



Healthy Soil, Healthy Earth, Healthy You Help Our Soil Live Again!

Did you know that:

- 2/3 of Earth's landmass is classified as a desert with deteriorated or dead soil ecosystems?
- If we reclaim our soil, it will sequester carbon to reduce global warming?
- Due to unhealthy soil on farms, most food lacks nutrition and quality taste?
- Healthy, rich soil produces nutritious, tasty food?
- Many ancestral lands are no longer farmable, resulting in population redistribution?
- You can start today to rejuvenate Earth's soil ecosystems?
- Healthy organic soil with no chemicals will improve water quality in stormwater ponds and the bay?
- Soil legacy is a personal gift for your children and the Earth?
- You, your family, and your friends can grow a Homegrown National Forest?

If these questions pique your interest, this introduction-to-soil-health pamphlet is for you. Healthy soil activities create thriving soil ecosystems. Soil enhancements, such as compost, worm castings, and other organic amendments, support healthy soil ecosystems. Biodynamic, restorative, permaculture, and regenerative are terms for ecological landscapes that support insects, mycorrhizal fungi, and soil microbial communities necessary for healthy plants that produce nutritious food.

The heart of this pamphlet is "Growing a Thriving Ecological Landscape," and it inspires individual action. Planting native plants, growing a garden in earth boxes, planting a small garden plot, joining a community garden, planting an edible landscape, or nurturing a backyard food forest are several action options.

For an overview and inspiration, two movies to watch are: "**Biggest Little Farm**" on Netflix, Prime Video, or Hulu and "**Kiss the Ground**" on Netflix or YouTube.

Then check out these websites: Biodynamic agriculture: www.biodynamics.com/what-is-biodynamics and Homegrown National Park: homegrownnationalpark.org.

Growing a Thriving Ecological Landscape

*By Camille Van Sant, Founder, Operation ECO Vets,
Written for the Southwest Florida Region*

What is an Ecological Landscape? A collection of edible fruit trees, shrubs, medicinal herbs, perennials, and annuals that provide sustenance for self-reliance; a regenerative permaculture garden/landscape. Easy, simple first steps include:

Reduce the non-native ornamentals in your yard. Every plant has a purpose, perhaps to attract pollinators or to provide food. Fruit trees and shrubs will supply shade. While some shade is needed in Florida, too much will hinder fruit production. A balance is desirable. Native plants are preferable.

Build a solid foundation, the soil, just like you would build a house. Unfortunately, here in southwest Florida, our native soil is mostly sand. Although an important component of good soil, sand is devoid of humus (organic matter), which provides fertility and moisture-holding capacity. The mission is to create or add copious amounts of humus. Start building a garden bed by layering yard debris chopped up to lay flat, food scraps, coffee grinds, dry leaves, or grass clippings for a true permaculture bed. OR you can get a truckload of compost/topsoil from local sources to start right away. Look for chemical free. Do not till in.

Provide water. Initially, a set-up of drip irrigation to supply water for establishment of trees and shrubs will be needed. This will last a couple of years. Next, develop natural systems to catch rainwater from the roof or through natural flow through your property. Catch rainwater with barrels or cisterns under or near the roof. Build berms of logs or other retaining wall materials. Locate the beds in the path of where water flows naturally when it rains. Build raised beds where water collects in low areas.

Add initial amendments for fertility and water holding capacity. Apply and rake in :

- Organic Fertilizer-as package recommends. Use no chemicals.
- Decomposed manure- liberally.
- Worm Castings- liberally- (Operation Eco Vets sells Blackstar castings.)
- Avoid Nitrogen, Phosphate, and Glyphosate to keep our stormwater ponds healthy.

Add Plants.

- **Trees:** fruit trees suited for our area.
- **Shrubs:** edible shrubs for greens and roots. Native shrubs to cool and attract pollinator and predator bugs.
- **Perennials:** for vegetables and greens.
- **Herbs:** culinary and medicinal for taste and health.
- **Annuals:** vegetables and flowers. Plant them along the outside edges for adequate sun exposure.

Add mulch really thick. A minimum of 6 inches, but 10-12 inches is preferred for the initial set-up. Free leafy mulch from tree trimmers is great, but you must take a truckload. Oak is preferred, and don't take Brazilian Pepper or Palm. You can also get mulch from the county landfill.

Add heirloom or open-pollinated annuals for regeneration. Vegetables and flowers. Plant along the outside edges for adequate sun exposure. Hybrids and GMO varieties will not reseed true to the mother plant. Some vegetables, such as summer squash, cucumbers, and melons, may be disease prone.

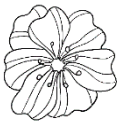
Now it's time for the joy of maintenance! Permaculture is the easiest way to grow food, yet that does not mean maintenance-free. No need for tilling as it will kill microorganisms needed in a living soil. Weeding and removal of spent plants are enough to loosen good soil.



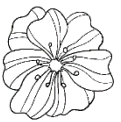
Maintain fertility: Regular sowings of cover crops such as cowpeas, sunn hemp in open areas and chopping in place will add nutrients. Grow velvet bean , lemongrass, and Mexican sunflower for "chop and drop" mulch. Use annual applications of organic fertilizer if available.



Use multiple methods to fertilize. For sustainability and survival keep a worm bin for a regular supply of castings (manure). Grow annuals of sunflower, mustard, and others that mine nutrients from the subsoil. Create a compost pile of fleshy trimmings, kitchen scraps, and brown leaves or hay.



Prune properly. Keep fruit trees to 10 ft so harvest is easier. Prune after fruiting. Prune other shrubs and perennials so that good air circulation is maintained to avoid disease. Prune edible shrubs to promote branching and lush new growth for harvesting and more fruit.



Keep weeds away. Weeds compete for nutrients and will crowd roots. Pull weeds regularly before they go to seed. Plant edible groundcovers such as sweet potato, mint, Longevity and Okinawa spinaches, and peanut (edible and perennial) to choke out weeds.



Control pests and disease. Companion plants such as cosmos, coriander, fennel basil nasturtium, and sunn hemp will help repel undesirables or attract predatory insects. Botanical sprays of Bt, worm tea, pepper, or herb concoctions will help control most pests. To keep disease at bay, maintain good air circulation and remove infected leaves and plants. Organic sprays will help with bacterial and fungal diseases, but plants with viruses need to be discarded in the trash to avoid spreading.



Papayas are one of the tropical fruits that thrive in this area.



Enjoy your bountiful harvest.



Rain barrels.



Sunflowers and EarthBoxes.



You can use cardboard to suppress weeds when starting your garden.



Create a natural berm to catch and retain runoff.



Earth boxes allow you to move plants around your garden.



Keep a worm bin for a regular supply of castings (manure).

Food Forest at Allstars Children’s Foundation

3300 17th St, Sarasota, FL

Installed by Operation ECO Vets in July of 2019

Newly installed plants.



One year later.



Harvest !! Pick fruits when ripe on the trees for the sweetest flavor but before the squirrels or birds get them. Harvest greens while still lush and soft. Lettuce and celery will grow back if cut 1 inch from the soil. Vegetables generally have a wider window to harvest at peak. Compost fallen fruit to keep rodents and animals away. Remove rotting fruit on plants to prevent insects and disease.

Glossary of plants for a South West Florida Food Forest

EDIBLE SHRUBS	TREES	PERENNIALS	ANNUALS
Katuk	Papaya	Pineapple	Tomato
Cranberry Hibiscus	Moringa	Comfrey	Cabbage
Emerald or Jewel	Strawberry or Panama	Chives	Seminole
Blueberries	berry tree	(common and garlic)	Pumpkin
Surinam and Barbados	Banana	Sage (common and	
cherry	(not really a tree)	Pineapple)	Broccoli
Hibiscus 'Roselle'	Loquat	Turmeric	Kale
Yuca	Citrus	Ginger	Lettuce
Edible Canna	Mulberry	Taro	Mustard
Cocoplum	Starfruit	Coneflower	Arugula
Seagrape	Mango	Oregano	Beans
Fig	Sapote	Marjoram	Long Beans
Longevity Spinach	Elderberry	Parsley	Tropical Peanut
Okinawa Spinach	Low-chill Peach	Pepper	Collards
			Mexican Sour
Tea Jasmine	Scarlett Beauty Plum	Eggplant	Gherkin
Mexican Rootbeer	Jackfruit	Lemongrass	Carrots
Allspice	Guava	Rosemary	Onions
Cassia Alata	Avocado	Mint	Basil
	Persimmon	Fennel	Thyme
	Lychee	Sweetpotato	Savory
	Longon	Pepperleaf	Coriander
		Aloe	Amaranth
		Ashwagandha	Dill
		Tilo	Lagos
			Spinach



Amazing and Unexpected Resources to Expand Your Soil Adventure

Books:

A Soil Owner's Manual: How to Restore and Maintain Soil Health by Jon Sitka

Dirt to Soil by Gabe Brown

Nature's Best Hope by Douglas W. Tallamy

Perelandra by Michelle Small Wright

Regeneration by Paul Hawken - and Regeneration.org.

Organizations:

Audubon Society (Manatee and Sarasota have separate chapters)

Biodynamic Association - www.biodynamics.com/what-is-biodynamics

In 1924 Dr. Rudolph Steiner integrated scientific understanding with the recognition of spirit in nature. Biodynamics is a holistic, ecological, and ethical approach to farming, gardening, food, and nutrition.

Florida Native Plant Society - www.fnps.org

Homegrown National Park - homegrownnationalpark.org

IFAS/ Florida Extension Offices Green Living Tool Kit - Greenlivingtoolkit.org/sustainable-food/grow-a-food-garden

Manatee Rare Fruit Council - www.mrfc.org

Master Gardeners - sfyl.ifas.ufl.edu/sarasota/gardening-and-landscaping/horticulture-residential/master-gardener

North American Permaculture Institute - pina.in

Pachamama Alliance - pachamama.org

Permaculture Research Institute (Australia) - permaculture.org

Sunshine Community Compost - www.sunshinecommunitycompost.org

The SWFL Reset Center - www.swflreset.org

Education and Field Trips:

ECHO (near Fort Myers) - echonet.org

Central to permaculture are these 3 ethics: Earth care, people care, and fair share.

Grow Permaculture in Brooksville: Korreen Brenen - growpermaculture.com

Soil advocate training from **Kiss the Ground** - kisstheground.mykajabi.com/kiss-the-ground-soil-advocate-training

There are community gardens in many local counties. Examples of community work outside the area are:

Beacon Food Forest in Seattle, WA - beaconfoodforest.org

Urban Food Forest in Atlanta, GA - aglanta.org/urban-food-forest-at-browns-mill-1

Philadelphia Orchard Project in Pennsylvania - phillyorchards.org

The **Florida Statues** specifically allow Florida Friendly Landscaping (native plants and others) and Vegetable Gardens to be planted on any residential property. Homeowner Associations and local governments may not restrict these. See Florida Statutes **Title 28 sec 373.185** and **Title 35 sec 604.17**



The mission of **Operation ECO Vets** is to enable personal, educational and professional growth opportunities within our Veteran community through a focus on self-reliance and sustainability skills development while building social camaraderie and support in a scenic, natural environment that fosters overall healing and wellness.

Generating Earth Connections empowers committed people and organizations, who make a positive impact on the environment and humanity. By exploring and sharing synergies, our community is stronger, more creative and more effective.

Unitarian Universalist Church of Sarasota welcomes a diverse multicultural community where all people are supported in pursuing a free and responsible search for truth and meaning. We respect the interdependent web of all existence of which we are part. This pamphlet is sponsored by the Green Team. Please attend Unitarian Universalist Forum or services on Zoom or in person at **3975 Fruitville Road, Sarasota FL 34232**.

Sponsored by
The Jane Family Foundation and Unitarian Universalist Church of Sarasota.
Publication Date: February, 2023



This publication is a joint project between organizations that strive to make a difference in our communities. **We encourage free sharing of this resource, available digitally at these websites.**

Operation Eco Vets operationecovets.org
Generating Earth Connections www.linkedin.com/groups/9212361
Unitarian Universalist Church of Sarasota, Florida www.uucsarasota.com