

# DID YOU KNOW... EVERY POP COMMUNITY ORCHARD INCLUDES A POLLINATOR GARDEN FULL OF FLOWERS & HERBS?



**PHILADELPHIA  
ORCHARD PROJECT**

Since 2007, POP has planted more than 20,000 perennial flowers and herbs at orchards across the city, supporting pollinator habitat!



Pictured: Penn Park Orchard

Left to right: Black Eyed Susan (*Rudbeckia* spp.), Bee Balm (*Monarda fistulosa*), Common Milkweed (*Asclepias syriaca*), New England Aster (*Symphyotrichum novae-angliae*).

## CONSIDER THESE NATIVE PLANTS:



**SEED BALL RECIPE  
ON BACK!**  
[phillyorchards.org](http://phillyorchards.org)



## WHAT'S A SEED BALL?

A seed ball is a ready-to-plant seed that has been wrapped in a mixture of compost and clay. Its shape makes it easy to seed in large areas, or even home garden pots!

**Just THROW and GROW, Recipe BELOW!**

## SUPPORT POLLINATORS!

## MAKE YOUR OWN WILDFLOWER SEED BALLS TO PLANT & SHARE!



1. For the seed ball base, mix together 4 parts well-aged & sifted compost to 1 part dry bentonite or prepared clay.
2. Moisten the clay with enough water to create a yogurt-like consistency. Mix in the compost until you have a dough that isn't too sticky. If it is, add more compost.
3. Pinch off enough batter to create a dime-size ball and place 2-3 flower seeds of your planting region inside. Roll into small balls and allow them to dry for a few days.
4. Scatter seed balls on exposed earth or in a flower pot. Once exposed to rain and light, the seeds will germinate!





## JUNE BERRY (AMELANCHIER)

### SHRUB FACTS

Juneberry is a name for a family of many **native species** of large shrubs or small trees in the **rose family (rosaceae)**. It's scientific name is Amelanchier, but is also commonly known as **juneberry, serviceberry, saskatoon, shadbush, and more.**

Juneberries are frequently planted as street trees and park trees in the city because of their beautiful white flowers in spring and bright red or orange fall foliage. This plant has often been used to **inform people on the time of year** and named accordingly (juneberry-for when the fruit is ripe, serviceberry-for when the roads are clear and traveling priests can resume service, and shadbush for when the shad runs in New England streams). **The juneberry is self fertile and commonly pollinated by bees.** The red to purple fruit is reminiscent of **blueberry and excellent when eaten raw.** It is grown commercially in Canada, and frequently made into pies and jams.

### SEASONAL CARE

Juneberry is a hardy plant that can survive between **zones 4-8.** It can tolerate wet and dry soil, but **prefers well-drained loam.** Although tolerant of partial shade, it is most productive in full sun. Although generally easy to grow, it is susceptible to cedar rust disease, lacebugs, and sometimes fireblight.

**WINTER/SPRING: Pruning is not generally necessary** but can be done in the plant's dormant period. As with most perennials, Juneberry will be most successful planted in late fall or early spring. **If loss of fruit to cedar rust is severe, pre-bloom applications of sulfur or copper fungicide can help.**

**SUMMER:** Water thoroughly once a week the first summer till the new roots have established. **Berries begin to turn color and are edible in mid June.**

**FALL:** Transplanting and new plantings of Juneberry are done at this time.

### NUTRITIONAL BENEFITS

**Juneberry is an excellent tasting fruit similar to blueberry, with small edible almond-flavored seeds.** The fruit is best picked when transitioning from red to purple. Research has shown the Juneberry contains **more antioxidants than blueberries, strawberries, and raspberries.** Excellent source of **iron and fiber.**

It also contains essential vitamins, and minerals: **vitamin C, vitamin A, magnesium, folate, and phosphorus.**

### PROPAGATION

The easiest way to **propagate Juneberry is by cuttings.** Select branches from the midsection (in between, the new green wood, and the old hard wood). Remove all foliage except the top two leaves. Cut the top two leaves in half to reduce the amount of moisture loss. **Dip in rooting hormone, place in a rooting mixture of perlite and peat moss, store in indirect sunlight and keep moist until roots form.**







# JUNE BERRY JELLY

Follow the instructions below, adapted from registered nutritionist Marisa Moore ([marisamoore.com](http://marisamoore.com)), to make your own Juneberry Jelly!

1



**HARVEST**

2



**RINSE**

3



**DRY**

Harvest the fruits when they are a dark purple color (they look and taste similar to blueberries). The berries are round, about 0.3-0.7 inches across, and they usually ripen in June. Be sure to rinse your fruit in cool water and separate out any loose particles. Spread on a clean towel and gently roll across to dry. Store clean, dry berries in the refrigerator up to 1 week.

4



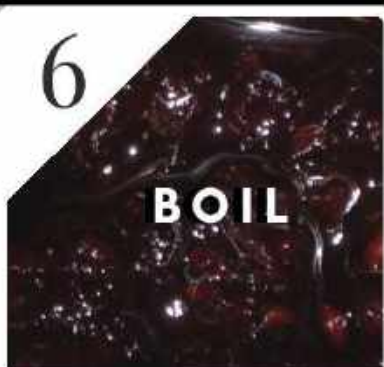
**PREP**

5



**MASH**

6



**BOIL**

Prepare jars and pans. Pour 3-1/2 cups of Juneberry juice and mash into a large pan. Add 5 teaspoons of powdered pectin (Juneberries need LESS pectin than other berries). Bring the juice and the pectin to a boil, while whisking. Boil for 1 minutes, then add 3 cups of sugar. Bring to a boil again, whisking all the way, and hold it for a minute.

7



**LADLE**

8



**SEAL**

9



**ENJOY**

Quickly ladle the jelly into the jars, leaving 1/4 inch at the top. Add lids, twist on rings, boil in hot water for ten minutes to seal the jars. Enjoy your jam on toast, eggs, and many other treats!

**Juneberries** are known by many names such as serviceberry, shadberry, sarvisberry, and Saskatoon. It is a large shrub, with a few tree-like species, ranging in height from 16 to 32 ft. Juneberries are native to North America, very hardy and adaptable, and found all over Philadelphia. Traditionally, Native peoples of Canada used to steep the bark in tea to ease stomach troubles, and a tea made from the bark and twigs was given to mothers to aid with recovery after childbirth. Juneberries are an excellent source of iron; one serving contains around 23% of the daily recommended intake – almost twice the amount contained in blueberries! They have similar levels of vitamin C, riboflavin, pantothenic acid, vitamin B-6, folate, vitamin A, and vitamin E as blueberries.





## SORREL (*RUMEX ACETOSA*)

### PLANT FACTS

**Garden sorrel (*Rumex acetosa*)** also known as common sorrell, narrow-leaved docked, or spinach dock, is a common perennial herb from the **buckwheat or POLYGONACEAE botanical family**. It has **arrow-shaped leaves that can develop shades of deeper greens, reds, purples in its veins**, and can reach **heights of 24 inches**. The plant is leafed out all year long, in flower from May-June, and in seed from June to August. The plant has male and female flowers on separate plants, so it's required to **grow both for the production of seed, as sorrel is not self-fertile and wind pollinated**. The tender leaves can be harvested all season long for their **sour, lemony flavor** from the presences of **oxalic acid** (also found in spinach, beets, and other wild sorrel varieties) that **lends a bright bite to salads, stews, dressings, and drinks**. **Sorrel can have an acidifying action on the soil its grown in**, making it a recommended companion plant for blueberries and other fruiting plants that require a more acidic soil. Also considered a dynamic accumulator, it draws nutrients and minerals from the soil, making them more bioavailable through the ecosystem.

### GROWING & PROPAGATION INFO

Sorrel is commonly known as a cool-season plant. **Prepare beds before planting with aged compost and start seeds in the spring when the ground is soft, sowing seeds ½ inch deep and up to 2 to 3 inches apart**. Thin successful seedlings from 12 to 18 inches apart when plants are 6 to 8 weeks old. **Space rows 18 to 24 inches apart. Divide established sorrel in the spring**. Choose male plants—without flowers—for divisions to avoid reseeding or the non-flowering cultivar 'Profusion'. To see successful results, sorrel must be kept moist though plants can tolerate moderately dry soils. It will be ready for harvest 60 days after sowing.

### NUTRITIONAL BENEFITS

Sorrel is a **nutritional powerhouse**, providing significant amounts of important micronutrients, including **vitamin A**, a fat-soluble vitamin that helps you to maintain healthy vision, skin, immune function, growth, and reproductive health and **vitamin C**, an important antioxidant that helps the body resist infection. The fresh or dried leaves are considered **astringent, diuretic** (increasing urination), **laxative** (softening the bowel), and cooling. Juice of the leaf has also been applied topically for the treatment of itchy skin and for treatment of ringworm. Those prone to developing calcium-based kidney stones should be careful in consuming sorrel as the oxalic acid can interfere with calcium absorption.

### RECIPE - SORREL HERB DRESSING

Sorrell makes a wonderful and simple salad dressing. In a blender, add 1/2 cup of olive oil, 8 leaves of fresh sorrel, 1/2 tsp each of salt and black pepper, 3 TB apple cider vinegar, and 1/8 cup of other herb of your choosing (thyme, basil, oregano), blend until smooth and use to dress your favorite salad or greens mix. Enjoy!







## AVELUK: A TRADITIONAL ARMENIAN SORREL SOUP

*Follow the instructions below for making a savory, sorrel soup from dried or fresh sorrel. As is traditional, braided, dried sorrel is often rehydrated for this recipe.*

1

**HARVEST**

2

**BRAID**

3

**DRY**

In summer through fall, harvest fresh, unmarked sorrel leaves but cutting the stem as close to where they emerge from the ground. To dry in the traditional Armenian way, tie one end with some string and then braid the leaves together. Keep out of the sunlight and in a place with good air circulation. Allow to dry until crisp. Store in an air-tight container.

4

**REHYDRATE**

5

**CHOP**

6

**BOIL**

Soak 2 oz. of dried sorrel braids in 5-6 cups of hot water for 25-35 minutes. Drain and repeat then drain again. Squeeze out excess water. With a sharp knife, chop sorrel into small pieces, add to a pot with cold water, bring to a boil, and then simmer until sorrel is tender.

7

**SAUTE**

8

**MIX**

9

**ENJOY!**

Saute one finely chopped medium onion in 3-4 TB of olive oil until translucent. Add 1-1/2 TB of flour and 1/3 cup of liquid from cooked sorrel. Mix in 1 TB of red pepper paste or 2 TB of tomato sauce. Add more sorrel cooking stock until it thickens. Return the sorrel to a boil and add flour mixture-onion-paste mixture 1 to 2 TB at a time, stirring to avoid lumps. Add 1/3 tsp each of black pepper, red pepper, and salt and 1/4 cup of chopped walnuts. Cook for 3-4 more minutes. Serve hot or cold with a splash of vinegar.

**Aveluk** is a traditional Armenian sorrel soup that is celebrated by villagers for its mineral rich, sour, grassy flavor. A wild sorrel grows throughout the country that is commonly used for the dish. We present this recipe here with the potential of using common garden sorrel (*Rumex acetosella*) that is grown in the understory of our community orchards.





## ELDERBERRY (SAMBUCUS SPP.)

### SHRUB FACTS

Elder is a somewhat sprawling, **deciduous berry-producing shrub with species native to both North America (*Sambucus canadensis*) and Europe (*Sambucus nigra*)**. It thrives in many different types of soil and is often found in moist forest clearings, field edges, and along streams, ditches and roadsides. In fact, elder is an early colonizer of derelict land and this makes it a good pioneer species for re-establishing woodlands. The shrubs generally grow **8-15 feet tall** and feature pinnate leaves with 3-7 leaflets up to 5" long. **Late spring and early summer** are the best for noticing these plants, when big, umbrella-shaped clusters of tiny white or ivory blossoms contrast dramatically with surrounding foliage. The **hermaphrodite (both female and male) flowers** tend to have a strong, musky smell, and attract many different pollinating insects. Though the leaves and stems are toxic to humans, **elderberry blossoms are edible** and are often used in jams, wine, and herbal teas. However, the real star of the show are the **dark purple or black berries that ripen in late summer and early autumn.**

### SEASONAL CARE

Elderberries are tolerant of some shade but produce best in full sun; they are also not fussy about soil, but prefer **slightly acidic soil** that is **high in organic matter** and stays consistently moist. Shrubs generally start producing within 1-4 years and are more productive when they are **cross-pollinated** with another variety, so consider planting multiple varieties in your garden. Elderberries sometimes re-bloom later in the growing season, providing the bees in your orchard with an ongoing source of food!

**WINTER:** Upon reaching their 3rd year, elderberries should be pruned every year in late winter or early spring. Remove any diseased or damaged wood and any growth older than two years to encourage younger, more productive canes.

**SPRING:** Remember to fertilize the soil with compost and to mulch around the plants with hay, straw, or bark chips to control weeds that compete for water and nutrients.

**SUMMER/FALL:** When it's time to harvest the berries in late summer through early fall, shake the berries loose or harvest the clusters by cutting the stem just above the fruit. Make sure you leave enough for the birds!

### NUTRITIONAL BENEFITS

Elderberries are often known as "food for the birds" because of all the feathery creatures they attract, but don't let that make you overlook the **many culinary and medicinal uses** of this superfood! The berries are not generally eaten fresh (and in fact, can be poisonous in large quantities) but usually dried or cooked into delicious jams, preserves, pies, and so forth. As a medicinal plant, the Roma community of Europe reportedly called it "**the most healing tree on earth,**" and Native Americans used elderberry to treat **rheumatism, sciatica, coughs and other conditions**. Elderberries have high levels of anthocyanins and vitamin C, and simply boiling the berries down is a great way to create a yearlong supply of an immune-system-boosting syrup. Elder flowers are also edible!

### PROPAGATION

Elderberries are easy to propagate, both from seed and from cuttings. To start your own elder shrub from seed, pick your own cluster of elderberry fruits and hang them upside down in the sun to dry. Then, shake the seeds loose from the dehydrated fruit pulp and put them in a bag in the refrigerator for 8 to 12 weeks to stratify them (seeds need to be exposed to cold and moisture before being able to germinate).



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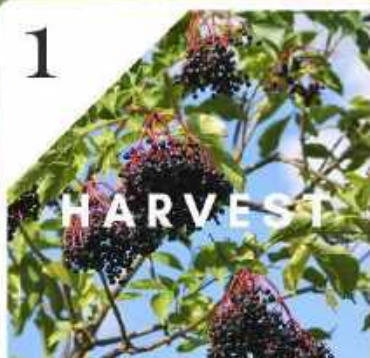




# IMMUNE-BOOSTING ELDERBERRY SYRUP

Turn the summer elderberry harvest into a health-restoring tonic!

1



HARVEST

2



DE-STEM

3



RINSE

Harvest elderberries when they are deep purple and pull easily away from their stems, generally July to August. Riper fruit must be handled more delicately. De-stem by running a fork down the stems. If you are preparing to make the syrup several months later, you can freeze the elderberries while still on their stems, then shake the berries free from their stems. Rinse the berries in a colander.

4



MEASURE

5



BOIL

6



MASH

To make a small family-sized batch of syrup, measure out 2-1/2 cups of fresh elderberries or 1 cup dried elderberries, 4 cups of water, and optional 1 cinnamon stick, 1 TB of chopped ginger. Add to a soup-pot, bring to a boil over medium-high heat. Reduce to simmer 30-40 minutes. Remove from heat and mash the berries.

7



STRAIN

8



REDUCE

9



SWEETEN

Strain the syrup with a colander over a bowl and return the liquid to the pot. Cook for an additional 30-40 minutes to reduce the volume of the liquid by half. To the volume of strained, reduced elderberry juice, add equal parts raw honey (roughly 1 cup) and optional 1 cup of brandy or alcohol to preserve. Bottle and store in the refrigerator. Shelf life is 2-3 months when made without alcohol, up to a year with alcohol. Enjoy 1 TB as needed/desired.

**Elderberries** (*Sambucus nigra*, *S. canadensis*) are commonly planted in POP's community orchards and are prized for being an easy-to-grow, fruiting shrub. The plant produces clusters of small berries that contain **anthocyanins**, a rich-purple pigment that has been found in clinical trials to interfere with the common cold and flu's ability to replicate in the body. Long prized in herbal and folk medicine, elderberries are said to support the body's innate immunity. It's been recommended that 1 TB of syrup be enjoyed at the first signs of illness to shorten the duration of illness. **Consult a licensed medical professional before using this or other any other new plant in one's diet.**