

Organic Feed Grain Markets in Virginia

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Introduction

For farmers looking for an alternative to commodity production, the production and marketing of organic grains to supply the growing organic dairy production in Virginia is an opportunity. The market for organic grain appears promising: nationwide, organic feed availability is recognized as one of the primary constraints to the expansion of organic dairy. In Virginia, most organic grain is shipped in from the Midwest or imported, resulting in high transport prices. With Virginia's natural resource base and a growing market, considerable potential exists for profitable organic grain production. Producers who are considering organic grain production must be educated about the market so that they can make well-informed decisions about whether organic grain production is appropriate for them. Once that decision is made, producers must decide how to best position themselves in the market. Important considerations include how organic grain markets differ from conventional grain markets, and what market issues determine the profitability of organic grain production for Virginia farmers.

Demand, supply, market coordination and service requirements are all important aspects of the market. Demand tells us about the prospects of the market. Supply tells us about the competitiveness of Virginia's producers relative to their major competitors. Market coordination relates to the nature of transactions and relationships between buyers and sellers and is very different in organic grain markets than in conventional grain markets. Finally, a producer's ability to comply with the buyer's product specifications and service requirements is, along with cost, a key determinant of competitiveness in the market.

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Consumer demand for organic products

Growth in organic food markets is largely the result of consumers' concerns about the healthiness of foods that are produced with chemicals that may be retained in the product that they consume. For example, consumers are concerned about hormones and antibiotics in dairy, meat, and poultry, and pesticides in fruits, vegetables, grains, and other plant foods. Other important motivations for purchasing organic foods include the environmental benefits of organic production; a desire to support production practices that take animal welfare into account; and an interest in supporting family farms and local production, each of which consumers associate with organic products.

While fruits and vegetables occupy the largest share of the organic food market, meat, poultry, and dairy are among the most quickly expanding organic food sectors. Organic meat and poultry sales grew by 78 percent from 2003 to 2004, and 30 percent additional growth is expected over the next several years (Born 2005).

Horizon Organic^R estimates that organic dairy markets are currently growing at about 20 percent per year, but that if supply were unconstrained¹ the market could double within three years (McLaughlin, 2006). Organic grain is a crucial input to organic dairy, meat, and poultry production systems. As long as these markets are robust in Virginia, producers have the potential to supply the demand for organic grain that is necessary to the growth of these markets.

Demand for Organic Grain in Virginia

Two of the country's major organic dairy processors have established organic milk processing operations in or near Virginia: Horizon Organic^R in Harrisonburg, and Organic

¹ The supply of organic dairy products is constrained by slow entry of organic dairy producers to the market, the transition period for organic certification, and the availability of key inputs, particularly organic feed.

Valley™ in Asheville, N.C. They are actively recruiting producers to supply them with organic milk. Currently, these processors are importing the milk they sell in Virginia from outside the region. However, as they establish themselves and recruit producers locally, the demand for organic grains to supply dairy producers for these plants will grow. A representative of one of the country's largest organic milk processors said, "The key to southeastern organic dairy success is local organic feed production."

Types of grain demanded

Conventional dairy farmers typically use a corn-soybean mix to meet the energy-protein needs of their herds. As conventional dairy farmers convert to organic production, they will most likely begin with similar production systems, stimulating demand for organic corn and soybeans in the local market. As these dairy farmers gain experience feed regimes could evolve to include different grain mixes that are easier for the cows to digest, resulting in better herd health and increased longevity (Miller, 2006).

This evolution in dairy production systems means that demand for alternative products such as barley, triticale, sunflower seed and meal, and field peas could emerge, in addition to corn and soybeans. The establishment of stable rotation patterns that include these alternative grains can enhance profitability and allow farmers to secure markets for these diverse grains well in advance of the crops harvest.

Demand for grain will vary on the basis of the production systems adopted by organic dairy producers, particularly the extent to which grains are used relative to forage. The production systems that organic dairy farmers adopt will depend on four factors—the farmer's personal philosophy, the cost of grain, the availability of adequate forage, and the resolution of ambiguity in the National Organic Standard² regarding forage requirements. This requirement will affect both the range of farming systems employed and the size at which organic farms can operate.

Opportunities for production of organic haylage, baleage and silage also exist. These crops tend to be marketed locally because of their bulk and sensitivity to transport and handling conditions.

Supply

Nationwide, the country imports eight times more organic grain than it produces, with about 80 percent of the imports coming from China and about 20 percent from South America (Clarkson, 2006). Transport prices are a major determinant of the total cost of organic grain to processors and dairy

²For information about the National Organic Standards, go to the USDA National Organic Program website <http://www.ams.usda.gov/nop/indexNet.htm>.

farmers. Current high fuel prices enhance the relative competitiveness of Virginia's organic grain producers. In the short to medium term, the cost competitiveness of Virginia's producers will depend heavily on their production costs, as well as transport costs, particularly fuel.

Market Coordination and Buyer-Supplier Relationships

Organic grain markets and conventional grain markets behave very differently. Consequently, producers' marketing, price, and risk management strategies in organic grain markets must also differ from those used by conventional markets.

The primary difference between organic and conventional grain markets is that conventionally produced grain is a commodity, and organic grain is a high-value product. Conventional grain markets amass the product of many producers and coordinate the availability of this product with the demand of many buyers. Prices adjust to match the volume supplied with the volume demanded. Producers base their production decisions on both current and anticipated prices. Tools such as futures, options, and forward contracts exist for producers and buyers to manage price risk. After harvest, conventional grain producers frequently sell their product to the local elevator, receiving a set payment for the volume of grain falling within specific, preestablished grades.

Organic grain markets, on the other hand, have many fewer buyers and sellers. As a result if sales and purchases are left to the open market, the entry or exit of one buyer or seller could have substantial effects on prices. Moreover, with fewer buyers and suppliers, buyers are likely to try to arrange their supply well in advance of their needs, further reducing the pool of potential buyers looking for grain on the open market. Finally, tools such as futures and options do not exist to help producers manage price risk in organic grain markets.

Another major difference between conventional and organic grain markets is how prices are formed, and how supply and demand are coordinated. Conventional grain markets are coordinated almost entirely by price—that is, producers learn what the market "wants" and "needs" by looking at prices and price projections. They make their production decisions on the basis of the price they expect to receive. In contrast, organic grain markets are much less dependent on price for matching supply and demand. While price expectations play an important part of farmers' production decisions, direct relationships with buyers provide farmers with information about specific buyers' needs. They are often accompanied by contracts, leaving open price systems to play a marginal role relative to conventional grain markets.

One challenge that results from the reliance on direct relationships is obtaining reliable information about market prices for organic grains. The lack of reliable local price information has two dimensions. First, no public system for

the collection and dissemination of prices for organic grain exists. Second, the low volume traded through an open market system means that available prices may not reflect local market conditions. Information about many transactions is never revealed due to nondisclosure practices. Even what is revealed might not be useful without knowing the specific grain quality and services included in the transaction and reflected in the price. In general, organic grains trade between 1.5 and 2.2 times conventional grain prices (Born). However, Virginia producers should be cautious in using price information available from other regions to form expectations of prices in Virginia. Since organic grains are highly subject to local conditions, an excess of local production one year could push local prices down even if prices are high elsewhere. The local and external markets would only balance when price differentials grow large enough to compensate for the cost of transporting grain into the region.

Given these issues, buyers and producers tend to seek arrangements well in advance of their actual need. Prior arrangement of transactions means that contracts and informal agreements between buyers and sellers predominate in these markets. Contracts and informal agreements can also help protect buyers and sellers from price risk.

Product requirements

Product requirements in the organic grains market include the need for certification, adherence to quality standards, and the service needs of buyers.

Certification

Certification of organic production practices is absolutely essential for grain that is to be fed to organic dairy herds. To obtain organic certification, producers must be able to document that land used for organic grain production has not been treated with prohibited chemicals for at least three years. Producers must also fully document all their production practices, input use, and other cultural activities. Producers must protect their organic status or risk losing not only the sale but even the certified status of their land. Likewise, when organic grain producers contract out harvest or transport or purchase inputs, they must also ensure and get documentation that the service provider or input supplier adheres to organic guidelines.

Although in some markets producers can sell organically produced products without certification, these practices are unacceptable to the organic dairy processors. Organic processors are very sensitive to negative publicity if they were ever challenged on the organic integrity of their products. Dairy producers selling to organic processors must be able to certify that all inputs are certified organic, much as organic grain producers must document the organic nature of their own inputs if organic certification is to be maintained.

Quality

Beyond the requirement for certification of the use of organic production methods, quality requirements for organic grain are similar to those for conventional grains. Key issues are moisture levels, size, and the presence of mold or aflatoxins. At this point, however, quality requirements for organic feed grain are not as stringent as they are in organic food grain markets. Nevertheless, meeting buyers' quality requirements is crucial to good business.

Service

In direct marketing relationships, the producer takes responsibility for the functions that are performed by an intermediary in conventional market contexts. Many of these functions relate to services such as cleaning and screening, bagging, storage, and delivery. Though they do not significantly change the physical nature of the grain, they add value by transforming the product to meet the needs of the buyer. The services that they provide do not end with the sale, either. Service after the sale, such as responding to buyers' questions or complaints about quality or delivery conditions, is key to the continued success of a direct marketing relationship.

Prices and the Evolution of Organic Grain Markets

Currently, organic grain prices are at a premium, reflecting the high costs of acquiring grain from outside the region and the lack of regional supply. In coming years, the continued expansion of the organic dairy, poultry, and meat sectors is expected to keep demand strong.

The "organic price premium" can be seen from two perspectives—consumer and producer. Consumers view the organic price premium as the difference between organic and conventional products, generally without having any sense of the cost incurred in producing organics. Producers should have a different view of the organic price premium. Price premiums exist in markets where supply is short and reflect what buyers are willing to pay to acquire the grain they need. In a market that has adequate supply, in contrast, the market price will fall toward production costs. So, as supply expands, the increasing availability of organic grain can cause prices to fall reducing or eliminating the premium that producers receive, even though consumers will still perceive it to exist because the cost of the organic product will still be higher than the comparable conventional product. Producers must view the organic price premium relative to supply and demand in the organic market or risk making costly production and marketing mistakes.

Conclusion

Significant opportunity exists to produce organic grains to supply organic dairy producers and other quickly expanding

organic meat and poultry sectors. The success of the organic grain market will depend on the continued success of these buyers, as well as organic grain producers' ability to compete with other regions and countries that produce grain and can ship it into the region. Currently, high transport costs enhance the competitiveness of Virginia organic grain production with demand growing more quickly than supply resulting in significant price premiums. An increase in the number of producers will cause the organic price premium to erode as supply increases. However, producers must keep an eye on the evolving market situation.

Appreciating the key differences between conventional and organic grain markets is crucial. The lack of market participants, the non-commodity nature of organic grains, and specific requirements of products and services by buyers all determine what it will take to succeed in organic grain markets. Creating and maintaining strong relationships with buyers will be a vital aspect to the success of organic grain producers. Providing the quality and services sought by these buyers will be the key to success in the market. Contracts and informal agreements provide benefits to both buyers and suppliers. If well formulated, they can help to protect producers from both price and

production risk. Producers should identify their buyers as early in the process as possible—optimally, prior to making planting decisions to ensure a market for their product.

References

- Born, H. (2005). "Marketing Organic Grains," *Appropriate Technology Transfer for Rural Areas (ATTRA)* <http://attra.ncat.org/attra-pub/PDF/marketingorganicgrains.pdf>. Accessed Feb. 27, 2006.
- Clarkson, Lynn. (2006). "An Industry Perspective on Changing Grain Markets and the Role of Public Policy." Presentation at conference: *Guiding Food and Agricultural Marketing Policy in the Face of Changing Market Structures*. Sponsored by Food and Agricultural Marketing Policy Section, American Association of Agricultural Economists, Arlington, Virginia: March 21-22.
- McLaughlin, Caragh. (2006). "Organic Dairy Markets; Identification of Market Segments." Presentation at *Dairy Marketing Research Symposium*. Sponsored by Southwest Dairy Center, Forth Worth Texas: March 6.
- Miller, Peter. (2006). *Personal Communication*. February 20.

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