

# Organic Promises

*Is the grass greener on the organic side?*

BY VANESSA SUMO

Whole Foods Market is rising toward the top of the food chains. Sales at the world's leading natural and organics supermarket soared to \$4.7 billion in 2005, growing by 22 percent over the previous year and more than doubling over the last four years. But everyone, it seems, is after its market share. Whole Foods' more than 170 stores across North America (plus about 70 more to come, including one in the United Kingdom) are today the envy of many.

It's difficult to ignore the natural and organic food sections that have sprouted alongside "conventional" choices in big and small supermarkets across the country, testament to the booming demand for all things organic. Supermarket giants Safeway and Wal-Mart have responded by moving aggressively into organic products this year. While concerns abound on whether the rise of "big organics" could water down standards and depress prices to worrying levels for farmers, what is clear is that consumer demand is poised to grow rapidly as

organic products extend their reach into the homes of many Americans.

But demand is growing so fast that supply can barely keep up. News of shortages of organic milk, orange juice, meat, and other food products has raised the question: Why don't farmers produce more organic foods? At a glance, it would seem that they could fetch higher prices for organic output compared with conventional foods. But conversion to organic farming cannot happen overnight, nor is it a decision that a farmer takes lightly. The adjustment is slow because of a three-year transition period that involves risks, profit loss, mastering an entirely new farming system, and a lot of record keeping. "I think that the transition period is very difficult for a lot of [farmers] to bridge," says Catherine Greene, an economist with the U.S. Department of Agriculture (USDA). Farmers must weigh the strong price premium for organic products on the one hand against the costs and risks on the other and decide: Is transitioning to organic farming worthwhile?

## A Natural Preference

Consumer demand for organics has been impressive, with market share tripling since 1997. That said, organics still made up only 2.5 percent of all food sales in 2005. Within the organic food basket, demand for meat, fish, and poultry grew by 55 percent in 2005 over the previous year, while organic dairy expanded by 24 percent. Organic fruits and vegetables take up the largest share of the food basket, and demand for these products increased by a steady clip of 11 percent.

Why do people buy organic? The increasing passion for organic food comes mainly from the perception that it is safer, healthier, and better for the environment. Organic produce is grown free from most types of synthetic chemicals used to kill pests or weeds or to fertilize crops; and organic meat, poultry, eggs, and dairy come from animals that are given no antibiotics or growth hormones. Organics are also believed to contain more nutrients than conventionally produced food. And because chemicals are avoided in organic farming, the gentler

treatment of the land nourishes the soil and reduces water pollution.

Consumer confidence in buying organic food has also been encouraged by the standards set by the USDA. To get the coveted "USDA Organic" label, a product must be made with at least 95 percent of organically produced ingredients. This has helped make consumers more confident that they are actually getting what they are paying for — usually at a premium over nonorganic foods. As demand has increased, more stores have decided to carry organic products, making them easier to find. About 46 percent of organic food was purchased through conventional supermarkets, mass merchandisers, and club stores in 2005, almost as much as the share bought through natural food outlets.

But as Americans increase their appetite for wholesome fare, the organic food supply has been falling far short of demand for anything from meat to milk to nuts. So much so that it's limiting manufacturers' ability to churn out more organic products. In the Organic Trade Association's 2006 survey of organic food manufacturers, 52 percent reported that "a lack of dependable supply of organic raw materials has restricted their company from generating more sales of organic products."

The shortage is forcing producers to look abroad. Scarcity of raw materials is leading Stonyfield Farm, a large organic yogurt manufacturer, to consider sourcing organic milk powder from New Zealand. Organic meat has likewise been in short supply due to the low number of organic livestock producers in the country, according to natural foods consultancy Organic Monitor. As a result, meat producers are importing organic beef from Australia and Latin America.

Large organic distributors, which are often at the forefront of this tussle between supply and demand, concur with this picture of scarcity. "Almost every commodity you can think of is being supplemented with products from overseas right now," says George Kalogridis, president of organic food

supplier George's Organics. "We could not have the growth we're having in any commodity item without the overseas production." How much organic food is imported is difficult to say precisely, since U.S. trade codes currently do not distinguish between organic and nonorganic products.

A recent USDA report, however, estimates that between \$1 billion and \$1.5 billion of organic food was imported in 2002, representing about 12 percent to 17 percent of organic food sales during that year. Sourcing organic food from abroad will likely remain significant even as more farmers switch to organic farming: Some products are not grown locally (such as tropical fruit and coffee), are needed to supplement production during the winter months, or are simply cheaper to import than to produce at home.

Domestic supply is doing what it can to keep up with the strong demand. As of 2003, the number of certified organic livestock rose by almost sevenfold in six years, while the number of poultry was 11 times what it was in 1997. Certified pasture and cropland was up 63 percent over the same period, but this is only 0.2 percent of the country's total agricultural acreage. In comparison, the share of farmland devoted to organic production in all 15 countries (before the 2004 enlargement) of the European Union (EU) is 3.9 percent, or more than five times the amount of organic farmland in the United States.

One possible reason for this difference is that the EU has actively promoted the growth of its organic sector, unlike the United States, which takes a more hands-off approach to organic production, according to USDA economists Carolyn Dimitri and Lydia Oberholtzer. From the EU's perspective, organic agriculture provides environmental and social benefits, public goods that justify government intervention through "green payments," or subsidies to converting and continuing organic farmers. While the United States does subsidize certain farm products, regardless of how they are grown, there are no subsidies

available for farmers to convert from conventional to organic farming. Regardless, the supply of organic food — whether produced domestically or abroad — should eventually catch up with consumer demand. But the adjustment process will certainly take some time.

### **Got (Organic) Milk?**

If one asks industry observers where the widest gaps in the supply and demand for organic commodities are at the moment, chances are their first answer will be that nutritious white liquid that is the staple of every family diet — milk. Organic milk has been in such high demand over the past couple of years that at times supermarkets have had to put up signs that there is no certified organic milk available. Colorado-based Horizon Organic, the largest organic milk processor in the country, estimates that orders from retailers grew 10 percentage points faster than actual orders filled in the last year and a half for the entire industry.

Hence, it is no surprise that organic milk currently sells at about twice the price of conventional milk. This attractive price premium is also due to factors affecting the supply of conventional milk. "The productivity in the dairy industry has been pretty impressive," says agricultural economist Geoff Benson of North Carolina State University. Production per cow has been increasing thanks to better genetics, management, and health care. Because of these improvements, the growth in conventional milk production has been increasing faster than sales, preventing prices from rising over the long term and actually reducing real (inflation-adjusted) prices. More production per cow also means that fewer cows, and therefore fewer farms, are needed every year to supply the market.

Booming demand for organic milk, on the other hand, has kept its prices on the upswing. Milk processors, buoyed by strong consumption, are even willing to offer guaranteed prices for the farmers' output.

Hundreds of family farmers across the country have responded to this opportunity, including a small group from the Shenandoah Valley in Virginia who are scheduled to deliver their first batch of organic milk this fall. For some of these dairymen, the natural process of organic farming has appealed to them before. "It's something I wanted to do for years," says Virgil Wenger, who was grazing his cows and using less spray on his crops years before he even made the transition to organic farming. "Then the price looked like it might be a little bit better, a little bit more stable, than the ups and downs of conventional milk," says Wenger. But transitioning is no small task because of the requirements, risks, and the need to learn an almost entirely new way of farming.

Cows in a conventional dairy operation usually spend most of their time in confinement. On the other hand, organic rules require that cows graze, such that they receive most of their feed from pasture. If a conventional dairy farmer wished to convert, he

would need to have enough land to give his cows access to pasture. Some confinement farms may have grown so large over the years that the farm may not have enough land to support the herd.

If there is enough land, then the first thing that the farmer needs to do is prepare the pasture on which the cows will graze. For the land to be certified organic, no commercial fertilizers or chemical substances that kill weeds or pests should have touched the land for three years. The herd must be converted as well. Dairy cows must eat only organic feed during the last year of transition. They cannot be given growth hormones, and when they get sick, they cannot be treated with antibiotics.

These rules require changing the way a farmer is used to solving problems on the farm, and those solutions can be expensive. Spraying crops with pesticides, for instance, is a less expensive way of eliminating weeds than pulling them out mechanically. But if organic farmers are not allowed to use these prohibited substances, their crop yields will fall, and in organic dairying this means less feed and less nutrition for the cow. Ultimately, the amount of milk produced may be lower in an organic system than under a conventional operation, especially during the transition period when the farmer is still learning the new production technology.

Moreover, the farmer will be paid the lower conventional milk price, not organic, during this three-year transition period. The organic milk check only starts coming in after the land and the cows have been certified. But there's more. The organic cow has to eat organic food, and the price of all-natural corn and soybean feed, which itself has to be grown from farms that must go through their own transition process, is currently double or triple the price of the conventional variety. Thus during those three years, the farmer can suffer a substantial loss in revenue by farming organically but without the benefit of receiving an organic milk premium.

## Farm Aid

For the Shenandoah Valley dairy farmers, one important factor that has eased their transition to organic dairying is the technical and financial assistance that they're receiving from Horizon. Organic milk processing companies are aware that the difficulties of transitioning can act as a significant barrier for most farmers to enter the market. Because of this, companies like Horizon and Organic Valley, another important milk supplier, are actively recruiting farmers and helping them convert their farms, in exchange for securing their milk supply.

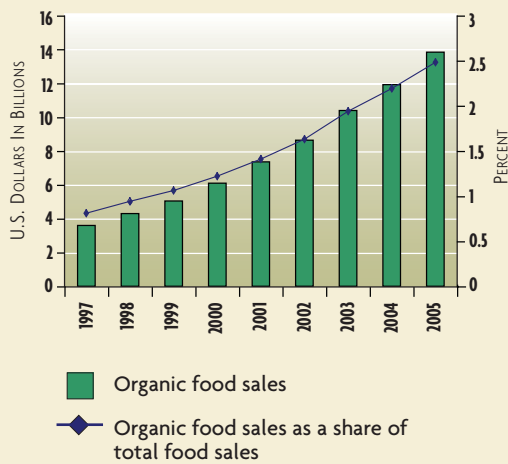
The assistance that these companies provide varies from farmer to farmer. A typical arrangement between the Shenandoah Valley dairymen and Horizon includes an amount to help defray the cost of organic feeds during the transition and a guaranteed price and market for their milk once it is certified.

In particular, Horizon puts in \$1 for every 100 pounds of milk it sells during the last year of transition, when at least 80 percent of what cows eat is expensive organic feed. When the organic feed requirement goes up to 100 percent in the last 90 days of that year, they're given an extra \$1. Moreover, once the milk is certified organic, they're guaranteed to receive at least \$26 for every 100 pounds of milk they produce for two years, about double the current price of conventional milk. As a sign-up bonus, they'll also receive \$1 more than the selling price for the first seven months after certification. All the milk that they produce will be sold to Horizon, and after the two-year contract is up, the farmers can choose to renegotiate or go to another company.

Securing a market is crucial for organic dairy farmers, a luxury that most conventional dairy farmers don't have. "You're insulated from fluctuations in market prices, and it's much easier to plan or manage a cash flow if you're guaranteed a floor price," says Gordon Groover, an agricultural economist at Virginia Tech. "It's a way to reduce risk in those early startup years."

## A Growing Appetite for Organic Food

Organic food sales in the United States reached \$13.8 billion in 2005. Although only 2.5 percent of the total food basket, the share of organic food has more than tripled since 1997.



SOURCE: Executive Summary of the Organic Trade Association's 2006 Manufacturer Survey

## Planning a Wholesome Future

Such a marketing arrangement makes it easier for these farmers to weather the financial perils of the transition years, and can set them on the right track to becoming a profitable dairy business.

Some also truly believe in the value of organic farming. “If you take care of nature, then nature takes care of you,” says Arlen Beery, one of the transitioning dairy farmers. “There’s a harmony there that you can’t get with conventional farming.” When advising farmers on whether to transition, one of the first things that Benson asks is whether the farmer is “in tune” with organic production. USDA certification lists many rules for this type of farming system, and for some dairymen, these may not make sense. “Consumers have certain expectations about how organic products are produced, and if you don’t buy into that, you’re probably not going to be successful as an organic producer,” says Benson.

Assuming that the farmer has the resources and the willingness to take on this new enterprise, the difficult financial question then follows — will the additional return or price premium be big enough for him to repay his investment during the transition period, and still be able to earn at least as much as he did as a conventional farmer?

This depends on how large the price premium for organic milk will be in the coming years. The price advantage that organic farmers enjoy today has been pulled along by a robust market for organic milk. But as more and more farmers switch to organic dairying and the pace of milk

production finally catches up with the growth in demand, this premium will begin to narrow. Supply may also be affected by imports of organic dairy. Although imported milk may be less of a concern because this is a perishable product, and thus harder to ship from overseas, imports of organic dairy products like cheese and butter that have a longer shelf life could affect the fluid milk price that farmers receive.

So which farmers are likely to make it through the transition and thrive over the long haul? While there isn’t a list of specific characteristics that would make an organic dairy farm more successful than others, some factors such as farm size could matter. There are few studies that say anything conclusive about organic dairy farming, but Groover notes that studies of conventional dairy farms nationwide show that farms with herd sizes of less than 300 cows are less profitable, less labor efficient, and have higher costs of production than larger dairies. It’s possible that this holds for organic farms as well.

On the other hand, the cows’ grazing requirements imply that the upper limit on efficient farm size is probably smaller than for a conventional operation, which would be welcome news to many small farmers who are looking to make the transition to organic. “Part of it depends on what the family expectations are. Some people are quite content to have a fairly modest income and they’re more interested in the lifestyle, so part of it is what they’re shooting for,” says North Carolina State’s Geoff Benson.

Arlen Beery, for instance, is even

talking about scaling back, banking on more profit per cow. “I’m planning to milk fewer cows once I become [certified],” he says.

In the end, the profitability of the farm will depend on how well the farmer manages his business, given his own set of conditions and resources, the approach being no different than in any other agricultural or main street venture. “Those individuals need to be innovative. They need to focus on the management itself because you’re dealing with a new enterprise where the production process is not well understood,” says Groover. “In theory they may understand what’s going on, but the day-to-day management is going to have to adjust fairly quickly to maintain viability.”

Farmers must be willing to spend time to develop a sound farm plan, run those numbers to see what the financial implications are, and decide whether it’s viable or not. “It’s truer than not to say that every farm is unique. What the family is trying to accomplish is unique to that family, what is feasible for one may not work for another. Don’t get [drawn] into the wave of enthusiasm. Don’t follow somebody else’s example without making sure that it fits your situation,” advises Benson.

A dairy farm, particularly an organic one, conjures images of romantic pastures and cows blissfully chewing their cud under a tree. It may be easy to get lulled into such a picture-perfect setting. But farmers are also businessmen, or at least they need to be. In planning for a wholesome future, the numbers must make economic sense. **RF**

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