acre for soybeans. Despite the less than ideal 2017 growing conditions, the crops look close to average statewide and many old crop bushels remain unpriced in storage.

Storing corn and soybeans without a crop marketing plan has proven challenging once again. Most farmers already ran out of cash trying to store the 2016 crop, so they've already made their cash sales and are preparing for the 2017 harvest. Others took the risk with their extra 2016 bushels thinking that a late summer futures price rally would allow them to at least breakeven on bushels stored for nearly 10 months.

However, the selloff in futures prices in August combined with widening basis (local cash minus nearby futures) as harvest approaches provides limited opportunities for farmers with unpriced old crop bushels. This is especially true with bushels stored commercially with wider than normal basis likely to persist prior to and during the 2017

harvest. In addition, storage and interest costs could approach 50 cents per bushel over the past 10 months for unpriced old crop. That amount will still need to be subtracted to determine the final cash price received. Thus, a likely negative return to storage for those 2016 bushels that were finally marketed.

Very few cash sale strategies remain for old crop bushels without adding additional storage costs or futures price risk. Even co-mingling old and new crop corn bushels on-farm could be risky as quality issues have emerged with some of the 2016 crop. In addition, a crop insurance adjuster should measure grain bins for crop insurance purposes containing old crop bushels stored on-farm before adding new crop bushels. Procrastination in contacting your crop insurance agent to request a grain bin measurement could delay the adjuster and your start to the 2017 harvest.

However, with the 2017 yield variability across Iowa – and perhaps a harvest that might begin later than normal – regional basis differences have emerged. Some processors have narrowed old crop basis to assure a flow of bushels out of farmers' hands before harvest. Once harvest gets underway,

New grain bid comparison tool, continued from page 3

expect that basis to widen for much of October barring weather delays. Think about checking various processor cash bids in your region, especially if you have a semi-tractor available to deliver those bushels.

ISU Extension and Outreach has developed an easy way to compare various cash grain bids while reflecting your transportation costs. The “Grain Bid Price Comparison Tool”, can be found on the ISU Ag Decision Maker website, [www.extension.iastate.edu/agdm/crops/xls/a2-32-a3-41grainbidpricecomparison.xlsx](http://www.extension.iastate.edu/agdm/crops/xls/a2-32-a3-41grainbidpricecomparison.xlsx).

Simply collect up to eight cash grain bids from various locations and input these cash prices into the spreadsheet along with your own estimates of operating costs and distance to haul the grain or charges for commercial hauling. For new crop corn bushels, adjustments should be made for higher moisture content to adjust for drying and shrink discounts. This decision tool allows for comparing a variety of “what if” scenarios for selling grain at various cash prices while considering transportation costs. For more information on storage and marketing, visit the Ag Decision Maker website, [www.extension.iastate.edu/agdm/cdmarkets.html](http://www.extension.iastate.edu/agdm/cdmarkets.html).

### Grain Bid Price Comparison

Ag Decision Maker -- Iowa State University Extension and Outreach  
See [Estimating Grain Transportation Costs](#) for more information.

Enter your input values in shaded cells.

Step 1. Transportation costs	Grain Truck or Semi #1	Grain Truck or Semi #2	Grain Truck or Semi #3	Grain Truck or Semi #4	Grain Truck or Semi #5
<i>Step 1 can be omitted if all hauling is done by commercial drivers.</i>					
Name or type of truck	Freightliner	GMC			
Annual cost of repairs, including tires, \$ per year	\$4,000	\$1,000			
Miles truck is driven per year	7,000	4,000			
Average hauling speed, miles per hour	55	50			
Bushels hauled per load	1,000	550			
Fuel efficiency, miles per gallon	5.0	8.0			
Price of fuel, \$ per gallon	\$2.45	\$2.45			
Driver labor rate, \$ per hour	\$20.00	\$20.00			
<b>Operating costs per mile</b>	<b>Truck #1</b>	<b>Truck #2</b>	<b>Truck #3</b>	<b>Truck #4</b>	<b>Truck #5</b>
Repair and maintenance cost	\$0.57	\$0.25			
Fuel and lubrication cost	0.56	0.35			
Labor cost for hauling	0.36	0.40			
<b>Total operating cost per mile</b>	<b>\$1.50</b>	<b>\$1.00</b>			



Note: ownership costs for trucks do not need to be considered when comparing among selling points.

### Step 2. Grain buyer information

	Ethanol Plant	Farm Co-op	Feed Mill	ABC Processor				
Name of grain buyer	Mayberry	Farmertown	Lincoln	Circleville				
Location of grain buyer	Corn	Corn	Corn	Soybeans				
Crop	1,000	1,000	575	500				
Number of bushels in load, wet	\$3.50	\$3.75	\$3.60	\$9.00				
Cash grain price bid, \$ per bushel	<b>Commercial hauling charge (leave blank for owner-operator hauling)</b>							
Hauling charge to this location, \$ per bushel	\$0.075							
Fuel surcharge factor (1.0 is no extra charge or discount)	1.1							
<b>Owner-operator hauling (leave blank for commercial hauling)</b>								
Truck number used for hauling (from table above, 1, 2, 3, 4, or 5)		1	2	2				
Total operating cost per mile (from table above)	\$0.00	\$1.50	\$1.00	\$1.00	\$0.00	\$0.00	\$0.00	\$0.00
Distance to haul grain, miles, one-way		85	45	45				
Expected unloading time, hours		0.75	1.00	0.50				
<b>Adjustment for moisture percentage</b>								
Estimated moisture level of wet grain, %	20.00%	20.00%	18.00%	15.00%				
Final moisture level required for sale or storage, %	15.00%	15.00%	15.00%	13.00%				
Drying charge or discount, \$ per point of moisture over final %		\$0.0375						
Shrink factor, % per point of moisture over final %		1.50%						
or	or	or	or	or	or	or	or	or
Moisture discount factor, % per point over final moisture %	2.00%		1.65%	3.50%				

Comparison, \$ per load	Ethanol Plant	Farm Co-op	Feed Mill	ABC Processor				
Wet bushels in load	1,000	1,000	575	500				
Bushels lost to shrink and handling		(75)						
Net bushels after shrink and handling	1,000	925	575	500				
Gross revenue paid on net bushels	\$3,500.00	\$3,468.75	\$2,070.00	\$4,500.00				
Moisture discount, total \$	\$350.00		\$102.47	\$315.00				
Drying cost or discount, total \$		\$187.50						
Transportation cost, total \$	\$82.50	\$254.76	\$90.20	\$90.20				
Labor cost for unloading, total \$		\$15.00	\$20.00	\$10.00				
Total discounts and costs, total \$	\$432.50	\$457.26	\$212.66	\$415.20				
<b>Net revenue after shrink, discount, drying &amp; transportation</b>	<b>\$3,067.50</b>	<b>\$3,011.49</b>	<b>\$1,857.34</b>	<b>\$4,084.80</b>				
Net revenue per wet bushel	\$3.07	\$3.01	\$3.23	\$8.17				

Note: the actual revenue received may differ from these estimates if the actual wet bushels or the actual moisture level values differ from the values inputted above.



## Crop revenue insurance proceeds – price loss versus yield loss

By Charles Brown, extension farm management specialist, (641) 673-5841, [crbrown@iastate.edu](mailto:crbrown@iastate.edu)

With the drought and floods in 2017, there has been some discussion on the income tax treatment of crop insurance proceeds. Some people may have sold the 2016 crop in 2017 and are concerned about the doubling of income if they also receive their crop insurance payments in 2017 as well. It is possible to defer the crop insurance to the year following harvest, but certain criteria have to be met.

A cash method farmer may elect to postpone reporting insurance proceeds on damaged crops from the year of damage to the following year if 50 percent or more of the crop is normally sold the year following production. This is determined on a crop-by-crop basis. This is done by making the election IRC Sec. 451(d); Reg. 1.451-6 on the tax return for the year of loss. A statement must be attached to the tax return and include the following:

- 1) This election is made under IRC Sec. 451 (d) and Reg. 1.451-6.
- 2) Identification of the specific crop or crops destroyed or damaged.
- 3) A statement that under normal conditions the crop would have been sold the following year.
- 4) Identification of the cause of destruction or damage and the dates it occurred.
- 5) The amount of payment received and the date each payment was received for each crop.
- 6) The name of the insurance carrier or payer from whom the amounts were received.

If you defer insurance for one crop you must do it for all crops that insurance money was received for. This would include any disaster money received from USDA. Crop revenue insurance guarantees a certain level of income based on yield and price. Sec. 451(d) allows the deferral of crop insurance proceeds “received as a result of destruction or damage to crops” or the inability to plant crops because of a natural disaster. IRS has previously ruled that insurance programs that provide payments without regard to actual losses fall outside the statutory definition of destruction of damage to crops. Therefore crop revenue insurance proceeds would not be eligible for deferral. However, if you can prove a portion of the insurance proceeds was the direct result of crop damage due to hail, flooding, drought, or some other destruction, or some portion of the proceeds was the result of damage, then that portion of the insurance proceeds should be allowed for the deferral election. The portion of the proceeds that was related to price would have to be reported as income in the year received. In 2017, it is possible that the harvest price could be lower than the spring price and a portion of the insurance proceeds will be because of price loss. Please contact your tax professional for consultation on specific questions for your farm. For further information on crop insurance, see the AgDM page, [www.extension.iastate.edu/agdm/cdcostsreturns.html#insurance](http://www.extension.iastate.edu/agdm/cdcostsreturns.html#insurance).

# National Farm Safety and Health Week, September 17–23, 2017

By The National Education Center for Agricultural Safety, (563) 557-0354

Each year since 1944, the third week of September has been recognized as National Farm Safety and Health Week. This recognition has been an annual promotion initiated by the National Safety Council (NSC) and over the years, the development and dissemination of National Farm Safety and Health Week materials has shifted to the National Education Center for Agricultural Safety (NECAS). NECAS is the agricultural partner for NSC and has been serving the agricultural family and business community since 1997.

The 2017 theme for National Farm Safety and Health Week is “Putting Farm Safety into Practice”. Go to NECAS website, [www.necasag.org](http://www.necasag.org) for information and public service announcements. This year’s theme is one that hits home and reminds us that it is everyone’s responsibility for safety both on the farm and the rural roadways of America. The new data for the Department of Labor shows the agricultural sector is still the most dangerous in America with 570 fatalities, which

equals 22.8 deaths per 100,000 workers. When combining all labor sectors the death rate was 3.4 percent.

As we recognize National Farm Safety and Health Week this September, please join us in promoting safe and healthy practices on our farms and ranches across the U.S. and in our neighboring countries as producers enter the harvest season.

[www.necasag.org](http://www.necasag.org)  
[www.facebook.com/necasag](https://www.facebook.com/necasag)  
[twitter.com/necasag](https://twitter.com/necasag)



Updates, continued from page 1

### Internet Updates

The following Information Files and Decision Tools have been updated on [www.extension.iastate.edu/agdm](http://www.extension.iastate.edu/agdm).

July Corn Basis – A2-43 (12 pages)

July Soybean Basis – A2-44 (12 pages)

Transferring Breeding Livestock – C4-83 (4 pages)

### Current Profitability

The following tools have been updated on [www.extension.iastate.edu/agdm/info/outlook.html](http://www.extension.iastate.edu/agdm/info/outlook.html).

Corn Profitability – A1-85

Soybean Profitability – A1-86

Iowa Cash Corn and Soybean Prices – A2-11

Season Average Price Calculator – A2-15

Ethanol Profitability – D1-10

Biodiesel Profitability – D1-15

Iowa State University Extension and Outreach does not discriminate on the basis of age, disability, ethnicity, gender identity, genetic information, marital status, national origin, pregnancy, race, religion, sex, sexual orientation, socioeconomic status, or status as a U.S. veteran. (Not all prohibited bases apply to all programs.) Inquiries regarding non-discrimination policies may be directed to Ross Wilburn, Diversity Officer, 2150 Beardshear Hall, 515 Morrill Road, Ames, Iowa 50011, 515-294-1482, wilburn@iastate.edu.

### Permission to copy

Permission is given to reprint ISU Extension and Outreach materials contained in this publication via copy machine or other copy technology, so long as the source (Ag Decision Maker Iowa State University Extension and Outreach) is clearly identifiable and the appropriate author is properly credited.