

## **SEEDLING CARE**

### **Bareroot Trees & Shrubs:**

Before planting, keep roots moist, cool and out of direct sunlight. Roots should be soaked before planting a minimum of 4 to 6 hours to ensure proper hydration. If possible, continue to soak roots while transplanting. Plants should be transplanted within 24 to 48 hours of receiving them, if possible. Do not soak longer than overnight since plant roots need oxygen too. Remove dead or withered roots and stems with a sharp knife or shears. Trees need no other pruning, but shrubs can be topped at 8" to encourage branching. Dig a hole wide enough so the roots aren't crowded or bent and as deep as the root system, usually twice as wide as deep. Roughen the sides of the hole with a spading fork. Make a cone of soil in the center of the hole, place the plant on it and spread the roots evenly around the hole. Twisted or circling roots may eventually girdle or choke the plant. Position the plant so the line between the root and stem (called the crown line) is at ground level and the plant is vertical. A plant is better off in the same soil in which it will be growing. Peat moss, perlite or other soil additives are not needed. Don't fertilize until the second year. Backfill the hole half full, firm with your fingers and add water. If the plant settles, pull it up gently while the soil settles beneath it. This prevents air pockets. Continue backfilling until the hole is full and the plant's crown line is at or just above the surrounding soil level. Form a low 2' diameter soil ring around the plant to create a watering basin. Water slowly to wet the soil thoroughly. Add soil as needed and a 1"-2" layer of bark mulch to help keep the soil cool and moist. Stake the plant only if it cannot stand up by itself under normal wind conditions. Most whips and small trees or shrubs should not be staked. After planting, do not overwater! Before watering, test the soil with your finger to see if it is dry. Too much water can prevent root growth and drown the plant; too little will dehydrate it. The first two weeks after planting will be the most crucial to survival, so keep your plant material properly irrigated. Additional shade and wind protection may benefit certain species. As a general rule, large shade trees should be planted about 20' apart; windbreaks about 5-10' apart; and hedges about 2-4' apart. Bareroot plant material needs to be handled efficiently in order to promote the best health and survival rate for your seedlings. Paying close attention to keeping stock cool, roots moist and protected from direct sunlight, wind and extreme temperatures will ensure the best results.

### **Bareroot Blueberries:**

Spring is the preferred time to plant blueberries in Ohio. Since our 2015 blueberry seedlings are bareroot, getting them in the ground quickly is key. Prior to planting, soak the roots of dormant, bareroot plants in water for approximately an hour. Blueberries are acid-loving plants and will typically benefit from amended soil. Excavate a hole about 18 to 24 inches deep and 24 inches wide. Set the plant at the same depth it grew in the nursery, then backfill with a combination of 25% moist peat and 75% soil. Trim off any dead or weak looking stems. Water well. Apply 4 to 6 inches of mulch around blueberry plants to assist preserving moisture and managing weeds. Mound the mulch in a "donut" shape around the blueberry plant, keeping the mulch away from the trunk of the plant. (As a general rule, you should never pile mulch against the base of any woody plant regardless of age). Shredded leaves, rotted or composted sawdust, wood chips, and pine needles are outstanding mulching materials. About four weeks after planting you may want to apply a fertilizer that is designed for acid-loving plants, such as "rhododendron or azalea food." Keep the fertilizer at least 6 inches away from the stems of the plant. In the second year and succeeding years, higher nitrogen fertilizers may be used in the spring, or continue using fertilizers for acid-loving plants. Blueberries require 1" to 2" of water weekly during the growing season. Highbush blueberries should be spaced 4 to 5 feet apart.

*If you are not prepared to get your blueberries in the ground quickly:*

You can pot your blueberries in potting soil or potting mix in containers with good drainage. If potted, keep them well-watered and out of direct sunlight. Potted blueberries can then be planted in the fall. Another reason you might choose to pot your blueberries is to give yourself time to get a soil test and prepare the planting area. You can get information about soil testing at <http://agsci.psu.edu/aasl/soil-testing>. If the test results indicate you should lower the pH, please refer to the "soil preparation" section of the Ohio State Extension factsheet which can be found at <http://ohioline.osu.edu/hyg-fact/1000/pdf/1422.pdf>. Fall planted blueberries should be planted by the end of October.

## **Bareroot Pawpaws:**

Many of our patrons have had success transplanting the bareroot pawpaw seedlings they have purchased through conservations sales. However, Ron Powell, President of the Ohio Pawpaw Association informed us that emerging data indicates that container grown pawpaws are proving to have better transplant success. Potting bareroot seedlings is not that difficult and with pawpaws may be worth the extra effort. Choose a plastic pot with good drainage that is large enough to accommodate the root mass of the seedling. Adding an inch or two of gravel to the bottom of the pot will help with drainage. Use a good quality potting mix to encourage fibrous root growth. Place several inches of potting soil in the bottom of the pot. Position the pawpaw seedling in the pot so the top of the soil line in the pot will be the same depth as the seedling grew in the nursery. Backfill around the roots with potting mix and water to allow soil to settle. Add additional soil if needed. All roots should be covered. Add one inch of mulch or compost to the top of the pot to help with moisture retention and to discourage weed growth. Since pawpaws need to be planted in the spring, you will need to overwinter the potted pawpaw and plant it the following spring. The best way to overwinter native, potted plants is to dig a hole that is the depth of the pot, place the pot in the hole and backfill around the sides of the pot. You may want to “plant” the potted pawpaw shortly after you pot the seedling. This will help keep roots cool and also help keep the potted plant from drying out during the growing season. If you have wildlife pressure, you will need to protect the potted plant using the same method you would use if it was planted in the ground.

If you plan to get your pawpaws in the ground immediately, follow the instructions above for bareroot trees and shrubs. Whereas most native trees do not need the soil amended when planting bareroot seedlings, Ron advises that bareroot pawpaw seedlings may actually benefit from the addition of peat or compost, especially if you have heavy clay or poorly drained soils. He also recommends removing the grass and weeds around the planting site and mulching well after planting. Pawpaws do not thrive when there is weed competition. Weekly watering throughout the growing season is also necessary to get your new pawpaws established. For more information about pawpaws, please visit the **Ohio Pawpaw Growers’ Association** website at <http://www.ohiopawpaw.com/>