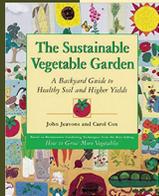


## GROW BIOINTENSIVE Publications



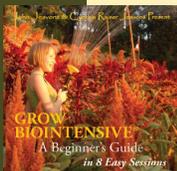
*HOW TO GROW MORE VEGETABLES  
Than You Ever Thought Possible, On  
Less Land With Less Water Than You  
Can Imagine*

By John Jeavons, 264 pp. Ecology Action's revised GB manual which has been published in 8 languages and is in use in over 152 countries. It outlines, defines, and gives instructions on GROW BIOINTENSIVE food-raising. This version is expanded to provide a wider view of mini-farming. It includes information on raising not only vegetables, but grains, protein crops, and vegetable oil crops; cover, organic matter, and fodder crops; cane crops, and fruit and nut trees; plus energy, fiber, paper, and other crops. An excellent guide for beginning, intermediate, and experienced backyard gardeners and mini-farmers.



*THE SUSTAINABLE VEGETABLE GARDEN:  
A Backyard Guide to Healthy Soil and  
Higher Yields*

By John Jeavons and Carol Cox, 118 pp. Based on the best-selling *How to Grow More Vegetables*, this is a simpler book for those just beginning to use the GROW BIOINTENSIVE method, or those who need less information for the gardening they are doing. Take advantage of two decades of GROW BIOINTENSIVE food-raising experiences from people everywhere as you create a highly productive, resource-conserving mini-farm at home, with its own thriving ecosystem—an environmental solution for the new century—and beyond.



*BIOINTENSIVE BEGINNER'S GUIDE DVD*

John Jeavons' self-teaching video series provides an excellent introduction to the GROW BIOINTENSIVE method, and will get you out in the garden and building your soil in 8 easy sessions! Topics include: Garden Beds and Soil, Seedlings, Transplanting, Composting, Harvesting, Saving Seeds, Choosing Your Crops and Maintaining Your Garden. Length: 1 hour, 57 minutes.

Find it at: [johnjeavons.org/books-and-videos](http://johnjeavons.org/books-and-videos)



Find information about GROW BIOINTENSIVE publications, tours, classes, workshops, internships and self-teaching tools, online at [growbiointensive.org](http://growbiointensive.org).

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Support Ecology Action's work with a \$40 donation and receive our triannual newsletter filled with practical information and inspirational stories about Biointensive projects around the world.



## Home-Gardening with GROW BIOINTENSIVE® Sustainable Mini-Farming

**E**COLOGY ACTION is a small, 501(c)(3) non-profit organization dedicated to finding practical, environmentally sound solutions to urban and rural food, soil, resource and energy-use issues through research, development, education, and outreach programs. Since 1972, work with the GROW BIOINTENSIVE (GB) Sustainable Mini-Farming method has reaped enormous returns: the vegetable yield potential is in the range of 2 to 6+ times U.S. commercial mechanized levels, and wheat harvests have been as high as five times the national average. People in over 150 countries worldwide, in a great variety of climates and soils, are using GROW BIOINTENSIVE to grow nutrition for their families and communities.

The implications of this approach for home gardeners are impressive: a gardener may be able to grow 322 pounds of vegetables and soft fruits in a six-month growing season on as little as 200 square feet, assuming intermediate GROW BIOINTENSIVE yields—the area of a small American kitchen. Using GROW BIOINTENSIVE in a 200-square foot growing area, a home gardener will spend an average of less than 30 minutes in the garden each day, watering and weeding one quarter of the area required to raise the same amount of vegetables grown by more conventional gardening methods. The savings during the growing season can be substantial—as high as \$625 per 200-square foot area, and \$2,500 for a family of 4 with 800 square feet under GROW BIOINTENSIVE cultivation. By using mini-greenhouses and/or shade-netting in the garden, the growing season can be lengthened—with correspondingly higher productivity and savings.



## What is GROW BIOINTENSIVE?

It is a method of raising food crops that is simple to learn and use, based on sophisticated scientific principles rooted in history, dating back 4000 years in China, 2000 years in Greece, and 300 years in Europe. It was first brought to the U.S. by the English master horticulturist Alan Chadwick, then further developed and documented by Ecology Action. The eight essential principles of GB are:

### 1 Deep Soil Preparation - Double-Dug, Raised Beds

In this method, crops are planted in beds that are “double-dug”. The gardener digs 12 inches down and then loosens the soil to a depth of 24 inches. This loose soil enables plant roots to penetrate easily and allows more air in the soil, creating a “raised-bed” effect. Moisture is retained without water-logging, weeding is simplified because of the looseness of the soil, and erosion is minimized.



### 2 Composting - Growing Your Soil

The higher yields offered by intensive planting would not be sustainable without a way of maintaining the health and vigor of the soil. Expensive chemical fertilizers which are mined or derived from petroleum products have been shown to deplete the soil over time, and as soil quality deteriorates, increasing amounts of chemical fertilizers are needed to sustain yields, further harming soil structure and microbial life and reducing yields. GB avoids these problems by recycling organic waste products to form rich compost. Kitchen waste, garden trimmings and many other forms of organic matter, when properly composted, provide the elements necessary to maintain the biological cycles that support the home garden. The structure of the soil and the health of the microbes are improved, which creates better aeration, water retention and carbon levels. As the soil's health improves, optimum plant health is maintained, and garden yields are maximized—sustainably.



### 3 Close Plant Spacing - Intensive Planting

Seeds or seedlings are planted in 3- to 5-foot-wide beds using a hexagonal spacing pattern. Each plant is placed the same distance from all plants around it so that when the plants mature, their leaves touch. This provides a “mini-climate” under the leaves which retains moisture, protects the valuable microbial life of the soil, retards weed growth, and facilitates higher yields. The method avoids problems encountered when planting in narrow rows.



*“It is important to understand that GROW BIOINTENSIVE Closed-Loop Sustainable Mini-Farming is a whole system and that all components of the method must be used together to be sustainable.”*

### 4 Companion Planting - For Healthy Crops



Research has shown that many plants grow better when near certain other plants. Green beans and strawberries, for instance, thrive better when they are grown together. Some plants are useful in repelling pests, while others attract beneficial insect life. Borage, for example, helps control tomato worms while its blue flowers attract bees. Also, many wild plants have a healthy effect on the soil; their deep roots loosen the subsoil and bring up previously unavailable trace minerals and nutrients. Use of companion planting aids the gardener in producing fine-quality food crops and helps create and maintain a healthy, vibrant soil.

### 5 Carbon-Efficient Crops - Carbon Farming

Soil fertility is facilitated by planting approximately 60% of the growing area in dual-purpose seed and grain crops. These essential crops produce a large amount of carbonaceous material per unit of area, which is used to build compost for improving and maintaining the soil ecosystem's microbial life. These crops also produce a significant amount of calories. Corn, wheat, amaranth, millet and oats are some of the crops that make this possible. Growing compost materials on the farm will be important in the future, since large amounts of organic matter and nutrients are currently being “mined” from soil in one area and sent away to improve the soil of farms in other areas. Instead we can produce more organic matter and retain more nutrients on a “closed-system” basis.



### 6 Calorie-Efficient Crops - Calorie Farming



The efficient production of calories in a small area is facilitated by planting special root crops in 30% of the growing area. These crops include potatoes, sweet potatoes, leeks, garlic and parsnips which can produce a large amount of calories per unit of area.

### 7 Use of Open-Pollinated Seeds - Seed Saving

With GROW BIOINTENSIVE techniques, “Green Revolution”-type yields can be obtained with open-pollinated seeds which have been selected over the decades and centuries for their advantages. Special hybrids are not needed for excellent results. In this way a wonderful variety can be grown and saved, while the world's genetic diversity is preserved.



### 8 A Whole Garden System - The Most Important Thing

It is important to understand that GROW BIOINTENSIVE Sustainable Mini-Farming is a whole system and that all components of the method **must** be used together to be sustainable. If you do not use all of the components together, your soil will be rapidly depleted by GB's high yields and it will stop producing food. As your soil and skills begin to improve, and your double-dug beds are fertilized with compost and planted with a diversity of crops, GB can help you to grow a healthy, regenerative garden ecosystem, an abundance of healthy produce, and healthy people! Why not start today? [www.growbiointensive.org](http://www.growbiointensive.org).