Be a Hero for Honeybees

Carey Thornton,
Adult Education Coordinator

You may have heard that pollinators, and especially bees, are in danger. As gardeners, farmers, consumers and people who care about native ecosystems, this is a vital concern. But what does this really mean and what can we do to help?

There are many kinds of bees and pollinators buzzing around our gardens and they all do important work. Honeybees produce large colonies that are kept in hives by beekeepers. Bumblebees live in smaller colonies in nests in the ground. Solitary bees, like mason bees, live in hollow stems or tunnels in wood and dirt. You may also see other insects pollinating your crops such as wasps, butterflies, beetles and ants.

About one-third of food crops are pollinated by bees. Decline in honeybees due to colony collapse disorder is a threat to our agriculture. A study in Science journal in April 2012 suggests that pesticides, especially systemic ones like neonicotinoids, may be a large factor in colony collapse. Other contributing factors may include climate change, migratory beekeeping, poor nutrition and genetics. Native pollinators, like bumblebees and solitary bees, are also susceptible to these factors but their plight is less commonly known.

On an agricultural level, farmers are encouraged to grow food for native bees by planting wildflower buffer zones around crop areas. The Xerces Society for Invertebrate Conservation encourages farmers to leave some bare dirt mounds for bumblebees to build nests.

Native Superfoods Boost Winter Health

Stephanie Seliga, Just Garden Project Program Manager

When I hear the term “super food” a slight shutter runs through my body. I imagine people shoving fistfuls of pomegranate seeds, regardless if they’re in season, into their mouths hoping their colds will miraculously disappear.

The Wikipedia definition of super food is, “a marketing term used to describe foods with supposed health benefits.” Many so-called super foods create an illusion of nutrition-worthiness that is disconnected from season, place and cultural relevance. This time of year, however, we could all use a little bit of “super” in our foods. Exciting news: you may not have to look farther than your own yard or neighborhood for native foods that fit the bill.

I met up with Winona Bearcham from the Tierra Madre Project to discover foods that “Wild-crafting these powerful plants requires some prior planning.” -Winona Bearcham

local indigenous people have been using for years to maintain health and vitality in the winter season. Winona shares that native cranberries and Labrador tea grow wild together in bogs in our area. Labrador tea does contain a substance that can be harmful when too potent a dose is ingested, so it should be used cautiously and not during pregnancy.

Native cranberries and Labrador tea, harvested in the fall and dried, are steeped in hot water to make a tea that tradition holds is...
Building Healthy Local Systems

Andrea Platt Dwyer, Executive Director

The other day I was chatting with an otolaryngologist who asked what I did for a living. I told him that I worked for a nonprofit that focused on environmental and agricultural issues. “How,” he asked, “do those two things connect?” Before I could answer, his eyes lit up. “Oh, that would be sustainable agriculture,” he said.

This brief exchange got me thinking about systems. An otolaryngologist has to consider the interplay between the ears, nose and throat as well as the health of the entire body. At Seattle Tilth, our work also encompasses multiple complex systems—the environment, the food system, the marketplace and communities comprised of all kinds of people.

Our mission is to inspire and educate people to safeguard natural resources while building an equitable and sustainable local food system. For many years, we chose to address that mission by focusing on urban gardening. That alone requires complex thinking, encompassing everything from building healthy soil to integrated pest management to seed saving.

Now, in our thirty-fifth year of doing this work, we’ve recognized that we can make an even bigger impact by expanding our efforts. For example, we’ve grown our environmental programs by including a more explicit emphasis on water quality and conservation. To ensure an adequate supply of farms and habitat, we’ve established farming education and training programs. We’re tackling food distribution through our CSA, booths at five farmers market, wholesale accounts and discounted Good Food Bags. We’ve also added a number of nutrition and cooking education efforts to our program portfolio.

Just like the otolaryngologist has to consider a vast array of issues when helping patients regain their health, we have a better chance of achieving our mission by considering the complex interplay of the many facets of our food system, and taking action where we can do the most good.

BE A HERO FOR HONEYBEES  Continued from page 1

pollinators. In Auburn, Seattle Tilth Farm Works keeps four honeybee hives and plans to add two more next year. In the spring of 2014, we will be working with partners at Washington State University, Steel Wheel Farm and Urban Bee Company to create a new apiary at the Rainier Beach Urban Farm and Wetlands. The partners will install eight langstroth hives, one top bar hive and a native pollinator habitat station to support a variety of bees.

In your own garden, you can help encourage pollinators by planting flowers, especially native plants. Design so there is something in bloom throughout most of the year. Native mason bees are out as early as March and require early nectar sources. Fruit trees are excellent pollination sites for mason bees in early spring.

Consider becoming a honey beekeeper to ensure that there are pollinators in your garden (and your neighbors’ gardens!). Honeybees also offer some sweet benefits. Corky Luster from Ballard Bee Company says, “Not only do we enjoy the honey, pollen, wax and propolis; but the service of pollination. The wildlife also benefits since many of the flowers that are being visited by bees will turn into berries and food to help sustain them.” Seattle Tilth offers backyard beekeeping classes taught by Corky in January and February. See page 7 for dates. Or contact the Garden Hotline to learn about selecting plants that attract pollinators, help@gardenhotline.org.
A Fungus Among Us

Matthew McDermott, Seattle Tilth Farm Works Manager
and Joanna Stodden, Education Program Coordinator

To most people, fungi go relatively unnoticed. These understated organisms are a cornerstone species for the health of our forest and urban agriculture ecosystems, provide us with a host of nutritional and medicinal benefits and have the ability to clean up our environment. During the fall when they send up their fruits and mushrooms burst through the rain soaked earth, we get only a hint of these amazing organisms’ capabilities. Mycologist extraordinaire Paul Stamets calculates that every footstep impacts over 300 miles of mycelium! Watch your step.

Although we’re familiar with seeing the fruiting body of fungi (mushrooms), that is just a fraction of what fungi are. To see them in all of their glory, you need to look underground. Take a look under any log lying on the ground and you’ll see fuzzy cobweb-like mycelium. Mycelium are the threadlike strands of fungi that do the work. Fungi are decomposers that recycle dead or decaying organic material in the soil and make it available for plants.

While fungi thrive, they also form symbiotic partnerships with plants that increase the amount of water and nutrient uptake. Upon germination, vegetable seeds seek out mycorrhizal communities to begin this symbiotic relationship. Fungi in the garden and farm can increase yield, reduce the need for fertilizer and help to build soil structure. Without a need for sunlight to produce energy, fungi are working around the clock in your garden.

Mushrooms provide abundant nutritional value to humans. They are rich in protein and antioxidants while being low in simple carbohydrates and fat. They are a good source of B vitamins, dietary fiber and copper. Vitamin D and selenium from fungi help boost the immune system. Many food staples, like bread, beer, cheese and fermented meats, all work in conjunction with fungi. For thousands of years, Traditional Chinese Medicine has recognized the myriad of therapeutic benefits from mushrooms, including anti-inflammatory, anti-viral and anti-tumor effects. Revolutionary western medicines, like penicillin, are also based on the natural chemicals that fungi produce.

Fungi have also been in the spotlight of bioremediation projects. After the 2007 San Francisco Bay oil spill, after hair mats were used to soak up oil, the site was inoculated with natural chemicals that fungi produce. Revolutionary western medicines, like penicillin, are also based on the natural chemicals that fungi produce.

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NATIVE SUPERFOODS BOOST WINTER HEALTH Continued from page 1

beneficial for mental, physical, spiritual and emotional health. As the cold and flu season sets in, the antioxidants available in this brew can help balance richness and intensity of many holiday meals and gatherings.

“Wild-crafting these powerful plants requires some prior planning,” Ms. Beacham explains. “If you get to December and haven’t put your stores away, you’re going to be sick, hungry and hurting.” The cranberries are harvested and set in large wooden baskets to brown, or left on the bush through the first frost to soften. Some tribes store the berries in peat moss found along the bogs, and return throughout the winter season to replenish their supplies with the stored fruit.

A similar fruit found on higher ground is high bush cranberry, Viburnum edule, also known as squasbush, Moosewood viburnum and Few-Flowered cranberry bush. This common plant provides the same kind of nutritional support to aid in surviving and thriving through the winter as the native cranberry. The High Bush cranberry grows in thickets and gravelly rocky banks and can be incorporated into your landscape. An article by the University of Alaska shows that the High Bush cranberry has up to four times the amount of antioxidants than conventionally grown cranberries.

Native cranberries, High Bush cranberries, and Labrador tea are just some of the many examples of unexpected “super foods” just waiting in our yards, parks and forests, humbly offering everything our bodies need for this time of year, in this climate, to boost our immune systems and strengthen our health. As our garden beds are resting, and we look forward to the next season of growing, we can turn our attention to learning about native edibles and the ways they provide the perfect food, at the perfect time for perfect health.

To find out more about native foods and traditions, check out the Tierra Madre Fund at tierramadrefund.org. The Tierra Madre Fund’s mission is to act as a catalyst for the advancement of sustainable indigenous cultures in the Pacific Northwest by providing resources to support innovative projects and to build the leadership of women, youth, artists and culture keepers.
Lisa Ledoux’s Story
Why I’m a Gardener for Life!

Stephanie Seligia, Just Garden Project Program Manager

Gardening has become more than a past time for Lisa Ledoux. It’s a direct connection to her food, her health, her community and God. Lisa has been a Just Garden Project Gardener since 2011, a decision inspired by a basic need; “I knew only that I wanted healthy food I could afford and didn’t have to be afraid of.”

With some basic training from Just Garden Project her garden was up and running in no time. “When I started gardening, I didn’t know what to do, so I put seeds in the ground and planted the starts—it worked! I had so many greens and other vegetables; I had to eat them with every meal.” Since growing and eating fresh vegetables from her garden Lisa has been able to come off two medications.

With her flourishing and producing fresh, healthy vegetables it’s no wonder people began to take notice. “My neighbors saw what I was doing and started to help. We share seeds, harvest and we teach each other.” The success of her own garden led Lisa to join the “Gardener for Life” training, a year-long program run by Just Garden Project that teaches gardening skills and equips participants to transmit those skills to others in their community. “I wanted to share my success. Now, I can help anyone grow food!”

When asked about her favorite thing in her garden she replied, “It’s like I can see how God works by being in my garden. There I feel the love for all of creation. Then I get to eat it, and feed my daughter that love! There is nothing better.”

Winter Gardening Tips

Katie Vincent, Garden Hotline Educator

These tips from our Maritime Northwest Gardening Guide will help you weather winter well!

Preserve.
Create habitat for overwintering wildlife with shallow bowls of fresh water, brush piles, leaf mulching, berries, seed pods and other food sources.

Protect.
Keep plants safe from hard frosts by watering in advance.

Plan.
Get giddy! Peruse seed catalogs and inventory seeds saved last fall. Consider rotating plants by family (for disease) or by crop (for fertility).

Plant.
Buy and plant bare root flowering and fruit trees, berries and roses.

Snip.
In January, prune fruit trees, summer or fall-blooming trees and shrubs.

Seed.
Start perennials and tender annuals, like geraniums and petunias, indoors.
Philanthropy Shines Bright at Auction

Seattle Tilth’s Gala Auction on October 12 was a roaring success, raising almost $120,000 towards our farms, gardens and programs!

The evening was filled with once in a lifetime live auction experiences, fun activities like the wine grab, delectable dessert dash choices and moving speeches from Seattle Youth Garden Works youth. We heartily thank all of you who attended, volunteered, donated an auction item, helped on the auction committee and beyond. We couldn’t have done it without you!

We’d especially like to thank our sponsors, Cedar Grove Compost, Essential Baking Company, Google and Riddell Williams. Hope you can all join us again in October 2014!

Paint the Season Green

Friends and family will love these green gifts from Seattle Tilth!

Two-for-One Membership
From now through Dec. 31, sign-up for or renew your Seattle Tilth membership and give a favorite gardener the gift of membership for free! Throughout the year, you’ll both receive discounts on classes, invitations to special members-only events and insider information in our newsletter. Sign-up at seattletilth.org or complete and mail us the form on page 8 and be sure to include your friend’s name and contact information.

Show Off Your Style
Pick up one of our 100% organic cotton t-shirts or totes and show off your good taste!

Seattle Tilth Books
Your Farm in the City ($20.75)
Our 330-page guide to raising your own food and urban livestock is a must-have for the urban farmer in your life.

Maritime Northwest Garden Guide ($16.50)
This beloved classic for beginners and experienced Northwest green thumbs alike provides handy tips as it guides you through each month in the garden.

Gift Certificates
Purchase a gift certificate for $35, $50, $100 or more. Redeem them for memberships, cloche kits, books or classes.

In Honor or Memory of a Friend
Make a contribution to Seattle Tilth in honor of your favorite gardener!

Find all this great Seattle Tilth stuff and more at seattletilth.org or stop by our office in Wallingford.
Garden To Table: Sun Root

Leika Suzumura, Community Kitchens Northwest Program Manager

Don’t be fooled by the name, the Jerusalem artichoke is neither an artichoke nor from Jerusalem. Perhaps that is why it is becoming more commonly known as the “sunchoke,” or it’s native name “sun root.” The knobby roots dug up in the fall and winter look quite contrary to the beautiful sunflower they exhibit in the summer.

From a health perspective, sunchokes are a good alternative to potatoes for those looking to lower their carbohydrate intake. Inulin is the main “carbohydrate” which is a fiber instead of a starch. This allows it to function as a pre-biotic (food for pro-biotics, the friendly bacteria living symbiotically in our digestive tract) and digests into fructose rather than glucose making it more stabilizing for diabetics to eat.

The flavor and texture of sunchokes is unique, nutty with the crunch of a water chestnut; delicious both raw or cooked. It can be peeled easiest with the side of a spoon (similar to ginger), though like most root vegetables, an abundance of valuable nutrients are found in the skin and are edible.

Sunchoke Mashed Potatoes
This seasonal root adds a unique nutty flavor to this classic holiday dish! Makes 6-8 servings.

Ingredients
- 2 pounds russet potatoes or other variety of choice
- 1 pound sunchokes
- ¼ cup butter
- 1 cup sour cream
- 1-2 teaspoons salt
- ½-1 teaspoon white pepper

Instructions
- Rinse sunchokes with a brush to get dirt from crevices; cut into 1 inch pieces.
- Peel and cut potatoes into 1 inch cubes.
- Place a pot of water on high heat. Boil potatoes and sunchokes until soft.
- Mash together with butter and sour cream.
- Season with salt and white pepper to taste.

Participants in our African Elder Farming Program at Rainier Beach Urban Farm and Wetlands harvested sunchokes last fall.

Five Fun Facts

1. **The Winter Solstice** is the shortest day of the year. On December 21st, the sun will rise at 7:55 a.m. and set at 4:20 p.m. resulting in 8 hours and 25 minutes of daylight. From timeanddate.com.

2. **The world’s largest fungus** resides in the Blue Mountains in Oregon. The Armillaria ostoyae occupies 2,384 acres, about 1,665 football fields, and is estimated to be at least 2,400 years old. From abcnews.go.com.

3. **To make one pound of honey,** the bees in the colony must visit 2 million flowers and fly over 55,000 miles, the lifetime work of approximately 768 bees. From beeright.com.

4. **Goats** have rectangular pupils. From thedailybeast.com.

5. According to the Western Regional Climate Center, during December and January in Seattle we see an average of **23 grey days each month**, more than most places in the country. However, average monthly rainfall is relatively low in Seattle – just 5” during December and January. From averagerainfall.weatherdb.com.
Q. How can I fix saturated areas in my yard?

A. If your yard turns into a small lake after a heavy rainstorm, here are a few interesting options to consider…

- Install a rain garden. Rain gardens are engineered to redirect excess storm water runoff to an area designed to absorb the water while removing pollutants. They should be planted with vegetation that can tolerate both extremely wet and dry soil to thrive in our Northwest climate. Rain gardens are used on private and public lands in the Puget Sound area as ways to reduce pollution in the Puget Sound.

- Plant a bog garden, which also filters storm water runoff. A bog garden is a depression that is often lined with plastic and rocks and filled with plants that tolerate growing in moist to wet conditions. In some conditions, a liner may not be necessary as long as there is adequate drainage.

These unique landscape features use a special bioretentive soil that slows rainwater and traps contaminants that are carried by untreated rainwater. They also provide habitat for wildlife. Many contractors in the Puget Sound region have been trained to install rain gardens. The City of Seattle currently subsidizes rain garden installations in qualifying neighborhoods through the RainWise program. Stewardship Partners and Washington State University are working together to install 12,000 rain gardens in the Puget Sound area by 2016.

Q. What should I do when it freezes?

A. Puget Sound winters are typically mild with temperatures rarely dipping below 25 degrees F. But just a day or two of freezing temperatures can damage many plants. Prepare for a winter cold snap by doing the following:

- Mulch, mulch, mulch! Many plants will survive as long as their roots are protected. Leaves, wood chips, straw, sawdust, grass clippings and disease-free plant matter all make great mulch material. Spread 2-3 inches thick but leave a few inches of space between the trunk or main stem and the mulch. Apply mulch or other insulation for plants that are in containers that are left outside or too heavy to move to a more sheltered space.

- Don’t let plants dry out too much. Seattle has a reputation for lots of rain, but sometimes it’s drier than you think. Plants growing under large evergreens or eaves may not get enough water. Wet soil holds heat better than dry soil. If you know a freeze is coming, check deep in the soil for moisture and, if needed, water deeply.

- Cover up! Old sheets or floating row cover draped over shrubs and held down with rocks can protect the foliage of early blooming evergreen shrubs. Keep fabric in place during the cold spell. Wrap tender perennials such as banana trees in burlap. Cloches, hoop houses and cold frames are all good ways to protect plants. Remember that snow can be an insulator. Unless the snow is heavy and damaging branches, don’t knock it off.

Contact the Garden Hotline for more information about these and other innovative solutions to landscape problems often found in the Pacific Northwest.

THE GARDEN HOTLINE IS SPONSORED BY:

Local Hazardous Waste Management Program in King County, Washington

Saving Water Partnership
Seattle and Participating Local Water Utilities

Seattle Public Utilities

Garden Hotline
help@gardenhotline.org | 206.633.0224
At Seattle Tilth, we are helping to build a better food system and a healthier environment. But while we’ve come far, there’s much more work to be done. According to Communities Count, 1 in 5 kids are hungry, even as food bank use is increasing.

At Seattle Tilth, we’re making things BETTER.

Together we are:

- Transforming empty lots into flourishing community gardens and urban farms
- Teaching thousands of children and adults how to grow and prepare food in a healthy and environmentally beneficial way
- Providing land, seeds, tools and training for immigrant, refugee and low income farmers striving to create a new future of economic prosperity

And we are leading a movement of people like you who want a better, more just and equitable food system for ALL people.

Join us! Please make your gift to support Seattle Tilth’s work today. You can make a one-time gift at seattletilth.org, or sustain us all year as a member of our monthly giving club, the Pollinator Society.

**Membership Levels**
- O $35 Individual
- O $20 Limited Income
- O $60 Household

**Donate** - Support Seattle Tilth
O My employer matches gifts. Company:

**Books**
- Order "The Maritime Northwest Garden Guide"
  Month-by-month regional guide to year-round gardening.
  Please send me _____ copies x $19.50* = $

- Order "Your Farm in the City"
  Our new 320 page guide to urban farming.
  Please send me _____ copies x $26.00* = $

*Prices include tax and shipping. Total $

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