


Organic Vegetable Production

Organic vegetable farming is a production system that relies on biological processes and natural materials to manage soil fertility and pest populations, and to promote healthy crop growth. With the federal Organic Foods Production Act, use of the term “organic” to describe an agricultural product in the marketplace is regulated. Vegetables sold as “organic” must be grown and handled according to the National Organic Rule and any applicable state regulations. The National Organic Rule prohibits the use of most synthetic chemicals (fertilizers, pesticides, etc.), and requires farmers to write and follow organic production plans, as well as keep farm and field records. Fields used to grow organic crops may not have had any prohibited material applied to them in the previous three years. In addition, USDA-accredited organic certification agents must inspect and certify all operations with more than \$5,000 in gross annual income from sales of products labeled “organic.”

Growers interested in transitioning to organic production should educate themselves about practices used in their area and plan carefully. Experience suggests that it can take a number of years for pest populations and soil nutrient cycles to adjust enough for successful organic production. Portions of this guide related to soil sampling, nutrient availability, and crop nutrient requirements include information relevant to organic production, as do the overviews of Insect Management Strategies, Disease Management Strategies, and Weed Management Strategies.

In this guide, products that may be allowed in organic production are denoted by the symbol: . Growers should always check with their organic certification agents before using any product to make sure it meets their certifier’s criteria.

Other organic production resources include:

eXtension, the national extension website, offers resources on organic agriculture at www.extension.org.

Organic Vegetable Gardening Techniques (University of Missouri Extension Guide G6220) provides an introduction to organic production techniques (available from University of Missouri Extension Publications, extension.missouri.edu/publications).

Resource Guide for Organic Insect and Disease Management (Cornell University) provides specific recommendations for pests and diseases of major vegetable crops (available at web.pppmb.cals.cornell.edu/resourceguide).

Appropriate Technology for Rural Areas (ATTRA) offers a number of publications on their website: www.attra.org.

The National Organic Program (NOP) offers a program handbook that provides a list of materials allowed for use in organic production, plus a complete list of accredited certification agents on their website: www.ams.usda.gov/nop.

The Organic Materials Review Institute (OMRI) publishes a list of products they have found to meet certified organic production criteria. For details, visit www.omri.org.

The Sustainable Agriculture Research and Education (SARE) program offers a number of research-based publications about pest management, including organic options. A complete catalog is available at www.sare.org/Learning-Center.

If you desire organic certification, you should contact a certification agent during the period of transition to organic production. The organizations on pages 40-41 have been accredited by the USDA as of June 2017. Contact them directly for information about fees and the certification procedure. The USDA lists all accredited organizations at www.ams.usda.gov/services/organic-certification/certifying-agents.

Consult your local extension office for other resources available in your area.

Selected Organic Certification Agents

California Certified Organic Farmers

Serves entire United States, Canada, and Mexico
2155 Delaware Avenue, Suite 150
Santa Cruz, CA 95060
(831) 423-2263
Fax: (831) 423-4528
ccof@ccof.org
www.ccof.org

Ecocert ICO

Serves entire United States, Canada, South America, and minor outlying islands
P.O. Box 158
201 W. Main St., 2nd Floor
Plainfield, IN 46168
(888) 337-8246
info.ecocertico@ecocert.com
www.ecocertico.com

Global Organic Alliance

Serves entire United States, Canada, and the Philippines
P.O. Box 530
3185 Township Road 179
Bellefontaine, OH 43311
(937) 593-1232
Fax: (937) 593-9507
goaorg@centurylink.net
www.goa-online.org

International Certification Services

Serves worldwide
301 5th Avenue SE
Medina, ND 58467
(701) 486-3578
Fax: (701) 486-3580
info@ics-intl.com
www.ics-intl.com

Iowa Department of Agriculture and Land Stewardship

Serves Iowa and neighboring states
Organic Certification Program
Maury Wills
502 East 9th Street
Des Moines, IA 50319
(515) 281-5783
AgDiversification@iowaagriculture.gov
www.iowaagriculture.gov/AgDiversification/
organicCertification.asp

Minnesota Crop Improvement Association

Serves the Midwest
1900 Hendon Ave.
St. Paul, MN 55108
(612) 625-7766
(855) 213-4461
mncia@mncia.org
www.mciaorganic.org

MOSA Certified Organic

Serves 20 states
122 W. Jefferson St.
PO Box 821
Viroqua, WI 54665
(608) 637-2526
mosa@mosaorganic.org
www.mosaorganic.org

Nature's International Certification Services

Serves most of the United States
224 State Highway 56 East
Viroqua, WI 54665
(608) 637-7080
Fax: (608) 637-7460
nics@naturesinternational.com
www.naturesinternational.com

OCIA International, Inc.

Serves entire United States, Canada, Latin America, and Japan
1340 North Cotner Blvd.
Lincoln, NE 68505
Phone: (402) 477-2323
info@ocia.org
www.ocia.org

Oregon Tilth Certified Organic

Serves entire United States, Canada, and Mexico
2525 SE 3rd St.
Corvallis, OR 97333
(503) 378-0690
(877) 378-0690
Fax: (541) 753-4924
organic@tilth.org
www.tilth.org

Ohio Ecological Food and Farm Association

Services 10 states, including Illinois, Indiana, Iowa,
Michigan, Missouri, and Ohio

41 Croswell Road
Columbus, OH 43214
(614) 262-2022
organic@oeffa.org
www.oeffa.org

OneCert, Inc.

Services most of the United States

1012 D Street
Lincoln, NE 68502
(402) 420-6080
info@onecert.com
www.onecert.com

Pro-Cert Organic Systems Ltd.

Services entire United States and Canada

P.O. Box 100A RR#3
475 Valley Road
Saskatoon, SK, Canada
S7K 3J6
(306) 382-1299
infoebo@pro-cert.org
www.pro-cert.org

Quality Assurance International

Services entire United States and Canada

9191 Towne Centre Drive, Suite 200
San Diego, CA 92122
(858) 200-9704
info@qai-inc.com
www.qai-inc.com

Quality Certification Services

Services most of the United States, Dominican Republic,
Ecuador, Mexico, Canada, Europe, and Asia

PO Box 12311
Gainesville, FL 32604-0311
(352) 377-0133
Fax: (352) 377-8363
qcs@qcsinfo.org
www.qcsinfo.org

Yields of Vegetable Crops

| Crop | Expected Yields in Tons per Acre | | |
|-----------------------------------|----------------------------------|------|-----------|
| | Average | Good | Excellent |
| Asparagus | 1 | 1.5 | 2 |
| Bean, snap | 2 | 3 | 4 |
| Cabbage | 13 | 15 | 20 |
| Cantaloupe | 10 | 15 | 19 |
| Cucumber (slicing) | 9 | 12 | 15 |
| Cucumber (pickling, hand harvest) | 6 | 10 | 12 |
| Onion | 13 | 18 | 23 |
| Pepper, green | 14 | 17 | 20 |
| Potato (fall) | 10 | 15 | 20 |
| Pumpkin | 10 | 15 | 25 |
| Spinach | 6 | 8 | 10 |
| Summer squash | 10 | 13 | 16 |
| Sweet corn | 4.5 | 8 | 10 |
| Sweet potato | 7 | 12 | 15 |
| Tomato (fresh market) | 11 | 13 | 15 |
| Tomato (processing) | 25 | 29 | 33 |
| Watermelon | 15 | 20 | 25 |

This table only provides general yield estimates for new or prospective growers. The USDA-National Agricultural Statistics Service Vegetable Survey provides more accurate information.