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# Organic Production: Practices and Prevalence

Joan Hegerfeld-Baker, SDSU food safety Extension specialist

In 1995, the United States Department of Agriculture issued the following definition of organic production:

Organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles, and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain, and enhance ecological harmony.

#### CERTIFIED ORGANIC PRODUCTION PRACTICES

Organic foods are those produced and processed using standardized practices set by the National Organic Program (NOP). The NOP is the agricultural production program that regulates the organic certification process. A key requirement for organic certification is that the food be handled in a way that adheres to NOP standards. While it is nearly impossible to state that a food is "chemical free," it is possible to certify that a food was produced and processed using organic practices. For organic production, working with nature is critical.

### **Organic crops**

- Land must have no prohibited substances for at least 3 years before the harvest of an organic crop.
- Soil fertility and crop nutrients are managed through tillage, crop rotations, cover crops, animal and crop waste, and some allowed synthetic materials.
- Physical, biological, and mechanical means are used to control pests, weeds, and diseases. In some instances an approved synthetic substance may be used.
- Organic seeds are preferred. Non-organic seeds may be used under specific conditions.
- The use of genetic engineering, ionizing radiation, and/or sewage sludge is prohibited.

### **Organic livestock**

• Slaughter animals must have been raised organically from last third of gestation, or no later than second

day of life for poultry.

- Feed products must be 100% organic vitamin and mineral supplements allowed.
- Dairy animals must have organic management for at least 12 months before their products can be sold as "organic."
- No hormones can be used to promote growth. No antibiotics can be used for any reason.
- Vaccines are the only preventive management items allowed.
- Cannot withhold treatment of sick or injured animals. If treated with prohibited product, cannot be sold as organic.
- Must have access to outdoors. Ruminants must have access to pasture.
- Temporary confinement allowed for health, safety, inclement weather, animal's stage of production, or protection of soil or water quality.

### **Organic food-handling standards**

- Non-agricultural products must be included on allowable list.
- No commingling with non-organic products.
- For processed "organic" foods, all agricultural ingredients must be organically produced (unless a specific ingredient is not commercially available).

## CERTIFIED ORGANIC PRODUCTION PREVALENCE

Organic production practices have steadily increased across the United States. In 1990, less than 1 million acres of farmland were dedicated to organic production. In 2005, over 4 million acres of farmland were dedicated to organic production (1.7 million to crops; 2.3 million to pasture and rangeland). If a producer's gross annual sales from organic farming or processing are more than \$5,000, that producer's product must be certified "organic" by a USDA-accredited certifying agency.

Organic Production in 2005: Top States						
State/Number of Producers	State/Total Crop Acres	State/Total Pasture Acres				
California/1,916	California/223,263	Alaska/1,460,000				
Wisconsin/580	North Dakota/143,322	Texas/241,353				
Washington/527	Montana/126,450	California/137,004				
Iowa/452	Minnesota/116,813	Montana/103,433				

South Dakota Organic Production Statistics						
Year	Certified Producers	Crop Acres	Pasture/Rangeland Acres	Total Acres	National Ranking By Acres/By Producers	
2000	91	39,881	6,651	46,532	10th/20th	
2001	69	49,894	7,432	57,417	8th/28th	
2002	87	53,418	8,262	61,680	9th/24th	
2003	84	53,772	5,514	59,286	12th/24th	
2004	90	56,882	9,852	66,734	15th/21st	
2005	90	60,098	12,727	72,825	14th/24th	

South Dakota reported organic livestock production to be primarily cattle, with a small number of poultry. On the crop side, wheat is the primary organic crop, with corn, oats, millet, barley, and rye also registered as organic.

In regard to land dedicated to organic production, what have been the largest effects of organic production? The effects are seen primarily in the pasture/rangeland: From 2002 to 2005 there was a 272% increase in pasture/rangeland in the United States, and a 33% increase in crop land.

The USDA Economic Research Service provides the following overview of organic production in comparison to conventional production:

While adoption of organic farming systems showed strong gains between 1992 and 2005 and the adoption rate remains high, the overall adoption level is still low—only about 0.5 percent of all U.S. cropland and 0.5 percent of all U.S. pasture was certified organic in 2005. Obstacles to adoption by farmers include high managerial costs and risks of shifting to a new way of farming, limited awareness of organic farming systems, lack of marketing and infrastructure, and inability to capture marketing economies. Still, many U.S. producers are embracing organic farming in order to lower input costs, conserve nonrenewable resources, capture high-value markets, and boost farm income.

Producers choosing to organically raise crops, livestock, and produce must obtain official organic certification. This requires working with an organic certifying organization. This takes much planning, monitoring, inspecting, and auditing. Obtaining official organic certification is very involved. Therefore, when producers are marketing certified organic commodities, they take much pride in their product.

Learn more about producing organically certified foods at the National Organic Program. This can be located on the USDA website (www.usda.gov) – first click "Agriculture," followed by "Organic Certification."

#### SOURCES

Adapted from Organic Production and Handling Standards and the Organic Labeling and Marketing Information published by the USDA AMS National Organic Program. April 2008.

Statistics obtained from Economic Research Service, United States Department of Agriculture – http://www. ers.usda.gov/.



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EXEX14111, August 2008. Access at http://agbiopubs.sdstate.edu/articles/ExEx14111.pdf.