GROW BIOINTENSIVE® SUSTAINABLE MINI-FARMING
2-Week Farmer Training and Crop Production Course
Jan. 6 - Jan. 18, 2014 -- Willits, California

INFORMATION FOR APPLICANTS

Introduction

The world is currently facing a series of challenges that include climate change, soil depletion, water shortages, overpopulation, peak oil and a shortage of farmers. All of these challenges impact the effectiveness and sustainability of the food supply chain that the majority of Americans and urban dwellers around the world have come to rely upon for their food: a chain that has become dependent on large-scale, industrialized, chemical-based, conventional agriculture, and the fossil-fuel intensive fertilizers, pesticides, processing and transportation methods that make them possible.

There is a growing demand among corporate and urban consumers for local, sustainably produced food, and a growing urgency to create a more reliable and less destructive food web as an alternative to the conventional factory farming network we currently rely upon. However, there are also very few farmers with the skills necessary to practice sustainable smaller-scale market farming.

To address these challenges it is necessary to for a farmers to learn to use sustainable, smaller-scale farming methods that will allow them to increase yields while conserving resources and minimizing environmental damage. Farmers educated in these methods will have skills that allow them to thrive in semi-urban farming environments where they will have access to urban markets and business customers, and will provide a solid foundation for creating resilient local food webs that can survive challenges and foster community spirit better than industrialized mega-farms.

Ecology Action has created a 2-week Farmer Training Course that brings together a group of Master Farmers from the US, Latin America and Africa with a combined 125 years of expertise to teach potential market farmers the GROW BIOINTENSIVE Sustainable Mini-Farming method, which is currently in use in over 140 countries around the world, and is particularly well-suited for use by market farmers growing on smaller, semi-urban plots because it provides the tools to achieve high yields at low cost while building soil fertility and conserving precious resources such as water, land and energy. The training sessions will be filmed and used to create an online seminar series to extend the training opportunity to farmers and communities around the world.

This course offers an excellent opportunity for farmers and potential farmers to acquire a wealth of information on the most efficient gardening method we know, gathered from over forty years of research and hands-on practical experience in the field. The program will consist of lecture, discussion and demonstration by the Master Farmers, and will include a full range of information on Sustainability and Efficient Resource Use, Crops and Diet, Fertilization, Compost and Compost Crops, Soil Preparation and Preservation, Seed Propagation, and Income, as well as the perspective to tie all these together. The course content covers introductory, intermediate and advanced material and is divided between classroom lectures and practical fieldwork.

Ecology Action is a non-profit 501(c)(3) organization, and our work is focused on researching and rediscovering the techniques and scientific principles involved in the resource-conserving, life-giving GROW BIOINTENSIVE (GB) method. The GB method is a modern, scientific technique based on millennia-old practices for sustaining soil fertility in harmony with nature, and is an important element in creating solutions to the problems of the planet. Our research focuses on growing food and income on a closed-system basis, with soil fertility maintained sustainably from within the garden. Our classes and workshops encourage gardeners across the country and around the globe to find solutions appropriate to their own context. Our goal is to find a way to live lightly on the planet so that the planet's resources can be enjoyed by all.

Attending the Course: Application/Payment

If you are interested in attending the 4-week course, your online application should be completed by December 31, 2013 at https://www.formstack.com/forms/?1268511-KBtIGQhepF

Participants are encouraged to apply as early as possible, as these courses can fill well in advance. For more information, or if you have difficulty using the online form, please email us at: contact@growbiointensive.org

Participant Costs
Applicants should note that this is an unpaid, fee-based program.

Tuition and Fees: $2,500 per person. (Please note that these course fees are non-refundable).

Tools, supplies and course manual are provided to each participant.

Participants are responsible for purchasing other required reading materials

Housing, food, incidental and traveling expenses associated with getting to and from the program are the responsibility of each participant (there are several good hotels, restaurants, campgrounds and markets in Willits, CA).

Other Notes:
Please bring your own mug for hot liquids, a calculator and 2 pencils. The weather can be unpredictable, so come prepared for varied temperatures, warm afternoons, or rain. Waterproof boots with good tread are highly desirable! Generally, tape recorders and video cameras are not permitted at the workshop.

Participants may bring a sheet of information on and/or photos of their garden/project, to be shared; please limit it to one 8.5”x11” sheet and include your name and location.

Feel free to write us about any particular or personal concerns or questions. We will try to be accommodating, if it does not interfere with our work here. Our staff is prepared to stay in touch with participants after the training course is over. Notice of further training opportunities, such as Teacher Certification workshops, will be given in the Ecology Action Newsletter.

About the Instructors

• **Primary Trainer:** John Jeavons is known internationally as the leading researcher and method developer, teacher, and consultant for the GROW BIOINTENSIVE method. He is the author of the best-selling book How to Grow More Vegetables, Fruits, Nuts, Berries, Grains, and Other Crops Than You Ever Thought Possible On Less Land Than You Can Imagine (Ten Speed Press), which has gone into eight editions in seven languages, plus Braille. There are over 550,000 copies in print worldwide. He has authored, co-authored or edited over 40 publications on this high-yielding, resource-conserving Biointensive approach, including a five-part, peer reviewed article that appeared in The Journal of Sustainable Agriculture. Jeavons' food-raising methods are being used in over 140 countries and by such organizations as UNICEF, Save the Children, and the Peace Corps. Jeavons advises students, teachers, gardeners, local producers, and representatives of private, non-profit and governmental organizations, and is interested in cross-cultural exchange of agricultural methods globally. The comprehensive and sustainable cropping system developed by Jeavons enables people in all regions of the world to grow a balanced diet on a small plot of land. Former U.S. Secretary of Agriculture Bob Bergland said of his work, "There are probably a billion people in the world who are malnourished. The Jeavons approach could enable that segment of the population to feed itself adequately for the first time ever. That would be a remarkable development in this world, and would do more to solve the problems of poverty, misery and hunger than anything else we've done."

• **Lead Trainer 1:** Steve Moore is an Assistant Professor of AgroEcology, Elon University, Elon NC, and has successfully farmed for over 40 years in Pennsylvania and North Carolina. He holds a Masters Degree from NC State University and has over 15 years of experience with GROW BIOINTENSIVE, is a member of the board of directors of Ecology Action, has been a member of the board of Directors of PASA (Pennsylvania Association of Sustainable Agriculture) and Farm Manager at the Center for Environmental Farming Systems (CEFS) at North Carolina State University. He has special expertise in farming and food system energy use, intensive agriculture and protected production. He is an Associate Editor for the peer reviewed Journal of Renewable Agriculture and Farming Systems. He has lectured and consulted widely, including coordinated teaching of GROW BIOINTENSIVE workshops with John Jeavons.

• **Lead Trainer 2:** Juan Manuel Martinez-Valdez is the director of Ecología y Población, (ECOPOL), Ecology Action's nonprofit affiliate in Mexico and Central and Latin America for over 20 years. ECOPOL teaches families to raise food Biointensively. As a result of ECOPOL's initiatives Biointensive agriculture has gained a secure foothold in most Latin American countries, with sustainable food-growing techniques being conveyed to non-profit organizations, trainers, food producers, smallholder farmers and indigenous people. It is estimated that millions of family-scale farmers have benefited from this training, increasing yields and income, improving health, and greatly decreasing the quantity of external inputs (including water and imported fertilizers) needed to successfully grow food.

• **Lead Trainers 3 and 4:** Samuel Nderitu and Peris Wanjiru Nderitu are the Co-directors of the GROW BIOINTENSIVE Agriculture Center of Kenya (G-BIACK), one of Ecology Action's African affiliate programs. Both are graduates of the 2-Year Biointensive Training Program provided by another of Ecology Action's African partners, Manor House Agricultural Centre (MHAC) in Kenya. Samuel is an expert in Biointensive agriculture, with a primary focus on community development. Samuel and wife Peris (also a MHAC graduate) founded G-BIACK in 2008 as a community based organization. Since then they have expanded what was once a small farm into a thriving demonstration and training center for Biointensive agriculture and sustainable community development among thousands of small scale farmers in the Central, Eastern, and Nairobi provinces in Kenya. As a result of the these efforts, an inspirational ripple effect is being created as farmers around the region learn to grow more food, build soil fertility, conserve resources and create commu-

nity food security. They have taught thousands of people in Kenya and across Africa. Most recently, they initiatives in South Sudan under the auspices of the USDA and the Borlaug Foundation; in Malawi and Rwanda with support from Buddhist Global Relief; and in Tanzania with support from Ecology Action members.

• **Lead Trainer 5:** John Beeby has studied soil fertility for over 20 years and is currently pursuing a M.Sc. at Cornell University on the potential of biochar to reduce arsenic toxicity in soils. A former Ecology Action staff member, John is an expert in Biointensive agriculture and sustainability, Ecology Action's main soil fertility advisor, and the creator of Harvest Planner, a unique online program which helps farmers plan and grow nutritionally complete diets sustainably. He is the editor of From The Field, associate editor of the journal Renewable Agriculture and Food Systems (Cambridge Press) and author of several publications, including the books Future Fertility and Test Your Soil With Plants! He is currently working to catalyze a website to share GROW BIOINTENSIVE teaching materials, developing experiments in Kenya and Latin America on one-time fertilizer applications for long term improved soil fertility, and making organic fertilizer recommendations for Biointensive farmers.

ADDITIONAL TRAINERS:

• Patricia Mayagoitia, Assistant to Juan Manuel, taught children GROW BIOINTENSIVE in Chiapas State when she was 9, interned with Ecology Action at age 17, and holds a B.A. in International Relations and a M.A. in Agricultural Economics and has taught Certified GB Teachers in Latin America in diet and soils.

• Jake Blehm, Assistant Executive Director of Ecology Action, former Director of Operations at the Rodale Institute and Director of Programs for the California Ag Leadership Foundation. He has worked in sustainable and organic agriculture for over 25 years, working in and visiting 50 countries for agricultural service-learning and education, and volunteering with organizations such as ACDI/VOCA and Winrock Int'l.

• Jed Diamond, Ph.D., an internationally respected health-care practitioner (www.MenAlive.com). He has worked for over 40 years to help men, women, and children to live well, and is the author of ten books, translated into more than 15 languages. His latest book, Stress Relief For Men, will be published in 2014.

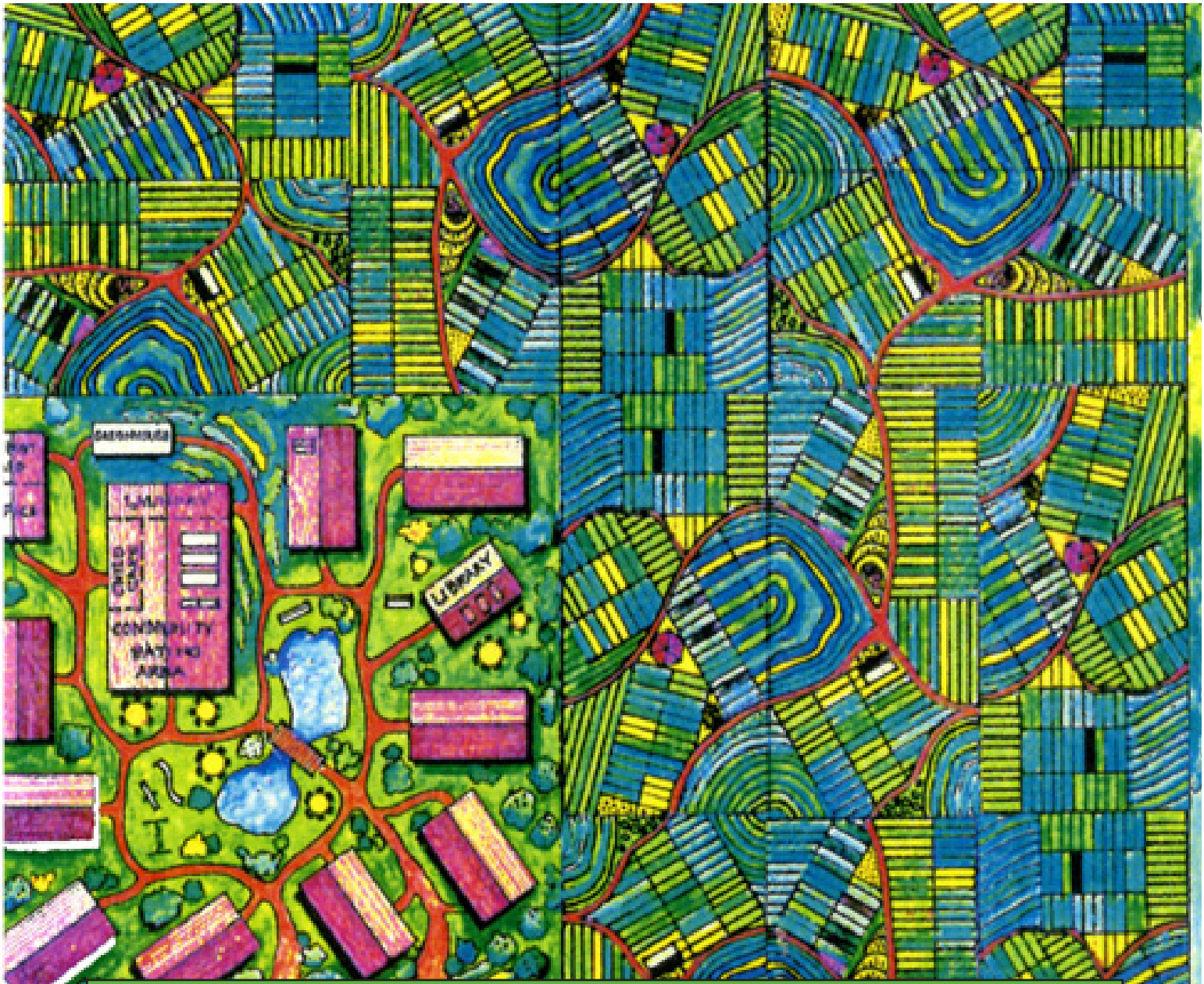
• Eric Buteyn, Ecology Action Farm Manager is responsible for the teaching and training of Interns from the U.S. and around the world. He will also assist with the Field Demonstrations.

• Megan Meyers, Ecology Action Special Associate with expertise in Biointensive data management.

"If new young farmers do not step forward to replace older retiring farmers, ownership of land and other farm assets may be concentrated into fewer, ever-larger operations."
– USDA representative Fred Gale in his paper, *America's Aging Farmers: Who Will Take Their Place*?

"*If we do not repopulate our working lands [with farmers],*
I don't know where to begin to talk about the woes [that will result]."
– U.S. Dep. Secretary of Agriculture Kathleen Merrigan (*Washington Post*, April 2012)

"*What Biointensive can make possible isn't a seamless transition (to farming),*
because soil and skills need to be built up. It cannot make the transition easy and safe, but it can make it easier and safer. …The choice is ours — we can have a century of increasing desertification and increasing scarcity of per capita resources, farmable soil and food, or we can transform the current global challenge into a situation of abundance — of enough for everyone."
– John Jeavons, Director of Ecology Action



Course Syllabus

Ecology Action's 2-Week GROW BIOINTENSIVE® Sustainable Farmer Training and Crop Production Course

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Syllabus

Important Dates:

Course: January 6-18, 2014
Applications Due: Dec 31, 2013
Selected Participant Notification: January 2, 2014

Location:

Willits, CA; Exact Location TBA

Course Description:

Food production issues, concepts and techniques of GROW BIOINTENSIVE (GB), organic and conventional food production will be discussed. Topics will include: soil and resource management, closed loop fertility, personal diet design, compost, pest management and planning and planting of crop cycles, as well as agricultural leadership and entrepreneurial skills. Biointensive food production will be emphasized. Biointensive is a millennia-old technique used by various civilizations that has been developed to address sustainable food production. It is widely promoted by many development NGOs including the Peace Corps, and is an excellent technique for use in semi-urban market farm settings. This course will have full academic rigor coupled with extensive hands-on learning.

Course Introduction:

Food and farmable soil are not only essential but will be a defining issue of the future. Many factors compromise food production and availability. These include: increasing population, land loss, land degradation (salinity, erosion, etc.), resource constraints (energy, phosphates etc.) and, very importantly, water. Sustainable production of food will be necessary to meet these challenges in the near future and beyond. It is often said that all politics are local, so is sustainable food production. This course seeks to inspire and empower each of us, our own families and communities and reach out to assist others in the development of sustainable food production and to assist new market farmers to develop the skills they need to succeed in producing high-quality food affordably and sustainably. This course will lay the foundational concepts, tangible skills and detailed knowledge toward that end. The principles of topics will be given before hands on learning.

Expected Learning Outcomes:

1) Understand the current and future food situation as it pertains to market farmers
2) Understand the basic components of a sustainable food system and reinforce them by field practice.
3) Develop agricultural leadership and entrepreneurial skills to market farm products and promote sustainable agriculture among customers and their communities.
4) Design a personal sustainable diet and understand how to sustainably raise food for marketing.
5) Compare the sustainability of chemical-based, standard organic and biointensive food production.
6) Demonstrate rigorous and systematic analysis for environmental inquiry.
7) Attain GROW BIOINTENSIVE^{sm} basic level certification.

Publications—Required and *Optional (O)***:** (available from bountifulgardens.org)

Books:
How to Grow More Vegetables, 8th ed.
The Sustainable Vegetable Garden
The Backyard Homestead, Mini-Farm & Garden Log Book: Chapter 1, 2 and Part 2
One Circle
Future Fertility
Test Your Soil with Plants—Revised 2013
The Nature and Properties of Soils (O)

Videos:
DVD - GROWBIOINTENSIVE A Beginner's Guide in 8 Easy Sessions
John Jeavons Google Talk: http://www.youtube.com/watch?v=afHd9EhsJ1U (O)

Manual:
Ecology Action Workshop Manual—Included in cost of tuition, provided at the beginning of the course

Booklets:
Growing to Seed
The Complete 21-Bed Biointensive Mini-Farm
One Basic Mexican Diet
Learning How to Grow All Your Own Food A Supplement for Booklet 14
Designing a GROW BIOINTENSIVE® Sustainable Mini-Farm
GROW BIOINTENSIVE® Composting and Growing Compost Materials
Grow Your Own Grains
Food for the Future, Now—Revised 2012
More Food Less Water
An Experimental Complete 33 Bed GROW BIOINTENSIVE® Mini-Farm: Fertility, Nutrition, & Income
Biointensive Mini-Farming: A Rational Use of Natural Resources (O)
Cucumber Bonanza (O)
Examining the Tropics (O)
Growing and Gathering Your Own Fertilizer (O)
Garden Research for Food and Flavor (O)
Dried, Cut and Edible Flowers for Pleasure, Food and Income (O)
Biointensive Micro-farming: A Seventeen Year Perspective (O)
Micro-Farming as a Key to the Revitalization of the World's Agriculture (O)
Comprehensive Definition of Sustainability (O)
One Basic Kenyan Diet (O)
Growing Medicinal Herbs in as Little as Fifty Square Feet — Uses and Recipes (O)
The Smallest Possible Area to Grow Food and Feed (O)
GROW BIOINTENSIVESM Sustainable Mini-Farming Teacher-Training & Certification Prog. (O)
Another Way to Wealth (O)
GROW BIOINTENSIVE Apprenticeship Possibilities (O)
Composting for the Tropics (O)
Composting in the Tropics (O)

Other Publications:
Seed to Seed, 2nd ed., Suzanne Ashworth, 2002. (O)
Saving Seeds, Marc Rogers, 1990 (O)

Overview of Lecture Topics Covered:

These are the proposed topics and dates to be covered during the semester. Both topics and dates may vary during the course. Classes are from 9 a.m. to Noon and 2 p.m. to 5 p.m. with two hours off for the mid-day meal. Students are required to read the assignments prior to the lecture and are accountable (on assessments) for each related. Please stay current in your readings. They are a key component of success in this course!

Theme: Creating Thriving Life Through Changing Scarcity into Abundance: Growing Living Soil, Ecosystems and Community—And Learning the Patterns That Make This Possible

Biologically-Intensive Farming Has Been Working for Centuries—The Question Is, '***How*** Do We Learn and Teach the Universal Scientific Principles That Make It Possible?'

Let's ***Empower*** People Everywhere to Grow More Fertile Soil, Nutritious Food, Thriving Ecosystems and Resilient Local Communities, with Available Resources

Daily Schedule

(Topics, Times and Instructors Subject to Change)

Week 1—Topics (Teacher-amount of time):

MONDAY, JANUARY 6:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: "A child's laughter, growing soil, food and ecosystem, are one."

8 a.m.-Noon (4)
- Participant Introductions (1 1/4)
- Introduction to the Course (JJ-3/4), You are the Solution: Soil/Seed/Community: World
- Food/Soil Situation Including Geological Erosion, Climate Change and "29th" Day (JJ-1/4)
- Sustainable GROW BIOINTENSIVE vs. Organic vs. Conventional (JJ, SM-1 1/2)
- Soil Genesis/UC-D Masters Thesis/Worldwide Loss of Soil and a Possible Solution (JJ-1/4)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Theme: "A teaspoon of soil in the palm of your hand can contain 6 billion microbes—almost as many life forms as there are people on the Earth! In order to rebuild the Earth's soils, which are generally compacted, demineralized and lacking in any significant amount of humus, it will take 40 years in tropical areas and 60 years in temperate areas. We must begin now. We need a new kind of 'Marshall Plan' for the World. It is a question of education."

2 p.m.-6 p.m. (4)
- Soil and Fertility (JB & JJ-1)
- Soil (JB & SM-1 1/2)
- Soil Testing Including Testing With Plants (JB & JJ-1 1/2)

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m.

TUESDAY, JANUARY 7

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: "The carrying capacity of the Planet is ~7.5 billion people—there are now 7.4 billion people on the Earth with 216,000 more each day creating a need for 34,000 more acres (13,000 hectares) of farmable soil daily."

8 a.m.-Noon (4)
- Envisioning Bounty: The Future and Direction of GROW BIOINTENSIVE (RB-1)
- Biologically-Intensive and Related Food-Raising History (J-1)
- Philosophy and How It Effects Our Planning and Yields (JJ-1)
- Sustainability Including Organic Matter and Mineral Aspects Including Biosphere II Experience (JJ-1)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Theme:"It is not a question of food security. It is a question of social stability. There is a need to empower everyone to grow: fertile soil, nourishing diets, thriving communities and healthy ecosystems."

2 p.m.-6 p.m. (4)
- The Role of Gardens/Mini-Farms/Farms in Food Security, Social Stability, Japan 1,480 sq. ft., NC, MA (JM, PM, SN, PW, SM & JJ-1)
- Results of Biologically-Intensive Food Growing in Latin America (JM/PM-3)

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m.

WEDNESDAY, JANUARY 8:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: "Designing your complete, balanced diet from your heart produces the potential of growing all your food in half the area than if you design your diet with the mind. Your heart is more intelligent and wise than your mind."

- Envisioning Bounty: The Future and Direction of GROW BIOINTENSIVE (RB-1/2)
- Diet, Solving the Diet/Form 2 (HO) (JJ, SM-1)
- Diet Design from the Heart with 60/30/10, Designing with the Mind, Designing with the Mind and Heart and Model Units (JJ-1/2)
- Using the Master Charts and Crop Personalities (JJ-2)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Theme: "All compost is not equal. The same amount of built biomass going into the building of a compost pile can produce just one unit of compost power. Or, it can produce two, three, four, five, six, seven, eight, nine or ten times the compost power—or even more. The choice is ours What type of future and world do you want to create?"

2 p.m.-6 p.m. (4)
- Soil Preparation Theoretical (JB-1)
- Diet Design (Forms 7 (HO) and 10 (HO)) (JJ, SM-1)
- Compost (JJ-2)

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m.

THURSDAY, JANUARY 9:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: "It is possible to cook a pan of beans with just 5 minutes of heat instead of 40 minutes—in one-eighth the time by brining it to a boil, and then placing it wrapped in a towel in an unheated oven without a pilot or other heat. An hour later it will be fully cooked. With coppicing and special stoves, it is possible to cook your food annually with fuel produced sustainably from as little as 650 square feet instead of 40,000 square feet—in 1.6% of the area. This is especially important, as only 11% of the tress in biomass terms are left in the world compared with 10,000 years ago. It is possible to reestablish the Earth's forests to the point they were 10 millennia ago, if each person on the Planet, directly or indirectly, plants 20 trees a year for 5 years and nourishes them to maturity."

8 a.m.-Noon (4)

- Envisioning Bounty: The Future and Direction of GROW BIOINTENSIVE (RB-1/2)
- Greenhouse, Tunnel Food Growing, Extended Harvest (SM-1 1/2)
- Cooking Techniques (Haybox, Short Boil, Lorena, Patsari (HO), Rocket, Other, Solar) (JJ-1/2)
- Coppicing for Fuel (JJ-1/2)
- Soil Nutrient Dynamics #1 (JB-1 1/2)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Theme: "Crop yields are higher and have fewer insect challenges, when food is grown with biologically-intensive practices without biological pesticides. There are higher yields, fewer pests, more plant health and fewer plant aberrations when sustainable amounts of cured compost are used in biologically-intensive farming."

2 p.m.-6:15 p.m. (4 1/4)

- Soil Nutrient Dynamics #2 (JB-1)
- Results of Biologically-Intensive Food Growing in Kenya Including Soil Project, Seed Bank and Women's Program (SN/PW-3)
- Cornell University Master's Thesis Test Results Growing Cabbage with Biocides, plus Biosphere II Experience (JJ-1/4)

Dinner 7:15 p.m.-8:15 p.m./Dishes & Clean-up 8:45 p.m.-9:15 p.m.

FRIDAY, JANUARY 10:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: Seeds are powerful. They can see light through the soil. A handful of bean seeds, placed on the ground and covered with a board that has 50 pounds of bricks on top, can lift the board. The water saved by raising seedlings in flats, rather than direct sowing, can grow up to a complete diet for one person for all year, depending on the crops chosen! The annual human waste from the average adult probably contains sufficient nutrients to grow the food for that person for the next year—if the human waste is properly, safely and legally recycled. It has to be a social decision. Thus, if one person lives for 85 years and "flushes" the human waste away, that person will have flushed away 85 people's lifetime's worth of nutrients. This is one reason the world's soils are demineralized."

8 a.m.-Noon (4)

- Envisioning Bounty: The Future and Direction of GROW BIOINTENSIVE (RB-1/2)
- Seed Propagation (SM & JJ-1)
- Flats: Increased Yields Plus Water Saving (JJ-1/2)
- Plant Spacings/Related Yields/For Maximum Nutrition/For Sale of Produce (SM & JJ-1/2), Fertilizers/ Fertilization/Fertility (JJ & SM-1/2)
- Human Waste and Its Place in Future Farming (JB & JJ-1)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Theme: "A good compost crop design combined with a good farm layout can enable everyone, everywhere to grow a good soil, farm and life."

2 p.m.-6 p.m. (4)
- Compost Crops (Form 9) (SM-1)
- Farm Layout, Agroecology, 60/30/10 (SM-1 1/2)
- World Population Video (1/2)
- Journey in Kenya Video (1/2)
- The Man Who Planted Trees and Grew Hope Video (1/2)

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m.

SATURDAY, JANUARY 11:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: Together we can make a World of Difference!

8 a.m.-11 a.m. (3)
- Envisioning Bounty: The Future and Direction of GROW BIOINTENSIVE (RB-3)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m.

MONDAY, JANUARY 13:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: "It is possible to grow all your compost and nitrogen for your soil, while growing all your food."

8 a.m.-Noon (4)
- Envisioning Bounty: The Future and Direction of GROW BIOINTENSIVE (RB-1/2)
- Companion Planting (JJ/Intro & SM-1)Compost/Cover Crops (JJ, SM-1), Crop Rotations (HO) (JJ-1)), Multiple Cropping (SM-1/2)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Theme: "Weeds are wonderful crops growing where you would prefer them not to be. The properly balanced ecosystem farm and garden need insect pests. They are the food for beneficial predatory insects. In just five square feet of celery or parsley growing to seed you can produce much of the food needed by beneficial predatory insects."

2 p.m.-5 p.m. (3)
- Weed Management (SM-1)
- Insect Life (JJ/Intro, JBl, SM-1),
- Ecosystem Creation (JJ-1)

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m.

TUESDAY, JANUARY 14

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: "It is possible to grow all your food, compost materials, nitrogen for the soil and income on as little as 1,000 square feet. Currently, the U.S. diet only with conventional techniques, whether they be organically or chemically-grown takes 30,000 square feet to grow."

8 a.m.-Noon (4)
- Envisioning Bounty: The Future and Direction of GROW BIOINTENSIVE (RB-1/2)
- One-Bed Unit Design (HO) in Groups (Participants-3 1/2)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Theme: "About 70% of the water used by people is utilize in farming. GROW BIOINTENSIVE Sustainable Mini-Farming uses 33% of the amount of water per pound of food and compost material and income crop produced compared with conventional practices. This effectiveness is part of the solution to the increasing desertification of the Planet. Why not grow a thriving ecosystem and Earth with our farming practices?"

2 p.m.-6 p.m. (4)
- Practical Watering Principles and Microclimatology (JJ-1)
- Irrigation (SM-1)
- Low Natural Rainfall Food Growing (JJ-2)

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m.

WEDNESDAY, JANUARY 15:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: "Our perception of the external world is in great part a reflection of our internal one. Our external world is created in great part by our internal one as well."

8 a.m.-Noon (4)
Envisioning Bounty: The Future and Direction of GROW BIOINTENSIVE (RB-1/2), Growing Down Into Ourselves: Integrating Our Lives With Our Work(JD-2 1/2), 5-Year Goals Project (HO) (JJ - 1)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Theme: "Proper planning saves time and growing area while increasing enjoyment."

2 p.m.-6 p.m. (4)
- Harvest Planner (JB-1/2)
- Planning and Farm Plan Assignment-4 Groups (2), and
- Observations (1 1/2) (SM & JJ)

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m

THURSDAY, JANUARY 16:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: "The real Energy Crisis is not in a barrel of oil, it is in ourselves. Actually, one can grow all of his or her food in 4 minutes a day on the average. The northern Iranians, in an Early Stone Age culture, did this 10,000 years ago. When John Jeavons describes this to people, virtually no one says, how can I do this. Why are we so divorced from the soil, food, ecosystem and environment that we need to live. Why do we choose not to nurture the Nature upon which we depend? Pogo said, 'I have found the enemy, and it is us!' Ecology Action has found our empowering friend, and it is us as well! Let's choose the side of us that is our friend."

8 a.m.-Noon (4)

- Envisioning Bounty: The Future and Direction of GROW BIOINTENSIVE (RB-1/2)
- Energy Use in Food Production, Including the Energy Cost of Refrigeration (SM-1 1/2)
- Special Manual Tools in Food Production—a simple way to manually use less energy while being more effective. (SM-2)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Theme: "The greatest challenge is learning how to lead ourselves effectively."

2 p.m.-5 p.m. (3)

- Agricultural Leadership (JBl- 3)

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m.

FRIDAY, JANUARY 17:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: "It is possible to grow the current average U.S. income of $70,000 part-time on as little as 1,000 square feet. All we have to do is really want to do it. The challenge is our distractions."

8 a.m.-Noon (4)

- Income Farming Including Value Added + Economic and Ecological Mini-Farming Community (HO) (JJ-1 1/2)
- Farm Marketing Approaches (SM, JBl, JJ-2)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Theme: In The House of Exile the author describes her experiences in the 1920s as a Chinese farmer's American wife in China in the 1920s. Each year they panned their farm based on the previous 30 year's of farming data. The Chinese used to call their farmers Living Libraries as they knew more than four millennia of cumulative farming experience, more than they learned on their farm and more than they learned at the university, if they were able to attend. They knew in their hands, hearts and minds. It is our hope that the 2-Week Farmers Course gives your the first step on your journey of becoming your own Living Library.

2 p.m.-5 p.m. (3)

- Data Collection (EB/MM-2), and
- Its Importance for a Better Farm Each Year (JJ & SM), with
- Discussion of Questions from Participants (1)

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m.

SATURDAY, JANUARY 18:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Theme: "There are 50 to 200 explorations, or tests going on in the Ecology Action Headquarters Mini-Farm each year. This is our Living Library in an additional way. As Alan Chadwick noted, 'The Garden makes the Gardener.' The gardener does not make the garden. What a wonderful resource. Alan Chadwick also believed that humankind, as we each 'breathe life back into the soil' will breathe life back into ourselves as the life forces of the soil, plants, ecosystem and Earth give us life in so many different ways."

8 a.m.-Noon (4)

- Envisioning Bounty Summation: The Future and Direction of GROW BIOINTENSIVE (RB-2)
- Tour of Ecology Action Site (JJ-2)

Lunch 12:15 p.m.-1:15 p.m./Dishes & Clean-up 1:15 p.m.-1:45 p.m.

Dinner 7 p.m.-8 p.m./Dishes & Clean-up 8:30 p.m.-9:00 p.m.

SUNDAY, JANUARY 19:

Breakfast 6:30 a.m.-7:15 a.m./Dishes & Clean-up 7:15 a.m.-7:45 a.m.

Departure, including for some to San Francisco Airport

Reading and other preparations may be done during any free time:

EB= Eric Buteyn, JB=John Beeby, JBl= Jake Blehm, JD=Jed Diamond, JJ=John Jeavons, JM=Juan Manuel, MM= Megan Meyers, PM=Patricia Mayagoitia, PW=Peris Wanjiru, RB= Rachel Britten, SM=Steve Moore, SN=Samuel Nderitu

HO=Handout