Organic Production and Certification

Ben Beale, Extension Educator, University of Maryland Extension-St. Mary's County
Shannon Dill, Extension Educator, University of Maryland Extension-Talbot County
Neith Little, Extension Educator, University of Maryland Extension-Urban Agriculture

Organic produce has become very popular in the last 10 years. Growing vegetables organically requires physical input and critical thinking when approaching pest and fertility management. Organic production is a 'system' approach. Crop nutrients and soil fertility are managed through rotations, use of cover crops, and application of plant and animal materials. Pests are managed through the increase in biodiversity of the system, encouraging natural enemies, and the use of products that are approved by the National Organic Program (USDA). Weeds are managed through the use of mulches, tillage, and hand labor. Few chemical weed suppression products are effective.

Organic production methods

Soil productivity and health are the cornerstones to healthy plants that can withstand attacks from pests and diseases. Soil organic matter, which can be enhanced through the use of cover crops, composts and natural mulches, can serve as a reservoir of plant nutrients, enhance soil biological diversity and improve soil tilth, structure, and water holding capacity. The proper use of crop rotation in an organic system allows cover crops to be utilized in the most effective manner by breaking the disease cycle, increasing soil organic matter, increasing biodiversity, encouraging beneficial insect populations, and providing a nitrogen source to the crops that will be grown.

Soil testing is necessary to determine crop needs. Soil tests will indicate recommended rates of phosphorus and potassium required for crop production (University of University of Maryland Extension Publication EB-236). Organic producers can provide nutrients to their crops through the use of composted manures, cover crops, and approved blended materials. Blended fertilizers must be approved by the NOP (National Organic Program).

Organic growers are required to improve the biological productivity of their soil, and one way they achieve this is through the use of cover crops. These cover crops, while providing organic matter and erosion control, can also provide nutrients, many in the source of nitrogen. It is difficult to determine the actual quantity of nitrogen each cover crop can provide to the subsequent cash crop, as growth rate and biomass will be variable at maturity.

To control weeds vegetables are often grown on black plastic with trickle tape that will supply the plant's water needs. Organic growers often use other mulches that are readily available (straw, newspaper, or planting directly into a killed cover crop). In all organic production systems, weeds must be controlled because they are the number one cause of yield loss, as well as the most difficult pest to manage. Supplemental weed management is obtained

through the use of cover crops, tillage, flaming, and manual removal. The manual control of weeds in an organic system is one of the factors that increase the cost of raising vegetables organically. Seasonal labor sources must be secured in order to maintain the productivity of the crop.

Insects are managed through enhancement of biodiversity (increasing natural enemy populations, providing habitat, elimination of non-selective chemical controls), crop rotation, adjusting planting dates, and the use of approved chemical products.

Pricing and Marketing Organic Products

For many traditional agricultural products, profit margins can be minimal. But, organic certification offers a premium that consumers may be willing to pay for the organic label. (The premium includes the cost of products grown organically above the cost of conventionally grown products, as well as increasing demand for organic products.) Organic production is more labor intensive and prices should reflect that cost. Pricing directly affects profit margins and will depend upon the market outlet, market position, target consumer, cost of production, and local prices.

Common sales channels for organic products include direct marketing. Direct marketing refers to sales of a good or service from the producer directly to the consumer, through market outlets such as farmers' markets, roadside stands, and CSAs. This eliminates wholesale marketing and the middleman and sells directly to the consumer. There is an increasing organic wholesale market to health stores and supermarkets due to consumer demand. Selling to these larger markets often takes higher quantity of production, and may pay lower prices than can be achieved in direct market outlets. Organic wholesale markets are still somewhat immature, but are growing. According to the Organic Trade Association, organic products are available in 73 percent of conventional United States grocery stores and consumers continue to demand more.

Identifying your **target customer** is an important step in developing a marketing plan. There are consumer segments that demand, search for, and purchase organic products. This is generally a health conscious consumer who wants to buy fresh and local products. This may be a consumer with more disposable income who is willing to pay more for organic products.

The Organic Certification Process

USDA Organic is a national certification for farmers who use organic practices: https://www.usda.gov/topics/organic. To use the USDA Organic label, a grower must become Certified Organic, and maintain that certification from year to year. Farms and other businesses who have an organic certification are listed in a public USDA database: https://organic.ams.usda.gov/integrity

An exemption to the certification requirement is available for very small-scale growers who have less than $5,000 in organic sales annually and follow organic practices as defined by the USDA's National Organic Program Rules. Exempt producers are allowed to describe their

products as organic, but are not allowed to use the USDA Organic label. The Maryland Department of Agriculture offers a registration program that allows exempt organic producers to be listed in state and federal organic directories.

To become Certified Organic, a farmer will need to understand the National Organic Program rules, develop a plan for how they will follow those rules, and submit an application to a third-party certifier who will review the plan and inspect the farm. This process may take three years, if the land being certified has previously been used for conventional agricultural production. A variety of third-party certifiers exist, including the Maryland Department of Agriculture: https://mda.maryland.gov/foodfeedquality/Pages/how_get_certified.aspx.

A more detailed description of the organic certification process is available in the Maryland Organic Production Manual: https://extension.umd.edu/mdvegetables/organic-vegetable-production/organic-vegetable-production-manual

Other related certifications

Several other certifications of farming practices exist focused on sustainability and humane treatment of livestock. Certified Naturally Grown is a grower-run program where farmers review each other's' production practices. "Certified Humane" and "Animal Welfare Approved" are two third-party certifications of livestock production practices.

Additional resources

If you want to use organic practices and are interested in marketing what you produce as organic, you will need to begin learning more and planning your organic farming practices and record-keeping system. The following resources will help you start on this journey.

https://www.usda.gov/topics/organic