



Organic AG NEWSLETTER

HOW & WHEN TO PREPARE & PLANT ORGANIC CORN & SOYBEANS

In the world of conventional agriculture, the planting dates for corn are April 10, April 5, April 1 for Northern, Central, and Southern Illinois and Soybeans are April 25, April 20, April 15.-- (University of Illinois Extension) Plant protective chemistry and commercial fertilizers allow conventional farmers to plant approximately a month earlier than their organic neighbors. It is a paradigm shift for the conventional farmer when he decides to transition acreage to organic production.

When planting corn on an organic program, natural soil and plant physiology are best adhered to. Soil nitrogen, minerals, and other element's availability will be limited while soil temps are still low. Native weeds and grasses germinate and grow better in cool damp conditions than organic corn or soybeans. It has been my observation that the very earliest dates for planting corn on an organic system are May 15, May 10, May 5, for Northern, Central and Southern, Illinois and for organic soybeans are May 25, May 20, May 15.

By waiting until the soil warms up and becomes fully awake to prepare and plant several benefits can be realized. Since cereal rye cover crops and others are utilized by the best organic farmers, waiting several weeks later before processing will double and triple the benefits of the cover crop investment. Alfalfa, clover, grass mixes, and other covers are also used ahead of corn by the best organic farmers. Waiting several weeks can double and triple the benefits of this cover crop investment as well. I wait until cereal rye is in full boot stage 15" to 30" tall and Alfalfa, clover, and grass mix is 16" to 22" before tillage is started as a general rule. By exercising patience, I can reap the greatest amount of energy for the soil Biome. There is nearly always time to allow mother nature to prepare an excellent seedbed before my target planting date of May 20th for organic corn. Immediately after corn planting, organic soybeans are planted.

As just mentioned, I choose to wait until May 20th to start planting organic corn here in Central IL immediately followed by organic soybean planting. With competition from weeds and grass considered to be the #1 nemesis and yield reducer in organic row crops, I believe it is important that decisions are made to reduce the chance of there being any weeds or grass. Not only will taking a serious stand against weeds and grass in the present year make a positive impact on the year-end bottom-line net profits, but also in all subsequent years to follow.

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FSB LOCATIONS

- 301 W. Falcon, Flanagan
- 403 State, Benson
- 2401 E. Washington,
Bloomington
- 111 N. Fayette, El Paso
- 500 S. Persimmon, Le Roy
- 208 E. Gridley, Gridley

There are at least two modes of action working here: 1) Fewer weed seeds in the following years increase the chances of another weed and grass free year. 2) When putting back large amounts of energy from cover crop exudates, above ground tonnage from leaves/stems, and below ground tonnage from root masses positive soil transformation will be dramatic. This all spells more net profit, beautiful clean fields, and a brighter future ahead.

Coming in second to weeds and grass as a yield robber I would site a 95% deficiency of soil microbiome and diversity. Choosing a planting date that gives cover crops ample time to reach their maximum energy potential and biomass production serves the short and long term profit needs and the short and long term soil needs which answers the needs for weed and grass control, and water infiltration while maintaining or increasing soil carbon just to name a few.

My primary tillage tool of choice for processing cover crops is a Flail shredder pulling a notched blade disk w/5 bar flexible harrow at a depth of approximately 1.5 - 2"s. This enables large amounts of cover crop biomass to be sized and inoculated with soil biology while still green which promotes rapid digestion. It is well understood the way to make fast compost is to use finely shredded carbon/protein-rich ingredients and this will provide a more even distribution of air. After allowing digestion to take place for 5-10 days a second pass with a tandem disk w/three bar harrow 1.5 - 2"s depth is performed. Like the technique of turning a compost pile this further speeds rapid digestion by re-oxygenating the fungi and actinomycetes, if the soil is turned too soon after the first pass it will disrupt the formation of fungi and actinomycetes and will slow if not stop digestion for a time.

After another 5 to 10 days the soil will be in excellent condition for a finish pass with a field cultivator w/5 bar harrow 1.5 - 2" s depth. This operation should terminate nearly all the cover crop that was left growing by the previous passes and will leave the soil with a shallow layer of very organic matter enriched hot soil with a very warm moist undisturbed zone just underneath to plant a corn or soybean seed into. With these techniques properly executed an environment has been created for rapid germination and seedling growth of agronomic crops while weeds and grass seeds have been put into a dormant state for up to several weeks.



With each operation, if "moisture" is correctly monitored before each tillage pass it has been my experience for many years that nearly all weed, and grass issues will be eliminated.

My test for proper soil moisture before working soil is accomplished by walking the field in question with a spade. I make it a point to visit all the different soil types as well as the high spots and wet spots in each field. I take the spade at each spot and push into soil 4-6" and take a hand full of soil off the tip of the spade and press it in my hands and attempt to make a small round ball out of it. Then I push it with my thumb with an attempt to get it to break apart if it smears like play dough, it's deemed too wet. If it stays in a ball like moist brown sugar but falls back to granules when pushed on with thumb, I consider it ideal for tillage. Anytime it smears like play dough the soil aggregates are being destroyed and I deem it to be injurious to the soil to enter the field with machinery. Strict adherence to this technique will greatly reduce giant foxtail and many weed problems if not eliminate them altogether.

Wishing you an abundance of LIFE!

(Please note above information has not been peer reviewed.)

Gary McDonald
hortjob@att.net



Part 1: Philosophies

Raising crops intended for USDA Organic Certification requires abiding by the rules set forth in the USDA National Organic Program (NOP). The NOP rules outline what inputs are “Allowed” and which ones are prohibited. Most of the synthetic inputs used in conventional agriculture, including the most popular fertilizers, are not allowed in organic production. The NOP rules apply for acres in “transition to organic” also. The general rule is that only naturally occurring or mined products are allowed. They cannot be synthetically manufactured or manipulated. You need to choose an Organic Certifier and get their approval before purchasing any crop inputs, including seed.

Organic transition can be difficult, but for many people, the hardest transition takes place between their ears. Successful organic production requires a different mindset. You are transitioning from chemical production to biological production. The crop’s nutrient needs are the same, but the means and methods to meet those needs are radically different. Good agronomic practices still apply, but you need to forget the mentality that you need to purchase a certain number of pounds per acre of the various nutrients. Organic production involves both science and art in engaging nature, nurturing your soils to become more naturally productive. It requires managing the physical, chemical and biological properties of the soil to make them more naturally productive.

Nationally, organic corn yields average 124 bushels per acre, soybeans 37 bushels per acre and wheat 33 bushels per acre. However, in the Midwest successful organic growers consistently achieve yields of 200+ bushels of corn per acre, 60+ bushels of soybeans per acre and 70+ bushels per acre of wheat. One of the big differences between high and low yielding farms is their approach to crop fertility. Progressive growers realize it takes fewer bushels of \$9.00 organic corn to pay for added fertilizer or other inputs, than it does with \$3.50 conventional corn and manage accordingly.

Good organic growers try to provide as much fertility as possible with the use of crop rotation, cover crops, and manure. Sometimes this still leaves gaps in fertility for optimal crop performance. That is where additional fertilizer inputs can add to the bottom line. Even though you are farming organically, the “Big 3”, or macronutrients, are still nitrogen, phosphorus, and potassium. Failure to supply the crop with an adequate amount of any of those nutrients can cut yields drastically. Fertilizer choices are more limited in organics, but there are still lots

of options. In most cases, manure is the most economical source of these major crop nutrients, especially when you factor in the secondary and micronutrients contained in manure. Growers also need to realize that there is a huge variation in the nutrient value between different sources and types of manures. Most growers like to utilize manure for its nitrogen content ahead of grass crops or other nitrogen loving crops. You need to be careful when using manure that contains bedding or other carbonaceous materials, realizing that the nitrogen contained in the manure may not be available as soon as you need it. In fact, materials with a high carbon to nitrogen level (>30:1) will rob nitrogen from the young crop. Microbes breaking down the manure will take what nitrogen is available from the soil for use in the decomposition process. Manure is also often utilized as a means of building soil phosphorus levels. The two biggest drawbacks of using manure are the logistics of application and oftentimes an increase in weed pressure, especially if manure is applied close to planting time. Long term use of high rates of manure often finds growers with unbalanced soils. It is not uncommon to see soils with excessive phosphorus levels, yet potassium levels are less than adequate.

Soil health or active biology plays a huge role in the efficacy of any fertilizer. When you maximize biology, you maximize fertility provided by the microbes. You need to think in terms of growing more microbes per acre. Microbes need a steady supply of carbon to function and multiply. Root exudates from healthy plants are one of the main sources of carbons that feed microbes. Proper nutrition for your crops is critical to ensure that the roots are pumping out the necessary carbons to feed the microbes. Many growers also see a benefit to adding microbes, in the form of inoculants to increase the overall level of microbial activity. An active and diversity of biology in your soil also greatly increase nutrient use efficiency.

Part 2: Products

Application of purchased organic fertilizers can fill in the gaps left by manure applications or even where no manure is used. Generally, dry materials are used where additional nutrients are needed in large amounts above what is supplied by crop rotation, cover crops, and manure. For nitrogen, the most common materials used for this are Chilean Nitrate, 15-0-2, and Feather Meal, 13-0-0. Common usage rates are from 25-250# per acre.

(cont. pg. 4)

FERTILIZER OPTIONS FOR ORGANIC PRODUCTION (CONT)

Not all certifiers allow the use of Chilean Nitrate and it is never allowed for use on crops being sold to Canada, the European Union, and various other markets. It is suggested that no more than 20% of the crop's nitrogen need be supplied by Chilean Nitrate. There are several sources of mined rock phosphate materials allowed for organic production. These products are mined in Florida, Tennessee, and Idaho among other locations. Most of these materials contain 16-20% total phosphorus but only around 3% available phosphorus is shown on the label. Some people are alarmed at the low analysis; however, these materials do a good job of building soil phosphorus levels because they are not as prone to be tied up in the soil as the acid-treated phosphates used in conventional agriculture. Common usage rates are 200-500 pounds per acre. Potassium sulfate, 0-0-50-17S, is the most common product for potassium needs. Sul-Po-Mag, 0-0-22-11Mg-18S, more commonly known as K-Mag or Trio, is another popular potassium-containing product. Typical application rates are 100-300 pounds per acre of these two products. Both products contain significant amounts of Sulfur, which is lacking in most soils.

It is still important to maintain optimum pH in soils for organic production, but it is typically much easier to maintain proper pH, once growers quit using high rates of nitrogen and the more acidic fertilizers common in conventional production. It is not uncommon for growers to become more concerned with a higher than ideal pH (>7.0), than a low pH after several years of organic practices. Most of the products used for ag lime will be allowed for organic production because they are mined materials. Because calcium is a critical factor in soil structure and tilth, it also plays an important role in managing weed pressure. It is for this reason that many people apply gypsum (20% calcium, 15% sulfur) to supply the needed calcium. Gypsum is one of the more economical sources of sulfur also. Only mined gypsum is allowed. Flue stack gypsum and recycled wallboard are not allowed. Calcitic limestone is also a good source of calcium. Dolomitic limestone can be used to supply magnesium when needed. Magnesium Sulfate, or Epsom salt, can also be used where a deficiency of magnesium has been documented.

Micronutrients can be used also if you document a deficiency in either the plant or the soil. Generally, only those micronutrients derived from sulfate forms are allowed for use as restricted products. Some of these micronutrients can be chelated or complexed with allowed substances. Be sure to only use approved products.

Micronutrients are needed in small quantities, but they are essential for crop growth. Adequate nutrition for the crop also means that you are marketing a higher quality, more nutrient-dense crop, that you hope to secure a premium price for. Good nutrition helps keep the consumer satisfied and willing to pay the premium needed to sustain the organic system.

Organic, liquid fertilizers can also play a vital role in organic production. These are more commonly used for starter fertilizer, side dress applications, and foliar applications. They are usually low in analysis compared to conventional fertilizers and more expensive per unit than dry fertilizers. One advantage of liquid fertilizers is that different nutrients can be combined into one blend for easy application to satisfy several nutrient needs in one application. They can also be more precisely timed and placed to meet the needs of the crops, which improves the nutrient use efficiency of these applications. Starter fertilizer is a great example of this. There are other benefits also. One organic grower stated, "My best weed control is a good row starter." A faster, more vigorous start for the crop gives it a jump on the weeds.

Products commonly used as liquids include fish hydrolysates, Chilean Nitrate, potassium sulfate, various amino acid and fermentation products, and sulfate micronutrients. Part 1 mentioned the option of purchasing microbial products to enhance nutrient use efficiency. Products containing naturally occurring organisms are allowed for use in organic production. These products can increase crop production if they supply the missing microbial populations of the soil in adequate numbers to improve vital soil and plant functions at critical times.

In summary, there are lots of choices for fertility and fertilizers in organic production. Organic crops need to have the same amount of nutrients available to make a bushel of grain as conventional crops do. Find a trusted consultant or successful organic grower to help you put together a fertility plan for your farm utilizing a combination of crop rotation, cover crops, manure and purchased fertilizer that makes \$ense for your farm. Be sure that all inputs are approved by your certifier before purchasing.

Ken Musselman

Agronomist

*Douglas Health Plant/AgriEnergy Resources
(815) 872-1190*

kmusselman@douglasplanthealth.com

Weeds are an indicator of soil problems. Grass weeds are related to calcium and magnesium imbalance. The calcium moves the soil particles apart. Magnesium sticks them together. A proper balance is needed. The roots of grass weeds loosen the soil resulting from excess magnesium. Foxtail and fall panicum indicate this relationship.

Excess potash relative the phosphorus can promote broadleaf weeds. One client has done this twice with too much manure. Two Ph.D. 's have reported that potash can be so high relative to other minerals that herbicides will not control weeds.

Velvetleaf and jimson weeds are the result of either a poor decay structure in the soil or poorly managed manure. Ragweed comes in dryer soils when the potash is complexed. It can also indicate the soil is deficient in copper. If the organic matter is adequate the moisture should keep the potash available.

Sand burs cannot germinate if the humic acid in the soil is adequate. This can relate to the quality of the organic matter and its decay activity.

The two most common problems that promote weeds are low calcium and low organic matter. This means more than soil pH. A few soil reports have crossed my desk with a low pH, but I could not recommend lime because the calcium was adequate, but potassium and magnesium were lacking.

Dr. Richard Harwood stated, "to build organic matter in the soil, live roots need to be in that soil ten to eleven months of the year." The University of Guelph has studied rye cover crops planted in standing corn. The results indicate that the cover crop will not hurt in the dry year. In a good year, it will take up nutrients released in the soil after the cash crop has shut down.

Dr. William Albrecht from the University of Missouri reported on two sets of plots that grew timothy for hay. One set of plots received six tons of manure each year. The other set received no fertility. When the weed Broomsedge invaded the plots not receiving manure both sets of plots were tilled and reseeded to timothy. The Broomsedge seeds blew on to the plots receiving the manure but never grew. The soil environment determines whether weeds will grow or not grow.

A no-till experiment planted corn into red clover. After planting, a sickle bar mower cut the clover which became mulch to control weeds. A divider kept the clover from falling on the young corn plants. Any clover that regrew was late enough that it did not compete with the corn. The yield was about 100 bushels per acre (a good yield for the time) with no nitrogen expense. In trying to find a picture of the divider, the reply was that the economic value of the clover was larger for other purposes. No further work was done.

For help with weeds, the book "When Weeds Talk" by Jay McCaman lists over 800 weeds and the soil environments promoting their growth. It is available from Jay McCaman, PO Box 22, Sand Lake, MI 49343, Price \$25.00 postpaid.

Jay McCaman
(616) 260-9838
grnthumb2@wingsisp.com



As an organic grower since 1985, I have been obsessed with insects and diseases. Early in the '80s, there was only a small group of organic and sustainable growers in the Midwest, yet we communicated to find programs that worked for insects and pathogens.

Generally, the goal is plant health, but many environmental stressors result in imbalances of plant nutrients and lead a farm vulnerable to insect invasion and destruction. To deal with the suppression of insects, you need to understand some concepts of insects.

Some characteristics of invasive insects include:

- **Hard shell beetles:** migrate only short distances,
- **Soft shell beetles:** aphids, leafhoppers, worms, moth, white flies-carried with the winds.

INSECT THEORY:

"Insects attack only sick plants having incomplete proteins, free or fragmented nutrients which insects are able to digest."

FRANCIS CHABOUSSOU,
PARIS, 1985.

Aphid feeding: Aphids do not eat by sucking. Aphids feed on a plant that has a turgor pressure that forces exudates to the exterior of the leaves. An imbalance of high nitrogen vs low potassium will enhance the turgor pressure to push the simple sugars and nitrogen to the leaf surfaces. This is the result of plant nutrient imbalance. Insects require simple sugars, free nitrogen, and simple amino acids and leaf exudate contain all of them. To reduce the exudates, there needs to be a balance with cations (calcium, magnesium, potassium, and sodium). These plant nutrient balances can be restored to promote plant health. The ideal pH is 6.2-6.8.

Organic Inputs to protect against insects:

- **Essential oil:** garlic oil (BioRepel), neem oil (Neem Blend 45), and cedar oil (Cedar Gard)
- **Herbal combinations:** EF-400, BacStop and EcoTec
- **Beneficial fungi:** Mycorrhizal fungi (AER MSTO), Trichoderma, and Beauveria Bassiana (two strains): Soil Plant Enhancer 120 (seed treatment) and Mycotrol O (foliar treatment)
- **Beneficial bacteria:** bacillus subtilis strains (AER SP-1) and bacillus thuringiensis strains
- **Diatomaceous earth:** DE
- **Soap:** Safer Soap and M-Ped

Mode of action for the Biologicals and Botanicals

- **Beneficial fungi:** these endophytes protect against insects and pathogens. Growers use as a seed treatment to protect against soy cyst nematodes, corn borer, earworm and more
- **Mating disrupters:** an aroma that disrupts the mating of male and female. The product is Cedar Gard Growers have used the Cedar Gard to repel corn rootworm beetles feeding on the sick
- **Beneficial bacteria:** protect against insects and pathogens by raising the brix in the plant
- **Repellent in the soil:** the smell of these products EcoTec and BioRepel inputs disrupt the insects
- **Systemic control:** Cold Pressed Neem had a +20 day systemic life to protect against aphids, leafhoppers, etc
- **Lightwave disrupter:** a foliar spray to repels insects that see with UV and microwave light. This product is called BioRepel

Reaching the goal of healthy plants benefits: increased nutrient density, healthier plants, healthier people, and better yields.

Reginald Destree
Organic Grower and Crop Consultant for over 35 years
Madison, WI
reggieveg@organicmarketinginc.com
(608) 769-2700

IMPROVING WEED MANAGEMENT IN ORGANIC GRAIN CROPS

As is the case with any challenging endeavor, some organic farmers are much more effective than the rest at controlling weeds. While the success of specific organic management practices is clearly context-specific (i.e., varying with soil types, weather conditions, management history, scale of operations, skill of operator...), there must be common threads that connect the organic farms with more consistent weed control. This article attempts to briefly explore some of those threads.

Farming System Strategies: A farming system strategy can be thought of as a puzzle with many pieces (e.g., crop and cover crop sequence, tillage practices and timing, specific crop varieties and populations...) that fit together well. Effective organic weed managers use farming system strategies to achieve 2 key weed management goals: crop competitive advantage, reduced weed pressure. 2 examples...

- *Delayed Planting:* Warmer soil increases the likelihood of rapid emergence of a good crop stand which makes all subsequent weed control operations more effective. Warmer soil also increases the likelihood that pre-plant tillage has controlled at least 1 good flush of weeds reducing subsequent weed pressure.

- *Diverse Crop Sequences (with cool season & warm season crops):* Alternating cool season crops like small grains with warm season crops like corn and soybeans improves weed control in several key ways. Small grains are typically harvested in early to late July well before warm season annual weeds like waterhemp or velvet leaf have produced mature seeds. After small grain harvest, multiple options exist e.g., clipping frost seeded red clover, tillage followed by establishment of a diverse cover crop mix or an extended summer fallow period targeted at controlling perennial weeds, to minimize weed seed production and reduce weed pressure during the next crop. Growing both cool and warm season crops also improves weed control by spreading out the timing of field operations. Trying to cultivate too many acres in short windows of opportunity is almost a guarantee that weed control in some fields will be poor. Last but certainly not least, diverse crop sequences (especially rotating annual crops with perennial forage crops), contribute to the soil tilth that is key to effective mechanical weed control. Effective mechanical weed control requires that soil crumble easily off of weed roots (allowing desiccation) and flow in a controlled manner into the row.

Targeting the Weak Links: The weakest link in an annual weed's life cycle is between germination and emergence. This growth stage (before weed seedlings have even turned green) is when the least amount of mechanical disturbance will have the most effect. Blind cultivation practices like rotary hoeing and tine weeding target this weak link and can be very effective at controlling large numbers of weeds both in-row and between rows at lower cost per acre than row-crop cultivation. Many beginning organic farmers do not focus enough attention on blind cultivation and as a result are faced with excessive reliance on row crop cultivation. Once weeds have emerged, their next weakest link is when they are still shorter and more flexible than crop plants. Controlled flow of soil into the crop row at this time (first cultivation) can achieve a high level of in-row weed control with minimal damage to the crop. Subsequent cultivations can be important for controlling inter-row weeds but will never achieve the high level of in-row weed control that is possible during the first cultivation. Organic farmers that are struggling with in-row weed control are often not focusing enough attention on fine-tuning their first cultivation.

Mindset: Organic farmers who are good at controlling weeds have high expectations. They know that excellent organic weed control is possible and they expect to achieve it. They are very attentive to detail and carefully adjust their cultivation equipment and ground speed to achieve objectives. In combination with this perfectionist approach, they are also able to reprioritize when things do not go as planned (e.g., extreme weather or equipment breakdown). A good balance between perfectionism and ability to reprioritize is key to success in organic weed management.

Final Thoughts: This article only captures a few of the common threads that I have observed to connect organic farms with more consistent weed control. I encourage you to identify the organic farmers in your area that are good at controlling weeds and study what they do well. In addition, the on-line resources listed below contain a wealth of information that can help you improve your organic weed management.



Valuable Online Resources:

Steel in the Field: a farmers guide to weed management tools
<http://www.sare.org/Learning-Center/Books/Steel-in-the-Field>

This 128 page book contains diagrams and explanations of a wide range of weed control equipment as well as 22 farmer case-studies. Excellence in Organic Weed Management: Insights from the field
<https://offer.osu.edu/sites/offer/files/imce/Files/Gruver%20Clayton%20Excellence%20in%20organic%20weed%20management.pdf>

This 24 page document summarizes interviews with 9 recognized leaders in organic weed control in the Midwest region (7 farmers and 2 consultants). Into the Weeds Podcast- Season 2, Episode 5: Organic weed control with Dr. Joel Gruver
<https://soundcloud.com/user-846775438/season-2-episode-5-organic-weed-control-with-dr-joel-gruver>

This 65 minute dialogue between podcast host Anders Gurda and guest Joel Gruver explores the science and practice of organic weed management. Art and Science of Cultivation
<https://www.youtube.com/playlist?list=PLr2Fb2Gh3HiEMqJRcvoQyNv2G7jDc0aHy>

This new collection of 9 short videos featuring Gary McDonald provide a window into the highly refined weed management strategies used by a master of organic weed control. These very practical videos feature the insights of many experienced organic farmers in IA.

Practical Farmers of IA videos on organic weed control
Rotary Hoes: <https://youtu.be/E5YIW0-LBxk>
Harrows: <https://youtu.be/jGLtZsSjMQY>
Tine Weeders: <https://youtu.be/uenCN220xjs>
Cultivation - First Pass - Organic Weed Control: <https://youtu.be/BPMot9sXLRQ>
Cultivation - Equipment - Organic Weed Control: <https://youtu.be/evekV022WpQ>
Should I Replant?: <https://youtu.be/-j59ouXevHY>
Crop Rotation and Weed Suppression: <https://youtu.be/RRXRmuAXkko>

Joel Gruver
Associate Professor of Soil Science & Director
of the WIU Organic Research Program
School of Agriculture, Western Illinois University

Successful farmers love what they do. It's what gets them out of bed every morning to engage in the day. Even doing the things they really don't like if it gives them one more day to do what they love. There are many definitions of success and a lot of time and ink has been spent defining them. Today, we are going to narrow it down to Organic Production Systems. Success in this arena can mean the difference between continuing to farm and hunting for a new career. Of course, there are more than 5 winning strategies, but I am going to outline some of the best according to the successful organic producers I work with.

1.) *Details, Details, Details*

Information is king in this business. Although detailed records are a requirement from your certifier, it should be a natural and essential part of your operation. First, know your costs. If you don't know your costs, you can't project your profits. Knowing your costs will drive your pre-season planning and your marketing strategy. Knowing what every trip across the field is costing in time, fuel, and machinery may surprise you and cause you to rethink some things. Everyone knows that farming is often unpredictable and it is this very reason that detailed records are so important.

2.) *Weed Control*

It sounds basic. Everyone knows it. But having a comprehensive weed control plan and sticking to it is critical. The research data is clear that weed problems equal yield loss. With the potential value of your current crop and future crops, you can't afford to leave bushels on the table due to weedy fields. It takes courage to pull the plug on a crop when you know the weed battle has been lost. It is important to have a backup plan for fields that have a history of weed challenges and make the best of it, maybe by planting a forage crop that can be harvested and sold or fed to your livestock. There are many innovative and effective weed control tools and methods out there. Study them, try them, and find the best ones for your situation.

3.) *Networking and Relationships*

One thing I love about working with the organic community is the sharing of knowledge. Time and again, I have seen great things come out of producers coming together to share insight and information. Stay connected to the organic

community through social media platforms, conferences, and email groups. Sometimes it even means sharing equipment to reduce the need of owning too many implements. Don't feel like you have you make all the mistakes, learn from others failures and successes.

4.) *Love Your Soil, Build Your Farm's Future*

Who can put a value on healthy soil? We hear a lot about it these days but I have found that most people have a hard time quantifying what a good, healthy soil is and what value it returns to them. Start by formulating a soil health plan for every farm. Set goals for increasing organic matter content and take regular soil tests to determine how you're doing. It may involve adding cover crops to every season's rotation or changing tillage practices. I still find that cover crops are largely underutilized because producers have a hard time putting a value on the benefits. If increasing organic matter by 1% gives you an extra 20,000 gallons of water holding capacity per acre, what is the value of almost an extra ¾" of "rain" you've held on to? What can that mean to your crop and yield, especially in a dry year? Give it serious consideration.

5.) *Balance Life and Operations*

Nurture your farm the way you nurture your health. Keep soil nutrient levels adequate and balanced for the crops you're growing, especially if you use a lot of manure. This takes testing and planning, sometimes a year or two in advance.

Organic production takes time, lots of it. But, at the end of the day, God and people matter more. So, make sure your farming success does not get in the way of what is most important to you. Take time to be thankful and a good steward of your blessings.

Erik Wiegand
Agronomy Department
Earlybird Feed & Fertilizer
Goodfield, IL
eriklee76@gmail.com
(309) 965-2555
<http://www.earlybirdgoodfield.com>



ORGANIC EVENTS CALENDAR

DATE	EVENT	LOCATION	HOST	WEBSITE
March 20, 2020	Cultivating Your Legally Resilient Farm	Springfield, IL	The Land Connection	https://thelandconnection.org/event/farm-commons-2020/
April 7-8 2020	Soil Health Academy School	Belgium, WI	Soil Health Academy	https://soilhealthacademy.org/upcoming-schools
Sept 16, 2020	Midwest Mechanical Weed Control Field Day	Belle Plain, IA	The Land Connection, Practical	https://thelandconnection.org/event/mwc-2020/

If you would like more information on an event, please visit our website at <https://www.flanaganstatebank.com/organic-event-calendar> or email Sarah Hoerner - sarahhoerner@flanaganstatebank.com.

AG LENDING TEAM



RICH RITTER
Gridley

richardritter@flanaganstatebank.com
309-747-3600



DAVID WYSS
Flanagan

djwyss@flanaganstatebank.com
815-796-2264



SARAH HOERNER
LeRoy

sarahhoerner@flanaganstatebank.com
309-965-4707



LOGAN WEBER
Benson

loganweber@flanaganstatebank.com
309-394-2785

www.flanaganstatebank.com

