

Overview: Marketing Organic Grains in New York State

by
John Berry
Agricultural Marketing Educator
Penn State Extension
Lehigh County

Edited by
Sarah Johnston
New York State Department of Agriculture and Markets
10 B Airline Dr.
Albany, NY 12072

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Introduction:

The East Coast, including New York State, is generally a grain deficient region. Our local livestock, poultry, and food demands significantly exceed our local supply. Historically, we relied on imported, conventionally-produced grains to meet demand. The total production of feed and food grains in New York is quite small compared to total U.S. production. New York is a minor producer in the organic grain market as well. The Northeast U.S. is the lowest producing grain region. However, opportunities are increasing to grow organic feed grains for organic meat, poultry, and dairy farmers in our area. The demand for these livestock products has increased dramatically in regional markets. Although it remains a small component of total U.S. agriculture (<1%, 2009), organic farming has been expanding both nationwide and in New York.

The number of organic farms in New York is 827, according to the 2008 Census of Agriculture Special Report. Dairy farms accounted for 316 of these farms. There were 168,428 certified organic acres reported, with 39,544 acres of pasture and 92,716 acres of harvested crop land. Looking through the 2008 USDA Organic Ag Census shows a snapshot of organic field crop production in New York, including grain:

New York State 2008 USDA Organic Agriculture Census Data

<i>Crop</i>	<i>Number of Farms</i>	<i>Acres Farmed</i>	<i>Bushels or Tons Harvested</i>
Barley	45	1,457	66,084
Buckwheat	11	300	7,413
Grain corn	149	10,641	1,291,801
Silage corn	87	2,995	44,623 T
Dry hay	362	34,807	77,597 T
Haylage	180	22,788	91,160 T
Oats	107	2,623	112,720
Rye	12	128	3,889
Silage sorghum	15	296	3,553 T
Soybeans	92	6,775	232,607
Winter wheat	44	2,415	34,200
<i>Transitioning</i>	62	2,511	

There are many factors behind this positive trajectory in organic farm products, and grains as the focus here. While the USDA reports that breads and grain products were category leaders in organic food and beverage product growth, the majority of New York organic grain acres depend on a growing organic animal market. Demand for organic livestock and poultry has been increasing. These animals require organic feed in order to be certified USDA organic, and corn often makes up a majority of livestock diets. New York has an active feed production industry for conventional uses, and it makes sense we also would play a role in the growing organic feed market. The challenge, as usual, for Northeast farmers is that we tend not to be the low-cost producer of field crops. This increases the significance of marketing skills to enhance farm

revenue. Growers that consider a bit of planning and research will help mitigate their risk of production agriculture.

To me, the USDA Certified Organic products are an illustration of the identity recognition and preservation market segmentation concept. When we are working with identity preserved products, we must adhere to all required documentation in order to access the appropriate market. The identity is developed and documented by the producer in accordance with regulatory and end-user needs.

Working with an accredited certifying agency the producer establishes credibility of this identity. The accredited agency approval of the product gives assurance to the market that the product is what it is represented as. This process is very similar to that of the many identity preserved products in that the described and recognized methods of production, handling, storage and processing must be adhered to and documented in order for the product to be accepted into the intended market channels.

Because of this intimate relationship of certifying agency to the process, a grower considering starting an organic production system, and all producers currently involved, are better served becoming familiar with the needs of the certifying agency. Without full participation and cooperation between the producer and an agency, organic marketing may be more difficult than necessary. In other words, visit with the representatives of potential USDA-sanctioned organic certification organizations and start to build a mutually beneficial relationship well before marketing of organic commodities commences.

Significant differences exist between conventional and organic markets as seen in the table below.

Comparison of Conventional and Organic Grain Market Structure

Commodity Grain Markets	Organic Grain Markets
Well-established input supply chain.	Minimal input supply chain.
Well-established public and private sector support for research, education, service, and product development.	Limited public and private support for research, education, service, and product development.
Mature industry – prices represent lowest cost producers.	New industry – price premiums reflect demand in excess of supply, and will tend downward as competition increases.
Transportation efficiency	Transportation – truck and

of unit – trains, barges, etc.	single rail car transportation qualified for organic grain transport are limited, increasing costs.
Well-established storage and processing infrastructure.	Limited storage and processing infrastructure – organic grains segregated, records required. Elevators must reap adequate returns to justify certification costs.
Well-established procedures for price risk management.	Limited opportunities for price risk management.

“Organic Feed-grain Markets: Considerations for Potential Virginia Producers,” ID-448-520, Mainville, D., Virginia Tech; Farrell, M., Virginia Tech; Groover, G., Virginia Tech; and Mundy, K., Virginia Tech.

Marketing channels and price discovery are recently more convenient than several years past. The volume of products moving and the USDA standardization of the organic program allow for an increasingly more transparent system of commerce for this maturing industry. Transportation costs may be a significant portion of our anticipated organic marketing enterprise and should be fully explored and recognized in our marketing plans. Some food grade markets can be a distance from our production areas.

Due to the costs associated with producing and managing a quality crop, the necessity of securing buyers for our entire production can be reflected in net farm income. Organically certified crops that must enter the conventional market channels may not yield sufficient gross revenues to meet our intended business plan objectives. A University of Illinois multi-year study of grain farms compared the 10 percent most profitable farms with the 10 percent least profitable. This study suggests fully two-thirds of this profit difference is attributable to input cost control. The remaining one-third of the difference between these farm categories is directly related to more effective marketing. This tells me of the relative significance of meaningful business management and the need to adequately control costs as we enhance marketing skills.

As dairy farmers convert to organic, generally they will begin with a production system based on corn and soybeans because they are familiar with it, stimulating demand for organic corn and soybeans in the local market. As producers gain experience and see the effects of the organic production on their herds, they may switch to different grain and grass mixes that are easier for the cows to digest, resulting in better herd health and increased longevity (Miller 2006). This change is particularly true for those farmers who adopt the philosophy underlying the historic organic movement, for which sustainability and animal welfare are central.

This potential evolution in dairy production systems means that demand for alternative grains such as barley, oats, triticale, sunflower seed and meal, and field peas is likely to emerge, in addition to the continuing demand for corn and soybeans. Establishing rotations that include these alternative grains can help organic feed-grain producers enhance profitability and help secure markets well in advance of harvest. Opportunities also exist for producing organic haylage and silage, which tend to be marketed locally because of their bulk and sensitivity to transport and handling conditions.

Harvest, Storage and Quality

Organic grain and forages are harvested in the same manner as conventional crops. Similarly, if we are serving markets that include food grade product we are being especially focused on a harvest that results in the minimal amounts of weed seeds and other material as feasible – significant penalties often apply for foreign material in grains destined for a food market.

Grain quality standards are rigid in that they are federally described and documented. Fortunately, testing of grain quality is possible through a network of accredited laboratories. This service is handy when there are disputes over the condition of grain being traded. A potential challenge is that some components of quality such as odor and color are not necessarily objective. Issues such as grain moisture levels, amount of foreign matter, and the presence of pathogens, such as fungi, mold or aflatoxins, are important. Meeting buyers' quality requirements is crucial to good business. Additionally, in some situations there is the possibility that these industry standards and a specific buyer's standards are not identical. Understanding the needs of our buyers will go a long way in enhancing our success marketing crops.

Many qualities that growers take to the marketplace relate to proper seed selection, notes Dennis Penland, organic product manager for a farmer-owned seed company.

“Genetic traits, the growing period, agronomic practices, the timing of harvest and your grain drying system all affect grain quality. Companies that process food-grade organic corn and soybeans, for example, have specific requirements for the grains’ foreign matter content, test weight, protein content, seed color and more.”

Grain buyers look at many specifications. Physical characteristics include moisture content, kernel size and stress cracks. Sanitary traits include fungi, mycotoxin counts, rodent excrement and dust. Intrinsic characteristics include milling yield, hardness, starch content, oil content and protein content. You have to know what traits are important to the buyers you want to reach.”

Darcy Maulsby, *Evaluate Your Organic Grain Marketing Opportunities*, Upper Midwest Organic Conference

Harvesting, bin management, and auger/handling management are additional, separate topics that also require close management if we expect positive results for our grain marketing efforts and

skills. Following are a couple resources to enhance our awareness of appropriate post-harvest handling:

“Grain Harvest Losses”

<http://www.smallgrains.org/Techfile/Sept78.htm>

“Post Harvest Grain Quality”

<http://extension.entm.purdue.edu/grainlab/>

Management of Stored Grain with Aeration

<http://www.extension.umn.edu/distribution/cropsystems/dc1327.html>

Farm Grain Bin Safety

<http://www.ncga.com/ncga-ngff-debut-joint-farm-grain-bin-safety-video-2-3-11>

Price

Some of the casual price conversations I hear concerning organic grain and forage marketing includes something comparing conventional prices to a current organic price. As a way to calculate either a current or future price as we budget and project a plan, we may look for a rule-of-thumb. However, when we negotiate price levels with our customers, it may serve us to consider the following discussion of a relationship between organic and conventional grains. Perhaps conventional prices are not a gauge of appropriate organic products.

Stu Ellis: What Is The Price Relationship Between Organic And Conventional Grains, Or Is There One? by Stu Ellis (May 26, 2010)

Without the market volatility of 2007 and 2008 {2010-2011} that pushed corn and soybeans into extremely profitable price levels, those local elevator bids look pretty bleak with ample carryover from the old crop and a large new crop beginning its reign. You think to yourself, “If these are the prices I can expect for the next 20 years, I should give specialty and organic crops a longer look, after all organic corn and beans are always twice the price of conventional corn and beans.” That phrase “always twice the price,” may be questionable.

The organic corn and soybean industry can only claim less than half of one percent of the U.S. cropland. Although it consumes such a small share of acreage, it has grown significantly in recent years. Central Illinois specialty grain merchant Lynn Clarkson casts a long shadow in the organic grain market, and told a Congressional committee a couple years ago, “consumers pay higher prices to get foods [...] raised without synthetic chemicals...” and further adds that “whatever their reasons, these buyers are not seeking the cheapest agricultural products. They seek preferred qualities.” They are willing to pay higher prices, Clarkson says, but what is the relationship between those prices and commodity corn and bean prices?

That question is what Iowa State economist Ariel Singerman attempted to answer with her research focused on the price differences between organic and non-organic grains. While many producers would say there is likely a premium for organic grain, they believe that the premium will usually be related to the market price for the conventional grain. Singerman says not so.

True organic grains will receive a premium price because of the additional risk and cost in raising a crop that may have an even lesser yield. However, a 2008 study about organic soybeans confirmed the higher costs of production, but confirmed that organic production is more profitable than conventional beans due to the significant price premiums, rather than lower costs or higher yields. Singerman also reports several studies that indicate organic corn yields were 8 to 10 percent lower than conventional corn, and organic soybean yields were anywhere from 1 to 19 percent lower than conventional beans.

But while yields will fluctuate, Singerman says price dynamics for organic corn and soybeans are not the same as for conventional grain because the markets are less liquid. She says it is sometimes difficult for organic producers to find spot markets for their production unless they have contracts, and in many cases brokers of organic grain recruit producers. Another challenge is the fact that crop insurance premiums are 5 percent higher for organic crops, yet indemnity payments are computed on conventional grain prices. {This was the case with this federally subsidized product until the 2011 crop year. See crop insurance reference.}

Prices for conventional corn and soybeans are keyed off the Chicago Board of Trade, but prices for organic corn are discovered in Dallas, Fargo, Minneapolis and Omaha. Prices for organic soybeans are developed in Fargo, Minneapolis and Omaha. Prices were also established for organic corn in Detroit and San Francisco, and for organic soybeans in Detroit and Dallas. Singerman says organic prices do not follow the same distribution as conventional prices and will be level for some period of time before a jump to a different price level. She says that is determined by the “relative thinness of the organic markets and the impact of contracting on them.” According to the market data, the average price levels for organic corn were more than twice that of conventional corn; however, soybeans were more closely aligned with a doubling of the price.

Volatility was significantly less in the organic market as well, with organic corn prices only changing 12 percent of the time and soybeans only changing 20 percent of the time. The average size of the price change was 22 cents for corn and 31 cents for beans. Singerman says one can argue that organic crop prices reflect the additional production cost, therefore, receive a premium price and can still be substituted for conventional corn and beans. She says while there could be some substitution, but not all, since conventional grain cannot be fed to organic livestock. Therefore, organic and conventional crops are not substitutes for each other and the prices of organic corn and soybeans are not related to that of conventional corn and beans. In one example dating to July of 2007, the price of organic corn in Minneapolis rose from \$6.75 to \$10 per bushel, and at the same time the price of conventional corn declined 13 percent.

Looking at the growth of the organic livestock industry, Singerman says from 2001 to 2007 the acreage devoted to organic corn grew 84 percent and 42 percent for organic soybean acreage.

But at the same time, the size of the organic beef industry grew 325 percent, and 241 percent for organic dairy. Since organic livestock must be fed organic corn, the reason for the price jump in July 2007 organic corn is easier to understand. Subsequently, she says there is volatility in both organic and conventional markets and anyone considering a jump to the organic market should beware that price premiums have been volatile as well. Additionally, the use of existing futures and options markets would be of little use to cross hedge the risks related to organic corn and beans.

Summary:

While price premiums for organic corn and soybeans may seem to be twice that of the prices of conventional crops, that relationship may be more coincidental than normal. Prices for both organic and conventional crops can be volatile, but they are set in different markets, they do not move in lock step with each other, and conventional crops cannot be substituted for organic crops meaning they are separate commodities.

Price discovery may be one significant variable with farmers – buyer negotiation. Since USDA organic standardization, the Agricultural Marketing Service has tracked organic grain buying station results. To assist our awareness of current prices (maybe not in our immediate area) the following websites may be useful:

Eastern Corn belt price reporting:

http://www.ams.usda.gov/mnreports/gx_gr120.txt

Midwest price reporting:

http://www.ams.usda.gov/mnreports/nw_gr113.txt

Grain Contracts

Contracts are commonly used in organic grain sales. While many producers are willing to work with informal contracts that are verbal, a written contract is preferred. By clearly outlining the rights and responsibilities of each party, a signed document protects both the producer and buyer from misunderstandings. Contracts clearly specifying volume, price, delivery, storage, cleaning, drying is standard practice. Payment terms and methods for arbitration are also typically specified in many contracts. In this emerging market, producers should fully understand their liability and limitation. If a buyer goes out of business or simply reneges on the contractual agreement, it can be difficult, costly and impractical to achieve enforcement.

A grain contract is a legally binding agreement that will dictate what a farmer is going to sell and how much they are going to receive for it. Contract growing can offer security to an organic producer, but as with any contract, it is very important that all of the conditions are understood and agreed to before signing on the bottom line. The companies that write contracts often have a legal staff to make

sure they protect themselves. Farmers need to do the same, and should have all contracts checked by a lawyer and/or banker before signing.

When signing a contract, a producer changes the status of their risk from market risk to buyer risk. They need to trust that the person or entity they are contracting to will uphold their end of the bargain, and still be a viable entity with cash on hand at the time the contract payment is due. Organic buyers are subject to the same grain security laws as conventional grain dealers. Farmers need to consider ownership of the crop when negotiating a contract. Most simple contracts dictate the crop belongs to the farmer until delivered to the buyer. In some cases the title to the crop goes to the buyer as soon as the seed is put in the ground. In this case, a farmer's crop insurance, financing or rental agreements may be affected. Weighing the pros and cons of each situation is important before a final contract decision is made.

When negotiating a contract, there are key factors to be clarified. These include: specific responsibilities of the farmer and the buyer under the contract, delivery date, amount of payment, payment date, volume or acreage contracted for, weather stipulations and responsibilities, assurances of payment, specific requirements for compliance with the contract, dispute resolution, and contingencies for the farmer if the buyer reneges. Contracts negotiated on bushels rather than acreage may require delivery regardless of the farmer's yield, requiring the farmer with a bad year to acquire product to deliver elsewhere. Extra compensation may be requested from the buyer for each month the crop remains in storage on the farm. Be aware of contract implications.

"Marketing Organic Grains," www.mosesorganic.org/, 1/2009

Seek professional consultations as one source of business management assistance when needed.

USDA, ERS "Agricultural Contracting Updates"

<http://www.ers.usda.gov/Publications/EIB72/EIB72.pdf>

National Ag Law Center

<http://www.nationalaglawcenter.org/>

Penn State University Ag Law Center

<http://law.psu.edu/aglaw>

"The Era of Contract Agriculture"

<http://www.econ.iastate.edu/~harl/TheEraOfContractAgriculture.html>

Crop Insurance

Most business managers can face risk in all segments of their planning, production and marketing. One new resource for organic producers is available at <http://www.organicriskmanagement.umn.edu/>. In addition to risk management strategies available to produce and handle a good quality product crop, insurance is available to organic farmers.

The foundation of an effective commodity marketing plan is considered by many to be based on meaningful crop insurance coverage. Producers have the opportunity to secure coverage for yields only, revenue and total farm gross revenue. Similar to meaningful farm management and effective business operations, crop insurance revenue guarantees are deeply dependant on historical farm records. Inputs and yields must be documented according to the guidance of a certified crop insurance agent. This step minimizes conflict over what is and what is not considered adequate records.

Coverage Availability

Risk Management Agency (RMA) currently provides coverage for 1) certified organic acreage; 2) transitional acreage (acreage on which organic farming practices are being followed that does not yet qualify to be designated as certified organic acreage); and 3) buffer zone acreage.

Prices, Insurance Dollar Amounts, and Premiums

Beginning in **2011**, separate organic price elections, projected prices, and harvest prices, as applicable, are available for: cotton, corn, soybeans, and tomatoes (processing). For all other crops, the price elections insurance amounts, projected prices, and harvest prices that apply to both certified organic and transitional crops will be the price elections, insurance amounts, projected prices, and harvest prices, as applicable. RMA publishes for the crop grown using conventional means, for the current crop year.

Reporting Acreage

On the date you report acreage you must have 1) for certified organic acreage, a current organic plan and recent written certification (certificate) in effect from a certifying agent; or 2) for transitional acreage, a certificate or written documentation from a certifying agent showing that an organic plan is in effect; and for both 3) records from the certifying agent showing the specific location of each field of certified organic, transitional, buffer zone, and acreage maintained and **not** maintained under organic farming practices.

You are required to maintain separate Actual Production History databases for conventional, transitional, and certified organic acreage. Also, all buffer zone acreage production has to be added to the acreage that it buffers.

Where and When to Purchase Crop Insurance

You should talk to your crop insurance agent to get specific information and deadlines. Many annual crops must be insured before March 15. Fall-seeded grains have a deadline of September 30. To find a list of **crop insurance agents** see: <http://www.rma.usda.gov/tools/agent.html>. For a **list of insurable crops**, see: <http://www.rma.usda.gov/policies/>.

More information on RMA's Organic Crop Insurance Program can be found on RMA's Web site: <http://www.rma.usda.gov/news/currentissues/organics/index.html>.

April 14, 2010

Organic Crops May Pay, but Your Timing Must Be Perfect
Stu Ellis, University of Illinois

Can organic production become profitable? There are some organic grain and livestock farms scattered around the Corn belt, which seem to survive year after year. There are some organic fruit and vegetable farms clustered around metropolitan areas that do well, because of the proximity to an interested clientele. But for the farmer who wants to transition to organic grains, the line of profitability is a fine one to walk.

USDA data has indicated that organic production increases annually by significant percentages, but acreage remains relatively small. Those who have shifted to organic production have been able to use the basic crop budget as their roadmap. The requirements to make it work are plugging in some lower yields, higher sales prices, and fewer crop inputs. A study by Purdue economists evaluated organic production farms by their net present value (NPV). They defined that as, "The NPV analysis takes cash inflows, outflows, and opportunity costs into account in order to determine a net return to land, labor, and management per acre for the entire analysis period." They used a 2009 to 2014 analysis period and a 9.05 percent discount rate over the years of 2003 to 2007.

Comparatively, the conventional production system was a corn and soybean rotation, versus a four year organic rotation of corn, soybean, wheat/alfalfa, alfalfa. Price-wise, the study used USDA's organic price premiums of 81 percent to 238 percent for corn, 65 percent to 139 percent for soybeans, and 14 percent to 74 percent for wheat. Alfalfa premiums were 0 percent to 20 percent, based on anecdotal data. The organic yield penalties used in the study were an aggregate of 7 different surveys. Those averages were 14.6 percent for corn, 14.9 percent for soybeans, 18.1 percent for wheat, and 12.6 percent for alfalfa. The Purdue economists indicated that yield penalties would disappear after the initial transition period, but could continue as long as 6 years.

Crop budgets for both conventional and organic inputs were based on budgets created by Purdue, Iowa State, and North Carolina State. Expected annual rates of cost increase were built into the budgets and when rounded were about 4 percent for seed, 5 percent for fertilizer, 1 percent for pesticides, 6 percent for fuel, 5 percent for drying, 6 percent for hauling, 3 percent for machinery, and 2 percent for operating interest.

Within the conventional crop production system, net return per acre for corn ranged from \$260 in 2009 to \$312 in 2013. For beans, the net return per acre ranged from \$207 in 2010 to \$203 in 2014. For the organic production, the first three years are considered a transition, and net returns ranged from \$193 in 2009 down to \$117 in 2011. However, organic premiums became available beginning in 2012 with net returns ranging from \$308 to \$391 for alfalfa, \$227 to \$1,523 for corn, and \$145 to \$669 for soybeans.

The Purdue economists report that the organic corn and beans have lower total costs of \$27 for corn and \$14 for soybeans. When calculating costs and yield penalties, conventional corn has \$77 per acre higher revenue, and conventional soybeans are \$53 per acre higher. However, when price premiums are factored in, organic crops generate higher net returns than conventional corn and soybeans. One explanation is that labor is not charged in the organic production, and also unpaid are management and problem solving, which ranged as high as 26 percent for one operation.

The profitability in organic production comes from price premiums. When planning a transition, it is important to ensure that your corn and beans are the first certifiable organic crops to ensure a premium price with the highest value crops.

Summary:

When net returns per acre are written in four digit numbers, it does not take much imagination to realize that organic production can be profitable. However, getting there takes time and patience. After suffering through the transition period without price premiums, and taking the yield penalty, organic crops can become profitable with the help of higher prices and lower production cost. Key factors to success are timing of your crop rotation and finding a market for your crop.

Conclusion

Opportunities exist to market organic feed and food grains. The industry is currently supplying expanding organic livestock, poultry and food processor sectors. Producers may limit some risks through researching their opportunities thoroughly before attempting to sell organic grain. Precise information on local organic feed grain prices and contract conditions is often scarce and may not be applicable across a larger area. When buyers are few, known prices may not be

appropriate for the location it represents. The relatively young age of organic markets, continuing market evolution, and the significance of a buyer-marketer relationship works against standardization of a pricing structure. Until there is more formalized price discovery, marketers may be better served through enhancing their market knowledge and skills of negotiation.

The continued growth of our organic feed and food grain market seems secure for now. Organic grain producer's ability to be price competitive as this industry sector matures deserves some attention as we look to the future. Until now, demand for our products has grown more rapidly than our ability to supply. This results in price bids that may not be sustainable as the industry production capacity expands. New York organic producers enjoy a significant transportation advantage compared to our Midwest, Canadian and off-shore competitors. When energy costs are relatively high, the expense of "importing" feed and food stocks allows us a less difficult opportunity to meet our farm business revenue needs.

Business management skill and product marketing acumen is a continuous process. We can all do better. New York organic grain producers have access to many sources of assistance and are near several buyers. Our opportunities and challenges are many. As we continue to grow and network with peers, we enhance our probability of meeting the goals of our businesses and our families.