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Who are the organic grain buyers in the Midwestern United States?

Organic agricultural markets in the U.S. have grown steadily with sales increased by almost 20% in the past decade (Organic Trade Association, 2019). Organic farmgate sales are led by milk and eggs at 31%, livestock and poultry at 12%, and field crops (grains) at 11%. The remaining 46% of organic production is composed of fruits, vegetables, and other specialty crops.

While the demand for organic grains is increasing, the domestic supply is falling short. For that to change, organic farmers say, price premiums and strong prospects for market growth are not enough. Farmers have reported the inability to identify an appropriate buyer as a major barrier to entry to organic grain markets. Other barriers include a lack of understanding of buyer preferences, assistance offered, and contracting strategies. Previous studies have identified the impact of communication gaps between buyers and farmers on domestic supply of organic grains. However, buyers' preferences and requirements are not well documented.

This publication presents findings of a research article published by Torres et al. (2020): Categorizing Organic Grain Buyers in the Midwestern United States. Drawing from Darnhofer et al. (2005), researchers interviewed 45 organic grain buyers located in the Midwest and profiled them based on their grain purchases, buying arrangements, grain requirements, relationships, and business characteristics.

This publication translates findings from Torres et al. (2020) and helps bridge communication gaps between stakeholders in the organic grain sector, including farmers, buyers, agronomists, brokers, service providers, and other agricultural professionals across the supply chain. Findings of this publication shed light on the marketing opportunities available to producers of organic grains in the Midwest. Buyer categorization can also help researchers and policymakers tailor incentives and policies that support the organic grain industry.

Building a Categorization of Organic Grain Buyers

A Mercaris survey of domestic organic grain producers across the U.S. revealed major organic grains are mainly supplied by growers in the Midwest region¹ (72% of feed-grade corn, 84% of feed-grade soybeans, 47% of food-grade soybeans in the 2017-2018 marketing year²). Figure 1 illustrates the total demand of organic corn, soybeans, and wheat for the 2014-2018 marketing years.

Organic production systems rely on crop rotations. More diverse rotation crops (grains) are being incorporated by Midwest grain operations that typically had seen only the traditional corn-soybean rotation under conventional management. Therefore, we see a need for more diverse markets and infrastructure to support such rotation crops as wheat, rye, barley, oats, peas, sunflowers, and various forage crops. While these crops are commonly produced in other regions on both organic and conventional farms, they have been produced on limited acres in the Midwest. The most common rotation crops we see on organic farms in the Midwest are small grains, such as wheat, as these winter annual grains are vital to successful organic systems (Organic Trade Association, 2019).



Figure 1. Organic Grain Demand in the U.S., 2014-2018. Data adapted from Mercaris.

Due to lack of domestic supply, imports have significant market shares for organic soybean, corn, and wheat. For example, in 2015-2016, organic grain demand was met by imports as high as 83% for organic soybeans, 54% for organic corn, and 12% for organic wheat. The fact that import volumes have declined (corn and soybeans) or remained relatively steady (wheat) over the past several years suggests domestic supply of organic grains may increase, meeting most of domestic demand.



Meeting organic certification is only half the battle for producers. Peterson et al. (2007) reported that many farmers suggested that buyers of organic grains often have more extensive and less forgiving requirements for grain production practices, record keeping, and quality attributes than those necessary for USDA organic certification. Torres and Marshall (2018) reported that meeting marketing standards is a major reason why some specialty crop farmers choose to drop organic

> certification. It is unknown if this finding would extend to grain farmers. However, while production of organic grains is more successful using a diverse crop mix, finding buyers for lesser demanded grains in an organic rotation may be challenging. Additionally, organic grains may be sold to different buyers in various locations depending on the grain mix and the demand for that specific grain. The need to sell grain to multiple buyers can often lead to buyer demands differing in terms of quality requirements such as grain moisture level at harvest, sampling times and methods, and storage requirements, creating further

uncertainty and risk for producers.

Constance et al. (2008) reported that as the organic grain industry grows, players in the industry may become bigger and shift their motivations from environmental sustainability to profitability driven. Similarly, Buck et al. (1997) proposed that the organic industry is going through a bifurcation process as a result of conventionalization of agriculture. Conventionalization, researchers posit, refers to the incorporation of industrial agriculture in organic production systems. A bifurcated organic system can be seen as larger businesses enter the organic industry, increasing the length of supply chains. Larger supply chains are represented by different types of buyers that purchase grain for resale (brokers, traders, exporters), sell to value-added industries

^{&#}x27;Midwest states in the study were Iowa, Illinois, Indiana, Michigan, Minnesota, Missouri, Ohio, and Wisconsin.

² Marketing year for grains span calendar years and include two consecutive calendar years. For example, the U.S. marketing year for grains starts June 1 (and ends May 31 of the following year) for barley and oats, and September 1 (and ends August 31 of the following year) for other grains.

(processors), and supply to users (feed mills, livestock producers). On the other hand, smaller producers, deeply rooted in the philosophy of organic agriculture, tend to have smaller supply chains and sell directly in consumer markets.

Little work has been conducted to gain an understanding of buyers of organic grains. From the farmers' side, Darnhofer et al. (2005) proposed a framework that characterized organic farmers based on their level of commitment to organic agriculture. In their article, committed growers are those devoted to their production system and not considering switching to conventional due to their lack of motives or interest. Alternatively, pragmatic growers are farming conventional and willing to consider organic certification if there are the necessary financial conditions (i.e., price premiums, market demand). Without more information pertaining to buyers' preferences and standards for organic grains, growth of the domestic organic grain industry may continue to lag.

To address the lack of studies on the buyer side, Torres et al. (2020) categorized grain buyers as committed or pragmatic. They defined committed organic buyers as those who purchase organic grains and refrain from purchasing conventional grains due to being deeply invested in organic agriculture and interested in the success of the organic grain industry. Pragmatic organic grain buyers were defined as those that purchase conventional, organic, transitioning, and non-GMO grains. Torres et al. (2020) proposed that committed organic buyers are philosophically invested in the success of organic agriculture, while pragmatic organic buyers are attracted to the organic grain industry due to the economic opportunities and access to new markets.

Data and methodology

Researchers identified and contacted 255 organic grain buyers operating in the Midwest. After a four-month data collection, researchers completed 45 interviews of buyers, including business owners, managers, and/ or executive board members for smaller operations, grain brokers, traders, and merchandisers for larger operations located in the Midwest. They targeted buyers of organic, transitioning, and non-GMO grains in IL, IN, IA, KS, MI, MN, MO, ND, NE, OH, SD, and WI. Interview questions included types of grains purchased, types and characteristics of purchasing agreements, purchases of imports and minor grains, handling and transportation requirements, relationships with producers, perceptions of the organic grain market, perceptions of the organic market in general, and business demographics. Researchers asked grain buyers to select the type of grains purchased in 2017, including organic certified, transitioning to organic, non-GMO, and conventional.

Researchers identified common characteristics, preferences, and perceptions among buyers. Below are the most important characteristics for the surveyed grain buyers:

Market perceptions	•	Almost two-thirds of buyers perceive there is a shortage of domestic organic grains (60%)
	•	Over half of buyers perceive imported grains are cheaper (58%), and a similar number perceive that imported grains lack transparency
	•	A third of buyers expect an increase of future prices of domestic organic grains (36%)
Sourcing grain	•	Most buyers purchase organic grains directly from farmers (98%)
	•	A third of buyers purchased imported organic grains in 2017 (31%)
	•	Farmers and farmers associations are the most useful way to build relationships with buyers (53%)
Contracting and pricing	•	Two-thirds of buyers offer price premiums for non-GMO grains (67%)
	•	50% of the volume of organic and non- GMO grains are purchased through contracts
	•	A third of buyers included an act of God clause ³ in their contracts
	·	Most grains are contracted pre-planting (76%)
	•	A third of contracts are drafted with farmer's input (36%)
Purchasing requirements/ specifications	•	More buyers sample grains at delivery (67%) than before delivery (58%).
	•	Most buyers require truck affidavit (82%), while fewer require security tags or seals (51%), or visits to farms (16%)
	-	Quality of grain is the most important factor to build and maintain relationships between buyers and farmers (82%), followed by payment and grain delivery flexibility (73%), and length of purchasing agreement (69%)
Reported support available for farmers	•	The most common support that buyers provide to farmers is agronomic (53%)
	•	A quarter of buyers provide information or contract support during the transition period (24%)

Comparisons of Organic Grain Buyers

Of the 45 responses, 27 buyers (60%) were committed, while 18 buyers (40%) were pragmatic. Findings from Torres et al. (2020) illustrate that committed and pragmatic buyers differ when compared by grain

³Act of God terms in grain contracts release growers from meeting grain delivery obligations in case uncontrollable events cause a shortage of the contracted product.

purchases, purchasing agreements, requirements, relationships with suppliers, perceptions, and business characteristics. Future research may explore the percentage of volume and value of grain handled in the marketplace by pragmatic versus committed buyers. For example, although our research sample included more committed buyers, that does not directly imply that committed buyers represent a majority of the volume and/or value of organic grain in the marketplace. The category of buyer that represents more of the marketplace (or subsets of the marketplace, such as food versus feed) may have implications for how farmers approach marketing their crops.

Pragmatic and committed buyers reported different demand for organic feed- and food-grade grains. For example, pragmatic buyers purchased, on average, a higher percentage of feed-grade for all types of grains (40%), compared to committed buyers (15%). The growth of organic meat, poultry, and dairy industries in recent years (Oberholtzer et al., 2005) is likely to be driving pragmatic organic buyers to capitalize on the higher demand for feed-grade organic grains. This is especially true if we consider pragmatic organic growers to be attracted to the organic grain industry due to the economic opportunities and access to new markets. A global food corporation, Cargill, exemplifies this growth as a recent pragmatic buyer capitalizing on the higher demand for feed-grade organic grains, specifically to supply organic poultry producer Bell & Evans. Cargill, in its business relationship with Bell & Evans, has partnered with a longtime organic advocacy and research nonprofit organization, the Rodale Institute, to transition 50,000 acres in the U.S. to organic grain production.⁴ This raises a concern: Transitioning 50,000 acres is not expanding the demand for rotation crops needed to support organic cropping systems; it is focused just on feed-grade corn and soybean supply for the growing organic poultry sector.

One way to support the long-term success of the organic industry is by building long-term relationships with their grain suppliers. In the study, more committed organic buyers received input from farmers (46.0%) when drafting contracts than did pragmatic organic buyers (20.72%). In addition, it was more common for committed organic buyers to include an act of God clause in their contracts (43.1%), than pragmatic organic buyers (21.35%). These findings suggest that committed organic buyers tend to be more invested in the success of the organic grain industry, aligning with the committed organic producer classifications outlined by Darnhofer et al. (2005).

A larger percentage of committed organic buyers perceived that flexibility on time of delivery or payment is an important factor to build and maintain those



relationships (85%), when compared to pragmatic organic buyers (56%). Similarly, quality of grain sourced was placed as higher importance among more committed organic buyers (96%) than their pragmatic counterparts (61%). It is not clear what drives this difference. One possibility is that committed organic buyers handle more food-grade grains, requiring them to place a higher emphasis on grain quality as compared to feed-grade grains. The relationship between buyers and farmers is of higher importance for committed organic buyers, and their perceptions regarding how to build and maintain these relationships also differs from their pragmatic counterparts.

Pragmatic organic buyers placed less importance on requiring visits to their suppliers' operations than their committed counterparts. This suggests that suppliers intending to sell grains to committed organic buyers should be willing to allow them farm visits, which could simply be driven by the types of grains that committed and pragmatic organic buyers primarily handle. If committed buyers are handling more food-grade grain ingredients, and have higher standards of quality, we expect that farm visits to assess crop quality in the field and in the bin would serve as a strategy to identify quality issues before they arrive at the buyer's/processor's facility. This also serves farmers by helping them to take steps to remedy a crop quality issue in advance of harvest (e.g., ability to adjust combine settings to improve test weight of grain going into the grain tank; only harvest certain fields with good quality grain for food-grade buyers; etc.) and delivery to buyers and end users. If a crop will fail to meet specification, the farmer could also take steps sooner to find an alternative buyer or end user with lower grain quality specifications, such as a feedgrade market, and prevent the headaches of dealing with a rejected load at the buyer's facility.

⁴ https://www.cargillag.com/grow-with-cargill/organic-transition-initiative; https:// www.feednavigator.com/Article/2021/02/09/Bell-Evans-and-Cargill-to-increase-USproduction-of-certified-organic-corn-and-soybeans

A higher percentage of committed organic buyers (67%) agreed the certification process for imported organic grains lacks transparency; 39% of their pragmatic counterparts thought so. With committed organic buyers philosophically invested into the success of organic grains, the perceived lack of transparency from imported organic grains may reflect their desire for the domestic organic industry to grow.

Pragmatic organic buyers are bigger than committed buyers. For example, pragmatic buyers reported a higher number of full- and part-time employees, as well as more gross sales, in 2017 than committed buyers. Committed organic buyers' gross sales for 2017 were between \$5 and <\$20 million, while pragmatic organic buyers reported gross sales (of all grains) of more than \$20 million for the same year.

Summary

For producers, major barriers to entry in the organic grain market are the inability to identify an appropriate buyer, as well as to understand market standards and buyers' preferences and purchasing agreements. While a classification of organic producers and factors motivating production are available and have helped researchers and policymakers develop incentives, no such categorization exists for organic grain buyers. Development of a categorization of organic grain buyers would allow producers insight into the buyer's perspectives and requirements. Additionally, this classification of buyers would allow buyers themselves to assess shortcomings relative to competitors.

This article describes the main differences in values and priorities among committed and pragmatic organic buyers. The fact that committed organic grain buyers seem to be more invested in the success of the organic grain industry suggests they may be driven by values related to the integrity of the organic certification program. For example, committed organic buyers in our sample tend to offer more financial, marketing, agronomic, and/or transitional assistance to grain suppliers than pragmatic organic buyers. Yet the specific types of support were not asked due to survey limitations. Committed organic buyers also had longer contracts for transitioning grains, and most contracts are drafted with farmer input.

Findings suggest some factors in terms of growth and development of the organic grain industry. For instance, the results suggest evidence of bifurcation in the organic grain market. The size of these pragmatic organic buyers, coupled with the fact that they purchase multiple classes of grains (organic, transitioning, non-GMO, and conventional) suggests bifurcation in the industry with larger operations being more diversified. Given that our research suggests pragmatic buyers are generally larger businesses that handle multiple classifications of grains, as compared to their committed counterparts, farmers can use this information to consider how they approach marketing of grains and the potential expectations of these different types of buyers as outlined in this publication.

This publication presents information relevant to organic grain suppliers in the Midwest. Results from our analysis suggest that a group of buyers prioritizes contract characteristics when establishing relationships with farmers, while another group ranks flexibility and relationships with buyers as more important. Farmers should consider that some buyers prioritize contract characteristics, including price and grain delivery, while others are philosophically invested in the success of organic agriculture through building of long-term relationships and ensuring the integrity of organic agriculture.



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This is the second publication in the *Organic Grain Production* series. The first is titled, "Is organic right for my grain operation?"

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