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Ag Decision Maker

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Farm financial management: 16 ways to stretch cash flow

By William Edwards, retired extension economist; Ann Johanns, extension program specialist, 641-732-5574, aholste@iastate.edu

No matter how well you budget or how efficiently you manage your farm business, there may be periods in which cash flow is negative. No one knows for sure when these periods will occur, and how long will they last, but every operation should have a **financial contingency plan** to provide for unexpected cash flow shortfalls.

The following actions can be taken to improve an operation's liquidity when projected cash inflows fall short of projected cash outflows. They are listed in order of expediency.

1. Utilize **cash surpluses** built up from previous years. This may involve tapping into savings accounts or liquidating financial assets.
2. Liquidate stored crops and market livestock. This is part of the farm's **working capital.** Note that this is a short-term strategy. Crop and livestock inventories should be rebuilt as soon as profits become more favorable.
3. Tap into a **credit reserve** or unused borrowing capacity for both current expenses and longer term investments. At some point lenders will put a limit on how much debt can be accumulated, though.
4. Use equity in long-term assets such as land or machinery to **refinance** excess current liabilities if the need arises. Payments can be scheduled over several years instead of being all due in one year.
5. **Lengthen the repayment period** on term loans. Rewriting a 3-year note to a 6-year note will cut the payments nearly in half. Of course, more interest is paid in the long run. **Balloon payments** can also be used to reduce debt servicing in the short run. This would allow for shorter payments

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Handbook updates

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

Farmland Value Survey (Realtors Land Institute) – C2-75 (2 pages)

Please add these files to your handbook and remove the out-of-date material.

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Inside . . .

IOWA STATE UNIVERSITY
Extension and Outreach

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in the short term and a large payment at the end of the borrowing period, when cash flow is improved.

6. **Defer capital asset purchases** until cash flow improves. Refurbish equipment instead of replacing it. Reduce livestock culling rates instead of buying replacement breeding stock.

7. **Combine farms on your crop insurance policy** to take advantage of premium discounts for enterprise units.

8. Take advantage of Farm Service Agency (FSA) **guaranteed loan programs** to reduce your credit risk and improve repayment terms and interest rates. FSA also offers low-interest **marketing loans** on stored grain for up to nine months.

9. Increase **nonfarm earnings**. Part-time or full-time employment by a family member may not only bring in added income, it may reduce health care and insurance expenses. Alternatively, use farm assets such as machinery or shop facilities to perform services for other people. Examples include moving snow, hauling grain, installing tile, repairing machinery and remodeling buildings.

10. Decrease **nonfarm expenditures**. Postpone investments in vehicles and non-essential assets. Limit travel and recreational expenses. Utilize consumer credit or educational loans, if necessary.

11. **Cancel or renegotiate leases** if high cash rents make it unlikely that you will at least cover variable costs. Alternatively, propose a **flexible cash rent** or **crop-share arrangement**. Cash outlays can be reduced even further by converting a lease to a **custom farming** agreement.

12. **Sell off less productive assets** to raise cash. Compare reduced costs and lost income to identify assets that will have the least negative impact on total farm profits. If the land base is reduced, down size machinery, as well.

13. **Own machinery jointly** with another producer to lower fixed costs, or trade the use of **equipment and labor** with someone with whom you can work well.

14. If liquidating assets produces a large taxable income, check to see if **averaging income** with prior tax years can reduce your tax liability.

15. **Lease assets** instead of owning them. Machinery lease payments are often lower than loan payments. In some cases, cash flow can be improved without reducing farm efficiency by selling assets and then **leasing them back**, thereby maintaining the size of the operation and fully employing labor. Investors may be willing to purchase breeding livestock or land and allow the operator to continue providing labor and management.

16. Seek **outside resources**. Rely on relatives or other personal contacts for emergency financing or for the use of machinery or buildings at little or no cost. Businesses operating as a corporation or LLC may be able to sell shares to non-farm investors.

Low prices and high costs affect everyone. These actions are not substitutes for operating a profitable business. In some cases, actions that are not profitable in the long run may have to be taken in order to cover cash flow obligations in the short run. But, depending on the severity of the farm's financial condition, any of them can be applied as a means to continue operating until profits increase.

Low prices and high costs affect everyone. Financial stress can lead to increased stress in other areas. During unprofitable times in agriculture, check in with friends and neighbors.

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Farm financial management: 16 ways to stretch cash flow, continued from page 2

Financial stress can lead to increased stress in other areas. During unprofitable times in agriculture, check in with friends and neighbors. If you or someone you know is struggling, encourage them to seek professional help, possibly from a medical professional, clergy person or counselor. Assistance is also available at any time through the Iowa Concern Hotline, 800-447-1985.

Iowa State University Extension and Outreach offers a free and confidential program called Farm Financial Planning. It consists of one-on-one counseling with trained farm business consultants who provide help developing accurate financial statements, budgeting alternative actions, and contacting other extension programs or outside services that may be useful. More information is available at http://www.extension.iastate.edu/farmanalysis/. For a list of Farm Financial Planning associates go to http://www.extension.iastate.edu/farmanalysis/associatelist.htm.

Two-year case study shows energy used for grain drying

By Dana Schweitzer, program coordinator, Farm Energy Conservation and Efficiency Initiative
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With harvest time here, minimizing drying costs may be one of your goals. The field research conducted by the ISU Farm Energy team provides a benchmark to evaluate the amount of propane used for on-farm bin drying.

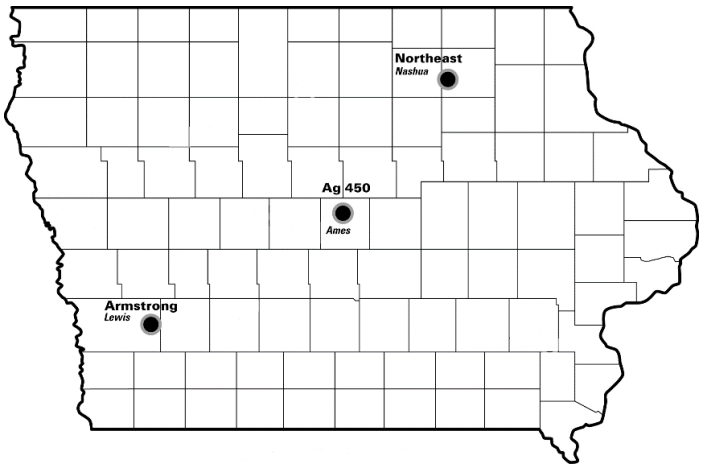
Mark Hanna, ISU Extension and Outreach ag engineer, led a team during the past two years to conduct field trials for bin drying. With support from the Iowa Energy Center, energy measurements during two drying seasons for 19 batches of corn in bin dryers with full perforated floors was collected.

With assistance from our colleagues, measurements were collected in northeast, central, and southwest Iowa at the Northeast Research and Demonstration Farm, Nashua; the Ag 450 Farm, Ames; and the Armstrong Memorial Research and Demonstration Farm, Lewis.

Monitor drying conditions

As moisture leaves each corn kernel, the corn comes into equilibrium with the temperature and relative humidity of the drying air. The field trials confirmed that the amount of energy needed for drying is affected by incoming and final corn moisture, ambient air conditions during drying, and the degree of saturation reached by the drying air.

When total energy use was examined, propane accounted for 95 percent of the energy consumed for high-temperature bin drying. Electricity for fans and stirring equipment accounted for the remaining 5 percent. As expected, Figure 1 shows that wetter, incoming corn required more propane for drying.



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Two-year case study shows energy used for grain drying, continued from page 3

Specifically, incoming corn at 23 percent moisture content required approximately 150 gallons of propane per 1,000 bushels (bu) of corn dried. However, incoming corn at 18 percent moisture content required only 75 gallons of propane to dry the same amount of corn to 15 percent moisture content.

Compare your crop

How can this information be used? If corn is being dried in bins, look up how many gallons of propane purchased for drying in each of the past two years. Then confirm the amount of corn dried with that propane and the average initial moisture content of that corn. How does it compare to Figure 1?

"The graph (Figure 1) illustrates a strong relationship between initial corn moisture content and propane use, which is useful for decision making," says Hanna. "For example, consider reviewing yield test reports for any full-season varieties you are using. Are they yielding enough to cover your costs to dry that corn?"

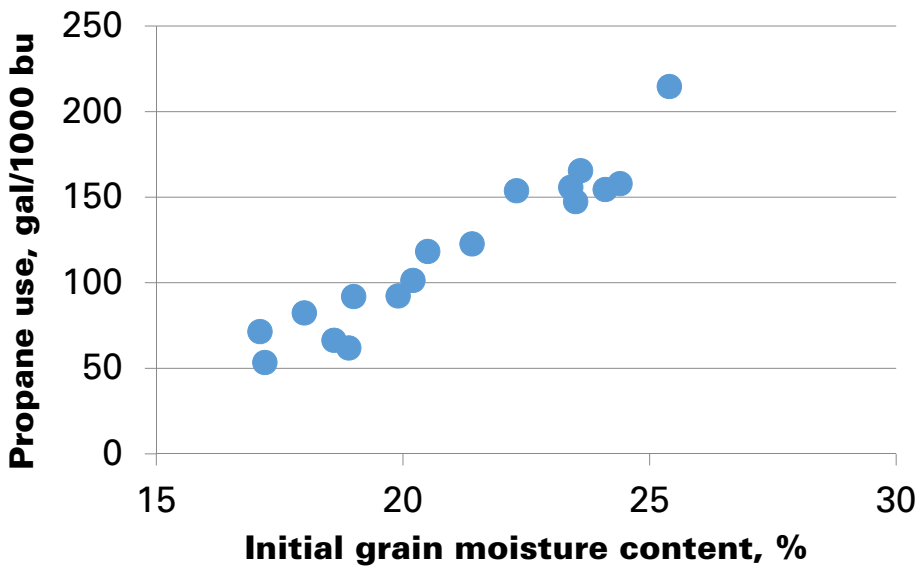
The graph suggests that approximately 15 extra gallons of propane, on average, will be needed

Are added yields from full-season varieties you choose, covering the costs to dry that corn?

to remove each point of moisture from 1,000 bu of corn. Yield trials conducted by the Iowa Crop Improvement Association show that full-season varieties adapted for each area are, on average, about 2.5 points wetter at harvest than adapted early-season varieties. Do the math and that adds up to 38 extra gallons of propane for every six acres of corn when drying is unavoidable. At a price of $1.50 per gallon for propane, this adds about $9.50 per acre to production costs.

For more information about the information found in this article, download the case study, "Energy consumption during grain drying," from the Extension Store at https://store.extension.iastate.edu, or follow us on Twitter @ISU_Farm_Energy. Download other fact sheets, "Dryeration and Combination Drying for Increased Capacity and Efficiency" and "Managing High-Temperature Grain Dryers for Energy Efficiency." All publications are available free of charge.

Figure 1. Relationship of Grain Moisture and Propane Use



Research briefs from the ISU Department of Economics

New economics faculty

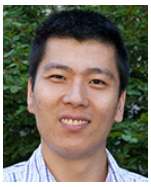
Joshua Rosenbloom named department chair

Joshua Rosenbloom, a professor of economics at the University of Kansas, has been named the chair of the Department of Economics at Iowa State University. Rosenbloom began his duties Aug. 1. He succeeds John Schroeter, who has served as interim chair since 2011 and will return to the faculty.

"I'm very excited to be joining a department with such an excellent reputation and so many talented and productive members," Rosenbloom said. "I look forward to working with everyone at Iowa State to build on the department's record of success."

Rosenbloom earned a doctorate in economics from Stanford University in 1988 and a bachelor's degree in history from Oberlin College in 1981. He joined the University of Kansas in 1988 and served as associate vice chancellor of research and graduate studies from 2006 to 2012, and as the interim dean of its graduate studies from 2011 to 2012.

Assistant Professor Wendong Zhang



Wendong Zhang is a Ph.D. graduate and Presidential Fellow from the Department of Agricultural, Environmental, and Development Economics at The Ohio State University.

His expertise is in environmental, agricultural, and land economics, as well as human-natural systems and his research aims to promote the sustainability of agroecosystems using integrated models of agricultural land use and ecosystem services.

He starts this fall as an assistant professor working with ISU Extension and Outreach, doing research and teaching in agricultural production and technology, with an emphasis on crop production, land and other natural resources.

Assistant Professor Ivan Rudik

Ivan Rudik earned his B.S. in Economics from Rochester Institute of Technology. He received his M.A. in Economics from the University of Arizona and recently received his Economics Ph.D. from that same institution.

His research interests include climate change, renewable energy, and risk and uncertainty and his working papers cover climate change and energy policy. Ivan's position is part of a College of Liberal Arts and Sciences Focus Area working on issues related to the field of sustainability science.

Professor John Crespi

John Crespi comes from the Department of Agricultural Economics at Kansas State University.

His research interests focus on industrial organization and product differentiation issues in food and agriculture, including such specific topics as commodity promotion and advertising, food safety regulations, food labeling, and the competitive structure of markets.

Assistant Professor Gabriel Lade

Gabriel Lade is a recent graduate of the University of California, Davis, where he earned his Ph.D. in agricultural and resource economics. He also holds a B.A. in economics and international affairs from George Washington University, and an M.A. in economics from Rutgers University.

His dissertation, "The Economics of US Renewable Fuel Policies," reflects his fields of interest, which are environmental and resource economics, energy economics, applied econometrics, and industrial organization.

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Research briefs from the ISU Department of Economics, continued from page 5

Department research

Iowa State researchers find little evidence to support skills gap claims

A shortage of skilled workers is often the reason many employers say they struggle to find qualified employees to fill vacancies or expand their business. It's become such a concern that public officials in many states are looking for solutions to grow a skilled workforce to meet these needs.

However, an Iowa State University economic analysis of national and statewide employment, education and population data finds that some of the evidence used to support the skills gap debate is weak. Researchers Dave Swenson and Liesl Eathington say there are several factors contributing to hiring challenges, but a widespread lack of skilled workers is not one. Read more

Consumers willing to spend more for biotech products

New research from an Iowa State University economist found consumers were willing to spend more for genetically modified potato products with reduced levels of a chemical compound linked to cancer.

Wallace Huffman, Charles F. Curtiss Distinguished Professor in Agriculture and Life Sciences who contributed to the project, said the findings underscore the importance of efforts to educate consumers on the use of biotechnology in the production of healthful food.

"This is a complicated issue so it's important for consumers to get information on how the technology works and its potential benefits," Huffman said.

Acrylamide is a chemical compound that studies have linked to the formation of cancer in animals, and the FDA has encouraged Americans to cut back on foods that contain the substance. It accumulates naturally in starchy foods cooked at high temperatures, such as roasted nuts and coffee beans or the crusts of bread. Potato products like french fries and potato chips make up the biggest source of acrylamide consumption in the United States, Huffman said. Read more

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Internet Updates

The following Information Files and Decision Tools have been updated on www.extension.iastate.edu/agdm.

2015 Corn and Soybean Loan Rates – A1-34 (2 pages)

Farm Financial Management: 16 Ways to Stretch Cash Flow – C3-58 (2 pages)

2014 Projected ARC Payments – A1-32 (Decision Tool)

2015 Projected ARC Payments – A1-32 (Decision Tool)

Current Profitability

The following tools have been updated on 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