



# Organic Feed Grains and Livestock: Factors That Influence Outcomes in Thinly Traded Markets

Jeffrey Hadachek, Tina L. Saitone, Richard J. Sexton, Sharon Raszap Skorbiansky, Suzanne Thornsby, and Anne Effland

## What Is the Issue?

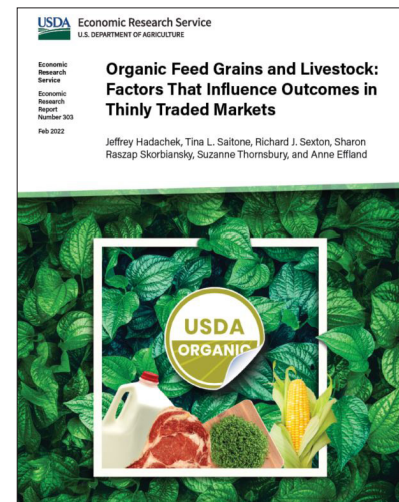
Despite rapid growth in output, organic foods remain a niche market in U.S. agriculture. According to USDA's Organic Production Survey in 2016, about 8.4 percent of vegetables and 4.3 percent of fruits and nuts were organic, but market shares for organic grains, dairy, and livestock remained very small, with dairy the highest at 2.9 percent.

Many organic products are traded in thin markets that involve a small number of buyers and/or sellers, low liquidity, and fewer observable transactions compared with markets for conventional commodities. Longstanding concerns about pricing power have intensified as larger players have entered the market and as contracting relationships between buyers and sellers have grown more prevalent.

Previous research has shown that thin markets can result in outcomes similar to those of a perfectly competitive market<sup>1</sup> where both buyers and sellers of a product have sufficient interest in maintaining a long-term relationship. This theory, known as the modern agricultural markets (MAM) paradigm, sets forth conditions where thin markets yield efficient market outcomes and ensure producers earn at least a competitive return on their investments. A key tenet of the MAM paradigm is the importance of both buyers and sellers adopting a long-run perspective. If both parties attach a high value to future returns, they form a mutually beneficial, buyer/seller relationship that ensures the financial viability of the supplier and a stable source of supply for the buyer.

This report sets forth the key conditions that identify a MAM and show how these conditions relate to thin markets generally and to organic markets specifically. Our study investigates whether these conditions prevail in

<sup>1</sup> In a perfectly competitive market, individual buyers and sellers cannot control market prices because they are too numerous and share full information about market conditions.



ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

organic dairy and beef markets and in markets for major organic livestock feeds. The focus on organic alfalfa, corn, and soybeans complements the discussion of organic livestock, given organic feed-related shortages are reported as an impediment to the expansion of organic livestock products. This report provides insight into the nexus between market development and the expansion of organic production.

## What Did the Study Find?

The organic markets analyzed in this study (dairy, beef, alfalfa, corn, and soybeans) varied in the degree to which they met the conditions of MAM, where thin markets may operate comparably to perfectly competitive markets because buyers and sellers are able to commit to long-term mutually beneficial relationships. No one market satisfied all conditions, but sectors such as dairy—which had more experience and a greater prevalence of organic products—have generally moved closer to MAM status than other organic markets, such as beef, that are in their nascent stages. The theory of MAM suggests that greater use of contracts and the establishment of long-term relationships between buyers and sellers may reduce exchange costs in these thin markets and hasten their evolution toward MAM status.

This report found the following common factors influenced the advancement of niche organic markets:

- *High buyer concentration in local markets.* For example, in the organic dairy industry—a major buyer of organic alfalfa, feed corn, and feed soybeans—the small number of buyers relative to sellers can create an imbalance in market power. Buyers can switch easily among input suppliers, including importers, in some cases.
- *Low buyer and seller commitment.* The study revealed low buyer and seller commitment, with organic livestock operations routinely switching among multiple sources of organic feed carbohydrates while seeking the lowest available price.
- *Price availability and volatility.* Prices in the organic beef market demonstrated a high degree of volatility, in part due to low price transparency, relatively few buyers and sellers, and high vertical integration.
- *Contracts.* The use of contracts has helped organic dairies secure price premiums for raw milk, but contracts obscure market prices. Contracts can also be amended when buyers of the commodity hold bargaining power. For example, some dairy processors amended contracts with farmers to add temporary delivery fees and reduce the organic premium once the supply of organic milk increased.

## How Was the Study Conducted?

The study relied on data from the USDA's Economic Research Service (ERS), Agricultural Marketing Service (AMS) and National Agricultural Statistics Service (NASS), as well as information on how these markets operate compiled from a variety of sources including open-ended discussions with organic feed and livestock growers, marketers of organic products, USDA agency personnel, organic market analysts, and other stakeholders. Using information collected from diverse sources on salient issues in these organic market segments, this report used the paradigm of modern agricultural markets to understand whether the sectors examined had characteristics that lent themselves to efficient market outcomes.