

Ecology Action's  
GROW BIOINTENSIVE®  
4-Month Summer Internship  
Information Booklet

June 2 – October 13, 2018

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# Summary

Despite technological advances in agriculture there are still more than 1 billion malnourished people in the world.<sup>1</sup> Rising food prices have led to political unrest in many countries.<sup>2</sup> In addition to the social problems of our global food system, current farming practices are unsustainable. Conventional agricultural techniques depend heavily on non-renewable resources, outside inputs from other soils, and deplete farmable soil - our most important finite resource. The UN Food and Agriculture Organization has stated that the solution to these problems can be found in small scale, localized, low-input agriculture:

*"Global food production is more than enough to feed the global population, the problem is getting it to the people who need it. In market-marginalized areas, organic farmers can increase food production by managing local resources without having to rely on external inputs or food distribution systems over which they have little control and/or access<sup>3</sup>."*

Aware of the intensifying world challenges and the basic need of people to feed themselves, Ecology Action has been working since 1972 to develop an elegant, small-scale, truly sustainable agricultural system. This system, known as GROW BIOINTENSIVE, is a high-yielding agricultural method that emphasizes local food production (based historically on intensive food raising systems) while building and regenerating the soil that feeds us. Ecology Action has a network of affiliate organizations and internship graduates working around the world to enable people to promote good health and sustainable food security.

The GROW BIOINTENSIVE® method focuses on using small-scale, organic, non-mechanized food-raising techniques as a way of life. The work we do requires commitment, responsibility, patience, time, attention to detail, willingness to follow detailed instructions, self-motivation, and mental and physical stamina. While we do not wish to discourage those genuinely interested in the program, we also want to make sure that applicants are looking to enjoy a lifestyle of *simple living* with a focus on holistic health and sustainability.

Ecology Action offers a 4-Month Summer Internship where qualified participants who want to be GROW BIOINTENSIVE resources for their communities can get involved in hands-on demonstration, teaching and research in sustainable agriculture and closed-system food production. The program focuses on the GROW BIOINTENSIVE Sustainable Mini-Farming technique and the low-technology lifestyle appropriate to development work.

# Program Information

Ecology Action's summer teaching program returns with a 2-Month Summer Internship running from June 2nd through October 18th, 2018. Ecology Action offers this internship for individuals wishing to learn more about designing a complete diet and planning a sustainable vegetable garden or mini-farm using biointensive techniques. The program will focus on the growing of your own heirloom vegetables, rare grains, and will emphasize the creation and maintenance of sustainable soil fertility. Living and working onsite for four months, you will immerse yourself in the method, and you will learn the eight principles of biointensive gardening that will **increase your yields, grow your soil and conserve resources for the whole planet.**

The program will take place at Ecology Action's Victory Garden for Peace Mini-Farm in Northern California. Program interns will learn practical skills that address issues of food security through a blend of hands-on fieldwork and classroom learning. They will learn to use a closed-loop, soil-building, resource-conserving, sustainable organic approach to food production. In addition, interns will learn about positive social solutions to food security issues. Over the course of the program, you will design a complete diet that you can grow in your own backyard and will walk away with a complete garden plan to get you started on your way!

The 4-Month internship is of particular benefit to those who have already participated in an Ecology Action 3-Day Workshop. The internship covers the basics, and goes into depth of understanding and experiential learning. The program is a combination of:

- Lecture and demonstrations,
- Study,
- Field work, and
- Guided Practice.

This combination is designed is so that participants learn Ecology Action's processes both theoretically and practically, and can understand the processes that are involved in starting this type of work (GROW BIOINTENSIVE farming, low-tech living, teaching the method to others) as well as performing these activities over the long-term. The internships are an opportunity to assist Ecology Action in accomplishing its mission to teach people to grow food and soil fertility while conserving resources, with both direct and indirect learning occurring in the process.

During the internship, emphasis is placed on the ability of the intern to learn to farm and develop GROW BIOINTENSIVE designs and approaches, in the belief that the most creativity and strength come from people joining forces and working as a team after they have fully developed strength and independence. We have found that skill levels can be dramatically upgraded with this type of training.

While at Ecology Action, interns have minimal administrative responsibilities, and are able to focus on learning through reading, classes, and work in the field. Time may be available for an independent study project, and there are periodic one-hour meetings with an Ecology Action staff member to ensure progress is being made. There are also weekly meetings with staff and other interns to discuss progress in the research garden. The Interns will take part in seasonal courses and workshops. Depending on the work done and the level of involvement demonstrated by the intern, it is possible

that the internship can lead over time to an Ecology Action certification as a GROW BIOINTENSIVE teacher at the Beginning, Intermediate, Advanced, or Master-Level.

Ecology Action's research, demonstration and education mini-farm garden sites, while beautiful and enjoyable to work in, are first and foremost research gardens where a multitude of experiments are run concurrently. The research focus is on using the GROW BIOINTENSIVE method to conduct scientific tests and collect data to provide practical solutions to the challenge of growing food, creating and maintaining sustainable soil fertility, and conserving resources on a closed-loop basis, while living a sustainable life.

The program will overlap Ecology Action's other, longer internship, class series, and 3-day workshop programs and will host farmers and food-growing activists from the U.S. and abroad, giving all the interns a chance to network with additional people interested in similar work. The [8-month internship program](#) takes place from April through December each year.

An internship at Ecology Action is an opportunity to learn valuable techniques and information, to experience an alternative living style, to make lifelong ties with other interns from different states and countries, and to assist Ecology Action in accomplishing its mission to help farmers, gardeners, and communities around the world to raise food, conserve resources and build fertile soil sustainably.

The 2-month internship information booklet is in preparation. In the meantime, for general information, you can download and read the [Internship Information Booklet](#) created for the 6-month Internship.

## Schedule and Routine

Interns days typically begin around 8:00 am and end anywhere from 6:30 to 8:00 pm. Days often include a 2-3 hour siesta after lunch. Most days will be spent learning in the garden. A typical day could involve preparing beds for planting, seed propagation, harvesting, taking and recording samples, transplanting, seed saving, and other garden tasks. At least one day a week and some times more will be spent in the classroom.

Classroom days will include lectures, discussions and multimedia covering a range of topics. Interns will have readings and homework to complete each week. The weekly readings and homework will pertain to the practical and conceptual aspects of GROW BIOINTENSIVE and food security issues around the world. At least one and a half days and as much as two days a week will be free for personal time. The experience is demanding but rewarding to those willing to engage themselves.

Please note that Ecology Action is a non-profit organization focused on teaching motivated people about the principles of small scale, sustainable food raising and community involvement. It is not a market farm. If you are looking for experience in production and marketing on an organic farm, visit the WWOOF or ATTRA websites. Also, we appreciate that people who are interested in sustainable agriculture are interested in exploring other methods. Please note though, that this internship will focus exclusively on the GROW BIOINTENSIVE method. The internship program is not for people who are "shopping" for a method to use in their lives, but, rather, for ones who have decided biologically-intensive farming is their choice. For more information about this method you may visit: [http://www.growbiointensive.org/grow\\_main.html](http://www.growbiointensive.org/grow_main.html)

# Curriculum

Over the course of the program, in addition to study, fieldwork, and guided practical applications, the following topics will be covered:

Class #	Date	Topic	Assignments
1	6/2	Intro to Ecology Action	<ul style="list-style-type: none"> <li>Workshop Manual: In Defense of Old Fashioned Training, Dear Workshop Participant, WorldWide Soil Loss and Possible Solution, Ecology Action In Perspective, The Functions of Ecology Action, GB 7 Year Approach</li> </ul>
2	6/9	Principle 1: Deep Soil Preparation	<ul style="list-style-type: none"> <li>HTGMV9: Introduction and Soil Creation pgs. 1-32</li> <li>Workshop Manual: Double Digging vs. Roto-Tilling, Double Digging vs The U-Bar, Triple Digging, Cultivation, Living Quarters for Plant Roots.</li> </ul>
3	6/16	Principle 2: Composting	<ul style="list-style-type: none"> <li>HTGMV9: Composting pgs. 44-62</li> <li>One Circle: Amino Acids pgs. 34-40</li> </ul>
4	6/23	Principle 3: Close-Plant Spacing	<ul style="list-style-type: none"> <li>HTGMV9: Sustainability pgs. 33-39, Fertilization, Seed Propagation and Transplanting pgs. 63-90</li> <li>Workshop Manual: Art, Craft and Efficiency of Scale</li> </ul>
5	6/30	Principle 4: Carbon Farming	<ul style="list-style-type: none"> <li>HTGMV9: 60:30:10 pgs 39-43</li> <li>One Circle: Vitamins and Minerals pgs. 41-72</li> <li>Workshop Manual: Micro-Macronutrients</li> </ul>
6	7/6	Principle 5: Calorie Farming	<ul style="list-style-type: none"> <li>HTGMV9: Sample Garden Plans pgs. 180-190</li> <li>Booklet 26: Learning to Grow All Your Own Food pgs. 1-25</li> </ul>
7	7/13	Principle 6: Companion Planting	<ul style="list-style-type: none"> <li>HTGMV9: Companion Planting and Rotations pgs. 101-118</li> <li>2WFC Video: Crop Rotations, Cover Crops and Multi-Cropping with Steve Moore</li> </ul>
8	7/20	Principle 7: Seed Saving	<ul style="list-style-type: none"> <li>Booklet 13: Growing to Seed pgs. 1-38</li> <li>2WFC Video: Seed Saving and Plant Breeding with Steve Moore</li> </ul>
9	7/27	Principle 8: Whole Systems Perspective, Planning	<ul style="list-style-type: none"> <li>HTGMV9: Watering, Moons and Season Extension pgs. 86-100; Interrelated Food System and Balance pgs. 119-132</li> <li>Workshop Manual: Industrial Economy by Wendell Berry</li> </ul>
10	8/18	Soil Fertility Simplified	<ul style="list-style-type: none"> <li>Bklt 31 Form 2: Solving the Diet</li> <li>HTGMV9: Sustainability pgs. 33-43; Fertilization pgs. 63-74</li> <li>Future of Fertility Past, Present and Future and Four Goals pgs. 1-23</li> </ul>
11	8/25	Seed Propagation, Transplanting and Practical Watering	<ul style="list-style-type: none"> <li>One Circle Diet Intro, Area and Weight Efficiencies pgs. 1-33</li> <li>Bklt 35 Growing More Food With Less Water pgs. 1-25</li> <li>Bklt 31 Form 3: Preliminary Diet Design</li> <li>Future of Fertility Recycling Urine pgs. 24-35</li> </ul>
12	9/1	Qualitatively and Quantitatively Improving Compost	<ul style="list-style-type: none"> <li>Bklt 31 Form 4: Preliminary Income Design</li> <li>Bklt 31 Form 5: Preliminary Compost Design</li> <li>Booklet 32: Growing Compost pgs. 1-35</li> <li>Workshop Manual: SOM Flow Chart</li> </ul>
13	9/8	60/30/10, Data Collection; Design by the Heart	<ul style="list-style-type: none"> <li>Bklt 31 Form 6: Initial Diet Design</li> <li>One Circle pgs. 130-144</li> <li>Bklt 1: Cucumber Bonanza pgs. 1-15</li> </ul>
14	9/15	Exploring Sustainable Mini-Farm Design	<ul style="list-style-type: none"> <li>Bklt 31 Form 8: Income Design</li> <li>Bklt 36: Experimental 33-Bed Unit</li> <li>Workshop Manual: Challenges to the Development of the 40-Bed Unit</li> <li>Future of Fertility: Recycling Humanure pgs. 36-60</li> </ul>
15	9/22	Pest/Disease Control; Income	<ul style="list-style-type: none"> <li>Bklt 31: Form 7: Diet Design</li> <li>HTGMV9: Pest/Disease and Ecosystem pgs. 119-128</li> <li>Future of Fertility: Recycling Humanure pgs. 61-83</li> </ul>
16	9/29	Soil Testing; Test Your Soil With Plants	<ul style="list-style-type: none"> <li>Bklt 31: Form 9: Compost Design</li> <li>TYSWP: 2 pgs. 1-10, 92-130</li> <li>Future of Fertility: 2 Examples of Systems pgs. 110-117</li> </ul>
17	10/6	Trees, Arid Farming and Applied Permaculture to GB	<ul style="list-style-type: none"> <li>Video: The Man Who Planted Hope</li> <li>Workshop Manual: Applying Permaculture in a Biointensively Mngd System, Use of Water in Agriculture, Permaculture Ethic and 12 Principles</li> <li>Put Together Final Design</li> </ul>
18	10/13	Finalizing the Design	<ul style="list-style-type: none"> <li>Bklt 31: Form 10: Complete Nutrition</li> </ul>

Participants will be provided with several books and publications (including *How to Grow More Vegetables* (9<sup>th</sup> Edition), EA Workshop Manual, EA Booklet 31, One Circle, EA Booklet 35, Future of Fertility, EA Booklet 1, EA Booklet 36, *Test Your Soil With Plants*) that they will use for readings and design projects. By the end of the program participants will have a strong understanding of basic gardening and farming principles which will increase yields sustainably, using fewer resources and building soil in the process.

## Program Expenses

This is an unpaid, fee-based internship program. Interns will be placed at Victory Gardens for Peace Mini-Farm in Mendocino, California. All fees are non-refundable. Partial Scholarships may be available to those who qualify. Cost for a 4-Month Summer Internship at Ecology Action in 2018 is:

Item	Cost
Tuition and Administration	US\$2,500
Room	\$800
Food	\$600
Utilities	\$200
Supplies	\$200
Publications	\$320
Telephone/Internet	\$160
Incidentals	Provided by participant
Medical Insurance	Provided by participant
Transportation	Provided by participant
TOTAL	\$4,780
Payable to Ecology Action, non-refundable:	
A \$1,000 deposit is due within one week of acceptance (Partial Scholarships available to those who qualify)	

NOTE: Not included in the expenses is personal travel to and from the internship site, which will vary per participant, medical insurance and money for incidental expenses or entertainment. All participants are responsible for providing for these items.

## Program Site

### Victory Gardens for Peace (Mendocino, CA)

The Victory Gardens for Peace site in Mendocino, California is situated on the grounds of the Stanford Inn, an eco-resort nestled on the cliffs overlooking the confluence of the Big River and the Pacific Ocean. Our program is focused on: developing the GROW BIOINTENSIVE model for our coastal, cool, foggy climate, improving the soil and teaching the GROW BIOINTENSIVE method. There are many challenges at the site that create opportunities to demonstrate practical and effective ways of maximizing resources and managing fertility. There is an inherently good soil here but it underwent years of compaction as a horse paddock. We are working to build soil structure and fertility to restore the soil health. We experiment with growing complete diets and different crop varieties to find which are best suited to this unique growing climate. Our internships and classes are unique and offer a great experience in water conservation, soil fertility management and food raising through the GROW BIOINTENSIVE method.

# Follow-Up Activities

One of the unique aspects of this program is that we will allow you time throughout the summer to plan your next steps after you complete the course. It is expected that graduates of the 4-Month Internship Program will be prepared to use their gained knowledge in some project within their home community, their school, or in some other way to help promote sustainable food raising. During the program, participants will be able to work with a staff member to help plan and work through their future activities.

## About Ecology Action

Ecology Action is a non-profit tax-exempt organization based in Willits California. It operates an organic gardening supply and educational center in Palo Alto, an heirloom seed company in Willits, and research/demonstration gardens in Willits, Mendocino, and Palo Alto, CA. Ecology Action currently has affiliated partner organizations in five other countries. The organization conducts research and apprentice training in the GROW BIOINTENSIVE method, as well as publishes and distributes information about its method around the world.

Ecology Action founded the Common Ground research and community garden in Palo Alto in 1971 and began the formal apprentice program in 1977. Since then, low-input and high-yield farming has been studied in training/research gardens under the direction of John Jeavons. The years of work have resulted in positive, paradigm changing new ideas for the abatement of world hunger, for family food sufficiency and for urban and rural small-scale farming. Our goal is to give more people the capability of raising their own food while nurturing the earth for posterity.

The GROW BIOINTENSIVE method has been developed as a sophisticated, low technology food security safety net for people in virtually all climates and soils where food is grown. It seeks to build on thousands of years of traditional smallholder farming methods. Long-term sustainability is a crucial requirement and the work is completely manual. The system includes eight important aspects: double-dug raised beds, composting, intensive planting, companion planting, carbon farming, calorie farming, open-pollinated seeds, and a whole-system approach. This method offers people a way to produce nutritious diets despite having fewer resources. Lack of access to water and land as well as inability to purchase outside inputs like fertilizers are challenging problems to tackle within the framework of conventional agriculture. GROW BIOINTENSIVE seeks to address these challenges by minimizing the need for outside resources and maximizing the use of available land. In addition, GROW BIOINTENSIVE creates a more sustainable system of farming that does not use chemicals and can increase soil fertility.

For more information, you may visit our website at <http://www.growbiointensive.org/>



# HOW TO APPLY

To apply for this program, please fill out our secure online application, which you can find at <http://www.growbiointensive.org/SummerInternship>. Applications will be accepted through May 15<sup>th</sup>, 2018. Candidates will receive notice of acceptance no later than May 27<sup>th</sup>, 2018. If you have any questions, please email [contact@growbiointensive.org](mailto:contact@growbiointensive.org).

*If you are accepted, you must send:*

- 1) a signed hard copy of the release form (following page),*
- 2) a valid proof of insurance to the address listed on the form, and*
- 3) a deposit to secure your place in the program.*

*To:*

ECOLOGY ACTION  
5798 Ridgewood Road, Willits CA 95490-9730  
Phone: (707) 459-0150      Fax (707) 459-5409

**INTERNSHIP PROGRAM PARTICIPANT RELEASE FORM**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Age: \_\_\_\_\_ Date of Birth: \_\_\_\_\_ Male / Female: \_\_\_\_\_

City/State/Country of Birth: \_\_\_\_\_

Emergency Contact:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip Code: \_\_\_\_\_

Country: \_\_\_\_\_ Telephone: (\_\_\_\_) \_\_\_\_\_

Do you have a heart condition, back condition, or other present and/or pre-existing conditions that could limit your full participation in the physical activities of this program?

If so please describe in detail:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please list any medications you are currently taking:

\_\_\_\_\_

Date of last medical examination:

\_\_\_\_\_

Please provide your current primary/catastrophic medical insurance coverage information

Carrier: \_\_\_\_\_ Policy No: \_\_\_\_\_ Exp. Date: \_\_\_\_\_

**Waiver:**

I hereby certify that I am in good physical condition and do hereby release, acquit and discharge ECOLOGY ACTION, its staff, officers and members, of any and all claims, causes of action or damages whatsoever, in any way arising out of or in any manner connected with their program or any medical treatment rendered in event of need. I understand that I am responsible for the coverage any medical expenses during my time at Ecology Action.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_