

ECOLOGY ACTION'S GARDEN COMPANION

GROW BIOINTENSIVE News from around the World



Mini-Farm Garden Report

By Joseph Huber,
Victory Gardens for Peace
3-year Apprentice

With an above-average rainfall in the off-season, the crew at Victory Gardens for Peace (VGfP) has hung up the forks and spades and picked up the hammers and saws. We have been in full swing with the development of a new greenhouse, the VGfP Seed Bank Exchange, and migration into our 5,000 sq ft expansion which in the near future will include a coppicing section and a rocket stove.

Thanks to a generous donation to the VGfP by a well-respected local community member—which has been a blessing—we've been able to invest in a much-needed 128-sq-ft greenhouse which will greatly increase our capacity. Since we are located right off the coast of Northern California, where the marine climate's temperatures are rarely above 80°F during the peak of the summer, we're going to incorporate a 32-sq-ft growing bed inside the greenhouse. This will take advantage of the extra heat generated

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A New Vision for the Future of GROW BIOINTENSIVE®

By Matt Drewno

Victory Gardens for Peace Mini-Farm and Seed Bank Exchange Manager



VGfP crops include rare flour corn from Peru, heirloom Red Oak Leaf lettuce for seed, Daikon radish, millet and quinoa!

Photo Credit: Matt Drewno

We are excited to announce that the Green Belt Mini-Farm and Rhythmic Water Seed Bank have been renamed Victory Gardens for Peace Mini-Farm (VGfP) and Victory Gardens for Peace Seed Bank Exchange.

The Victory Gardens movement of the 1900s engaged citizenry in the US to help raise food to fight World Wars I and II. This was tremendously successful in stabilizing our economy, infrastructure and food security during those wars. It also inspired a sense of pride in joining the effort—a way to engage everyone towards a common goal.

On April 1, 1944, US President Franklin Roosevelt stated: “The total harvest from victory gardens was tremendous. It made the difference between scarcity and abundance. The Department of Agriculture surveys show that 42% of the fresh vegetables consumed in 1943 came from victory gardens. This should clearly emphasize the far-reaching importance

of the victory garden program.” But, is war the only unifying force that will get people engaged in fighting a common enemy?

In the early 1900s William James wrote *The Moral Equivalent to War*. This important work sought an alternative means to engage individuals in creating a better future through working together in service to community. James believed that such work could uplift the lives of everyone and strengthen communities across America. His book became the foundation of the Civilian Conservation Corps, the Peace Corps, and numerous philanthropic foundations, non-profit organizations and volunteer associations.

With this same intention, in 1972 John Jeavons helped start Ecology Action, a non-profit, which began studying the global food crisis and the potential of biologically intensive agriculture to alleviate poverty. Since then,

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Garden Report

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inside, allowing us to plant many varieties of peppers and tomatoes that we have previously struggled with due to our cooler climate. We were able to assemble the greenhouse kit in time to shelter our seedlings, which were planted using seed from the VGfP Seed Bank Exchange. Also in the greenhouse, we built a 16' by 3' flattening table with a retractable table underneath that can be pulled out to hold more flats during the busy time of the year. We were able to make the entire table using recycled wood from an old deck.

The VGfP Seed Bank Exchange is approaching its second season, and it's expanding at an exponential rate, with seeds grown within a 15-mile radius of the Mendocino Coast. The Seed Bank Exchange is about more than the seeds—it is also about celebrating and enhancing the community of seed savers in our bioregion. The foundation of VGfP Seed Bank Exchange is donation-based and has a strong emphasis on illuminating the significance of seeds and seed-saving. Being donation-based allows us to offer free seeds. We also don't send seeds through the



Apprentice Bobby Zekanoaki and Mini-Farm Manager Matt Drewno assemble the 8'x16' greenhouse.

Photo Credit: Joe Huber

mail; instead we encourage people to personally come to the VGfP to receive the seeds. This allows a direct communication between the gardener, the staff and the Seed Bank Exchange. We hope this will establish a stronger symbiotic relationship and involve personal assistance. Now with 120+ varieties and 2000+ packets of seeds ready to be handed out, we're more than thrilled to welcome all the new personalities entering the garden who are intrigued by the beauty of seed sovereignty.

Furthering their generous support of the VGfP program, the Stanford Inn (where the garden is located) helped us expand an additional eighth of an acre in order to increase our capacity to save seed and serve our community. It's both exciting and overwhelming to move into this new area, and we are pacing ourselves.

In 2018, we will be adding 15 beds—2,000 sq ft of growing area—to support a micro-CSA for low-income families. We plan to add 37 trees—six different varieties—for a coppicing section. This will provide fuel for the rocket stove, which is on our building agenda for the upcoming winter. We will also be adding an octagonal picnic table in order to support our workshops, expand our sitting area, and serve as a place to enjoy our meals harvested right from the garden. This is the area where the new greenhouse is located.

As the last rains blow in and our plants awaken from dormancy, our forks and spades are not far behind. The VGfP crew is ready for a season of hard work and the challenging opportunities that will follow, because work and opportunity often go hand-in-hand.

A New Vision for the Future

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the investigation into best agricultural practices from around the world and throughout history has led to the development of the GROW BIOINTENSIVE (GB) method. This method incorporates eight basic principles of whole-system sustainability which can be applied anywhere food can be grown. The eight principles help individuals refine their approach to growing food in a way that ensures everyone, everywhere, can build their soils, grow their food and increase the health of their communities.

Today, the challenges are huge. We don't need any more enemies—we need unification towards solving these challenges. The Victory Gardens for Peace Initiative is a means to engage

everyone into taking action, to empower themselves through the simple act of growing a sustainable garden. Ecology Action and the Victory Gardens for Peace Initiative see the challenges as opportunities to demonstrate what is possible when we work together to build a better future for everyone. As our garden and programs continue to expand we are looking forward to what this new vision brings to our community and abroad as a demonstration model for the future of GROW BIOINTENSIVE.

The Victory Gardens for Peace Mini-Farm is located in the town of Mendocino, California, at the Stanford Inn by the Sea Eco-Resort. The fruit born from the partnership of Ecology Action and the Stanford Inn continues to inspire and enrich the lives in our community and abroad. Our garden has been a place of learning for people from around the

world and the site of some very important research and development in the growing of soil, food and community. We also host several training programs, internships and apprenticeships.

Victory Gardens for Peace Seed Bank Exchange connects gardeners and farmers through the saving of seeds and offers over 100 varieties of rare, locally adapted heirloom seed grown out by our community, available to anyone free of charge.

We hope that by the end of 2017 our website www.victorygardensforpeace.com will be up and running. If you have any questions, feel free to contact me at Matt@Victorygardensforpeace.com. To donate to this important work or for information about our programs and training go to growbiointensive.org.

To a more peaceful and sustainable future for all!

Feeding Homeless Children in Kenya

Philip Odhiambo Munyasia was a 6-month intern at the Golden Rule Mini-Farm in 2008. He is currently Program Coordinator for Organic Technology Extension and Promotion of Initiative Centre (OTEPIC). Here is a report of current projects.



Children at the OTEPIC orphanage

Photo Credit: © Silke Oppermann, www.studentoftheworld.de/index.php/tag/otepic/. Used with permission.

In the last year, we have been busy with many activities, constructing buildings and expanding our garden. OTEPIC started a program to feed the homeless street kids in our area. This also gives us a chance to talk to them about the effects of drug abuse, such as using glue to get high. As we spend

time with them we also try to involve them in our garden project. This way we can live and work together, showing them a better way to be in this world.

We have also talked with the local supermarket to let us collect the food they would ordinarily throw away. We use this when we prepare meals to

share with the street kids. Additional food comes from the OTEPIC GROW BIOINTENSIVE garden, and the rest we buy.

Visit www.otepic.org or Silke Oppermann's non-profit blog, www.studentoftheworld.de for more information.

Join the real food revolution!

Ligia Espinoza Receives Basic-Level Teacher Certification

Ligia and Tania were interns at The Jeavons Center and Green Belt Mini-Farm, respectively, in 2014. They are currently working and farming in Nicaragua. Ligia wrote to John Jeavons with news of her activities.

I wanted to let you know I have received my Basic-Level Teacher Certification. It has been very helpful. Currently, I'm working on the required report in order to get the Intermediate-Level Certification. My sister Tania is working on her Basic-Level Teacher Certification using the data from last year.

We use the book *Test Your Soil with*

Plants, and have discovered some interesting things. We will prepare a special report about that when time permits. John Beeby (EA's soil consultant, www.growyoursoil.org/) has been so kind and professional giving us a detailed interpretation of the soil report from the lab; we are happy to work

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Girl Scouts Native Plant Project

By Paul Higgins, Common Ground Garden Manager, Palo Alto

On Veterans Day, a wonderful group of 25 Girl Scouts, aged between 10 and 16, came to the garden and helped us to plant approximately 50 native plants in a new 'native bed' at the back of the garden. They donated the funds we used to purchase the plants from a local nursery, Yerba Buena. We started the session by explaining why native plants are important, and then we got to work clearing the area, digging holes, planting, and finally mulching to suppress weeds. The new bed will need to be watered periodically during the coming year's dry season, but will be left to its own devices afterwards.



Paul demonstrates how to plant.

Photo Credits: Paul Higgins

At a follow-up meeting, the girls were asked for one word to describe the experience, and they replied: "Fun, enlightening and interesting." Later, Charlotte Kadifa, a member of the Palo Alto Girl Scout Service and Leadership Team (SALT), wrote this

(slightly edited) piece to summarize the experience:

"The fourth annual Palo Alto Girl Scouts' Service Day was held on Veterans Day, November 11th. Service Day is organized by our high school Scouts' SALT, of which I am a member. SALT partnered with six non-profit organizations to provide volunteer opportunities on Veterans Day for 160 Girl Scouts ranging in age from 6 to 16.

"For the second year, Common Ground Garden was one of the non-profits with which we collaborated.

"In addition to SALT members, three troops of Scouts (a total of 25 girls) volunteered there. Senior Troop 60648, Cadette Troop 60310, and Junior Troop 60518 spent the morning planting a native plant garden. The native plants were purchased for Common Ground through a grant to SALT from Silicon Valley Bank. Girl Scouts provided the 'girl power' to plant them!

"When we arrived at the garden, Emily and Paul explained to us how native plants not only are drought-resistant but also help the environment by efficiently sequestering carbon. They taught us how to break up the hardened soil with a fork and to dig with a spade. The Junior Scouts hauled mulch by wheelbarrow for the new garden. The Cadette and Senior Scouts dug the holes for the five-dozen new

plants at the designated locations in the garden bed. Older and younger scouts partnered to add compost, place the plants in the new holes, and spread mulch around each plant. Six of us had the challenge of planting a three-foot-tall bush with spikey leaves that poked through jeans and work gloves. We handled it with the utmost care!



Girl power at work at CGG

"Interspersed with the physical exertion, there were plenty of moments for examining roly-poly bugs, admiring the variety of shapes and colors of leaves and blossoms, and basking in the beauty and peacefulness of the shaded gardens.

"At the end of the morning, we all initialed a wooden plaque to commemorate our contribution to the project. It was very gratifying work to create a native plant garden that will be long-lasting and provide educational opportunities for the greater community that Common Ground Garden serves."

Ligia Espinoza

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with him. We want to write him and share how we're doing using his recommendations. It has been hard to find time to sit and write in the last few months between family commitments and garden maintenance.

We are working toward a comparison report of growth results contrasting beds without minerals in 2016 versus

beds with added minerals this year. It will be interesting to see the difference.

Last year in each bed, we put three buckets of Biointensive compost or bocashi (fermented manure) or a combination when we didn't have enough compost ready. This year, because we have added more beds, we will use two buckets of compost in each bed. We're going to follow your recommendations and collect data about compost piles.

I heard about the heavy rains and

flooding in your area; here the climate is very crazy too. Right now we are in the middle of the dry season, and it's cloudy and foggy. We've had slow rain just like winter days from last year. Climate change is getting harder!!

Thank you very much for writing, I'm so happy to be in touch with you again and to have your feedback.

Lots of blessings and love,
Ligia



GROW West Africa BIOINTENSIVE Is Founded

*An update by Olawumi Benedict, 2016
8-month Intern at Golden Rule Mini-Farm*

I am happy to write and tell you that GROW West Africa BIOINTENSIVE began operations December 2016, through the effort of many from California, the US, Europe and Africa. The name was carefully selected to nurture the sub-region through the use of the GROW BIOINTENSIVE® method. We are a non-profit, non-governmental organization with a major focus on agriculture, employing sustainable biologically intensive, small-scale techniques.

When I left Ecology Action at the end of my internship, a total of \$1,200 had been raised to start my project. When I returned to Africa in November, a lot of planning and problem-solving took place, to put this dream into reality within the sub-region.

I have been in Nigeria since December 2016 and will leave mid-February to go back to Ghana to start work on the Ghana farm. I have to stay in Nigeria to connect with some organizations that will help promote our work. We realized that this farming method is seriously needed in Nigeria, so I am collaborating with officials during this time.

For more information, visit www.facebook.com/growwestafricabiointensive/?fref=hovercard.

Update on Paul Simiyu Mukhwana

By Mary Zellachild

Paul was a 6-month Ecology Action intern at The Jeavons Center in 2014, sent by Peris and Samuel Nderitu, managers of the Grow Biointensive Agricultural Centre of Kenya (G-BIACK). Paul worked at the Centre, and after his EA internship he became Site Manager there, and later was Education and Outreach Manager.

This year Paul will return to Willits as a MESA* Senior Return Steward at Tequio Community Farm, near the Golden Rule Mini-Farm, run by Hunter Flynn and Isa Quiroz. Hunter was the EA Farmer at The Jeavons Center when Paul interned here, and Isa is a former 6-month intern from Mexico. They currently grow food to sell at three Mendocino County Farmers Markets, on their one-acre farm.



Paul at home near Kitale
Photo Credit: G-BIACK Staff

When his new internship is complete, Paul plans to return to his home farm near Kitale, Kenya, and create his own Community-Based Organization (similar to an NGO), where he will teach others biologically intensive food and soil growing. While working at G-BIACK, Paul has only been able to visit his wife and three daughters several times a year, because the two sites are many hours apart. Paul has been able to improve the tiny house at his farm thanks to financial contributions from the St. Francis Episcopal Church in Willits, which he attended when he was an EA intern. These improvements on the house will allow him to live with his wife and family.

*MESA stands for Multinational Exchange for Sustainable Agriculture, which is headquartered in Berkeley, CA. "MESA cultivates a global grassroots network of food and farming leaders to revive community food systems, linking ancestral knowledge with innovation rooted in earth stewardship, equitable economies and multicultural alliances worldwide."

MESA and Ecology Action have collaborated since 2008 to sponsor training opportunities for promising international applicants. MESA sponsors J1 visas, as well as offering many other services and benefits to each Steward. To qualify to be a Senior Return Steward, a person must successfully complete a beginning internship or learning program and then return home and remain in agriculture for two or more years. For more information, visit www.mesaprogram.org.



Michael Ableman: Urban Ag Pioneer

By Radha Marcum

To read the full article, visit www.calmfulliving.com/project/michael-ableman-urban-ag-pioneer/.

The following summary is by Mary Zellachild.



Michael Ableman's Foxglove Farm, Salt Spring Island, British Columbia, Canada

Photo Credit: foxglovefarmbc.com

Michael Ableman has been described as an “agrarian guru,” not only farming in a sustainable way for over four decades, but educating the public about community-centered farming models through his programs, books, classes, and apprenticeships.

Michael grew up in Delaware, influenced by his grandparents—who emigrated from Eastern Europe and had been farmers when he was very young. He stated that even after his grandparents no longer farmed, “The focus was always on the meals that we shared as a family,” which meant going out and gathering food from nearby community farms and visiting with farmers along the way. That instilled in him the connection between farming, food and family.

Michael moved to California, where he worked on a series of farms and then joined Sunburst Farms in 1972, an agrarian commune near Ojai. At age 18, and with very little farming experience, he was put in charge of the commune’s 100-acre orchard. After much hard work, the orchard thrived, and Michael stated, “That experience

lit the fire for me around agriculture.”

In 1981 he became the farm manager at Fairview Gardens near Santa Barbara California — surrounded by housing tracts and shopping malls. Michael later started the Center for Urban Agriculture at Fairview, “to bring food production to where people were living, to teach people how to make it happen.” When Michael had the opportunity to buy the farm in 1994, “he and some other local farming advocates formed a non-profit that purchased the farm with the Land Trust of Santa Barbara, preserving it as a model farm for sustainable, organic urban agriculture ever since.”

Michael eventually moved to British Columbia, where he now lives and farms at Foxglove Farm on Salt Spring Island and where he also directs the Centre for Arts, Ecology and Agriculture. In 2008 Michael started Sole Food Street Farms located in downtown Vancouver, BC — “his latest urban agrarian project.” This is a collection of small vegetable and fruit farms being developed on the city’s previously empty lots — altogether adding up to five acres! The project employs twenty-five people

and sells produce to restaurants, farmers markets, and retail sales outlets. The employees live in the downtown area and are people “who are struggling with addiction.”

Michael describes himself as the kind of person who “wants to jump into things.” His personal credo comes from a quote by Goethe: “Whatever you can do, or dream you can do, begin it. Boldness has genius, power and magic in it.” Concerning his many years of working on the land he states: “There’s an absolute need for us all to understand the incredible life force of Nature, and that we’re a part of it, not separate.”

To learn more about Michael and his work, visit www.solefoodfarms.com; www.foxglovefarmbc.com; or www.fieldsofplenty.com. His books include *From the Good Earth: A Celebration of Growing Food Around the World* (1993); *On Good Land: The Autobiography of an Urban Farm* (1998); *Fields of Plenty: A Farmer's Journey in Search of Real Food and the People Who Grow It* (2005); and *Street Farm: Growing Food, Jobs and Hope on the Urban Frontier* (2016).

Frequently Asked Questions

By Rachel Britten, Golden Rule Mini-Farm Manager

Q: “A lot of what I’ve read about GROW BIOINTENSIVE seems focused on annual crops; do perennials have a place in the GROW BIOINTENSIVE method?”

A: It’s true that a majority of our gardens are planted in intensive annual crops. Annual crops provide the benefit of producing a lot of food and biomass in a small amount of space as well as making food available for eating within a season. In addition to the fast and speedy annual, there is certainly a place for the many benefits provided by perennial plants in the GB method. In our method, perennials act as long-term food producers as well as productive contributors to our compost piles that don’t require re-planting every year.

Cardoon (a relative of the artichoke) and alfalfa are both perennial crops that are often integrated into our garden bed rotations because of their ability to produce large amounts of plant ma-



Cardoon produces large amounts of biomass for the compost pile. Photo Credit: BG Staff

terial that we utilize in our compost piles. We cut back cardoon every fall. By early summer the next year the enormous plants have grown to over six feet tall! While alfalfa does not grow as tall, we can cut this traditional hay-crop five (and sometimes up to six!) times per year, which means its contribution to our compost piles is significant. Plus, because alfalfa is a perennial, its root system has time to

grow more than 50 feet down, scavenging nutrients that other crops cannot reach in a single season. And, as an added bonus, alfalfa is a nitrogen fixer—it can take nitrogen from the air and bring it into the soil in a form eventually available to all plants, annuals and perennials—free fertilizer!

Perennials can also be valuable food-producers for our gardens. Because many perennials take a long time to actually bear fruit or nuts, we affectionately refer to them as a GROW BIOINTENSIVE farmer’s retirement plan. We utilize perennial food crops as a complement to our intensive annual production. Filberts, also known as hazelnuts, can produce 15 pounds of nuts or more in just 100 sq ft. This calorie-dense, fat-rich nut allows us to reduce the pounds of food we need to eat in a day and get some healthy fat out of the garden!

Garden Tip: Care and Feeding of Tree Collards

By Justin Bartolini, Golden Rule Mini-Farm Assistant Manager-Apprentice



Tree collards at The Jeavons Center Mini-Farm, Willits, CA

Photo Credit: Renata Abbade

At Ecology Action, annual crops are important because of their incredible ability to produce a lot of biomass for the compost. But we love perennials like tree collards too! Unlike annuals, the farmer or gardener plants them once,

and with a little yearly care, they produce harvests for many years.

Tree collards are one of our favorite 10% crops. 10% crops in a GROW BIOINTENSIVE garden are the common vegetable crops. After designing a majority of our garden to create enough biomass for compost, and enough calories in the smallest area possible, we use 10% of the area left to make up for any missing nutrients in our garden design, creating a complete diet. Tree collards are tender and delicious in cool weather and, as with most perennials, are low-maintenance. They prefer zones 8–10 but can grow in zone 7 as well. Occasionally they will need some protection from cold snaps.

We propagate them from cuttings, and

once they are established, you can take cuttings from the green side branches or the tops. A cutting should have at least six leaf nodes. Remove the leaves from this stalk, except the last one or two. Plant the stalk in a pot, burying at least three nodes. Not every cutting will propagate, so take several cuttings.



When harvesting we collect the lower leaves first. The plants do need to be staked, for they grow taller than I am, at 5’4”; hence their name, ‘tree collards’! Taller plants usually produce larger leaves and have been reported to grow

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Herbal Spotlight: Dandelions, the Wishful Weed

By Rachel Laase, The Jeavons Center Assistant Mini-Farm Manager and Student Herbalist



Image Credit: <http://daveloken.com/dandelions/>

Dandelion, *Taraxacum officinale*, is the poster plant for Round-Up pesticide products, that pesky weed that must be eliminated. Think again! Dandelion is one of the most useful plants, as every part has medicinal uses. This poor plant has a bad reputation, which we can all work together to change. Some of the medicinal benefits are to aid digestion, help kidney function, assist the liver in releasing toxins from the body, help regulate blood sugar, lower cholesterol, boost the immune system,

and, most recently discovered, it can help in curing cancer (there are many studies currently being released about this). The list goes on and on.

There are so many reasons why we should love this wonderful plant!

While the plant can be fairly bitter, smaller, younger leaves tend to be more palatable. However, the leaves can be harvested at any point throughout the plant's life cycle. The beautiful, bright yellow flowers can be used to add color to a summer salad or even to

make dandelion wine. The root of the dandelion can be dried and roasted and used as a coffee substitute and is what most herbalists use for making tinctures, capsules, and teas. This versatile plant is also rich in vitamin C, potassium, iron, calcium, magnesium, zinc, phosphorus and fiber; a good source of B complex, organic sodium, and vitamin D, too. Dandelion leaves also contain protein, more than spinach!

Let dandelions thrive in your garden, maybe let a few go to seed so you have more to harvest next year, and perhaps you'll get to make a few wishes.

Dandelion Coffee Recipe

Ingredients

- 4 c water
- 2 Tbsp ground, roasted dandelion root
- 2 Tbsp ground, roasted chicory root
- 1 cinnamon stick

Instructions

1. Place water, dandelion root, chicory root, and cinnamon stick in a pot.
2. Bring to a boil, then simmer for 5 minutes.
3. Pour coffee into cups through a fine mesh strainer.
4. Add coconut milk or heavy cream if desired and serve.

Garden Tip: Collards

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up to 11 feet tall. When staking the plants, we use a 10-foot-long stake and drive it three feet into the ground to make sure it is anchored well.

Tree collards have similar needs to other brassicas. In hotter locations they prefer partial shade and plenty of water. We make sure all our beds have a proper balance of nutrients, and we determine this through soil testing. Once we have the test results, we send them to our soil expert John Beeby to create an amendment recipe based

on the needs of our soil. We add this amendment to our perennials along with a yearly maintenance dressing of compost. In our perennial beds we use a slightly different compost recipe than for annuals, since we do not add soil to our perennial compost piles. We do not add soil to our perennial compost piles because we are not taking soil from the beds since we don't prepare these beds deeply on an annual basis.

Perennials are an exciting aspect of a Biointensive garden that provides food, fragrance, compost and a low-maintenance schedule! If you would like more information about tree collards, visit

<https://blog.gardeningknowhow.com/guest-bloggers/john-jeavons-tree-collards/> for a detailed overview by John Jeavons. Cuttings are available from Bountiful Gardens, bountifulgardens.org/products/VCO-3250.

Tree collards have similar needs to other brassicas. In hotter locations they prefer partial shade . . .

Ways to Prepare Tree Collards

Adapted from the recipe by Mia Sasaki, Common Ground Garden blog, September 14, 2013



Photo Credit: Common Ground Garden Staff

Tree collards are great steamed or sautéed with a little butter or olive oil. They can be used in salad or lightly blanched in simmering, salted water and used as a sandwich wrap.

Tree collard salad

Approximately four servings

Ingredients

½ c caramelized onions
About 20 tree collard leaves, or kale,
if you don't have tree collards
¼ c raisins
1 pear or apple
Balsamic vinaigrette—recipe below

Directions

To caramelize onion slices, over medium heat, sauté thinly sliced onion in about a tablespoon of olive oil for approximately 15 minutes. Remove the

pan from the heat and add about a tablespoon of honey.

Massage the collard leaves with your fingers. This helps them to become tender and taste sweeter. To remove the leaf from the stem, hold the leaf upside down by the stem. With the other hand, grasp the leaf at the base and zip down toward the tip, removing the leaf from the stem in one motion. Chiffonade the leaves. If you don't know how to chiffonade, check out this video, www.youtube.com/watch?v=yJEOQfgv7iw.

Slice the pear or apple into small, bite-sized pieces. Mix the salad ingre-

dients together, omitting the balsamic vinaigrette.

Remember, vinegar is actually a handy, natural herbicide. This means it will wilt your greens, so add it to your salad just before serving!

To add pizzazz to this salad, you can mix in sunflower seeds, toasted nuts, chopped basil, crisp chopped bacon... the list of possibilities is endless. The balsamic vinaigrette is also versatile, but its unusual flavor comes from adding a scoop of your favorite homemade jam and some smoked paprika.

Balsamic vinaigrette

Ingredients

1 garlic clove
¾ c olive oil
¼ c balsamic vinegar
2 Tbsp fruit jam
Dash of smoked paprika
Salt and pepper to taste

Directions

Place all ingredients in your blender and blend for thirty seconds. This dressing keeps for a little over a week stored in the refrigerator.

Try different variations. Sometimes it's fun to add basil or other herbs; sometimes it warrants some chili. It's all the more interesting if you infuse your balsamic vinegar with flavors, just by adding an unusual ingredient to your balsamic bottle. Ever wonder how to get raspberry vinegar? Just soak some berries in vinegar for a week or more.

Starting Lettuce in Hot Weather

By Bountiful Garden Staff

Lettuce is frequently considered a spring-time plant, but with a little care and effort, you can have lettuce late in

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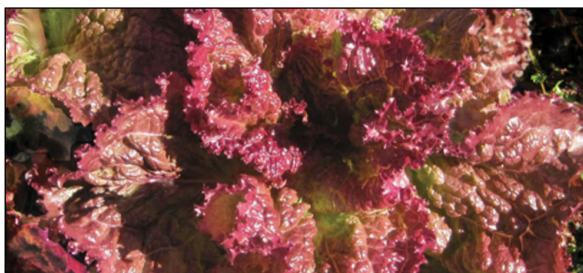


Photo Credit: BG Staff

Book Reviews

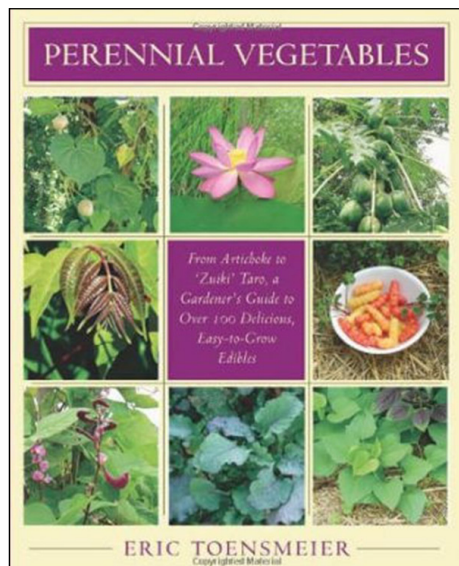


Image Credit:
chelseagreen.com/perennial-vegetables

Perennial Vegetables: From Artichokes to Zuiki Taro, A Gardener's Guide to Over 100 Delicious and Easy-to-Grow Edibles

by Eric Toensmeier
(Chelsea Green, 2007).
Review by Chelsea Green.

There is a fantastic array of vegetables you can grow in your garden, and not all of them are annuals. In *Perennial Vegetables*, the adventurous gardener will find information, tips, and sound advice on less-common edibles that will make any garden a perpetual, low-maintenance source of food.

Perennial Vegetables author and plant specialist Eric Toensmeier (*Edible Forest Gardens*) introduces gardeners to a world of little-known and wholly under-appreciated plants. Ranging beyond

the usual suspects (asparagus, rhu-barb, and artichoke) to include such “minor” crops as ground cherry and ramps and the much-sought-after, anti-oxidant-rich wolfberry (also known as goji berries), Toensmeier explains how to raise, tend, harvest, and cook with plants that yield great crops and satisfaction.

Perennial vegetables are perfect as part of an edible landscape plan or permaculture garden. Profiling more than 100 species, illustrated with dozens of color photographs and illustrations, and filled with valuable growing tips, recipes, and resources, *Perennial Vegetables* is a groundbreaking and ground-healing book that will open the eyes of gardeners everywhere to the exciting world of edible perennials.

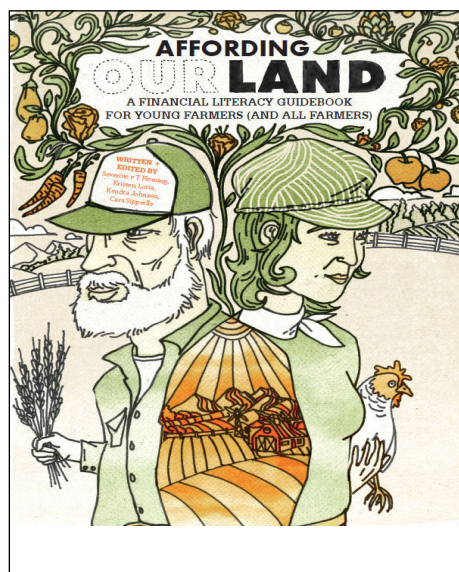


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Affording OUR LAND: A Financial Literacy Guidebook for Young Farmers (and All Farmers)

by Kristen Loria, Severine v T Fleming,
Kendra Johnson, Cara Sipprelle
(Greenhorns Creative Commons, 2014).
Review by Mary Zellachild.

The purpose of this short book is “to interpret the landscape of options available to young and beginning farmers who wish to access land and credit for starting farm businesses.” The writers suggest you consider this booklet PDF available at <http://tinyurl.com/kgza2vu> “a primer on ways to approach finance for your farm, and an invitation to do more research on your own time, once you have an idea of what trajectory makes sense for your business.”

A beginning section traces the history of US farming since settlers first arrived in the country—an alternative

(and more realistic) view than is usually given, but useful to know for serious potential farmers. Both short-term and long-term leasing are discussed, including how to find a place to lease, the way the lease will work for both tenant and landlord, and emphasizing that the terms must be clear and written out. When it comes to actually buying land, the booklet addresses non-traditional methods, such as sweat equity, seller financing, and cooperative land purchasing. Another chapter addresses community and conservation land trusts.

Traditional and alternative financing are the subjects of the two remaining chapters. The former “is a brief lesson on credit and how to make it work for you,” including a caution before taking on debt. Many alternative options for financing are listed and should be of interest to potential farmers. As mentioned above, this book could be a good starting resource for someone seriously interested in becoming a farmer.

Book Reviews

Continued from page 10

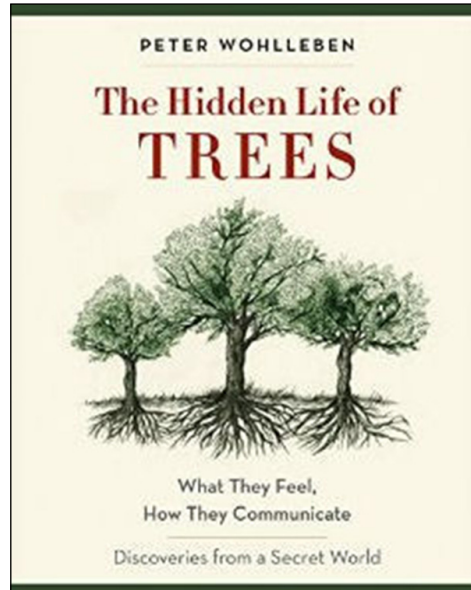


Image Credit: amazon.com/Hidden-Life-Trees-Communicate-Discoveries/dp/B01KMNFP5E

The Hidden Life of Trees: What They Feel, How They Communicate

by Peter Wohlleben
(Greystone Books Ltd., 2015).
Review by Mary Zellachild.

This book was written by a forester in Germany. The author's job was to survey the forest and assess the suitability of various trees to be processed into lumber. About 20 years ago, when he opened the forest to outsiders for survival training and as an alternative burial ground, he found that visitors were "enchanted by its crooked, gnarled trees." This led him to notice again the forest's beauty, rather than just its monetary value, and reignited his love of Nature. As a result, he changed the way he managed the forest, including no longer allowing the use of machinery, and the forest became healthier and more productive.

As the author slowed down and changed his interaction with the forest, he started to pay more attention to the wonders that exist there, such as the ways trees communicate with each other, how they share resources like the air space between them, why they thrive much better in groups than by themselves, and how so many ideas we have about trees and forests are simply not true. In this book, Wohlleben shares his discoveries in a very reader-friendly and interesting way. He also ponders environmental issues such as trying to reinstate "old-growth" forests and trees during climate change.

This is definitely a worthwhile read, full of little-known facts and written with a holistic consciousness. To this reviewer, one of the most interesting facts was that the "owner" of the forest which employed the author was not the national or state government, but the nearby tiny village of Hummel.

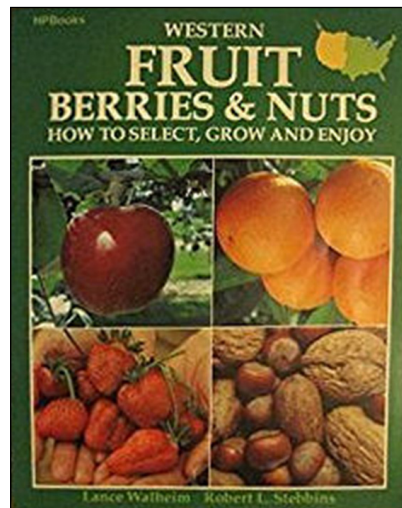


Image Credit: amazon.com/Western-Fruit-Horticultural-Publishers/dp/0895860783

Western Fruit, Berries and Nuts: How to Select, Grow and Enjoy

by Robert L. Stebbins and Lance Walheim
(Horticultural Publishing, 1981).
Review by Mary Zellachild.

This legacy book has been important to Ecology Action's work and is highly recommended by John Jeavons. He describes it as containing more information on fruit-growing "than one person could learn in three lifetimes." The writers obviously love the subject and took the time to present it in a complete, well-formatted and reader-friendly way.

A huge amount of detail is included, and vibrant color jumps out from almost every page, even from the charts. For example, there's a beautiful color collage of 30 popular varieties of apples, followed by detailed information about caring for and harvesting this fruit, plus five pages of charts with the origin, zone, harvest season, description and remarks about 46 varieties. Then when it seems apples have been fully covered, there is another color collage and chart about 12 older apple varieties! There are also charts for pears, peaches, nectarines,

sweet and sour cherries and plums, that show the dates different varieties are ready to harvest. Using this, a person could choose varieties that would give them a longer season to enjoy a particular fruit. For example, someone planting a carefully planned selection of apple trees could have that fruit to eat from June to December.

The book breaks down a large number of geographical areas from coastal Washington to Montana, from high elevations in Arizona and New Mexico to southern California, and all states in between, and briefly discusses fruit-growing in each area. There is also a discussion of pests and diseases by climate zone. Another section discusses pruning and training fruit trees, with helpful drawings on how to prune various types of trees in their different growing seasons—from newly planted to mature.

Continued on page 12

Book Reviews, Continued from page 11

Fruits, Berries and Nuts, Continued

A chapter on propagation discusses in detail methods such as cuttings and layering, and then goes on to talk about grafting. The two general methods covered are bark grafting and cleft grafting, each illustrated with line drawings. A page of photos is dedicated to cleft

grafting, which is described as “one of the most popular and usable methods for deciduous trees.” That chapter ends with two pages of propagation charts for tree fruit, berries, nuts and subtropical fruits.

This book is a treasure, a “must read” for anyone wanting to start, upgrade or

maintain a whole orchard or just one or two trees. One caveat: Ecology Action doesn't endorse the use of pesticides which are discussed. This book is currently out of print, but an online search shows it is well reviewed and still available.

Food Rebellions! Crisis and the Hunger for Justice

By Eric Holt-Gimenez
and Raj Patel

(Food First Books, 2009).

Review by Mary Zellachild.

Since this book was published in 2009, a lot of the information it contains about our food system has become even better known generally. However, the issues are far from being resolved and are still causing large-scale hunger and inequity around the world. It's good to be reminded of these issues, to gain a clearer perspective of what has gone wrong and what solutions could best be employed to tip our whole system towards a more equitable way of being for everyone.

The authors highlight five main causes for the price of food increasing so greatly over the last few years: the rise in oil prices, rising meat consumption, climate change, agro-fuels, and speculation in grain futures. Also important is the decreasing percentage the farmers receive from each food dollar. In the 1950s it was 40% to 50% whereas today it is only around 20%. However, the authors believe that the major factors in our broken food system are “global monopolies of the industrial agrifood complex, with the help of international finance institutions and the complicity of governments.”

The second part of the book looks at some possible solutions to these challenges. These include the huge number of people around the globe who are advocating for changes in our sys-

tem and the types of local, small-scale, productive agriculture projects that have been started worldwide. Both sections are filled with boxes that contain fascinating information ranging from “Speculation 101: Gambling with the World's Food,” “NAFTA: Effects on Agriculture,” to “Cuba's Urban Agricultural Transformation.”

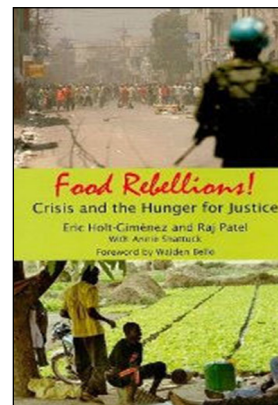


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food-rebellions-
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hunger-for-justice

Lettuce in Hot Weather

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the season as well. For best results, follow these steps.

- 1) Choose bolt-resistant varieties such as those offered by Bountiful Gardens in their Summer Salad Collection and Bolt-Resistant Mix.
- 2) Put the seed in a dry, closed jar in the refrigerator for a few days. Most lettuce varieties do not like to sprout if the seeds have been at temperatures above 85°F. The refrigerator makes them think they've been through the winter. They think it's spring when you take them out, and they sprout readily.

- 3) Choose a spot with shade during the hottest time of day—11 am to 4 or 5 pm. Other crops can make shade—a trellis of beans, for example, or plant on the east side of your house. Setting up shade cloth is another option for keeping the lettuce out of the heat as it gets established. If you don't have a piece of ground that will work for you, consider using containers and keep them in a semi-shaded place. Later, you can plant them in the garden in the fall.
- 4) Plant in succession, a few every week or two rather than all at once. This will give you a longer harvest period as plants mature over time.

- 5) Plant in the evening, and water well.
- 6) Harvest the lettuce while still young and tender, dunk it in cold water, wrap it in cloth and chill in the refrigerator. Or harvest a few leaves at a time, treating the harvested leaves the same way. Maximum regrowth will occur if you leave six center leaves on the plant and take the rest of the outer leaves. If you are collecting leaves rather than whole plants and want fast regrowth, top-dress with compost, and water well, or water with compost tea.



Biointensive Team Corner

Introducing Bobby Zekanoski

Victory Gardens for Peace Mini-Farm 1-year Apprentice



I'm from Fort Myers, Florida. I received a BA in Philosophy and Creative Writing from Florida State University in Tallahassee. During those years I was a board member of ESP (Environmental Service Projects), Vice President of Organic (a gardening group), and a member of the Damayan Garden Project (creating community gardens in low-income neighborhoods). I spent 9 6-month seasons working and leading trail construction projects for the National Park Service. I have worked with organizations such as the California Conservation Corps and the Backcountry Trails Program.

After attending EA's Three-Day Workshop in March 2016, I became aware of the issue of soil depletion in the world, and it left a deep impression on me. I wanted more exposure to the GROW BIOINTENSIVE method of farming and to learn more about the human relationship with food and soil. I began

volunteering with Ecology Action that same year and started working as an apprentice by October 17th, 2016.



Bobby plants Oregon ash trees for coppicing at the Victory Gardens for Peace Mini-Farm.

Photo Credit: Joe Huber

Teach Yourself the Basics

A Farmer's Mini-Handbook is Ecology Action's self-teaching guide to the GROW BIOINTENSIVE method. We were pleased to add a Turkish version in 2016 and one in Hindi this past spring. Available as a free PDF, in English and six other languages. For more information, visit growbiointensive.org/Self_Teaching.html.



Mid-summer at Golden Rule Mini-Farm

Photo Credit: EA Staff

EA Events

❖ June 10

**The Jeavons Center Research
Mini-Farm/Garden Tour,
Willits, CA**

❖ June 15

**Applications due for the next
Internship/Apprentice season
(February–November, 2018)**

❖ July 19–24

**6-Day Workshop in
Agroecology and the
GROW BIOINTENSIVE method,
Veracruz State, Mexico
(In Spanish)**

❖ July 31–August 4
5-Day

**GROW BIOINTENSIVESM
Basic-Level Teacher
Certification Workshop
Willits, CA
(tentative)***

❖ August 15

**Apprentice and Intern
decisions made
for 2018**

❖ November 3–5

**3-Day Ecology Action
GROW BIOINTENSIVESM
Sustainable
Mini-Farming Workshop
Willits, CA**

***Deadline for
application was April 15.**

Taking Nutrition Lessons to Prisons in Kitale, Kenya

By Boaz Oduor

Boaz was a six-month intern at The Jeavons Center in 2008, who now works with Dale Bolton and the outreach organization Organics for Orphans (O4O). Below is a recent report from Boaz.

Last year O4O had the opportunity to offer a 5-day workshop in nutrition in four prisons. We managed to train over 350 inmates, both men and women. It has been a great blessing for us to take the course to these institutions where food is cooked in an unhealthy manner because the attitude toward those being served is so low. Poor preparation has immensely contributed to poor diet, and many prisoners fall sick as a result. The government was spending more money on medication than on food.



Boaz (left) and Dale (second from left) with Kitale prison staff

Photo Credits: O4O

The prison officers felt that our teachings would be most helpful if we could also pass them on to the prisoners who are HIV-positive or have AIDS; hence we began training the patients as well. So far we have trained over 350 people and more trainings are planned for the future. The cool thing about it is, we are also setting up nutritional gardens with them. They are thankful for the chance to learn. They ask for continued skill building, once they are done with their jail term. They know they need a kick-start and all eyes are on O4O to help with tools and seeds for each person to create their own gardens back home.

So far O4O has changed the lives in the form of growing health; we have approximately 732 garden beds in the four prisons, with different varieties of vegetables growing throughout the season. The students are happy with the course and promise to take it back home once they are done with their term. One of the officers said that he is amazed how the number of cases of sickness has dropped since we started our program there. They are so thankful. My appreciation goes to my brother Dale and my sister Linda (O4O founders and directors) for the generosity they provide this movement.



A class in building a compost pile.



A healthy garden aids good nutrition in Kitale.

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~ Published three times a year ~

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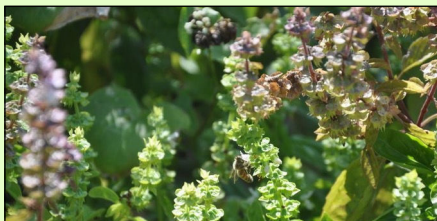
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Common Ground Garden Upcoming Classes Palo Alto, California

For more class descriptions or to register,
visit commongroundgarden.org/?p=1335.

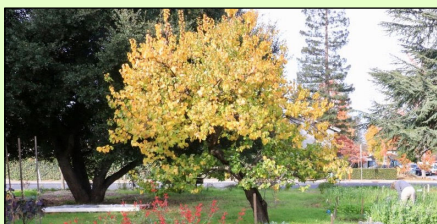
Photo Credits: CGG Staff



**Organic Gardening 101:
How to Grow without Pesticides**
Saturday, 6/24, 2:00 to 4:00 pm
Taught by Suzanne Bontempo
Price: \$20



**How to Grow and Use
Medicinal Herbs**
Saturday, 9/9, 2:00 to 4:00 pm
Taught by Penni Thorpe
Price: \$30 (\$25 Early-bird if
purchased before 8/9)



**Fall Fruit Tree Pruning for
Beauty and Bounty**
Saturday, 10/14, 2:00 to 3:30 pm
Taught by Tom Cronin
Price: \$30 (\$25 Early-bird if
purchased before 9/14)

Support Ecology Action's Work

Since 1972, EA has been researching and demonstrating the growing edge of sustainable food raising and making this knowledge available to people everywhere. It is your support dollars that enable this growth of knowledge and global outreach.

In addition to your project-specific support, please consider increasing your general support so that we may continue to expand the availability of this fundamental knowledge to people everywhere—and grow a healthier, fairer, more hopeful tomorrow for us all.



YES, I would like to support Ecology Action's global outreach. Annual membership begins at the \$40 contribution level and includes Ecology Action's triannual Newsletter.

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For monthly and annual giving options or to contribute online, please visit: secure.growbiointensive.org.

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Volunteer Sought to Establish Online Community Forum

Ecology Action is looking for a volunteer to help establish an EA online forum. This would be a site where individuals from around the world can share their Biointensive projects and keep up-to-date on the latest news in workshops, conferences and opportunities.

A similar site for Latin America can be found at <http://biointensivistas.ning.com/>. We are looking for a person with experience coordinating online communities to create an English equivalent.

Let us know if you, or someone you know, may be interested! contact@growbiointensive.org.

Ecology Action Newsletters are available online at growbiointensive.org/Enewsletter/Archive.html.

For a complete listing of all our Events, Tours, Workshops, Teacher Certification, Internships, Apprenticeships, and Articles visit us online at growbiointensive.org.

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