



Trees, animals, birds, plants, forests, mountains, lakes and rivers — everything that exists in Nature are in desperate need of our kindness, of the compassionate care and protection of human beings. If we protect them, they in turn will protect us.

- Amma

Contents

PNW Gardening

[Soil Building at the Maltby Property](#)

[Backyard Herbal Medicine - Powerful Parsley](#)

Tree Planting and Habitat Restoration

[Book of Trees](#)

[Tree Planting Stats](#)

[Greenbelt Restoration Work Party: Feb 3](#)

["Be Like a Bird Perched on a Dry Twig"](#)

Source Reduction

[Source Reduction Campaign](#)

[The 2018 Plastic Challenge](#)

PNW Litter Project

[Kick Butt Day 2018](#)

[Litter Project and TerraCycle Stats](#)

Amritapuri Gardens

[Visiting the Seed Saving Farm](#)



GreenFriends is a global grassroots environmental movement which promotes environmental awareness and local participation in conservation efforts throughout the world.

GreenFriends is one of the projects of [Embracing the World](#), a not-for-profit international collective of charities founded by internationally known spiritual and humanitarian leader, Mata Amritanandamayi (Amma)

To join the Pacific Northwest GreenFriends Litter Project, write Karuna at karunap108@comcast.net

PNW Gardening

Soil Building at the Maltby Property by Yasas

Every gardener and farmer yearns to have rich soil—soft, crumbly, fragrant, fertile—the precious starting point for all growing. What exactly is such a soil, and if we don't have it how do we get it?

This is the question we are asking ourselves at the Maltby property. We have a sandy loam but there are areas of compaction from the horses that were run on the property before we bought it, areas where the topsoil was removed, and wetland areas. Soil building is one of our top priorities; we need to learn how to create rich, fertile soil.



Until recently, most modern growers were looking to chemistry for the answer to soil fertility, how to get the right combination of chemical elements. But the chemical fertilizer approach has proven unsustainable. Millions of square miles of good soil have become depleted, compacted, and eroded away using modern agricultural methods.

Why? Something was missing in the chemical approach, and that something was the very life, the biology, within the soil. As scientists are now discovering, good soil is teeming with life—billions of microorganisms in every gram. The key to building rich healthy growing beds is to nurture soil biology, the complex web of organisms living in it that transform the mineral base (dirt) into the rich substance (soil) that will grow healthy plants.

Dr. Elaine Ingham is one of the pioneering researchers in this field. For the past several years MA Center San Ramon has hosted Dr. Ingham for a one-week class entitled “The Soil Food Web Course.” It is a soil-building workshop in which gardeners and farmers can learn about the biology of soil and how to rebuild their planting areas by nurturing the soil food web microorganisms.

Last year Mechas and Yasas from Seattle, and Rajeswari from Vancouver, BC, went to San Ramon to take the Soil Food Web Course. They came back and made several rounds of compost at the Maltby property based on what they learned:

PNW Gardening



- Compost is the key to developing the soil food web. When properly managed, the compost-making process creates the ideal breeding ground for friendly soil organisms to grow.
- The full soil food web includes thousands of different species of bacteria and fungi, algae, actinomycetes, and azotobacter, plus protozoans and rotifers. There are also slightly larger organisms such as nematodes, arthropods, mites and springtails, and the much larger species such as ants and spiders, beetles, centipedes, slugs and worms.
- As these friendly soil organisms move through the garden eating and excreting they create tunnels and channels of all sizes. This gives good soil its characteristic structure: light and fluffy, and at the same time dark and nutrient rich with a pleasant earthy fragrance, color and feel.
- Once this soil food web is present in the soil, the organisms continue to create and maintain the soil's structure. This is what's called good soil biology.
- One of the unique features of the workshop is that everyone learns how to use a microscope to confirm what kind of organisms are present in their soil and compost.
- The gardener's primary work is feeding these soil microorganisms with organic materials such as crop residues, mulch and compost, along with mineral amendments based on a standard soil test.
- Additionally, we can support soil biology by having a diversity of plants growing at all times. Through their roots, plants will literally feed the microorganisms and help them grow. The microorganisms will then process these nutrients and take over the work of feeding the plants—a very different approach from merely applying chemical fertilizer.
- Next, we need to avoid damaging the soil structure by not digging or walking on the beds. One may dig to create the bed in the beginning but, once it's established, it is best to minimize digging and instead let the worms do all your digging for you.

PNW Gardening



This year we are going back to San Ramon for another week, from March 5-9, to learn more. Mechas says, "The knowledge Dr. Ingham shares is so rich, one week is not enough to absorb it all. And this time, from all of our experiences, we have lots of questions to ask." There is space still available if you would like to attend.

After the course we will return and start several new projects so we can create that soft, crumbly, fragrant, fertile soil of our dreams. On the list are new compost piles (to use all the types of organic materials we have been gathering all year), brewing compost tea and applying it to all of the gardens, and creating new beds in different parts of the property to see how the different soils and microclimates there will grow different trial crops.

Everyone interested in coming out to the Maltby property to join in the garden seva is most welcome. Preparations are underway for this year's gardens, and the joy increases with every person who comes.



You can contact Yasas at drenn108@gmail.com for information and scheduling.

PNW Gardening

Backyard Herbal Medicine - Powerful Parsley



Hi Herbal Friends, it is time again to practice gratitude for the amazing herb Parsley. Once you read this, you will definitely start eating that popular nutritionally valuable garnish that restaurants place on your plate.

Here in the PNW, it is EASY to grow Parsley. There are two main types that are grown. There is Italian style and Curly style. Both are incredibly yummy and equally beautiful.

Parsley is the most commonly used herb in the kitchen worldwide. She goes great in soups and sandwiches alike. Think of tabbouleh salad; it is packed with Parsley!

She contains a compound known as myristicin which can effectively reduce the growth rate of tumors in the stomach and the lungs. Parsley can help to heal neurotoxicity (nerve damage) caused by pesticides and toxins in the environment.

She can help to reduce inflammation, which makes her great for use in treatment in arthritis and gout. Parsley is high in antioxidants. She also has the recommended daily value of Vitamins A and C. She has, in one cup, 23% of folate required in your diet.

Parsley helps to reduce blood pressure, helping you to reduce your risk of hypertension. It has been shown that regular intake of Parsley will help reduce the event of heart attack and stroke. Parsley helps reduce mucous, which makes it great for allergies, sinus infections and coughing. She has also been known to help improve hair growth and skin health.

PNW Gardening

Raw Parsley juice will help to eliminate acid reflux and heartburn. She can also help with stomach flu and overall improvement of digestion.

One thing Parsley is generally known for is being a blood purifier because she contains high levels of chlorophyll. She also contains Vitamins B-2 (Riboflavin), B-3 (Niacin), and B-5 (Pantothenic acid). These along with Vitamins A and C can help to improve health of the immune system. Parsley also contains the recommended daily value of Vitamin K in just 2 tablespoons of Parsley. Taking Parsley oil daily has also been shown to help reduce prostate cancer.

Parsley is such an important herb for herbalists! Benefits include:

- digestive tonic
- anti-cancer
- creating healthy hair and skin
- high in potassium
- high in Vitamin A
- calcium
- diuretic
- kidney cleanser

Here are **three quick easy ways to start using Parsley** intentionally and medicinally.

Before you gather the herb, please thank her before taking medicine, and always give something back to the plant. What you give back is up to you; a simple message of gratitude will do. Try to return any of the used portion of the herb back to the base of the plant. That is a loving traditional action.

1. Parsley Juice - If you love to juice, try juicing parsley and add it to your smoothies.
2. Parsley Tea - Infuse two tablespoons of the herb into 1 cup of hot water after 15 minutes. Drink.
3. Parsley in salads or just by itself are great. You can also make an awesome Parsley pesto.

As with many plants, always remember herbs are medicine; please use with care! Pregnant women should use special caution with herbs.

If you want to start working with Parsley I am happy to give you some Parsley seeds to start your journey. Email me at vhohlbein@msn.com. She is easy to grow and will return to your garden year after year if you leave a few plants to go to seed.

Time to grow a Parsley Forest!!

Peace and Happy Herbing!

Article written by Visala

Tree Planting and Habitat Restoration

Book Summary by Tirtha



“The Book of Trees”

by Risto Isomaki and Maneka Gandhi
2004, Other India Press, Goa, India

The authors must have done an impressive amount of research for this book. Despite its small size (211 pages), it covers a surprising number of issues and even includes brief tree stories from cultures all over the world. The book’s primary interest is in growing trees for food and for carbon storage, to help reduce global warming.

For me, the most compelling section was the one which lists tree species that Istomaki and Gandhi consider important. There were many interesting tidbits here:

- You may have known the ginkgo tree is probably the world’s oldest still-living tree species – at least 200 million years in its present form. But did you know it produces small, edible fruits? The kernels of these fruits can also be roasted and eaten like chestnuts or peanuts. “Ginkgos also contain a large number of chemical compounds that are not found in any other tree. Medicines derived from ginkgo leaves are currently among the most popular pharmaceutical products in France and Germany.”
- 18 species of pine tree produce edible nuts – pine nuts, or pinions. On average they contain 14% protein, 21% carbohydrates and 60% fat. During a terrible famine in the 1860s, when millions died in the Russian Empire, very few starved to death in Siberia, where the cembra pine provided nutritious nuts. The Czar ordered cembra pines to be planted throughout his empire in order to prevent such widespread famine from happening again.

Tree Planting and Habitat Restoration

- The ponderosa pine also produces edible seed, and can grow up to 225 feet. The North American Sitka spruce doesn't reach full biological maturity until the age of 500, and can grow 270 feet with a diameter of 15 feet.
- "Aspens are among the oldest and largest living organisms on earth. One tree trunk usually means one individual, but this principle doesn't apply to the aspen. An aspen can grow a huge root system, from which dozens, hundreds or even thousands of different stems can emerge... Researchers have estimated that some aspens living in the southern parts of the Rocky Mountains are probably about a million years old... This fact makes the planting of aspens an almost irresistible temptation to tree-lovers. Why not plant trees that can outlive, by 100 or perhaps even 1,000 times, all the cathedrals and pyramids and palaces built by the world's mightiest kings and emperors?" The authors suggest experiments with attaching edible mycorrhizal mushrooms to the root systems of aspen clones could potentially benefit thousands of future generations.
- Walnut, hickory-nut and pecan trees can attain a large size, and also produce nutritious nuts, so the authors feel these are among the most promising carbon-storage trees for northern and temperate areas.
- The beech family includes oaks, beeches and chestnut trees. Beech trees produce small nuts that are high in oil, about 20% of the nut's weight. The oil remains fresh longer than most vegetable oils and is rich in fat and proteins. Chestnut trees can grow very wide and can remain productive for more than 1,000 years. American chestnuts can grow up to 90 feet high.
- Both apple and rowan trees are two of the many members of the rose family. Rowan trees produce nutritious berries, which are highly acidic and sour, but can be soaked in salty water to neutralize the acid. Apple trees can even be grown on steep slopes or rocky land, and do not depend on good soil.
- Giant redwood trees are the fastest growing conifers in temperate regions. They can reach 336 feet and live perhaps more than 6,000 years. Mature trees can even resist major forest fires with their extraordinarily thick bark, which can measure nearly two feet in thickness.
- Although they only grow to about 45 feet, European olive trees can live up to 2,000 years. African olive trees can reach 90 feet. Olives reduce cardiovascular disease, and seem to reduce the risk of some cancers, as well as prevent peptic ulcers and gallstones. Olive oil is also used as a preservative.

As the authors point out, "Trees can produce, for the same area of land, more food than other kinds of food-producing plants, especially if various trees of different sizes are grown together.

"Trees can produce food in rocky and marginal soils, mountain slopes and dry lands, where ordinary field farming is impossible."

Tree Planting and Habitat Restoration

In fact, the authors believe that trees, even more than field crops, could make hunger an issue of the past. Trees can produce food even during drought or flood years, and even when farmers are called off to fight wars rather than tend their fields.

Theoretically, tree crops could be grown on 75% of the world's land area, whereas crops can be cultivated only on good farmland, which is 8 to 10% of land area and is primarily already in use.

With the earth's population projected to increase up to twice the present number by 2100, and increasing pressure on our agricultural production systems, the need for more food is obvious.

Yet the 'consumption explosion' is upping the ante: "The production of biomass fuels for cars and lorries, the production of wood for paper mills, the production of fodder for European and North American cows and pigs, as well as other new consumption needs of the global upper and middle classes, are competing for the same limited, shrinking resource base," they point out.

At the same time, farmland is being lost due to declining fertility, salinization, rising sea levels, pollution, and urbanization.

"Tree crops can increase food production. They can also diversify and improve the quality of the food that is being produced. For example, many fruits, berries and edible tree leaves contain large amounts of vitamins and other minerals." Food from trees is often high in fibre, and some (such as avocado, olive, marula and mongongo) can be used to make high-quality oils.

The authors add that, "multi-storey farming systems, and mixing tree crops with other kinds of plants, can, in practically every conceivable ecosystem, produce more food per hectare – in terms of calories, proteins and other nutrients – than conventional farming."

The book also discusses the possibility of 'seeding' newly planted trees' roots with ectomycorrhizae, which would form a symbiotic relationship with the tree roots and then produce edible mushrooms. In this way, forests of large trees grown to sequester carbon could also support some food production.

There is a discussion of the history of plant breeding in agriculture, and the huge difference such attention could make to foods produced by trees. Because the life of a tree is so much longer than a plant's, and some flower only once in many years, genetic research can take longer than a scientist's entire career or even lifetime, so few are drawn to work in this area.

Trees grown from seed have deeper, more extensive root systems, which can more easily survive drought, and can keep producing food for years longer than grafted trees. The authors suggest a greater use of trees grown from seed (and from sowing seeds) would be the best way to start trees on marginal land.

Tree Planting and Habitat Restoration

It explores the politics of ‘carbon storage forests,’ and points out that these would mostly be planted in warm, southern countries, and would likely displace many rural people. The authors suggest such a plan, though it might become necessary in order to sequester greater amounts of carbon, would only work if the trees produced food, and if the local people were allowed access to the forests.

Trees from all over the world are discussed, as well as food-producing trees in various regions, from dry lands to the tropics, global warming and carbon sequestration, the vulnerability of our currently genetic monoculture crops, and traditional and modern ways of growing fruit trees.

The authors caught my imagination when they said that while it has been the privilege of a few kings, sultans and emperors to construct large palaces, churches or pyramids that last for hundreds or thousands of years, if we want to, “every one of us can, on a personal or community basis, plant things that are much larger, tremendously more beautiful and much more useful than all the cathedrals and palaces in the world put together.”

Among their suggestions for this goal are planting sequoia trees, that can live for 6,000 years and grow to 350 feet or more; baobab trees, which produce nutritious fruit, nuts and leaves even when they are 4,000 years old; or aspens, “organisms that are almost eternal, whose vast root systems can sometimes live for more than a million years.”

I don’t think we can plant baobab trees in the Pacific Northwest, but that still leaves us with some pretty exciting options!

(This book is available at the Amritapuri Eco Shop.)



Tree Planting Stats

Mechas planted 2 plum trees, an autumn olive bush, a goumi bush and 2 hardy kiwis in Maltby.

Tia planted a shrub in Victoria, BC

Visala and friends planted 7 Cedar trees and 1 Fir tree in Maltby. (There will be photos of that work party in next month's newsletter.)

The Greenbelt Restoration Project volunteers planted 7 Douglas Fir trees and 10 Garry Oak trees (and 152 shrubs and ground covers) in their Beacon Hill, Seattle site.

Total: PNW devotees have planted 396 trees (plus 606 shrubs and groundcovers) since our Tree Planting project began the last week of September 2017.

Please send reports of any trees and shrubs you plant to karunap108@comcast.net so your numbers can be counted. Send pictures and information about what you planted whenever possible.



Tree Planting and Habitat Restoration

Greenbelt Restoration Work Party: February 3



February was a big month for our GreenFriends Greenbelt Restoration project. We held five work parties!



Four GreenFriends members, 3 neighbors and 21 students from the University of Washington's Introduction to Environmental Science class participated in the February 3rd event. Towards the beginning, we divided into four teams. One continued working on an area that was covered with English Ivy. They removed the ivy and pulled out blackberry root balls as needed. The shed, rock wall, and area to the right of them was covered with ivy when they started.

Tree Planting and Habitat Restoration



In the second area there was, and still is, a gigantic ivy mass. It is incredibly dense and has branches the size of a tree trunk. A neighbor has been working to dismantle it since early January. In this work party, students separated small branches from the bigger ones and took the smaller ones to the rack zone, which is where we dry out invasive plants to keep them from re-rooting. At this point, the rack zone is filled with ivy from that mass.



Rack Zone



Ivy Moss

Tree Planting and Habitat Restoration

Prior to the work party, Karuna put little flags around the property showing where a new tree, shrub or ground cover will be planted. The name of that plant is written on the flag. During this work party, the students placed burlap around each flag, leaving a space in the middle where a hole can be dug and a plant inserted.



The fourth team cleared land that we hadn't worked on before. The students cut down blackberries and dug out blackberry root balls. Once those invasive plants were removed, they covered the ground with burlap which help prevent erosion.

Tree Planting and Habitat Restoration



At the end of the work party, cleaned the tools and put them away. Afterwards, we celebrated a job well done.

Tree Planting and Habitat Restoration

Greenbelt Work Parties: February 21, 22, and 23

"Be Like a Bird Perched on a Dry Twig" by Karuna



Amma teaches us to "Be like a bird perched on a dry twig, ready to fly at a moment's notice." She also teaches us that "What we need will be provided" and to "Put in the effort and let go of the results." Taking those attitudes can help us to stay in the moment, which in turn can decrease the tendency to worry about the future. The Greenbelt restoration work parties we held during the last half of February provided me with many opportunities to practice each of those attitudes.

Students who take the University of Washington's Introduction to Environmental Science course are required to do three hours of volunteer work. I had scheduled a work party for February 17 because it was the weekend before their assignment was due. That is always our biggest work party of the quarter.

I was concerned about that work party though, because the people who usually lead teams at our events were going to be at a retreat in Oregon that weekend. I decided to "think outside the box" and started inviting neighbors and people in the Amma community who weren't going to the retreat. None of them had worked on this project before, but I knew they would do a good job. Pretty soon I had three volunteers. They all came to the site ahead of time for an orientation. We were ready!

I soon discovered more good news was in store. Someone who had planned to go to the retreat decided not to go, and volunteered to help at the work party. She had led teams many times so that was a real bonus. Then, the Forest Steward from Mt. Baker park wrote me and said he would help. Just before the work party, another neighbor volunteered to lead a team. I was excited. We had an abundance of staff. While all of this was coming together, 31 students registered for the work party. We were set. What a good example it had been of "What you need will be provided."

Then "Be like a bird perched on a dry twig" took over. Days ahead of time, we heard that a big wind storm was com

Tree Planting and Habitat Restoration

ing on the same day as the work party. You can do forestry work in the rain, but you can't do it in high winds; branches might break or trees might fall. On the 16th, it became obvious we couldn't hold the work party. In fact, the Parks Department canceled work parties that day on a park by park basis. Ours was one that was canceled.

That left both me and the students in a dilemma. I needed to have the land prepared for a corporate group that was coming to plant trees, shrubs and ground covers on Monday, February 26. And the students needed their volunteer hours. I knew that most or all of the team leaders would be at work if I planned events during the week. I decided I would hold three small work parties on Wednesday, Thursday and Friday and be prepared to lead them by myself.

The "Be like a bird" lesson continued as the weather forecasters talked about the possibility of breezy weather and snow. Would these work parties have to be canceled too? The first indication that what I needed would be provided was when I found out that two of the people who had been scheduled to lead teams on the 17th had the week off from work and would help with one of the work parties!

Wednesday, February 21



Wednesday arrived and all was well. In fact, it was better than just "well." A half hour before the work party began, Peter, the Forest Steward from Mt. Baker, emerged from the forest. Not only was he going to help with this work party, he was going to help with all three of them! What a surprise blessing he was. So we had two Forest Stewards and 7 students that day. We began to clear new areas of ivy and blackberry vines. We dug out some big blackberry roots!

Tree Planting and Habitat Restoration



Thursday, February 22

Knowing that Peter would be helping made it possible for me to accept more students than I had originally planned. The work party grew to 23 students.



Tree Planting and Habitat Restoration

Maintaining the "Be like a bird" attitude was still important as the forecast was for snow and, by Wednesday evening, it was snowing and sticking to the ground. Would I have to cancel the work party? I would decide in the morning.

Thursday's work party had been scheduled to go from 2:30-5:30 to accommodate the students' class schedule. The snow was very wet and was beginning to melt when I woke up that morning. Around 10 a.m. I decided to walk to the light rail and around the Greenbelt to see how much snow there was and whether we could work in it. I discovered the streets and sidewalks were clear and most of the Greenbelt was free of snow. What snow remained was melting. Even though the temperature was in the 30's, it felt warmer than the day before because it was sunny.

My neighbor John also worked with us that day so we had three staff. We continued clearing the land that we had worked on the previous day.



After a snack break, we formed a bucket brigade and carried wood chips from the street into the site. The chips would be used as mulch during the February 26 planting work party.

Tree Planting and Habitat Restoration



While we were moving the wood chips, it started to snow lightly. When we finished, we cleaned and put away the tools and quickly headed back to our respective homes.

Friday, February 23

During the week's third work party, we two Forest Stewards and three GreenFriends members served as staff. Twenty-one students participated. I experienced such a sense of abundance... an abundance of staff and an abundance of students. Once again, what I had needed was provided.



Tree Planting and Habitat Restoration

About half of the students worked in the area we had been clearing during the previous work parties. We had cleared land that I hadn't expected to clear until later this year! Peter, the Mt. Baker Forest Steward, worked with the students to create swale-like structures that will help prevent erosion. I appreciated learning new skills from him.



Another team worked in an area that had, a big ivy mass. That team moved the big piles of ivy to the place on the site that has racks where ivy and blackberries can dry out rather than re-root.



A different group of students placed burlap around flags that were scattered through the site. Those flags marked the places we will be planting on the 26th.

Tree Planting and Habitat Restoration



After the break we formed another bucket brigade and finished moving the wood chips into the Greenbelt.



After the remainder of the wood chips were onsite, we cleaned and put away the tools, celebrated our accomplishments and went on our way.

What a week it had been. I was consistently challenged to stay in the moment, to let go, to trust what I need would be provided, and to put in the effort and let go of the results. And I had certainly felt like a bird perched on a dry twig. We accomplished so much during these three work parties. Grace had flowed.

Source Reduction

Source Reduction Campaign



Amma's Wish

Amma has asked that we begin to concentrate our efforts of sustainable living on SOURCE REDUCTION. This means stopping waste before it begins.

Because of Amma's desire, GreenFriends is conducting a Source Reduction Campaign ([download the PDF](#) or [download the PowerPoint](#)) throughout North America.

What is Source Reduction?

Instead of recycling plastics and other throw-away products that need to be processed for reconfiguration into another form, we need to start using products that are designed to last, or find an alternative way of living that eliminates the need for the product altogether. As stated by [Maryland's Department of the Environment](#), "Reduce or reuse first, then recycle".

Source reduction saves the earth by:

- Reducing pollution
- Conserving natural resources
- Putting less trash in landfills
- Reducing energy usage
- Reducing transportation costs

Learn about the [current problem](#), [what you can do about it](#), and then take the [Plastic Challenge](#)

Source Reduction

The 2018 Plastic Challenge



The Plastic Challenge is based on the [Indeed Challenge](#), initiated at the MA Center New England to get people to adopt one of the tenants of Amma's [Indeed Campaign](#). Essentially, each participant was asked to commit to a goal and submit a few words about how they were going to implement or take action towards this goal. A slideshow containing a photo of each participant and their pledge was created and presented to Amma.

For complete details on the challenge of Source Reduction related to plastics, read the [3 Step Plastic Challenge](#).

The Plastic Challenge Components

- * Learn about the [impact of current behaviors and usage](#) as well as [alternatives](#)
- * Calculate your plastic footprint and pledge to make a measurable change by [visiting this form](#)
 - Enter your e-mail address, your name and region in the form
 - Calculate your plastic footprint using the Greenpeace Calculator
 - Click "Skip" at the end of the Calculator and note how many items of plastic you use in a year
 - Return to the form and enter your total
 - Decide what you want to pledge to Amma by taking actions of your choice
 - Choose how you want your pledge to be shared and an e-mail will be sent to you with your responses (be sure to check your Spam folder). It is recommended you read these [Frequently asked Questions \(FAQ\)](#) if you have questions while filling out the form
- * Implement changes over the Challenge period (ends April 27, 2017)

Source Reduction

* On April 20th, an email will go out, requesting all participants to fill-out the Plastic Challenge form again – this time, with the numeric estimate of your ‘new plastic footprint’. This will be considered your “After” Footprint

Others Who Have Taken on the Plastic Challenge

[One Piece at a Time](#) - Karuna details how folks in Seattle have dealt with the seeming indestructibility of plastic

Beth Adler describes [Discontinuing the Use of Plastic Bags](#)

[Buying Less Plastic - Part 1 Dishwashing Soap](#) by Vandita Smith, originally printed in the February 2016 Pacific Northwest GreenFriends Newsletter

[Buying Less Plastic - Part 2 Multipurpose Cleaner](#) by Vandita Smith, originally printed in the April 2016 Pacific Northwest GreenFriends Newsletter

[Buying Less Plastic - Part 3 Laundry Detergent](#) by Vandita Smith, originally printed in the May 2016 Pacific Northwest GreenFriends Newsletter

[Buying Less Plastic - Part 4 Hand Sanitizer](#) by Vandita Smith, originally printed in the November 2016 Pacific Northwest GreenFriends Newsletter

[Reusing Plastic Bags to Create Sleeping Mats for the Homeless](#) - The mats are lightweight, provide protection from the cold and wind, do not attract bugs and are easily hosed off.

Do you have a personal story to tell about how you are working to address the problem with plastic? Send it in (preferably with photos) to info@greenfriendsna.org

[Current Problem](#)



[What You Can Do About It](#)



[Plastic Challenge](#)



[Additional Resources](#)



PNW Litter Project

Kick Butt Day 2018



The PNW Litter Project's 7th year of participating in [Kick Butt Day](#) is coming!

This day of activism is sponsored by the Campaign for Tobacco Free Kids.

The [Campaign for Tobacco-Free Kids](#) is a leading force in the fight to reduce tobacco use and its deadly toll in the United States and around the world. Our vision: A future free of the death and disease caused by tobacco. We work to save lives by advocating for public policies that prevent kids from smoking, help smokers quit and protect everyone from secondhand smoke.

The first national Kick Butts Day was held in 1966. While the actual day this year is Wednesday March 21, the PNW Litter Project celebrates it at any time during the month of March.

PNW Satsangs: Consider supporting Kick Butts Day by holding a cigarette butt pick in March. Keep a record of the number of people who participated and how many hours/minutes each person worked. We will be using that data as part of the Litter Project report and it will also be given to the Kick Butts organizers for their final report.

Individuals: It is fun to support Nature and our community in this way with a group, but if that is not possible consider doing it on your own, or with your friends or family.

In Seattle: This year Seattle's work party will be held on Sunday, March 4 (from 10-noon) in the International District of Seattle. We will meet at [Hing Hay Park](#) and then spread out throughout the district.

Everyone: Please let Karuna know karunap108@comcast.net if your satsang is going to have a work party, if you are going to participate as an individual, or if you want to join the Hing Hay Park work party in Seattle.

PNW Litter Project

PNW Litter Project Stats

In February, 40 Litter Project members and their friends picked up litter for 96 hours. (Average 2.4 hours; Median 1 hour; Range 1 minute to 15 hours) We have picked up litter for 9395 hours since the project began in July of 2011.

TerraCycle Stats

TerraCycle is an organization that recycles items that are normally considered unrecyclable. They have credited us with turning in 321,224 cigarette butts since 2013. We have also sent them 394 Drink Pouches, 732 Cereal Bag liners, and 2,997 Energy Bar wrappers.



From Kaarisa in Hawaii:

I was in a gem shop in Pahoehoe... on the Big island.. and the owner gave a 20% discount to any customer if they picked up litter or said they would do that... amazing!



Amritapuri Gardens

Visiting the Seed-Saving Farm by Karuna



When I visited the Amritapuri seed-saving farm on January 3rd, Lokesh, the sevite (volunteer) who manages this project, told me that in the state of Kerala four sets of crops can be grown each year. Since they had just finished harvesting the last crop and were only beginning to prepare for the next one, he was disappointed that he couldn't show me more.

While I thought he shared an abundance of information with me, I found a delightful video on his YouTube channel that gave me a sense of what it would be like to participate in this community gardening activity.

[A Farmer's Journal: Many Hands Make Light Work](#)

The soil on the farm, and in most, if not all, of the land in this area, is very sandy and of poor quality. At the seed-saving farm, volunteers are making charcoal by burning coconut husks. The charcoal is then turned to powder and mixed with dried cow dung and dirt. Charcoal is used because it holds in nutrients. The mixture is put into pots or added directly to the garden soil.



Amritapuri Gardens

Lokesh would like to have 7 planting areas on this 13-acre property. When I was there, the volunteers were working primarily on an eggplant field. At that point, they had dug 100 holes and filled them with mulch. When the mulch breaks down, they add more mulch and other soil enhancers, such as the charcoal mix.



Another part of the farm is dedicated to producing tapioca. Walking there was an adventure because I had to walk over a “bridge” made from a coconut tree that had fallen down. There was a “rail” I could hold on to as I crossed, but it wasn’t as close to the tree trunk as I would have liked. I made my way across the bridge tentatively and carefully. I assumed that the water underneath the bridge was shallow, but I sure didn’t want to fall into it!



Amritapuri Gardens

Once there, I saw the tapioca garden. Tapioca is easy to grow in Kerala and it usually doesn't need to be watered. In this farm, a plant called cheera is often grown under the tapioca plants. Cheera is one form of spinach that is grown at the ashram.



There is also a red-leafed plant that is grown in many of the Amritapuri gardens. It is often called red spinach.



One part of the property ridge gourds were growing. When I read about them, I learned that they can grow up to 13 inches long. I believe the ones I saw were longer than that. I also saw remnants of pea and bean plants.

Amritapuri Gardens



There were several nurseries at this farm.



Part of the process of saving seeds is knowing how to select the right seeds. It is also important to grow plants that will produce healthy seeds. Lokesh is doing a lot of experimentation to learn what farming methods will provide the most support to the plants so that they create the best seeds possible.

On this visit, he told me that he had been given an old Kerala-type pumpkin, a pumpkin that is very rare. He grew four plants from the seeds of that pumpkin. He then crossed two of those plants with a pumpkin from the agricultural university. The pumpkins that grew from the old Kerala pumpkin seeds looked like this:

Amritapuri Gardens



The ones that were crossed with the university pumpkin had similarities to the old Kerala pumpkin, but also differences. This is how those looked:



Lokesh explained that he was crossing these varieties because when a vegetable is grown without diversity it becomes very weak and will eventually “fizzle out.” By crossing them, he will be able to develop a stronger strain of pumpkin and then will eventually breed out the university strain. The new plant will produce a pumpkin that will have the characteristics of the old Kerala pumpkin that gave it superior quality, but it will be a much stronger plant. That process is called Back Crossing.

This video will give you more information about how Lokesh is doing this: [Plant Breeding: Back Crossing](#).

I was fascinated by two other things I saw on that day. One was a structure that provided water to a group of plants, one drip at a time. To use it, you put a bucket of water in the tub that is at the bottom of the structure. When a machine is turned on, air is pumped intermittently in a way that causes water to be pumped from that bottom tub into a container at the top of the structure. The water then drips down to the plants below it. I don't know what the main plants are, but I do know that the big-leaf plant is turmeric. You will notice that its leaves are drooping. That plant starts to die when it is ready to be harvested. We checked in the soil around it and could feel big turmeric bulbs.

Amritapuri Gardens



Lokesh is creating a blacksmith shop on the property. He is inventing all sorts of things there. His most recent invention is a power hammer made from an old bicycle!



This video shows how he made the hammer: [The Bicycle Power Hammer](#).

As I imagine you can tell from my post, I thoroughly enjoyed my time at this farm and look forward to going back there the next time I am in Amritapuri.