

# Organic Agriculture in the United States

## *Current Status and Future Regulation*

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**F**acts and figures on organic agriculture are scant and scattered, but this form of production deserves our attention. Domestic and international markets are growing because consumers increasingly pay premiums for organic products. Higher prices and better information spur farmers and agribusinesses who produce and market organic products. New policies may lead to long-term changes in organic markets, industry, and farming.

A 1980 United States Department of Agriculture (USDA) report explains that organic production "excludes the use of synthetically compounded fertilizers, pesticides, growth regulators, and livestock feed additives." The USDA is now acting to bring these concepts up to date with its proposed national organic certification standards, published in late 1997. When implemented in the next few years, these will be the first federal regulations to deal with organic agriculture in the United States. The 1990 farm bill, which included the Organic Foods Production Act, initiated the process for establishing national certification standards. This act described organic agriculture through a "crop production farm plan" that will "foster soil fertility, primarily through the management of the organic content of the soil through proper tillage, crop rotation, and manuring."

Drawing from diverse sources of information, we can piece together a current view of U.S. organic production, beginning with a description of the level of production in terms of acres, number of organic farmers, and marketing statistics; then looking at the process by which farmers currently obtain organic certification through private and state agencies; and, finally, examining the principles behind, and the potential impact of, upcoming federal certification standards.

### **Production and marketing is expanding**

No federal census provides information on organic agriculture, so we must rely on surveys to estimate the population of organic farmers and their farm acreage. A USDA survey in 1994 estimated that 4,050 farmers had certified organic operations (Dunn). The Organic Farming Research Foundation, a private non-profit organization in Santa Cruz, California, estimates that 12,000 farmers employ organic methods, although only about one-third of them are certified. Still other current research indicates that 5-7 percent of U.S. farms are either certified organic or are practicing organic methods (Benbrook).

According to the USDA survey, 1.13 million acres were certified organic in 1994 which comprises approximately 0.34 percent of the approximately 330 million acres of U.S. cropland harvested. People's images of organic production often include only small-scale vegetable plots. The reality, however, is that organic farms are very diverse. Seventy-three percent of certified organic farms grow some produce, but this often complements larger grain and livestock operations. Indeed, over one-third of the certified acres are planted in grains and legumes, according to the USDA survey. In addition, some farms have "split" operations in which some acres are certified organic and other acres remain conventionally farmed. Surveys show that since the mid 1980s, the number of acres in organic production of all types has increased steadily (Benbrook).

Since 1989, annual sales of organic products have increased by 20 percent annually (Natural Foods Merchandiser). Although it is difficult to track organic sales, it is estimated that in 1996, the value of all organic products sold in the U.S. totaled \$3.5 billion. Since the early 1990s all sectors of organic sales have increased. Organic sales through



Some processed organic foods include cereals, snack bars, and chips. The selection varies, but organic foods are increasingly found in large supermarkets.

natural products stores comprise the largest share of the market at \$1.95 billion in 1996, while direct sales and exports were estimated at \$872 million. Organic sales through supermarkets increased notably and more than doubled from \$98 million in 1993 to \$210 million in 1995. Indeed, large grocery store chains increasingly stock organic produce. Consumer preference for organic produce is linked to perceptions that such products are safer, fresher, more nutritious, and cause less detrimental environmental impact (Byrne, Bacon, and Toensmeyer). Other research indicates that six out of ten consumers would prefer to buy organic produce, with three-quarters of these shoppers willing to pay 10 percent or more premiums for such products (Misra and Ott).

In addition to U.S. organic markets, international demand for organic products is increasing. Europe and Japan are the primary export markets for American organic farmers, with organic grains meeting European demands and organic soybeans going to Asia. Japan's demand for organic soybeans has expanded rapidly and pushed the price of organic soybeans up so that American farmers can earn \$23 per bushel compared to about \$7 for conventional soybeans. In order to market organic products, both for export and domestic sales, farms must be certified organic.

### State and private agencies do certification

Various state and private certifying agencies currently administer organic certification in the United States. Certification may cover individual farm fields, whole farms, processors, or distributors. At the state government level, twelve states provided organic certification in 1996 through their departments of agriculture. These state programs are located primarily in the Southern Plains and in the West, with several eastern states also participating. Few midwestern and southeastern states had certification programs (figure 1).

A few examples illustrate the size and nature of these state certification programs. In 1996, the Texas state organic program certified 164 farms, and in Colorado the state department of agriculture certified 139 farms. Some states do not directly certify farms but do regulate the sales of organic products through paperwork and documentation. For example, the state of California does not certify farms, but requires organic growers (approximately 1,160 farmers in 1993) to be certified and registered with the California Department of Food and Agriculture Organic Program each year. California and numerous other states rely on private organizations to grant organic farm certification.

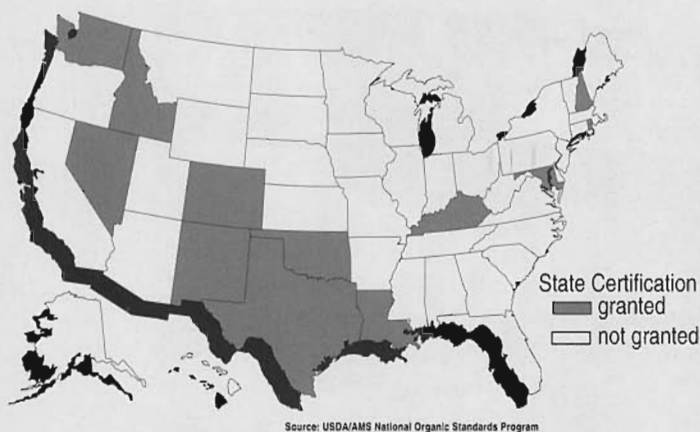


Figure 1. State government organic certification, 1996

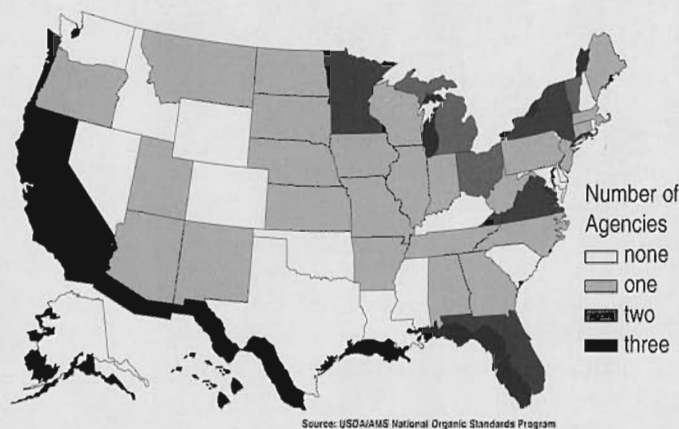


Figure 2. Private certifying agencies by state, 1996 (including local OCIA chapters)

Thirty-two private organizations certified U.S. organic farms in 1996. These agencies, while headquartered in a specific state, may certify farms in several states or even internationally. Some private agencies, such as the Organic Crop Improvement Association (OCIA) administer certification through state and regional chapters. For example, OCIA is headquartered in Lincoln, Nebraska, but it has 1,400 members in forty chapters across the United States, and 30,000 members in thirty-one international chapters. Agency headquarters indicate "hotspots" of nongovernmental organic farming activity and are concentrated in the East, Southeast, upper Midwest, and Pacific (figure 2). Several states (California, Florida, Minnesota, New York, and Virginia) are home to three or more private certifying agencies. States with fewer private certifying agencies may have state government certification.

While certification agencies are numerous and specific rules may vary, standards are fairly uniform among all state and private agencies. The standards usually require three years free of prohibited synthetic chemicals prior to certification, annual inspection of farms and processing facilities, evidence

of soil building on the cropland, and conformation to a written list of materials that are allowed in organic production. This so-called "materials list" is commonly divided into three categories: allowed, restricted, and prohibited materials. Some organic or benign substances are allowed in organic production (for example, blood meal, beneficial insects, worm castings, or composted animal manure). Other materials are listed as restricted, and can only be used if no alternatives are available (for example, chlorine for cleaning equipment). Prohibited materials are not allowed on certified organic acres (for example, synthetic insecticides, herbicides, and fertilizers).

Land must be free of prohibited substances for three years prior to certification and farmers must verify this with documentation. If evidence of prohibited substances is found on a farm, the farmer will lose certification, and in many cases a farmer will be fined if he or she has broken a state law. Depending on the state, such violations constitute a misdemeanor or a civil crime. Penalties also vary from state to state. In Oregon, for example, falsification of documents or use of prohibited materials can lead to fines up to \$15,000.

Agencies grant certification on a field-by-field or whole-farm basis. The certification process begins when a farmer contacts a certifying agency, either state or private. Farmers must complete the necessary forms (including information on farm history and management, operation type, record keeping system, and crops requested for certification). They must also submit information on their acreage, farm maps, sources of seeds, fertility management, pest/weed/disease management, storage systems, equipment, cleaning facilities, and modes of transportation. Farmers who maintain "split" operations producing both conventional and organic crops must take particular care to prove that they separate organically produced crops from conventional crops during planting, harvesting, storage, and transportation. Likewise, farmers must provide a buffer zone between their organic crops and any conventionally grown crops (their own or their neighbors'). The buffer zones abate potential chemical contamination caused by drift or runoff from conventional fields.

On-farm inspections are a key component of organic certification. Inspectors are trained by a certifying agency (state or private) or by an inspector accreditation organization such as the Independent Organic Inspectors Association, which holds workshops to train inspectors. Inspectors have educational and practical experience that qualifies them to perform inspections. In addition to related academic or practical experience, inspector training usually includes a period of apprenticeship with an

experienced inspector. Conflicts of interest are avoided because inspectors travel in from other regions and are not acquainted with the farmer or the operation. Also, to ensure that the inspection is not biased by personal relationships developed with the farmer, an inspector is only allowed to certify a specific farm for two consecutive years. During on-farm visits, the inspector verifies information provided by the applicant and the certifying agency. He or she inspects the farm, evaluates all information and observations, and writes a report to the certifying agency. Following the completion of all paperwork and the farm inspection, certification may be granted for specific fields or for a whole farm.

### Upcoming federal regulation

The USDA is expected to implement consistent national standards for organic producers, processors, and distributors within the next few years. The proposed rule was published in late 1997 and was followed by ninety days of public comment. The organic program staff at the USDA is reviewing and analyzing the comments before writing the final rule, which will be reviewed within the government before being published. With the publication of this final rule, the national organic standards will be implemented. State organic certification agencies may have additional requirements to those outlined in federal regulations.

The 1990 farm bill initiated this process by which the USDA is establishing organic certification and production standards. A National Organic Standards Board, comprised of farming, consumer, business, and environmental representatives, advised the USDA organic program in its development of regulations. A great deal of public comment was sought and received on the numerous topics related to organic standards. Federal regulation of organic production, handling, and labeling is "a consumer protection law and is intended as well to support and encourage environmentally sound agricultural practices" (USDA 1994).

These national standards are more than just a consolidation of state and private rules. Federal regulation may provide added credibility to organic products in the eyes of the consumer. A key component in the success of organic production is market identification and reliability. Lack of unified organic standards shakes consumer confidence. Federal policy may lead to the creation of a more stable organic market. The USDA will monitor certifying agencies, and this standardization could increase consumer confidence in organic products.

### Deeper questions

While certification provides consumers and producers with a means to verify the use of organic

methods in production, deeper social issues are also important to organic farming. How will organic regulations affect the philosophy behind organic farming? Will federal standards encourage smaller scales of production and local marketing that has been important for many organic farmers? Farmer activists claim that organic farming lets you "reclaim your share of the consumers' food dollar from the chemical companies and grain merchants" (Cramer). National organic standards could be beneficial to growers and consumers by providing a universal baseline definition of organic, but at the same time federal regulation might alter the traditional grassroots characteristics of organic agriculture (for example, rural community development and viability of small family farms).

USDA National Organic Program Staff seem aware of these concerns and have prepared documents that outline the "principles" of organic production (USDA 1995). They acknowledge that specific operational actions alone (such as the non-use of agrichemicals) do not define organic agriculture. Rather there are six principles that are key to organic farm management (USDA 1995, pp. 3-6):

1. Protect the environment, minimize pollution, promote health, and optimize biological productivity.
2. Replenish and maintain long-term soil fertility by providing optimal conditions for soil biological activity.
3. Maintain diversity within the farming system and its surroundings and protect and develop plant and wildlife habitat.
4. Recycle materials and resources to the greatest extent possible within the farm and its surrounding community as part of a regionally organized agricultural system.
5. Provide attentive care that meets both health and behavioral requirements of farm animals.
6. Maintain the integrity and nutritional value of organic food and processed products through each step of the process from planting to consumption.

Thus USDA documents outline several environmental and philosophical objectives within a broad "organic philosophy." It is not yet clear, however, if federal standards will actually incorporate these principles.

### Thinking about the future

Certification and market growth are important to organic agricultural production in the United States. Likewise, it is time for a deeper questioning of the motivation and philosophies behind organic pro-



Henry Brockman has sixteen certified organic acres in central Illinois. His marketing includes a natural foods store, several farmers markets, and a Community Supported Agriculture group through which he supplies fifteen families with fresh produce during the growing season.

duction. We, as consumers, researchers, farmers, and policy makers, should be aware of the potential for changes in organic farming once federal regulations take effect. With expanding markets for organic products, perhaps organic farming will gain broader social and agricultural acceptance. On the other hand, the very face of organic farming could change with upcoming federal regulations. As organic production becomes more widely accepted, it could evolve to "look" more like conventional agriculture in terms of scale, industrialization, and agricultural philosophy. ■

### ■ For more information

Benbrook, C. *Healthy Food, Healthy Farms: Pest Management in the Public Interest*. Washington DC: National Campaign for Pesticide Policy Reform, 1995.

Bureau of Census. U.S. Census of Agriculture. Department of Commerce, Washington, DC, 1992.

Byrne, P., J. Bacon, and U. Toensmeyer. "Pesticide Residue Concerns and Shopping Location Likelihood." *Agribus*. 10(1994):491-501.

Cramer, C. "Start Farming Again." *The New Farm*, Vol. 2, 1994, pp. 2-4.

Dunn, J. *Organic Food and Fiber: An Analysis of 1994 Certified Production in the United States*. Washington DC: U.S. Department of Agriculture/AMS/TMD, 1995.

Misra, S., and S. Ott. "Georgia Consumers' Preferences for Organically Grown Fresh Produce." *J. Agribus*. 9(1991):53-65.

Natural Foods Merchandiser. *Organic Market Analysis, June Issue*, New Hope Communications, Boulder, CO, 1997, 1996.

U.S. Department of Agriculture (USDA). National Organic Standards Board: Final Recommendations for Organic Crop Production Standards. Adopted 1-4 June 1994, USDA/AMS/TMD, Washington DC.

\_\_. *Prologue: Moving Toward Sustainability*. Prepared by the National Organic Staff, USDA/AMS/TMD, Washington DC, October 1994.

\_\_. *Report and Recommendations on Organic Farming*. Government Printing Office, Washington DC, 1980.

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