


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 September 2016. Contact them directly for information about fees and the certification procedure. Additional accredited organizations are listed 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

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, Mexico, Russia, and select countries in Central America, South America, and Asia

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

Midwest Organic Services Association, Inc.

Serves 20 states

122 W. Jefferson St.

PO Box 821

Viroqua, WI 54665

(608) 637-2526

mosa@mosaorganic.org

www.mosaorganic.org

Minnesota Crop Improvement Association

Serves the Midwest and beyond

1900 Hendon Ave.

St. Paul, MN 55108

(612) 625-7766

(800) 510-MCIA

mncia@mncia.org

www.mncia.org

Nature's International Certification Services

Serves 18 states, including Illinois, Iowa, Michigan, Minnesota, Missouri, and Ohio

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 the Americas and Asia

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
 2219 C Street
 Lincoln, NE 68502
 (402) 420-6080
 info@onecert.com
 www.onecert.com

Pro-Cert Organic
 Services entire United States and Canada
 P.O. Box 74
 2311 Elm Tree Road
 Cambray, ON K0M 1E0 Canada
 (705) 374-5602
 Fax: (705) 374-5604
 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
 PO Box 12311
 Gainesville, FL 32604-0311
 (352) 377-0133
 Fax: (352) 377-8363
 qcs@qcsinfo.org
 www.qcsinfo.org

Table 12: 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.