

FLANAGAN STATE BANK ORGANIC CROP NEWSLETTER

NOVEMBER 2019

HAVE YOU CONSIDERED ORGANIC?

For many experienced farmers, going organic is an obvious choice, at least for some acres. Other farmers struggle with the transition and with marketing the end product. Here are some tips to help you determine whether organic is a good decision for your operation. Each of these concepts will be expanded upon in future articles.

1. Think before you jump in. Organic is not for everybody. You need to be patient and willing to learn the required processes to meet the National Organic Program (NOP) standards.

2. You'll need to be able to weather for 36 months. The process of transitioning to certified organic land takes 36 months from the last application of a prohibited substance to the harvest of a certified organic crop. For example, if your last application of synthetic fertilizer, chemical pesticide or GMO was July 5, 2019, your first organic crop could be harvested on July 6, 2022, if the certification process has been completed.

3. What's the \$ upside? One rule of thumb is that you can get about twice the price for many organic crops. As I write this, organic corn is getting about \$8 to \$9 per bushel while conventional corn is \$3 to \$4. The best metric is your net income per acre. Yields tend to increase with experience and by following established best practices.

4. Organic doesn't necessarily mean you can double your profit. You'll have a learning curve and more time and effort spent in management. Your yields may be different. Weather plays an even more important role in organic farming.

5. Some people transition a portion of acres first as a trial. Many farmers uncover facts and processes that make a huge difference in their operations, and starting smaller helps increase the velocity of those lessons.

6. Organic food accounts for 5.6% of all food sold in the US and this segment is growing. ^{*1} Once viewed as a fad, organic is here to stay. The popularity of organic food with millennial producers and consumers alike ensures a long-term growth trend.

7. Do a quick Internet search on organic farming to provide you with hours of interesting organic production concepts and contacts. The Land Connection website is a good local resource. ^{*2}

8. Expand your in-person network by seeking out information from new resources. Most likely, there are local events in your area. The OGRAIN Conference, the Midwest Organic & Sustainable Education Service (MOSES) and ACRES USA3 hold large events, typically in January and February. ^{*3}

9. Cover crops You may find that manures and cover crops are the best options for your new fertility program. Select the best cover crops for your specific location and management plan using available research and data.

10. Contact a NOP-certifier early in your process to gain an understanding of the rules and record-keeping required for crop and livestock operations. OnMark is happy to discuss your ideas and thoughts during the transition years.

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1. <https://www.agweek.com/business/agriculture/4622665-us-organic-market-tops-50-billion>

2. <https://thelandconnection.org/farmers/>

3. <https://events.acresusa.com/>

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FSB LOCATIONS

301 W. Falcon Hwy, Flanagan

403 State St, Benson

2401 E. Washington St,
Bloomington

111 N. Fayette St, El Paso

500 S. Persimmon St, Le Roy

208 E Gridley Road, Gridley



New crop? CHECK THESE BOXES FIRST

By: Anders Gurda



I hate to start this article with a boring regulation, but it's important. Certified organic production is a federally regulated practice standard. We all know that, are committed to it, and benefit from it. Now don't fall asleep just yet, but according to §205.205 in the regulation, a crop rotation that controls erosion, effectively manages pests and nutrients, and maintains or improves soil organic matter is required. That last bit is the important part: "Is required". Now there's room for interpretation here, but this most often looks like at least a three-year rotation, that in our region is most likely corn, beans, a small grain, and cover crops in between. Veteran organic farmers clearly see this as just a starting point, often going to 5 or more years in rotation.

Adding new crops 1) keeps you on the right side of the regulation, 2) gets you the seemingly limitless benefits of a solid rotation including what amounts to a comprehensive pest, weed, and disease package and if you plant a forage, a fertility program as well, and 3) diversifies your markets, decreasing risk and increasing your operation's resilience. As you think about what crops to add as you transition or how to lengthen your organic rotation, there are a few things to keep in mind that will make it a good decision instead of an expensive mistake. Here are a few:

- **Is there a market?** This isn't mind-blowing, but it is something that gets missed far too often. If you're assured that a market exists, or that the buyers are always looking for more crop, that's an okay starting point, but it's not enough. Get into direct contact with multiple buyers. Ask lots of questions, ask about contract and payment terms, specifica-

tions and grades, testing protocols, delivery locations, etc. If possible, lock in a contract before even buying seed if it's not a crop with a spot market or posted bids.

- **Get educated.** You want to walk into planting the same way you walk into a classroom when you're overly prepared for a test – confident and ready to get at it. Don't assume that growing a specific crop is like growing something else in your current rotation. Even jumping from feed to food-grade can be considered a different crop with different growing and handling strategies. We have tons of free resources on our website (www.pipelinefoods.com). Some of them we've created, but we also have carefully organized links to all the best resources on the internet. There are organizations like MOSES (mosesorganic.org) and OGRAIN (ograin-cals.wisc.edu) and many more focused on row crop and non-grain topics. Ideally, find a farmer in your area who has experience with the crop who can point out the stumbling blocks before you trip over them yourself.

- **Run the numbers.** It can be dangerous to assume that a new crop will work financially without running the numbers, considering all costs. Are there additional processing costs (dehulling, drying, cleaning) that will be required? How much more time will the crop take to manage? If you end up getting the low end on price, how will you fare? Run all the scenarios so you're ready for anything.

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- **Know where it fits.** Consider all the pros and cons of a crop's location in your rotation. There are the obvious directions – don't follow a grass with another grass or a legume with a legume – but varying rooting depth, nutrient needs, cool/warm-season crops, row spacing, cultivar, planting/harvest dates, etc. should also be considered. Knowing your field's nutrient levels, drainage patterns, and past disease or weed pressure will also help you match the crop to the right area.

- **Be skeptical of 'the next best thing'.** It's cliché, but if it sounds too good to be true, it just might be. The next biggest crop is obviously hemp now, both for grain and CBD. There appears to be a real opportunity, but the size of the opportunity is anybody's guess. As with all things, a certain amount of measured risk can be strategic, but the investment should be equally measured, as should the expectations for a return.

- **Start slowly.** As far as new crops to add to a rotation, start with something that there's a relatively predictable market for with plenty of helpful resources including regional expertise. Hard or Soft Red Winter Wheat are good places to start. Start on a few acres to get on top of the learning curve before jumping all the way in.

- **Have a back-up plan.** If there's not a market, or it collapsed over the season, have a second-best option available. If you wanted to sell your rye into a distillery and the booze went bust, know what your region's cover crop seed needs are and help to satisfy them, or consider planting no-till beans into heavy-seeded crimped rye next year.

- **Consider ALL markets.** You'll likely sell much of your production into commodity markets, but challenge yourself to get creative with lower volume, higher-value crops. Consider regional distilleries and breweries, seed companies looking for contract growers, regional millers, canning crop companies (peas, beans, sweet corn, etc.), regional livestock producers looking for feed and forage, vegetable protein (yellow peas), etc.

In nature, diversity is the law. It creates a system that survives and thrives no matter the disturbance. Through longer, smarter rotations we're mimicking the genius of creation and keeping ourselves financially and environmentally healthy in the meantime.

Anders Gurda

Anders Gurda is Director of the Farm Profit Program at Pipeline Foods. Learn more at pipelinefoods.com or get in touch directly: agurda@pipelinefoods.com or 612-868-1208.



Now that you have made the courageous decision to transition your farm to organic, one of the first questions most farm owners ask is what are the right lease terms for my farm during the transition and once it is certified organic? This is a complex question and there are many factors that need to go into figuring out what are the “right” lease terms. The main lease terms I consider are:

- 50/50 crop share
- Cash Rent – Flat and/or Variable
- Net share lease
- Custom farming

The 50/50 crop share leases are the good old standby terms that have been used for generations. The landowner brings the land, infrastructure (permanent improvements such as grain bins and drainage tile) and half of the capital for the crop inputs to the table in exchange for half of the production. The tenant brings the required machinery, labor and half of the capital for the crop inputs to the table in exchange for half of the production. The 50/50 crop share lease is an excellent way to demonstrate you are willing to invest in your farm and share the risk and rewards of the organic transition.

The 50/50 crop share lease becomes less practical for farms under 240 acres that are going to be transitioned to organic unless the infrastructure is already in place. Typically, an organic farm has a 3 or 4 crop rotation. For efficient operation, as the farms get smaller it becomes harder to have so many crops on the farm in any one year. In many instances, the number of crops is reduced to 1 or 2 each year as part of the 3 or 4 crop rotation.

A cash rent lease may be the simplest way for the landowner and the tenant to meet the goals of organic production on smaller farms. During the transition, most tenants will want a multiple-year lease at below-market rental rates to help offset the additional risk. My thoughts are a rental rate of 2/3 of the current conventional cash rent market would be a fair place to start discussions with the tenant. Once the transition is completed there are a couple of ways to go with lease terms:

1. A flat cash rent with a set bonus formula based on production & price.
2. A flat cash rent based on what the average income would be for the organic rotation cycle.

The net share lease is another option for landowners. With a net share lease, the owner receives a set percentage of the crop(s) as the rent for the farm. The tenant pays all the direct crop input expenses, machinery, and labor. The landowner will pay the real estate taxes, their own crop insurance, drying expense and trucking from the bin site to the end-user. This option allows an owner who may not have a lot of cash available for inputs to share with the additional risk and rewards of transitioning to organic.

The fourth option is to have the farm custom farmed. This option works well if the landowner is financially able to pay all the crop input expenses and absorb the risk. A custom farming lease works with any size farm.

The custom farm lease is also a way forward if your tenant is unwilling or unable to take on the risk of transition. This option requires the landowner (or their farm manager) to be actively engaged in the overall daily activity of the farm. The tenant is going to operate on a set plan and need to communicate regularly with the decision-maker. The owner should also be prepared to purchase some of the specialized implements needed for the organic operation.

To help ensure that the farming is accomplished in a timely fashion the landowner will to need, build a good incentive package on top of what the operator is paid for each field operation into the custom farming lease.

Many times, when it comes to organic transition a tenant wants a multi-year lease commitment from the landowner, I understand the tenant's reasoning especially if there are major equipment purchases involved with the transition. Personally, I prefer to work on a year to year leases that way if something is going wrong or financial needs of the landowner change due to disability or death the lease terms can be adjusted. These topics should be discussed as part of the lease negotiations and addressed in a multi-year lease.

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COVER CROPS IN ORGANIC FARMING SYSTEMS

Cover crops are nothing new to American agriculture. Producers in the eastern states knew the benefits in the mid-1800s following intensive tobacco production. However, after WW II and the rise of the modern farming era, cover crops largely disappeared from most farming operations. Now, in the last 15-20 years, cover crops have made a resurgence. A large part of this has to do with the soil health movement as farmers look for ways to increase yields. It could probably be argued that soil health should have been the first step in increasing yields, not the third or fourth.

Cover crops are crucial to the organic farming system and are not a recent phenomenon. Organic farmers have been “growing” their own fertilizer for decades. One thing that has changed is the myriad of options growers now have. Sorting through the dozens of different cover crops can be confusing and intimidating, especially for those new to the cover crop scene. Knowing the right questions to ask can be the most important step in implementing a sound cover crop program for your farm.

We know the benefits of cover crops are many. Building soil organic matter, cycling nutrients, building soil microbial populations, retaining free nutrients, and adding valuable nutrients, and weed control are just a few benefits of cover crops. The key is learning to harness these benefits profitably.

Let's look at some of the factors that influence cover crop decisions. First, crop rotation and fertility program. For each crop to be grown, the organic producer needs to assess his or her fertility needs and how those needs will be met. Usually, cover crops will be needed to supply some or even most of the nutrients. Knowing what you need from your cover crop will start the process of choosing the right one(s).

Second, evaluate timing. Most cover crops need to be planted in a window from March-mid October. If your timing of harvest tends to be late, it will eliminate many options that could be used. Remember, you are growing a cover *crop*. You will want to have the same sense of urgency, care, and



planning as you would your primary cash crop. It may mean earlier planting in the spring or growing shorter day crops to leave ample time for the cover crop. However, there are other options to consider such as an aerial application or ground application into the standing crop if the timing doesn't work out due to weather or other conditions beyond your control.

Third, start to evaluate the various cover crop options and what they will do for you. Try to mix multiple species that will work together to accomplish your goals. Certain cover crops work particularly well together. For example, oats, winter peas, and radish make a great mix ahead of corn. Pay attention to seeding rates, planting methods, and planting depth to get the best stand possible. Your cover crop planting is a major investment in the following cash crop and needs to be right the first time. Remember to look at the ROI, not the cost of the cover crop.

Remember to have a backup plan. Things don't always work out the way you planned. Careful planning and execution of your cover crop strategy in your organic cropping system will pay back dividends for years to come.

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TRANSITIONING WITH THE ORGANIC SYSTEM APPROACH



A Conservation Cropping System is a suite of practices that work synergistically to replenish soil life, restore organic matter to your farm's soils, and in return reduce risks. Over time these improvements increase nutrient efficiency and farm profitability, reduce sediment and nutrient losses, and make farms more resilient to extreme weather conditions. The practices are tailored specifically to your farm, with considerations such as the equipment you own, the crops you raise, and your soil, slope, and proximity to water.

The purpose of the Conservation Cropping System (CCS) recipes are to provide the starting steps for a farmer who wishes to begin incorporating soil health management practices into the farming operation with low risk. If farmers implement these strategies on just a portion of their farms, they can learn by doing, and over time develop a CCS that works for their farm on all the acres.

The best CCS is the suite of practices that work well with your farm to improve soil health while improving profitability. Every CCS includes practices to: 1) Reduce soil disturbance to the maximum extent possible, 2) Keep a living root in the system for as long as possible, 3) Diversify crop rotations and 4) Keep the soil covered with living or dead (mulch) vegetation at all times.

For every CCS, a good starting point is to have a fertilization plan that maximizes nutrient use efficiency through the 4Rs. The 4R concept incorporates the Right fertilizer source at the Right rate, at the Right time and in the Right place. (Learn more at <http://www.nutrientstewardship.com/4rs/>)

Getting started with soil health during the three-year organic transition period:

Step 1) Year "0": Any land used to produce raw organic commodities must not have had prohibited substances applied to it for the past three years. The transition plan below assumes that prohibited substances (e.g. many chemical applications) have ceased prior to the first year operating the farm - i.e. the transition starts in the summer or fall of "year 0".

Step 2) Year 1 (Spring Transition): In the first year, don't plant a cash crop, plant a "soil-life" crop to jump-start soil biology. Plant oats over a seeded grass-legume mix such as 25% red clover, 25% perennial ryegrass, 25% alfalfa, and 25% orchard grass. Calculate proportions by seed count and not by weight. (NOTE: Do not harvest in Year 1, if one harvests everything, all the fertility is harvested.)

Step 3) Year 2: Keep the grass-legume mix. Hay one time only, early or mid-season, based on the quality of the hay.

Step 4) Year 3 (Completed Transition): This is the first year to obtain certified crops. The hayfield will be shallow, moldboard plowed or tilled (rototiller), or even shallow disking in the spring, with secondary tillage trips to level the field. Cash crops can be planted. (NOTE: A four-year diverse rotation with cover crops is best for nutrient retention).

Option of Transition Types (Short Summary):

It's very important to find a crop advisor or mentor who has experience in transition and organic farming. One wrong mistake can have an impact for 5+ years.

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TRANSITIONING WITH THE ORGANIC SYSTEM APPROACH (CONT'D)

It's very important to be a "giver" more than a "taker" with crops and hay. It is strongly advised against taking more than one crop of anything per year and not double cropping. Instead, take advantage of cover crops with the type of current conditions that are being used on the farm.

Option 1: If Cash Is Not Needed

In the spring of year 1, plant the oats and grass-legume mix. Combine or mow oats and keep mix mowed or grazed through year 1 and year 2. (NOTE: Don't bale or sell any of the hay.) In the fall of year 2, work the mix-up and plant an oats/ radish cover crop. Plant corn in the spring of year 3.

Option 2: Intermediate

In the fall, after the conventional crop harvest, plant wheat. Seed grass-legume mix in March or April of year 1. Combine wheat in year 1 and mow-mix in the fall of year 1 and through year 2. (NOTE: Don't bale or sell any of the hay.) Work-up a mix in the fall of year 2 and plant a winter-kill cover crop and corn in the spring of year 3. Because synthetic fertilizers are not being used, the crops planted are the soil's fertility.

Option 3: If Cash Is Needed

Plant cereal rye following conventional crop harvest (minimum 150 lbs. for no-till beans, 75 lbs. for cultivated beans). Follow cereal rye with soybeans in year 1. Either mow down and work in the cereal rye or use a roller-crimper and no-till soybeans. Follow soybeans with wheat, rye, or oats in year 2. Inter-seed small grains with red clover (NOTE: Mow clover after grain harvest for weed control). In the spring of year 3, add manure as needed and work red clover down and plant organic corn.

Observations:

Get to know the neighbors and their farms! Be able to understand their cropping systems so harm can be avoided and vice versa. Try to find out the neighbor's maturity dates and herbicide usage. Plan a sustainable system, find a mentor, and ask some questions: What will be managed? Grain? Livestock? Vegetables? Is the land owned? How much

is rent? Or is it leased? If money is needed, then plant a cash crop of cereal rye in the fall and no-till the land. The types of crops grown will influence timing considerations and cover crop rotations.

Continual learning:

Seek out "farmer mentors" - look for farmers in the area who are implementing soil health management practices.

Consult with Soil Health Specialists and find field days at the Illinois Sustainable Ag Partnership: www.ILsustainableAg.org

Stop in your local USDA Natural Resources Conservation Service and county Soil & Water Conservation District office for technical and financial assistance with the conservation practices discussed in this fact sheet: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/ii/contact/local/>

Acknowledgments:

American Farmland Trust is grateful to Illinois farmers and agriculture professionals for their advice and review of these recipe cards. For specific acknowledgments please refer to the online PDF recipe cards: <https://farmland.org/project/advancing-conservation-cropping-systems-in-illinois/>

American Farmland Trust (AFT) is working to save the land that sustains us by protecting farmland, promoting sound farming practices, and keeping farmers on the land. AFT believes that by replenishing life in the soil, farmers can improve the profitability of their operations while reducing their environmental footprint.

In Illinois, AFT acts on this belief by working with farmers, landowners, agricultural and conservation agencies, and organizations to help farmers adopt conservation cropping systems to restore our soil. AFT believes that all farms – big or small – can do better by the soil.

Learn a step-by-step process on implementing cover crops with these recipes below or visit AFT for more information and how you can become a member at www.farmland.org





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When	Event	Where	Host
November 24-25, 2019	19th Annual Iowa Organic Conference	Iowa City, IA	Iowa Extension
December 9-12, 2019	ACRES Eco-Ag Conference & Trade Show	Minneapolis, MN	Acres USA
January 8-10, 2020 24-25, 2020	Illinois Specialty Crops, Agritourism and Organic Conference OGRain Conference	Springfield, IL Madison, WI	Illinois Specialty Growers Association University of Wisconsin-Madison
February 5-6, 2020 19-20, 2020 27-29, 2020	The Land Connection's Organic Grain Conference Indiana Organic Grain Farmer Meeting Moses Organic Farming Conference	Champaign, IL West Lafayette, IN La Crosse, WI	The Land Connection Purdue Extension MOSES (Midwest Organic & Sustainable Education Services)

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@flanagansstatebank.com.

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FARM FINANCE FAQ

What ratio will tell the overall health of an operation?

o One ratio would not be able to indicate the overall health of an operation. Multiple ratios are used to create a complete picture of the over health of an operation. Below are some key ratios and indicators that lenders use when analyzing a farm operation.

How much working cash if enough?

o Working Cash = Current Assets – Current Liabilities
25% or more of Schedule F Gross Revenue on income tax

Working cash is a measurement of liquidity in an operation. Every operation should have enough liquid assets (cash, grain in storage, prepaid expenses, market livestock) to cover a year's worth of debt obligations (accounts payable, principal & interest payments, taxes).

What is debt to asset ratio? Why is it important?

o Debt to Asset Ratio = Total Debt ÷ Total Assets
Excellent 25% or less, Average 26% - 50%

This ratio is a measurement of solvency in an operation. It tells you what percentage of an operation's assets is borrowed. If you have a high ratio then that means a lot of an operation's assets are tied up with creditors and the higher the interest risk. A ratio more than 1 indicates that an operation has more debts than assets to cover those debts should they sell the operation. Generally, the lower the ratio the better.

What is coverage ratio? What should it be?

o Capital Debt Repayment Capacity (CDRC) = Net Income + Depreciation Expense + Interest Expense + Non-Farm Income – Family Living – Income tax

Debt Service Coverage Ratio (DSCR) = CDRC ÷ Total Debt Service

Excellent: 2.00 or less, Average 1.50 – 2.00

This ratio measures ability to repay debt obligations. If the ratio is less than 1.00 that means that an operation has not made enough net income to cover all their debt obligations in a year. A ratio higher than 1.00 indicates than operation has enough net operating income to cover debt obligations with some money left over. The higher the ratio the more money after debt obligations are met.

Why is an accrual farm statement more accurate than cash basis?

o Cash basis accounts for all income received and expenses paid in a year. Accrual basis farm statements accounts for income when it is earned and expenses when they are incurred.

An accrual farm statement gives a clearer picture of how well a farm operation performed during a year because it does not include any income or expenses from a previous or upcoming year. Cash basis could include both previous years and upcoming years.

What is your operating expense?

o Operating Expense (Total Operating Expense – Depreciation) ÷ Schedule F Gross Revenue
Excellent \$0.50 or less, Average \$0.51 - \$0.65

Operating expenses are any expenses incurred to generate income. If operating expenses are more than gross revenue, then an operation is not making money. An operating expense that is \$0.50 or less of every \$1.00 of revenue is considered excellent. In many cases, that would leave enough money to cover income taxes, family living, and term debt principal payments.

What are your big three costs (family living, income tax, and term principal payment) per acre?

o From your net operating income, a farm operation will need to cover family living, income tax, and term principal payments. Although these 3 items are not directly incurred in operating a farm, they are equally important and should be considered in any analysis. The only one of these 3 that is adjustable is family living. If farm net income cannot cover all 3, even after a family living reduction, then off-farm income would be needed to help supplement the costs. A reasonable net amount per full share acres for all 3 combined would be \$150 per acre.

Organic Yields & Prices Relative to Conventional



	% Yield Organic to Conventional	% Price Organic to Conventional
Corn		
5 Year Ave	67%	276%
10 Year Ave	68%	230%
Soybeans		
5 Year Ave	67%	233%
10 Year Ave	62%	209%
Alfalfa Hay		
5 Year Ave	91%	121%
10 Year Ave	84%	111%
Wheat		
5 Year Ave	76%	195%
10 Year Ave	76%	157%
Oats		
5 Year Ave	77%	233%
10 Year Ave	77%	199%

Transition Cash ESTIMATE Only (\$)

	With Crops	Without Crops or Income
Year 1 Wheat or Oats	(188)	(427)
Year 2 Alfalfa Hay	31	(507)

Although organic yields are less than conventional yields, organic prices are much higher and they more than make up for any lost yield. Alfalfa Hay is only 91% lower in yield than conventional and would be a good stable crop to plant during transition. Using wheat/oats in year 1 of transition and alfalfa hay reduced the amount of money lost in year 1 of transition and has a positive ending cash in the 2nd year. Using neither crop and/or without another source of income loses -\$427 in year 1 and -\$507 in year 2.

*All data provided by <https://finbin.umn.edu/>