



# Resource Guide to Organic and Sustainable Vegetable Production

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## Introduction

Farmers making a transition to sustainable or organic farming need information on a wide variety of topics such as soil management and non-chemical weed and pest management. This guide provides a summary of some of the best in-print and online sources around.

Here it should be noted that farmers raising herbs or field-grown cut flowers face nearly identical production requirements. Thus, when we talk about cover crops or weed control or soil management for vegetables, the same approach will work for field-grown cut flowers and herbs.

## Who Should Use This Guide

Farmers and others who work in commercial agriculture—e.g., Extension specialists, NRCS, crop advisors, teachers, and researchers. The focus is heavily oriented to practical approaches to organic and sustainable farming.

## How to Use This Guide

Printed books and bulletins are listed first; these are followed by a selection of online resources. In some instances, a Web version corresponds with the book and these have been noted.

Publishers and distributors that sell the books reviewed here are listed in a special section at the end of this resource guide. For details on sales price, shipping expenses, and ordering information, contact the publishers.

## About the Use of Web Resources

The Internet has revolutionized the way information is distributed and obtained.

Whereas it used to take several weeks or months to wait for a publication to arrive in the mail,

with a few mouse clicks many of these items now instantly appear on your computer screen. Better yet, most of these articles and bulletins are free. In addition, some items—including many Extension Service fact sheets—are available only in electronic form. Thus, some portions of this resource list are more heavily oriented to Web resources than others.

If you have received this resource list but you don't have a computer at home, please see your local public library for assistance.

### How to Read Web Documents

*.HTML* (Hyper Text Markup Language) means that you can click and read online. The links to other publications are easy to access and go directly to the reference at hand.

*.PDF* (Portable Document Format) requires Adobe Acrobat Reader to download and is the format that is most easy to print in. You can still usually access links in this format, but it often requires pressing different keys.

## What is Sustainable Vegetable Production

For the purpose of an introduction, sustainable agriculture can be characterized as follows:

- Sustainable agriculture is a goal rather than a specific set of farming practices. Progress or movement toward the goal may be viewed as a continuum.
- A sustainable farming system strives to be productive and profitable, while at the same time preserving environmental quality and making efficient use of nonrenewable resources.

- Sustainable agriculture is concerned about the well-being of rural communities and the quality of life for families and farm workers.
- Though biological practices and products are favored over chemical inputs, pesticides and fertilizers may be used within an Integrated Pest Management framework.

For more information on sustainable agriculture production practices, see the ATTRA publication *Applying the Principles of Sustainable Farming: Fundamentals of Sustainable Agriculture* at <https://attra.ncat.org/attra-pub/summaries/summary.php?pub=295>.

## The Farmer's Bookshelf



Photo: NCAT

Here is a selection of some of the best bookshelf resources for the farmer who is just starting out in sustainable or organic production. For-sale books are available from the sources listed in the Publishers & Distributors section. Out-of-print literature and reference titles (mainly in the historical section) are available through interlibrary loan. You can occasionally find these books at used bookstores and online retailers, however.

### ***Books on Sustainable Vegetable Production, Market Gardening, and Commercial Vegetable Production***

*Sustainable Vegetable Production from Start-Up to Market.* 1999. By Vernon P. Grubinger. NRAES-104. PALS Publishing, Ithaca, NY.

This is without a doubt the most comprehensive and modern overview on sustainable veg-

etable production available. Chapters address concepts and terminology associated with sustainable and organic production philosophies, business planning, production practices, business planning, and marketing.

*Sustainable Practices for Vegetable Production in the South.* 1996. By Mary Peet. Focus Publishing, R. Pullins Co., Newburyport, MA.

An overview on production practices specifically focused on the South. The book also has crop profiles on individual vegetable crops. The crop profiles provide a nice summary of standard production practices.

*The New Organic Grower: A Master's Manual of Tools and Techniques for the Home and Market Gardener,* 2nd Edition. 1995. By Eliot Coleman. Chelsea Green Publishing Co., White River Junction, VT.

A complete how-to-get-started manual on small-scale market gardening. It provides information about the use of walking tractors, wheel hoes, multi-row dibble sticks, soil block transplants, and other tools and techniques that help make market gardening more sustainable and efficient. Eliot Coleman now has an excellent series of season-extension books for farmers, as well.

*How to Grow More Vegetables,* 8th Edition. 2012. By John Jeavons. Ten Speed Press, Berkeley, CA.

This is the classic text on the biointensive method of production, which emphasizes double digging, intensive spacing, companion planting, organic soil preparation, and high yields in minimal space. This book is filled with useful information and charts, which are now fully updated and revised.

The Ecology Action Institute, founded by the author, publishes numerous books, DVDs, and research results on topics relating to biointensive production methods, organic fertilizers, cover crops, composts, small-scale production data, etc. For a list of Ecology Action titles, descriptions, and ordering information, see [www.growbiointensive.org/](http://www.growbiointensive.org/).

*Backyard Market Gardening: The Entrepreneur's Guide to Selling What You Grow.* 1993. By Andrew W. Lee. Good Earth Publications, Columbus, NC.

This book provides information on how to grow and sell vegetables, fruits, flowers, herbs and small livestock from a backyard market garden. The book also has a nice section on farm equip-

### Related ATTRA Publications

[www.attra.ncat.org](http://www.attra.ncat.org)

Companion Planting: Basic Concepts & Resources

Community Supported Agriculture

"Tips for Selling" Series

Manures for Organic Crop Production

Organic Allium Production

Organic Asparagus Production

Organic Certification

Organic Marketing Resources

Sweet Corn: Organic Production

Sweetpotato: Organic Production

Organic Tomato Production

ment with black-and-white photos. Most of the book is geared to the marketing and business side of market gardening.

*The Flower Farmer: An Organic Grower's Guide to Raising and Selling Cut Flowers.* Revised and expanded 2008. By Lynn Byczynski. Chelsea Green Publishing Co., White River Junction, VT.

This book is an important contribution to the organic market gardening literature because field-grown flowers are a common part of a crop mix for local sales. The most recent full-color edition has been greatly revised and expanded to meet the needs of the more experienced grower. New topics include season extension, growing in hoopouses, and growing in heated greenhouses. Resources have been completely updated and expanded.

*Producing Vegetable Crops*, 5th Edition. 2001. By John M. Swiader, George W. Ware, and J.P. McCollum. Prentice Hall, Upper Saddle River, NJ.

This is one of the standard textbooks on commercial vegetable production. This book serves as a good reference for any commercial vegetable grower, whether organic or conventional. The new edition features new material and increased emphasis on plant growth and development.

*The Knotts Vegetable Growing Handbook*, 5th Edition. 2006. By Donald Maynard and George Hockmuth. John Wiley & Sons, Hoboken, NJ.

A comprehensive manual on vegetable production for commercial growers. The latest edition has a flexible cover for bringing into the field, information on organic production and food safety, and Web resources.

*The New Farmer's Market: Farm-Fresh Ideas for Producers, Managers and Communities.* 2001. By Vance Corum, Marcie Rosenzweig, and Eric Gibson. New World Publishing, San Francisco, CA.

This publication provides tips from sellers and managers including choosing what products to grow for farmers markets, and how to market those products. It also contains information on how to use farmers markets to garner community support for sustainable agriculture.

*Crop Rotation on Organic Farms.* 2009. By Charles L. Mohler and Sue Ellen Johnson, Eds. PALS Publishing, Ithaca, NY.

This crop-rotation publication includes 13 sample crop rotations, tips from expert farmers, 18 tables, 25 sidebars, worksheets, and references.

## Specialty, Ethnic, and Minor Vegetable Crops

Specialty vegetables include baby vegetables, heirlooms, colored varieties, and ethnic vegetables. Some farmers raise these crops for sale at farmers markets, ethnic grocery stores, and restaurants.

*World Vegetables: Principles, Production and Nutritive Values*, 2nd Edition. 1997. By Vincent E. Rubatzky and Mas Yamaguchi. International Thompson Science (Chapman & Hall), New York, NY.

This is a textbook on vegetables produced around the world, with comprehensive coverage of specialty and minor vegetable crops. This book is very expensive and should be looked at through an interlibrary loan before purchasing.

*Specialty and Minor Crops Handbook*, 2nd Edition. 1998. Small Farm Center. University of California, Publication 3346.

This is a beautiful publication from University of California that provides brief fact sheets for about 63 minor vegetables. Each crop is summarized with a color photo, market information, cultural information, seed sources, and a bibliography.

*New Crops. Proceedings of National Symposia*, Vols I-VI. Center for New Crops & Plant Products, Purdue University. <http://www.hort.purdue.edu/newcrop/ncnu07/v6-toc.html>

The New Crops symposia are held semi-annually and the proceedings are published. They contain a wealth of information on new, specialty, and ethnic crops. All volumes are available for sale in print. They are also available online in PDF format. The most recent is *Issues in New Crops and New Uses: Proceedings from the sixth National Symposium (2007), Creating Markets for Economic Development of New Crops and New Uses.*

*Vegetables and Fruits: A Guide to Heirloom Varieties and Community-Based Stewardship.* By Suzanne DeMuth. USDA-Alternative Farming Systems Information Center. 1999. [www.nal.usda.gov/afsic/AFSIC\\_pubs/heirloom/heirloom.htm](http://www.nal.usda.gov/afsic/AFSIC_pubs/heirloom/heirloom.htm)

A wealth of resources from the National Agricultural Library containing bibliographical material, resource organizations and seed sources, and historical documentation.

*Uncommon Fruits for Every Garden*, 2nd Edition. 2004. By Lee Reich. Timber Press, Incorporated.

This volume explores 23 fruits that are rela-

### Related ATTRA Publications

[www.attra.ncat.org](http://www.attra.ncat.org)

- Organic Crop Production Overview
- Plug and Transplant Production for Organic Systems
- Potting Mixes for Certified Organic Production
- Season Extension Techniques for Market Gardeners
- Specialty Crops for Cold Climates
- Specialty Cut Flower Production and Marketing
- Specialty Lettuce & Greens: Organic Production
- Specialty Vegetables
- Directory of Organic Seed Suppliers



tively unknown in commerce, including paw-paw, jujube, hardy kiwi, and Asian pear.

### *NewCROP*

[www.hort.purdue.edu/newcrop/default.html](http://www.hort.purdue.edu/newcrop/default.html)

The NewCROP website is sponsored by the Center for New Crops & Plant Products at Purdue University. It provides extensive access to new and specialty crop profiles.

## **Historical Literature on Organic Agriculture**

Organic agriculture has a rich history of farmers, researchers, and philosophers writing about sustainable agriculture practices. As an introduction, four classic titles that provide historical perspective are listed below.

*An Agricultural Testament.* 1943. By Sir Albert Howard. Oxford University Press, New York and London. [www.journeytoforever.org/farm\\_library/howardAT/ATtoc.html](http://www.journeytoforever.org/farm_library/howardAT/ATtoc.html)

*The Living Soil.* 1949. By Lady Eve Balfour. Faber and Faber, LTD., London, England.

*Soils and Men: Yearbook of Agriculture.* 1938. USDA. U.S. Department of Agriculture, Washington, DC.

*Pay Dirt: Farming and Gardening with Composts.* 1945. By J.I. Rodale. Devin-Adair Co., New York, NY.

## **Modern Literature on Organic Farming**

There are numerous sources of information on farming organically. ATTRA has several resources on individual crops. When sustainable agriculture became a priority topic for the USDA, land-grant universities, and non-profit institutions in the 1980s, cover crops were one of the first items to receive significant attention. Considerable time and energy have gone into cover crop research, on-farm trials, and information dissemination.

Some of the key players that helped generate this new material on cover crops include the Sustainable Agriculture Network (SAN), the University of California, and the Rodale Institute.

The following resources describe the history and production values of organic farming.

*Tracing the Evolution of Sustainable Organic Agriculture.* May 2007. By Mary Gold and Jane Potter Gates. Bibliographies and Literature of Agriculture (BLA) No. 72. National Agricultural Library, Beltsville, MD.

A good collection of fundamental literature on the history of organic/sustainable agriculture.

*Organic Farming.* 1990. By Nicolas Lampkin. Farming Press, Ipswich, United Kingdom.

Nicolas Lampkin is on the faculty at the Welsh Institute of Rural Studies associated with The University of Wales. *Organic Farming* is the most prominent effort by a university professor to address organic agriculture. In addition, the European ecological and organic farming literature—which Lampkin heavily draws upon—is a rich source of information.

*Organic Manifesto: How Organic Food Can Heal Our Planet, Feed the World, and Keep Us Safe.* Maria Rodale. 2011. Rodale Press, Emmaus, PA.

A nonacademic argument for the overall wisdom—economical and ecological—for farming organically.

*Organic Farming: Everything You Need to Know.* 2007. By Peter V. Fossel. Voyageur Press, Minneapolis, MN.

An overview of organic production practices and resources.

*The Gardener's A-Z Guide to Growing Organic Food.* 2004. Tanya L.K. Denckla. Storey Publishing, North Adams, MA.

## **Literature on Sustainable and Alternative Farming Systems**

Ecological farming systems—Organic Farming, Biodynamic Farming, Permaculture, Eco-Farming, Nature Farming—evolved as an alternative to chemically intensive agriculture. Each offers its own brand of philosophy and practical farming methodologies. Here are some noteworthy titles. See the publishers' catalogs and website listings at the end of this guide for a comprehensive look at what's available.

*Sustainable Agriculture: Definitions and Terms.* 2007 (updated). Mary Gold, AFSIC, National Agricultural Library, Beltsville, MD. [www.nal.usda.gov/afsic/pubs/terms/srb9902.shtml](http://www.nal.usda.gov/afsic/pubs/terms/srb9902.shtml)

**C**onsiderable time and energy have gone into cover crop research, on-farm trials, and information dissemination.

*The Omnivore's Dilemma: A Natural History of Four Meals.* Michael Pollan. 2007. Penguin Books, New York, NY.

*The Biological Farmer.* 2000. By Gary Zimmer. Acres U.S.A., Austin, TX.

By working with nature, biological farmers reduce costs and increase profits while improving soil and livestock health. This book teaches growers how to maintain a healthy soil and covers how to get started as a biological farmer, soil basics, soil testing, and fertilizers.

## Eco-Farming

*Eco-Farm: An Acres U.S.A. Primer.* 1991. By Charles Walters and C.J. Fenzau. Acres USA, Kansas City, MO.

*Micro Eco-Farming.* 2005. By Barbara Berst. New World Publishing, San Francisco, CA.

## Permaculture

*Introduction to Permaculture*, 2nd Edition. 1994. By Bill Mollison with Reny Mia Slay. Tagari Publications, Tyalgum Australia.

*Permaculture: Principles & Pathways Beyond Sustainability.* 2002. By David Holmgren. Holmgren Design Services.

*The Basics of Permaculture Design.* 2003. By Ross Mars. Permanent Publications, East Mean, Hampshire, UK.

## Biodynamic Farming

*Biodynamic Farming Practice.* 1992. By Fritz Sattler and Eckard von Wistinghausen. Bio-Dynamic Agricultural Association, Stourbridge, West Midlands, England.

*Pfeiffer's Introduction to Biodynamics.* By Ehrenfried Pfeiffer. 2011. Floris Books, Edinburgh, UK.

*A Biodynamic Manual: Practical Instructions for Farmers and Gardeners.* Pierre Mason. 2011. Floris Books, Edinburgh, UK.

*A Biodynamic Farm.* 2000. By Hugh Lovel. Acres U.S.A., Austin, TX.

*Biodynamic Farming & Compost Preparation.* 1999. By Steve Diver. ATTRA Publication IP137.

## Natural Farming

*One Straw Revolution: An Introduction to Natural Farming.* 1978. By Masanobu Fukuoka. Rodale Press, Emmaus, PA.

*The Natural Way of Farming: The Theory and Practice of Green Philosophy.* 1987. By Masanobu Fukuoka. Japan Publications, Kodansha International-USA through Harper & Row, New York, NY.

*The Road Back to Nature: Regaining the Paradise Lost.* 1987. By Masanobu Fukuoka. Japan Publications, Kodansha International-USA through Harper & Row, New York, NY.

## Nature Farming

*Beneficial and Effective Microorganisms for a Sustainable Agriculture and Environment.* 1994. Dr. Teruo Higa and Dr. James F. Parr. [www.agriton.nl/higa.html](http://www.agriton.nl/higa.html)

*Nature Farming and Microbial Applications.* 2000. Xu, Hui-lian, James F. Parr, and Hiroshi Umemura (eds.) Food Products Press, The Haworth Press, Binghamton, NY.

## Organic Farming Primer

### *What Is Organic Vegetable Production?*

In a nutshell, organic farming is based on the following approaches and production inputs:

- Strict avoidance of synthetic fertilizers and synthetic pesticides
- Crop rotations, crop residues, mulches
- Animal manures and composts
- Cover crops and green manures
- Organic fertilizers and soil amendments
- Biostimulants, humates, and seaweeds
- Compost teas and herbal teas
- Marine, animal, and plant by-products
- Biorational, microbial, and botanical pesticides, and other natural pest control products

The ATTRA publication *Organic Crop Production Overview* explains the history, philosophy, and practices of organic farming. This publication is an excellent factsheet-type primer on organic production, providing principles, practices, and concepts that put it all together. <https://attra.ncat.org/attra-pub/summaries/summary.php?pub=66>

ATTRA has many publications and record keeping templates for becoming certified organic. For an overview of the publications that ATTRA has to offer see *Guide to ATTRA's Organic Publications*, by Holly Michels.

<https://attra.ncat.org/attra-pub/summaries/summary.php?pub=151>

### *USDA Accredited Certifying Agents (ACAs)*

<http://tinyurl.com/NOPcert>

For an up-to-date list of accredited certifiers, check out this USDA-NOP certifier list.

## Regional Organic Certifiers and Certification Resources

### *California Certified Organic Farmers (CCOF)*

831-423-2263

[ccof@ccof.org](mailto:ccof@ccof.org)

[www.ccof.org/standards.php](http://www.ccof.org/standards.php)

CCOF is one of the premier organic certification organizations in the United States. CCOF *Certification Standards* are available on the website above.

### *Organic Crop Improvement Association*

[www.ocia.org/](http://www.ocia.org/)

O CIA was one of the first major certification programs. It is accredited to certify internationally.

### *Minnesota Guide to Organic Certification*

2012. Jim Riddle.

[www.extension.umn.edu/distribution/cropsystems/DC8497.html](http://www.extension.umn.edu/distribution/cropsystems/DC8497.html)

### *Midwest Organic Services Association*

608-637-2526

Fax: 608-637-7032

[mosa@mosaorganic.org](mailto:mosa@mosaorganic.org)

[www.mosaorganic.org/](http://www.mosaorganic.org/)

MOSA is a non-profit organic certification agency based in the Midwest.

### *Texas Department of Agriculture-Organic Certification*

512-936-4178

[Organic@TexasAgriculture.gov](mailto:Organic@TexasAgriculture.gov)

[www.texasagriculture.gov/RegulatoryPrograms/Organics.aspx](http://www.texasagriculture.gov/RegulatoryPrograms/Organics.aspx)

Texas has a state certification program through the Department of Agriculture. The program certifies organic producers, processors, distributors, and retailers.

### *Maine Organic Farmers & Gardeners Association, Certification Services, LLC*

207-568-4142

<http://mofgacertification.org/>

Maine Organic Farmers and Gardeners Association (MOFGA) has been certifying organic farmers since 1972 and is one of the country's oldest certification programs. The LLC was formed in 2002 to provide USDA-

**A** TTRA has many publications and record keeping templates for becoming certified organic.

## Organic Certification

In the 1970s and 1980s, organic certification emerged as a marketing tool to assure consumers that foods labeled organic were grown to specified standards of production, including strict avoidance of synthetic fertilizers and pesticides. In April 2001, the USDA released the Final Rule of the National Organic Program. This federal law stipulates exactly what a grower can and cannot do to produce and market a product as organic.

Application for certification must be made, paperwork completed, fees paid, and annual inspections undergone through a USDA approved certifier. To get an organic label, farms must be inspected and approved by an accredited organic certification program. Private (such as Oregon Tilth, California Certified Organic Farmers) and government (such as Texas Department of Agriculture, Washington State Department of Agriculture) organic certification programs exist.

To learn more about the details of the organic certification process, see the publication *Organic Certification*, jointly produced by ATTRA and USDA National Organic Program. <https://attra.ncat.org/attra-pub/viewhtml.php?id=152>

The following list identifies some notable national and regional certifiers.

### *USDA National Organic Program*

[www.ams.usda.gov/AMSV1.0/nop](http://www.ams.usda.gov/AMSV1.0/nop)

This is the official USDA website for the National Organic Program (NOP), with links to the Final Rule and other organic regulations.





accredited organic certification services to farmers and food processors.

### *Northeast Organic Farming Association (NOFA)*

[www.nofa.org/chapters.php](http://www.nofa.org/chapters.php)

NOFA has many state chapters, many of which have accredited certification services. The link above will help you find a NOFA chapter in Northeast and New England states.

### *Washington State Department of Agriculture (WSDA) Organic Food Program*

360-902-1805

[organic@agr.wa.gov](mailto:organic@agr.wa.gov)

<http://agr.wa.gov/foodanimal/organic/>

The WSDA Organic Food Program inspects livestock and crop producers, processors handlers, and retailers.

### *Baystate Organic Certifiers-New England*

401-835-2210

[ehanson@baystateorganic.org](mailto:ehanson@baystateorganic.org)

[www.baystateorganic.org/](http://www.baystateorganic.org/)

This USDA National Organic Program accredited certifying agent certifies farm operations in the Northeast and Mid-Atlantic United States, and processing operations in the Continental United States.

## **Organic Marketing Information**



*Tumbling Shoals Farm farmers market stand. Photo: Tumbling Shoals Farm*

The organic market continues to grow, albeit at a slower pace than in recent years. Organic fruits and vegetables, which represent 12 percent of all U.S. fruit and vegetable sales, reached nearly \$10.6 billion in 2010 (Organic Trade Association, *2011 U.S. Organic Industry Overview*). When evaluating a new enterprise or production model, it is important to consider the market.

The resources listed below will help you develop an organic marketing assessment for your farm.

*Organic Marketing Resources*. 2004. By Holly Born. ATTRA Publication IP124. <https://attra.ncat.org/attra-pub/summaries/summary.php?pub=185>

### *Briefing Room: Organic Agriculture*

USDA Economic Research Service

[www.ers.usda.gov/briefing/organic/](http://www.ers.usda.gov/briefing/organic/)

This briefing room covers the scope of ERS work on organic agriculture and provides economic research, analysis, and information about the production and marketing of organic products.

*Marketing U.S. Organic Foods: Recent Trends From Farms to Consumers*. 2009. By Carolyn Dimitri and Lydia Oberholtzer. Economic Information Bulletin No. EIB-58. USDA Economic Research Service. [www.ers.usda.gov/Publications/EIB58/](http://www.ers.usda.gov/Publications/EIB58/).

This study analyzes the most recent data available to examine each level of the organic supply chain.

*Organic Certification, Farm Planning, Management, and Marketing*. Revised 2006. L. Tourte, et al. University of California Small Farm Center. <http://ucanr.org/freepubs/docs/7247.pdf>

An overview of organic certification processes as well as the necessary management and marketing aspects of organic production.

### *Organic Price Report*

By Rodale Institute. [www.rodaleinstitute.org/Organic-Price-Report](http://www.rodaleinstitute.org/Organic-Price-Report)

This report can be configured to show organic prices only or to compare organic and conventional wholesale prices at the current market rates. Prices of fruit, vegetables, and grains are listed in six different wholesale terminals across the United States.

## **General Vegetable Marketing, Industry, and Statistics Information**

*Wholesale Success: A Farmers Guide to Selling, Post Harvest Handling, and Packing Produce*. 2011. Jim Slama, Editor. [www.familyfarmed.org/wholesale-success/](http://www.familyfarmed.org/wholesale-success/)

This 255-page manual covers some of the issues more specific to the produce wholesale industry, such as building relationships, food

safety, post-harvest handling, packing and grading standards, fulfilling orders, record-keeping and billing. The book also includes harvesting, cooling, storing, and packing information on 103 different fruits and vegetables. Order online or call 708-763-9920.

#### *USDA Terminal Market Report*

<http://tinyurl.com/3znaeuf>

The USDA Terminal Market Report lists current wholesale prices online.

#### *Grading, Certification, and Verification: Quality Standards*

By USDA-Agricultural Marketing Service  
[www.ams.usda.gov/AMSV1.0/standards](http://www.ams.usda.gov/AMSV1.0/standards)

USDA quality standards are based on measurable attributes that describe the value and utility of the product. This Web resource provides information for quality standards by commodity.

#### *USDA-AMS Fruit & Vegetable Market Reports*

By USDA-Agricultural Marketing Service.  
[www.ams.usda.gov/AMSV1.0/fv](http://www.ams.usda.gov/AMSV1.0/fv)

Agricultural Marketing Services helps buyers and sellers market their perishable products in the most efficient manner possible through distribution channels.

#### *USDA Economics, Statistics, and Market Information System*

<http://usda.mannlib.cornell.edu/MannUsda/homepage.do>

This website contains nearly 2,500 reports and datasets on agricultural topics, including economics.

#### *Vegetable Growers News and Vegetable Growers News Buyers' Guide*

[www.vegetablegrowersnews.com/](http://www.vegetablegrowersnews.com/)

A trade journal for vegetable growers for industry news and information. Published 12 times per year, plus an annual buyers' guide. See website for subscription information, or call 616-887-9008.

#### *The Packer*

866-647-0918  
[online@thepacker.com](mailto:online@thepacker.com)  
[www.thepacker.com/](http://www.thepacker.com/)

The Packer is the national weekly business newspaper of the produce industry.



*Lettuce planted in succession. Photo: Carolina Farm Stewardship Association*

## **Selected Vegetable Production Materials on the Web**

Many state university Extension services have developed annual and semi-annual production guides for a variety of vegetable crops. Many states are now including organic vegetable guides, which are listed below.

### **General Vegetable Production Resources**

*Vegetable Production Guide for Commercial Growers*. 2012-13. University of Kentucky.  
[www.ca.uky.edu/agc/pubs/id/id36/id36.htm](http://www.ca.uky.edu/agc/pubs/id/id36/id36.htm)

A general vegetable production guide, published by the University of Kentucky.

*Ohio Vegetable Production Guide*. Ohio State University. <http://ohioline.osu.edu/b672/>

Includes recommendations for disease, insect, and weed control. In addition, information on soil management, testing, and fertility has been expanded. The guide is updated semi-annually.



*Midwest Vegetable Production Guide for Commercial Growers.* Purdue University Extension Service. [www.btny.purdue.edu/Pubs/ID/ID-56/](http://www.btny.purdue.edu/Pubs/ID/ID-56/)  
A 163-page production guide for Midwest commercial growers. There is a section on organic production. Updated annually.

*UC-Davis Vegetable Research and Information Center.* <http://vric.ucdavis.edu/>  
Research-based information on production and economics from California—mainly the central valley.

*Commercial Vegetable Production in Wisconsin.* University of Wisconsin.  
<http://learningstore.uwex.edu/Assets/pdfs/A3422.pdf>

This resource provides the latest recommendations for disease, insect, and weed pest management, as well as lime and fertilizer recommendations. It is updated annually and available for a nominal price if by postal mail or for free if you download and print it yourself.

*Crop Knowledge Master: Vegetable Crops.* 2006. University of Hawaii.  
[www.extento.hawaii.edu/kbase/crop/crops/vegetabl.htm](http://www.extento.hawaii.edu/kbase/crop/crops/vegetabl.htm)

This website offers production information on over 30 crops.

*2012 Commercial Vegetable Recommendations.* Penn State Extension. <http://extension.psu.edu/vegetable-fruit/production-guides/2011-commercial-vegetable-guide>

This 300+-page guide provides information based on multistage research results and extension programs.

## **Organic Vegetable Production Guides and Resources**

*ATTRA's Organic Vegetable Production Series*  
<https://attra.ncat.org/organic.html>

Web links to ATTRA's various organic vegetable production publications.

*Cornell University Organic Fruit and Vegetable Production Guides.* [http://nysipm.cornell.edu/organic\\_guide/](http://nysipm.cornell.edu/organic_guide/)

These organic production guides outline general organic production practices with a focus on biological, mechanical, and cultural controls. Updated semi-annually.

*The Organic Vegetable Production Guide.* Joe Masabni, Frank Dainello, and Patrick Lillard. Department of Horticultural Sciences, Texas AgriLife Extension Service, Texas A&M University. <http://aggie-horticulture.tamu.edu/publications/guides/organicvegprod/index.html>

A good general overview of nutrient and pest management principles. It is not crop-specific.

*California Organic Vegetable Production Manual.* 2011. By M. McGiffen.

<http://anrcatalog.ucdavis.edu/Items/3509.aspx>

This manual provides detailed information for growers on how to farm vegetables organically, addressing the essential topics for growing organic vegetables successfully. There is a charge for this publication. Place an order by phone at 800-994-8849.

*University of Florida IFAS. Organic Vegetable Production.* [http://smallfarms.ifas.ufl.edu/organic\\_production/organic\\_vegetables.html](http://smallfarms.ifas.ufl.edu/organic_production/organic_vegetables.html)

The Extension service website on organic vegetable production. It offers resources on organic pest management, post harvest handling, and biological controls in Florida.

*An Organic Agriculture Internet Resource for North Carolina Farmers.* North Carolina State University. [www.ces.ncsu.edu/fletcher/programs/ncorganic/production.html](http://www.ces.ncsu.edu/fletcher/programs/ncorganic/production.html)

*Organic Sweet Corn Production.* North Carolina State University. [www.ces.ncsu.edu/depts/hort/hil/hil-50.html](http://www.ces.ncsu.edu/depts/hort/hil/hil-50.html)

A general overview of organic sweet corn production, from organic production basics to pest management.

*Organic Agriculture Information Sheets.*

Ontario Ministry of Agriculture, Food, and Rural Affairs. [www.omafra.gov.on.ca/english/crops/organic/organic.html](http://www.omafra.gov.on.ca/english/crops/organic/organic.html)

Information on organic production, marketing and business management

## **Succession Planting**

Successful farmers and marketers need to plan for several successions of crops in order to provide a consistent supply. The ATTRA publication *Scheduling Vegetable Plantings for Continuous Harvest* is a good resource.

*Scheduling Vegetable Plantings for Continuous Harvest.* 2008. By Janet Bachmann. ATTRA Publication IP323. <https://attra.ncat.org/attra-pub/summaries/summary.php?pub=20>

*Vegetable Planting Calendar for Central Maryland.* 2007. University of Maryland Cooperative Extension. [http://growit.umd.edu/ge007\\_vegetable\\_planting\\_calendar\\_for\\_central\\_md.pdf](http://growit.umd.edu/ge007_vegetable_planting_calendar_for_central_md.pdf)

*For a Longer Harvest Window, Try Succession Planting.* April 2011. Johnny's Selected Seeds Advantage Newsletter. [www.growingformarket.com/articles/Try-Succession-Planting](http://www.growingformarket.com/articles/Try-Succession-Planting)

You can also access a downloadable planting calendar in Excel spreadsheet at this website.

## Postharvest Handling and Food Safety

GAPs—just what does that mean? GAPs stands for Good Agriculture Practices and it is a self-moderated food safety standard that can be employed on vegetable farms. With more and more national and state regulation in this realm, it is important to consider your food safety standards on your farm. GAPs is a good and fairly simple approach to doing this. The ATTRA publication *An Illustrated Guide to Growing Safe Produce on your Farm* is a good initial resource on this topic. It also contains many state and regional resources.

*An Illustrated Guide to Growing Safe Produce on your Farm.* 2010. By Pamela Wolfe and Rex Dufour. ATTRA publication IP382. <https://attra.ncat.org/attra-pub/summaries/summary.php?pub=350>

*Food Safety Begins on the Farm: A Growers Guide.* Anu Rangarajan et al. 2000.

[www.gaps.cornell.edu/FSBFEng.html](http://www.gaps.cornell.edu/FSBFEng.html)

This is a practical guide to developing on-farm food safety practices.

*Cornell National GAPs Program*

[www.gaps.cornell.edu/](http://www.gaps.cornell.edu/)

This program includes online classes on this topic, as well as many resources. There is a fee to attend the class.

*Postharvest Technology Research and Information Center.* University of California. <http://postharvest.ucdavis.edu/>

This center aims to reduce postharvest losses and improve the quality, safety and marketability of fresh horticultural products. The

center has also produced postharvest produce fact sheets in several different languages, available at <http://postharvest.ucdavis.edu/producefacts/>.

## Season Extension and Hoop Houses

*Season Extension Techniques for Market Gardeners.* 2005. By Janet Bachmann. ATTRA Publication IP035. <https://attra.ncat.org/attra-pub/summaries/summary.php?pub=366>

This publication describes various season-extension techniques, such as cultural practices, high tunnels, and hoophouses, and provides sources for equipment, supplies, and further information.



*Two season extension tools in action at Gallatin Valley Botanical Farm, Bozeman, Montana. Photo: NCAT*

*Hoop Houses for Extending Your Growing Season webinar.* 2009. By Andy Pressman and Tammy Hinman. <https://attra.ncat.org/video/>

*High Tunnels.org*

[www.hightunnels.org](http://www.hightunnels.org)

An online resource on high tunnel production, design, and construction.

*Use of Plastic Mulch and Row Covers in Vegetable Production.* No date. Oklahoma Cooperative Extension Service. <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-1099/F-6034+web.pdf>

This publication discusses the basics of plastic mulches, as well as the benefits, disadvantages, varieties, and required soil preparation.

*Pennsylvania State University Center for Plasticiculture.* <http://extension.psu.edu/plasticulture>

This center has information and resources on growing vegetables using plastic in various ways, such as mulch, hoophouses, and drip irrigation.

## **Practical Equipment and Harvesting Tips for Vegetable Farmers**

*Healthy Farmers, Healthy Profits.* University of Wisconsin-Madison. Biological Systems Engineering Department. <http://bse.wisc.edu/hfhp/>

This project has produced many tip sheets about work-efficiency methods that improve health, safety, and profits for nursery growers, dairy, fresh market vegetable, and berry farmers.

*Plan Ahead for Vegetable Harvest Efficiency.* No date. Vern Grubinger. University of Vermont Extension. [www.uvm.edu/vtvegandberry/factsheets/Harvest%20Efficiency.pdf](http://www.uvm.edu/vtvegandberry/factsheets/Harvest%20Efficiency.pdf)

## **Economics of Organic and Sustainable Vegetable Production**

Farmers often overlook a very important side of farming—business management. Knowing how much your cropping systems cost can help you be more efficient and profitable. An enterprise budget is an estimate of the costs and returns to produce a product (enterprise). The following resources can help provide you with templates and resources to be a better farm business manager.

*The Organic Farmer's Business Handbook.* 2009. By Richard Wiswall. Chelsea Green Publishing Company, White River Junction, VT.

Using his three decades of organic farming experience, Wiswall provides information on how to evaluate which crops are most profitable on your farm. He also provides easy recordkeeping and business-management tips, employee and farm management considerations, and information on what to do with your profits.

*Organic Vegetable Crop Budgets & Economic Studies: Cultural Practices and Sample Costs for Organic Vegetable Production on the Central Coast of California—Background Report.* 1996. By Karen Klonsky et al. [http://vric.ucdavis.edu/pdf/Organic/organic\\_culturalpracticesandsamplecostsfororgprodcosts.pdf](http://vric.ucdavis.edu/pdf/Organic/organic_culturalpracticesandsamplecostsfororgprodcosts.pdf)

This California report is the best effort to date toward estimating costs and returns on organic vegetable production. Start here to read background information on production practices and economic data. The information is dated but still very applicable to many organic farmers.

*Organic Crop Budgets, Organic Production Practices, Northeastern United States.* 2008. Rutgers University. <http://aesop.rutgers.edu/~farmmgmt/ne-budgets/organic.html>

It is difficult to find recent cost-return data on organic vegetables. These tables are reasonably up-to-date.

*Organic Crop Production Enterprise Budgets.* 2011. Iowa State University Extension. [www.extension.iastate.edu/agdm/crops/html/a1-18.html](http://www.extension.iastate.edu/agdm/crops/html/a1-18.html)

The estimated costs and returns from these budgets are based on a long-term study conducted at an Iowa State University research farm in southwestern Iowa. The data was modified to more accurately reflect average Iowa results as indicated by organic farmers who reviewed the budgets.

*North Carolina Organic Vegetable Production Cost Study.* 2003. Edmund A. Estes, Tony Kleese, and Laura Lauffer. Department of Agricultural and Resource Economics. North Carolina State University. ARE Report No. 31. [www.ncsu.edu/project/arepublication/AREno31.pdf](http://www.ncsu.edu/project/arepublication/AREno31.pdf)

### *Current Cost and Return Studies*

<http://coststudies.ucdavis.edu/current.php>

This link provides up-to-date access to production-cost tables for different vegetable enterprises, cover crops, and equipment. All are accessible as PDF downloads. There are some organic crops featured here, mainly conventional vegetable and fruit crops. Also available are archived versions of cost-return studies with many organic vegetable crops.

*University of Kentucky Crop Budgets.* University of Kentucky. [www.uky.edu/Ag/NewCrops/budgets.html](http://www.uky.edu/Ag/NewCrops/budgets.html)

Sample budgets for a wide range of crops.

## **Economics of Organic Vegetable Production: Record Keeping**

*Market Farm Forms: Spreadsheet Templates for Planning and Organization Information on Diversified Farms.* Marcie Rosenzweig. Available from: Back 40 Books  
866-596-9982

CustomerService@Back40Books.com  
[www.back40books.com/i/1395/market-farm-forms.htm](http://www.back40books.com/i/1395/market-farm-forms.htm)

*Market Farm Forms* is a 95-page book and diskette containing Excel spreadsheet tem-



**F**armers often overlook a very important side of farming—business management. Knowing how much your cropping systems cost can help you be more efficient and profitable.

plates that sells for \$59. The diskette is available in PC or Macintosh formats. This book and template include information on all recordkeeping aspects of a diversified farm.

***Crop Planning & Record Keeping Spreadsheets for Diversified Vegetable Farms***

413-253-7991

info@brookfieldfarm.org

www.brookfieldfarm.org/CropPlanning.cfm

Includes cropping plans, field plan, planting schedule, seed order, greenhouse schedule, harvest record, field record, and plate sizes for seeders. \$25; available in Microsoft Excel and Works.

***Farm Planning and Record Keeping. Growing Small Farms***

www.ces.ncsu.edu/chatham/ag/SustAg/farmrecords.html

These Microsoft Excel spreadsheets were developed by Joel Gruver, former farm manager for the organic demonstration farm at the Center for Environmental Farming Systems (CEFS) in Goldsboro, North Carolina. Gruver developed these tools to help plan for the Community Supported Agriculture (CSA) program at CEFS.

## Magazines and Newsletters on Vegetable Production and Market Gardening

### Commercial Grower Magazines

***American Vegetable Grower***

12 issues per year

Meister Media Worldwide

800-572-7740

www.meistermedia.com/publications/vegetable.html

This magazine provides insight on field, greenhouse and organic production, marketing, new varieties, and new products.

***The Grower***

9 issues per year

866-512-9515

www.thegrower.com/

A production magazine mainly for conventional vegetable growers. The publishers also distribute *The Packer and Citrus+Vegetable*.

***Growing for Market***

10 issues per year

800-307-8949

www.growingformarket.com/

One of the premier magazines for small and medium-scale market gardeners.

***The Vegetable Growers News***

Great American Publishing

616-887-9008

frontdesk@greatamericanpublish.com

http://vegetablegrowersnews.com/index.php

***Vegetable Crops Hotline***

www.btny.purdue.edu/pubs/vegcrop/index2009.html

A newsletter for commercial vegetable growers prepared by the Purdue University Cooperative Extension Service

***VegNet News. Ohio State University Extension***

http://vegnet.osu.edu/news/newslist.htm

Monthly newsletter that discusses timely information on vegetable production. Organized online by month but searchable by topic.

***Vegetable Notes. UMass Extension***

http://extension.umass.edu/vegetable/publications/vegetable-notes-newsletter

During the growing season, each issue contains timely, field-based information and pest alerts. Weekly in the summer months and monthly in spring, fall, and winter.

### Organic Grower Magazines

***Acres U.S.A.***

12 issues per year

512-892-4400

orders@acresusa.com

www.acresusa.com/magazines/magazine.htm

***Biodynamics***

Biodynamic Farming and Gardening Association, Inc.

888-516-7797

info@biodynamics.com

www.biodynamics.com/

***The Maine Organic Farmer and Gardener***

Quarterly Newsletter of the Maine Organic Farmers and Gardeners Association.

207-568-4142

jenglish@tidewater.net

www.mofga.org/Publications/

MaineOrganicFarmerGardener/tabid/150/

Default.aspx

### *The Natural Farmer*

Quarterly  
Northeast Organic Farming Association  
978-355-2853  
tnf@nofa.org  
www.nofa.org/tnf/index.php

### *MOSES Organic Broadcaster*

Quarterly  
Midwest Organic and Sustainable Education Service  
www.mosesorganic.org/broadcastercurrent.html#4

### *Sustainable Agriculture Newsletter*

Quarterly  
University of Minnesota Extension  
Sustainable Agriculture news from the College of Agricultural, Food and Environmental Sciences of the University of Minnesota.  
<http://www.misa.umn.edu/NewsandEvents/Newsletters/SustainableAgricultureNewsletter/>

### *The Virginia Biological Farmer*

Quarterly  
Virginia Association for Biological Farming.  
<http://vabf.org/news/newsletter>

## Databases and Directory Links to Sustainable Vegetable Crop Production

### *MAC Link List—Missouri Alternatives Center*

MAC Link List is the Missouri Alternatives Center list of hot links to fact sheets and Extension guide sheets on dozens of topics relating to alternative crop and livestock production, small farming, and sustainable agriculture. <http://agebb.missouri.edu/mac/links/index.htm>

### *Ohio State University PlantFacts*

Last update 2002  
PlantFacts is a keyword-searchable fact sheet database on plant-related topics (cultivation, pest control, soils, vegetables) compiled by Ohio State University. <http://plantfacts.osu.edu/>

*AgWeb: The Ultimate Agriculture Research Directory.* 2003. ATTRA. National Center for Appropriate Technology, Butte, MT. <https://attra.ncat.org/searchAgWeb.html>

The ATTRA Research Directory offers links

to prominent agriculture bibliographical and full-text databases, agricultural directories, library catalogs, library resource guides, electronic journals, and search engines on the Internet. Though last updated in 2003, this resource is still very useful.

*Vegetables on the Internet.* 2008. North Carolina Cooperative Extension Service. [www.ces.ncsu.edu/depts/hort/consumer/hortinternet/vegetable.html](http://www.ces.ncsu.edu/depts/hort/consumer/hortinternet/vegetable.html)

Vegetable information is divided into the following categories: general information, insects, diseases, intensive gardening, organic, and specific plants.

## Publishers and Book Distributors

### *Acres U.S.A.*

800-355-5313  
[orders@acresusa.com](mailto:orders@acresusa.com)  
[www.acresusa.com/books/books.asp](http://www.acresusa.com/books/books.asp)  
Wide selection of books on organic and sustainable production.

### *Back40Books*

866-596-9982  
[www.back40books.com/](http://www.back40books.com/)  
Many sustainable farming and homesteading books.

### *BioCycle/JG Press, Inc.*

610-967-1345  
[biocycle@jgpress.com](mailto:biocycle@jgpress.com)  
[www.biocycle.net/](http://www.biocycle.net/)  
Publisher of BioCycle magazine and related publications on composting and organic waste management.

### *Biodynamic Farming and Gardening Association*

888-516-7797  
[www.biodynamics.com/products.html](http://www.biodynamics.com/products.html)  
Wide selection of titles on biodynamic and organic farming.

### *Chelsea Green Publishing Co.*

800-639-4099  
[www.chelseagreen.com/](http://www.chelseagreen.com/)  
Offers an array of books, such as *The New Organic Grower* and *Four-Season Harvest* by Eliot Coleman, and *The Flower Farmer*, by Lynn Byczynski, among other authors.

***Focus Publishing***

800-848-7236

<http://focusbookstore.com/search.aspx?find=vegetable>

Publisher of *Sustainable Practices for Vegetable Production in the South*, \$34.95.

***Plant and Life Science Publishing***

607-255-7654

[PALSpublishing@cornell.edu](mailto:PALSpublishing@cornell.edu)

Distributor of *Sustainable Vegetable Production From Start-Up to Market; On-Farm Composting; Crop Rotations on Organic Farms*.

***The Permaculture Activist***

812-335-0383

[books@permacultureactivist.net](mailto:books@permacultureactivist.net)

[www.permacultureactivist.net/booksvid/BooksnVid.htm](http://www.permacultureactivist.net/booksvid/BooksnVid.htm)

Books on permaculture, small farming, and organic production.

***Rodale Press***

215-967-5171

[www.rodale.com/](http://www.rodale.com/)

The Rodale Press Bookstore carries an extensive collection of gardener-audience books on organic gardening, soils, pest control, vegetables, and herbs.

***Storey/Garden Way Publishing***

800-242-7737

[www.storey.com/](http://www.storey.com/)

Books on small farming and organic production.

***Sustainable Agriculture Research and Education-Outreach***

301-374-9696

[sarepubs@sare.org](mailto:sarepubs@sare.org)

[www.sare.org/publications/index.htm](http://www.sare.org/publications/index.htm)

Distributor of Sustainable Agriculture Network books and publications: *Managing Cover Crops Profitably; Steel in the Field; Building Soils for Better Crops*.





**Resource Guide to Organic and Sustainable  
Vegetable Production**

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