

Facts about Organic Dairying

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The Organic Industry Today:

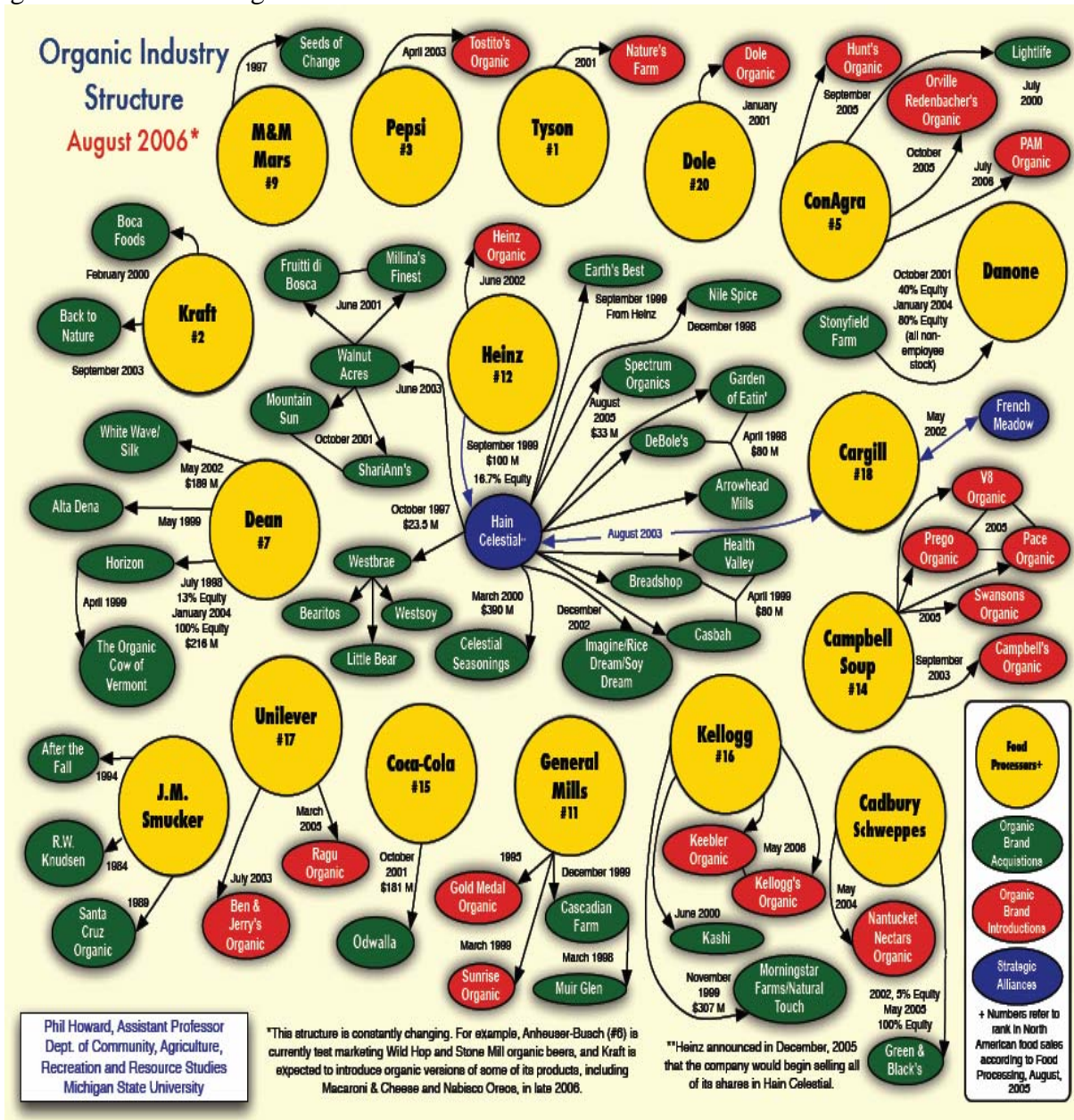
Organic farming has been one of the fastest growing segments of U.S. agriculture since 1990. The number of organic farmers in the United States has been increasing at a rate of more than 12% per year. Organic agriculture has grown from \$78 million in 1980 to 13.8 Billion in 2005. See figure 1. This growth has caught the attention of some of the largest manufacturers and retailers in the country as can be seen in Figure 2.

Figure 1-1 Total Foods and Organic Foods Consumer Sales and Penetration, 1997-2005

	Organic Food (\$Mil)	Organic Food Growth	Total Food Sales (\$Mil)	Organic Penetration
1997	\$3,594	na	\$443,790	0.81%
1998	\$4,286	19.2%	\$454,140	0.94%
1999	\$5,039	17.6%	\$474,790	1.06%
2000	\$6,100	21.0%	\$498,380	1.22%
2001	\$7,360	20.7%	\$521,830	1.41%
2002	\$8,635	17.3%	\$530,612	1.63%
2003	\$10,381	20.2%	\$535,406	1.94%
2004	\$11,902	14.6%	\$544,141	2.19%
2005	\$13,831	16.2%	\$556,791	2.48%

Source: *Nutrition Business Journal* estimates based on OTA's 2006 Manufacturer Survey, annual *Nutrition Business Journal* surveys of manufacturers, SPINS, and other sources.

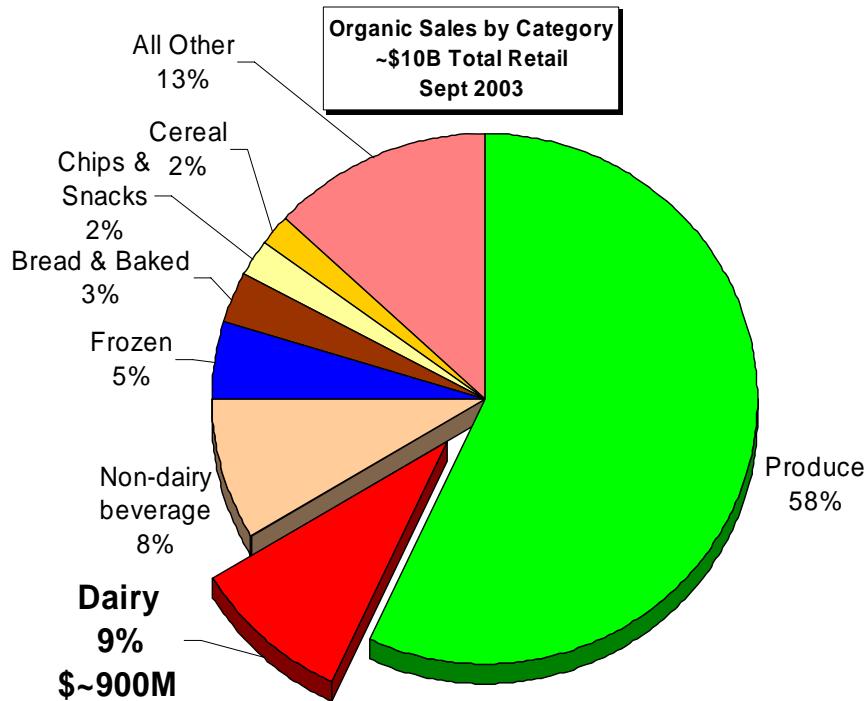
Figure 2. Who owns organic.



The Organic Dairy Industry:

Figure 3 shows the percent of dairy as a category of the organic market for 2003. Approximately 900 million in sales or close to 10% of the national organic market was from dairy products. The estimated dairy sales (according to The Organic Trade Association for 2005) were 1.3 million. Due to the fast growth of the organic dairy market, demand continues to exceed supply.

Figure 3. Organic Sales by Category.



Incentives to convert to Organic:

Milk price is the number one incentive to convert to organic or to start a new organic dairy. Based on today's milk price for conventional milk \$12.00/cwt vs. \$25.00/cwt for organic, the difference is about 100%. Organic dairying becomes very attractive when the price difference is so high. But, for example, a year ago when conventional milk was \$14.00 or \$15.00 and organic milk was \$21.00 it was not so attractive. Another incentive is the long term contracts with set prices for organic milk and the ability to budget for long term plans.

Environmental stewardship is another incentive for many to convert to organic milk production. Dairy cows have a great impact on the environment because of the number of acres that need to be converted to organic to feed that animal. Whether it is acres for grazing, forage production or grain, the total amount of acres per cow is superior to any other type of livestock. The impact on creating a healthy environment will be much greater with more dairy cows converting to organic.

Important considerations before converting to organic

Cost of production

In a study founded by USDA/CSREES in Vermont and Maine conducted by Rick Kersbergen and Diane Schivera in 2002 that included 30 herds, the following was found:

- Average 48 dairy cows
- -2.7 return on assets based on an average milk price of \$22.97/cwt

- Data used to “negotiate” a new price for 2006.
- Average price is now nearly \$27 for a base price.
- Over \$1000/cow for purchased concentrate in 2004 (up to 48% of gross milk revenue)
- \$04/cwt on medicines for treatments

In a different study conducted by Dr. Leslie Butler in California in 2000, the cost of organic milk production and in particular the differences in cost of production between organic and conventional milk were analyzed. Results showed that the total cost of production on a per cow and per hundred-weight basis was about 10% higher for organic producers when compared within the region and 20% higher when compare on a statewide basis. The higher cost appears to be due to reduced milk production, higher feed cost, higher average labor costs, significantly higher herd replacement cost and significant transition cost. The higher cost associated with organic milk production were exacerbated to some extend by lower milk yields.

Table 1. Price per ton for organic commodities as of 2006.

Commodity	Price per ton
Soy Bean Meal	\$600-\$700
Corn	\$220-\$280
Flax meal	\$380-\$450
Wheat	\$180-\$200
Wheat runs	\$170-\$190
Cotton Seed	\$450-\$470
Alfalfa Hay	\$170-\$230
Grass Hay	\$120-\$170
Mineral (lactating cow)	\$650-\$800
Corn silage	\$45-\$50
Field peas	\$280-\$350

As can be seen in table 1 the cost of organic commodities can be between 50% and 300% more than conventional, depending on the commodity and the transportation cost. This translates in much higher average feed cost per cow and per hundred weights.

Replacement cost:

Very acceptable culling rates can be achieved in organic milk production. Overall organic cull rates have been reported to be as good as or better than conventional herds. However, no reports of the differences between voluntary and involuntary cull rates for organic or conventional herds are available at this point. The cost of the conventional springer heifer can fluctuate between \$2,500 and \$3,000. Due to the increase in feed cost, and time of transitioning an animal to organic, the overall cattle cost is much higher in the organic system.

Lower milk production:

Several reports show that organic milk production is between 15% and 25% lower, when compared with conventional herds that do not use rBST. Some of the factors that contribute to

the lower production are: nutrition, lack of feed additives, longer time to recover from diseases, lower genetics, and higher retention of low producing cows due to higher milk prices. The literature does not show any data on the number of dysfunctional quarters in organic herds when compared to conventional herds. Antibiotics are prohibited in organic dairies, therefore one would tend to believe that the percent of lost quarters is higher in organic dairies due to an increased incidence of chronic cases of mastitis. It is possible that part of the lower milk production in organic herds is due to this higher incidence of lost quarters. However, this theory has not been proven.

Milk quality:

Reports from the north east show an average bulk tank somatic cell count for organic dairies of 260,000. Similar results have been shown in the western United States. Other reports from Pennsylvania show an average of 391,000 for 19 organic herds. At this point there is not enough information to prove whether or not milk quality is affected by organic versus conventional milk production.

Labor:

It has been reported that organic dairying is more labor intensive than conventional. The two major reasons are: management of the grazing system and a lower ratio of cows per employee. Intensive grazing needs to be monitored by knowledgeable people on a daily basis moving fence lines and dairy cattle. Supportive therapy along with herd health and early sick cow recognition is a very intensive health program for organic dairy cattle compared to conventional. Labor costs can be increased roughly 10% when compared to conventional dairies.

Herd Health:

Prevention and attention to details becomes a paramount. Due to the limited remedies available to treat diseases. Prevention of diseases and training of employees becomes the most important part of herd health. Very little research has been published in peer review journals about the effectiveness of alternative medicines for treatment of common diseases of dairy cows.

Cost of transitioning

The transition time required for the land is 3 years and for the cattle is one year. Therefore, depending on the status of the land around the dairy, it could take between one and three years of economic distress while the dairyman is farming organically and obtaining conventional prices for his/her product.

Knowledge of the organic regulations; Overview of Organic Certification and the National Organic Program

What, exactly, is organic certification?

1. It's a certification of process; a specific set of procedures that legally defines whether an operation meets the regulatory requirements to be called "certified organic."

2. The National Organic Program certifies a process but not purity. For example, it certifies that pesticides are not used by the organic farmer but does not certify that the farmer's products are free from pesticides.

3. There are very specific roles and regulatory authority in the organic program:

Congress passed the Organic Foods Production Act (OFPA) in 1990, which was the statutory law that put a unified organic certification system in motion.

USDA is empowered to run the national organic certification system.

Within USDA, organic certification is administered by the Agricultural Marketing Service (AMS). AMS also administers many other programs such as the federal milk marketing order.

The organic statute is administered with a regulatory system called the National Organic Program (NOP). The NOP was implemented in 2002, 12 years after OFPA was passed. Every part of organic is run via the NOP, including all regulations pertaining to dairy, pasture, crops, etc.

The day-to-day maintenance of organic certification on each farm or plant is done by USDA-accredited certifiers, which are independent, 3rd party agencies.

A special citizen's advisory body, the National Organic Standards Board (NOSB), was created to help provide guidance to the USDA on organic policy issues. The NOSB does not write regulations or administer the NOP. However, it provides opinions, recommendations, proposed language and expertise for the benefit of the NOP.

4. All organic operations in the United States adhere to a single national standard. This single standard legally supersedes all other regulations, practices, philosophies, desires etc.
5. The single national standard prohibits the setting up of "levels" of organic status. There is no "good – better – best" in organic. You're either certified or you're not.
6. Organic certification agencies have legal autonomy and structural independence. Along with organizational rules to prevent conflicts of interest. They make decisions for each farm on a case-by-case basis, based on unique conditions of each specific farm, within the overall guidelines of the NOP. USDA has the authority both to accredit and to de-certify certification agencies.

II. What are the key components of organic certification?

1. The Organic System Plan (OSP) is the primary document used by both the farm and the certifier to manage the farm's organic certification:

- 1) The process of certifying begins with the farm managers writing the OSP.
 - 2) The OSP is sent to the certifier for review prior to inspection.
 - 3) The Certifier then inspects the farm.
 - 4) After inspection, there is correspondence between the producer and the certifier for any changes or corrections that need to be made prior to final certification.
 - 5) After changes / corrections are completed, the certifier then approves the farm for organic certification.
2. Effective ongoing communications about new projects, additions, practices, expansion plans, questions needing answering, etc.
 3. Accurate, complete record-keeping.

Conclusions:

The organic milk market is growing very fast with no signs of slowing down in the near future. There are great opportunities for dairyman to convert to organic and capture some of the premiums offered by this increase in organic milk demand. However, caution must be taken when planning the conversion or the start up of the organic dairy due to the obstacles that need to be budgeted for. In depth knowledge of organic regulations and implementation of the Organic Systems Plan is imperative.

References available upon request.