Financial Associates Help Iowa Farmers Plan Ahead
Charles Brown, Mark Olsen, Farm Management Specialist Program Associates

Knowing your numbers is key to the profitability of any farm operation, and whether you’re struggling to make ends meet, or simply looking to improve or do something differently, Iowa State University Extension and Outreach has an experienced group of associates and specialists who can help. The Farm Financial Planning Program with ISU Extension and Outreach offers producers one-on-one financial counseling, a computerized analysis of the farm business, and referrals to other extension programs and outside services that may be useful.

Charles Brown, farm management specialist with ISU Extension and Outreach, said one of the tools associates offer is a FINPACK analysis, a program developed by the University of Minnesota, and widely recognized by farm managers and ag lenders.

Through FINPACK, the associates can provide farmers with a realistic, comprehensive look at the overall farm business, including such things as profitability, liquidity, solvency and risk-bearing ability.

Brown has been using FINPACK since 1984, and for the past six years through his position at Iowa State.

He said the important thing is for farmers to start early, so they have time to put a plan in place and make changes.

“It usually isn’t just one big thing that’s going to fix everything on a farm,” Brown said. “It’s lots of little things.”

Farmers can locate a Farm Financial Planning Program associate in their area by contacting their ISU Extension and Outreach county office, or by visiting the Ag Decision Maker website or the Farm Financial Planning Program website.

Use of the End-of-Season Corn Stalk Nitrate Test in Iowa Corn Production

Nitrogen (N) application is typically required for optimal corn yield and profitability. Rate selection is important, and can affect achieving both of those goals. There are in-season tests that can aid in N rate adjustment, such as soil nitrate testing and crop canopy sensing. An end-of-season test such as the corn stalk nitrate test (CSNT) cannot provide information for in-season rate adjustment, but instead provides information on N supply for the season that just ended. Research has shown that the concentration of nitrate in the lower corn stalk relates to N available to corn during the season.

Many producers associate a dark green plant throughout the entire growing season with an optimal rate of N fertilization. However, corn leaves on the lower part of the plant tend to lose their green color late in the season even when economically optimum N rates (EONR) were applied. Therefore, the end-of-season corn stalk test can help producers understand if there has been over-fertilization that reduces profitability and increases the chance of nitrate loss to water systems. Corn plants with optimal or inadequate N supply remove N from the lower stalks and leaves during the grain-filling period, and thus have low nitrate levels in the lower stalk. Corn plants that have more N available than needed to attain maximum yield for the specific growing conditions, however, accumulate nitrate in the lower stalk at the end of the season. The CSNT may be most helpful on manured fields where there is uncertainty in manure N supply and potential for too much N applied with manure and additional fertilizer. Corn following first year alfalfa is another situation where the CSNT can be helpful as the N supply from the prior alfalfa crop is typically adequate to meet the full corn N requirements.

**Corn Stalk Nitrate Test (CSNT) Interpretation**

**Categories:**
- **Low:** < 250 ppm
- **Sufficient:** 250-2,000 ppm
- **High:** > 2,000 ppm

**Test reliability and precautions**

The concentration of nitrate-N in the lower corn stalk at the end of the season reflects all factors that influenced N availability and crop N needs during the growing season. A CSNT result within the Sufficient category indicates a high probability that N supply was adequate for the conditions during the growing season. Because many factors influence N availability, however, mainly after manure and fertilizers are applied, it is unrealistic for stalk nitrate concentrations to be in the Sufficient category in all fields in all years.

Many factors can influence test results, including drought, high rainfall, poor ear development, long end-of-season grain fill, hybrid used, and insect or disease damage. When interpreting test results, consideration must be given to these factors and conditions that occurred during the growing season, especially during grain development, that may affect poor grain production or fill (drought, poor kernel development) or provide for prolonged and exceptional grain fill (high N use efficiency by the plant). Typical suggested rates of fertilization can result in Low or High CSNT concentrations, but are not too low or too high N rates in most years.

Fertilization rates can be increased in future years for fields or areas that usually test in the Low category and rates decreased for fields or areas that usually test in the High category. The test does not directly indicate how much N rates should be increased or decreased, but continued use of the test for several years will provide a trend and thus allow adjustments that move concentrations more frequently into the Sufficient test category. The lower corn stalk test is most reliable at indicating situations when too much N was available, and thus best for helping reduce chances of over application.

**Collecting a good sample:**
- Sample 1-3 weeks after black layer
- Collect 15 eight-inch stalk segments between six and 14 inches above the soil surface
- Randomly select stalks from about a one acre area that represents a larger area
- Separately sample different soil types and management areas
- Place stalks in paper bags, not plastic, for shipment to the lab
- Ship samples within one day or refrigerate until shipping

Visit the Extension Store to download the complete article.
Private Wells Should Be Tested at Least Once a Year
Jamie Benning, ISU Extension Water Quality program manager

AMES, Iowa – Private wells are an important part of Iowa’s landscape, and keeping an eye on the quality of water coming out of those wells is equally important.

In the July edition of *Acreage Living newsletter*, Jamie Benning, water quality program manager for Iowa State University Extension and Outreach, says testing should be done annually, and is relatively easy to do.

“Even if your well and the area around it have remained unchanged, it is important to test water annually for indicators of contamination, including nitrate and bacteria, to ensure the water is safe to drink,” said Benning.

Water testing kits can be ordered through your local county environmental health department or county sanitarian. Many counties participate in the Grants-to-Counties Well Program that provides financial assistance for water testing. Testing kits also may be ordered through the Iowa State Hygienic Laboratory Private Well Water section. More information is available on the Iowa Department of Natural Resources Private Well Testing website.

According to the Iowa Department of Natural Resources, more than 75% of Iowans rely on groundwater as their primary source of drinking water, using a combination of private and public wells.

If a well tests positive for bacteria, an alternative water source should be used for cooking and drinking until a test indicates that it is safe.

Benning said it’s also important to test water used for livestock. Concentrations of 100 ppm or less of nitrate (N) is generally considered safe for livestock, but it is also important to consider the nitrate content in forages to calculate total nitrate consumed. Young and pregnant livestock are at higher risk for nitrate toxicity than mature animals.

What’s the Capacity of Farm Structures

Visit Ag Decision Maker at https://www.extension.iastate.edu/agdm/wholefarm/html/c6-82.html to access the figures and calculations to help determine the storage capacity for grain bins; bunkers and silos; storage sheds for bales; to water and fuel tanks.
Thatch and Fall Removal
Richard Jauron, ISU Extension Horticulturalist

What is thatch?

Thatch is the layer of dead and living plant material that accumulates above the soil surface in lawns. Thatch is composed primarily of shoots, crowns and roots. Contrary to popular belief, grass clippings do not contribute significantly to thatch buildup. When lawns are mowed properly, grass clippings break down quickly.

Thatch, to some degree, is present in all lawns. A small amount of thatch is beneficial as it moderates soil temperatures. However, thatch becomes detrimental when it is present in amounts greater than ½ inch. Excessive amounts of thatch increase the potential for turf damage due to drought, extremes in temperature, diseases and insects.

Compacted soils and heavy, clay soils are prone to thatch buildup. Heavy nitrogen fertilization and over-watering promote thatch accumulation.

How do you remove thatch?

Thatch layers of ½ inch or greater can be removed with a vertical mower or power rake. The vertical mower has evenly spaced knife-like blades that rotate perpendicularly to the thatch surface. The vertical mower blades slice through the thatch and about ¼ inch into the soil. After vertical mowing, hand rake the loose thatch from the lawn. A powder rake has spring steel tines that loosen thatch without cutting into the soil. Vertical mowing and power raking services are available from professional lawn care companies. For individuals who prefer to do things themselves, vertical mowers and power rakes are often available at rental agencies.

When is the best time to remove thatch from the lawn?

September is the best time to dethatch Kentucky bluegrass lawns. The slicing and ripping action during dethatching injures the grass. Dethatching the lawn in September gives the turfgrass several weeks of favorable weather in which to recover.

How do I prevent the buildup of thatch?

Good lawn care practices can prevent the buildup of excessive amounts of thatch. Fertilize the lawn moderately. A single application of fertilizer in late October/early November is usually sufficient for low maintenance lawns. Highly maintained lawns may be fertilized in spring, September and late October/early November. Do not apply more than one pound of nitrogen per 1,000 square feet in a single application. If you decide to water the lawn in dry weather, apply 1 to 1½ inches of water per week in a single application or two applications three or four days apart. Core aerate lawns established on heavy, clay soils and soils that have become compacted.
Helping Farm Men Under Crisis!
Larry Tranel, Psy. D., Dairy Specialist, ISU Extension and Outreach

Traditional Male Farm Identity or beliefs how men should behave have roots at many levels of society and at many levels in the minds of men. This identity encourages men to be independent, strong, self-reliant, competitive, achievement oriented, powerful, adventurous, and emotionally restrained (Harris, 1995). This leads to four traditional attitudes about masculinity:

- men should not be feminine (“no sissy stuff”),
- men should strive to be respected for successful achievement (“the big wheel”),
- men should never show weakness (“the sturdy oak”), and
- men should seek adventure and risk (“give ‘em hell”) (Brannon, 306).

This traditional view of being male causes many men to hesitate to seek help...some men are taught that masculine power, dominance, competition, and control are essential to proving one’s masculinity; that vulnerabilities, feelings, and emotions in men are signs of femininity and are to be avoided; that masculine control of self, others, and environment are essential for men to feel safe, secure, and comfortable; and that men seeking help and support from others is a sign of weakness, vulnerability, and potential incompetence. (Robertson, Fitzgerald, 1992).

Perception of Self and Others causes men to not seek help as concerns about their personal or financial reputation; lack of knowing what help is available; not having a mindset of seeking help; lack of time, money or insurance to seek help; feeling need to be self-reliant; fear of being perceived as lazy or mentally unstable, or simply too much pride or distrust of those in helping professions.

Bottom Line = Need to Change the Mindset! Mindset strategies below can help men emotionally survive a crisis and may offer support and encouragement:

Embrace the crisis. Why? Because you will learn how strong you are and how strong you can be. Let the crisis teach you about yourself. Realize you will never be the same person after the crisis. But, if you so choose, you will be stronger.

Refuse to be a victim or Play the blame game. An unforgiving spirit takes a lot of energy. You may be a victim of circumstance but don’t blame others or yourself for what happened or dig yourself into a rut. You may not be able to control the crisis, but you can control your attitude toward it. Remember, your life has a purpose because you are alive and much more. Forgive those who wrong you and focus on love.

Accept your emotions. Laying in bed at night, the chest pounding and mind racing, thoughts of anger, failure, guilt, shame, and even death may surface. Do not deny these thoughts but accept as part of the learning experience. They are normal; they are who you are. Living with your emotions is painful, but it builds your resolution to persevere.

Connect with other men. This is not easy for our gender because, in general, men are not great communicators. But simple gestures from other men, such as phone calls and texts, can be very comforting. Silence, on the other hand, is invariably seen as judgment or lack of concern. Reaching out to others keeps you connected to the world.

Stay away from negative people. Nothing brings you crashing down faster than negative thoughts. Research on stress and crisis, as well as health issues, shows that people with positive attitudes handle and recover from crisis better than those with negative attitudes. Keep your sense of humor. It is often said that 'laughers survive and survivors laugh.'

Decide when to worry. If one worries about their crisis in the evening, one might toss fitfully all night with negative thoughts consuming them. Limit worry to two hours every morning when one has more energy and a better attitude--then try (not always successfully) not to worry the rest of day.

Don't shut out your family. When facing crisis, men often become quiet and withdrawn. This causes anxiety in other family members, which then causes more withdrawing. Let the people in your family know how you’re feeling, your worries, your fears, and if you really are okay.

Take care of yourself. There is a wealth of research on the value of good health in handling stress and crisis. It gives you energy, protection, a positive attitude, and a sense of control. Practice added safety. Eat well, exercise, get enough sleep, and rely on your faith to pull you through. Research has shown prayer to be a positive tool in healing and life quality.

Believe in tomorrow. There may be a reason this crisis is happening to you, and your job is to find out why. Keep telling yourself, I will survive, I will get through this. The future is promising in many ways: believe you will be there to see it. Though farm crisis, family crisis, and personal crisis are all different, the human response is similar. 'Anyone can give up, but only the strong will continue to battle.' Men can use male identity value of “Take the Bull by the Horns” using Mindset strategies, and deal with crisis or stress in competitive ways.
## Calendar of Events

### SEPTEMBER
- 30 **Due: 4-H Record Books**
- 30 **Due: Project Award Applications**

### OCTOBER
- 3  **Powerful Tools of Caregivers**, Butler County Extension Office, Allison, 12:30-2 pm. (Registration required)
- 6-12  **National 4-H Week**
- 10  **Powerful Tools of Caregivers**, Butler County Extension Office, Allison, 12:30-2 pm
- 16  **CIC: Roadside, Forest, Aquatic Pest Management**, Butler County Extension Office, 9-11:30 am
- 17  **Powerful Tools of Caregivers**, Butler County Extension Office, Allison, 12:30-2 pm
- 19  **Clover Patch Club Meeting**, Butler County Extension Office, 9:00 - 11:00 am
- 24  **CIC: Mosquito and Public Health Pest Management**, Butler County Extension Office, Allison, 9-11:30 am
- 24  **Powerful Tools of Caregivers**, Butler County Extension Office, Allison, 12:30-2 pm
- 31  **Powerful Tools of Caregivers**, Butler County Extension Office, Allison, 12:30-2 pm

### NOVEMBER
- 3  **4-H Awards Program**, Boyd Building, Shell Rock, 5:30 pm
- 7  **Powerful Tools of Caregivers**, Butler County Extension Office, Allison, 12:30-2 pm
- 13  **CIC: Ornamental and Turf Applicators**, Butler County Extension Office, Allison, 9-11:30 am
- 19  **CIC: Fumigation**, Butler County Extension Office, Allison, 9-11:30 am
- 20  **CIC: Commercial Ag Weed, Insect and Plant Disease Management**, Butler Co Extension Office, Allison, 9-11:30 am

### DECEMBER
- 4  **CIC: Pest Control Operators**, Butler County Extension Office, Allison, 9-11:30 am
- 12  **Make up--CIC: Ornamental and Turf Applicators**, Butler County Extension Office, 9 am
- 13  **Make-up--CIC Commercial Ag Weed, Insect and Plant Disease Management**, Butler Co Extension Office, 9 am
- 24-25 **Office Closed, Holiday**