

## Highbush Blueberries (*Vaccinium spp.*)

***The plants you have received are dormant, 1-liter pot transplants. Remove the plants from their box as soon as possible and plant outside. If you are unable to transplant them outside right away, store in a cool location, ideally 32–40°F (0–4°C), and keep the root ball damp.***

### LIFE CYCLE

Perennial in Zones 4–7.

### SOIL REQUIREMENTS

Have your soil tested to determine its pH and fertility status. Unlike many other garden crops, blueberries require a relatively acidic soil for good growth, with a pH of 4.5–4.8. Soils with a higher pH may require additions of finely ground sulfur or aluminum sulfate to lower the pH. Soil tests are available from your local Cooperative Extension service or you can use a soil-testing kit obtained from Johnny's.

### PLANTING

Blueberries are partly self-sterile and require at least two varieties per planting area to ensure good pollination. Space the plants 4–5' apart in rows 10–12' apart. Dig a 1' x 1' x 1' planting hole. Blend the removed soil with premoistened peat moss, rotted sawdust, or wood chips at a ratio of about  $\frac{1}{3}$  additions to  $\frac{2}{3}$  soil. Set the plants into the ground slightly deeper than the soil line and fill the hole with the soil mixture. Do not place any fertilizer in the planting hole, but you can add acidifying agents such as sulfur at this time. Water the plants thoroughly immediately after planting and regularly throughout the growing season. A blueberry planting should receive the equivalent of 1–2" of water per week.

### WEED CONTROL

After planting, apply a 4–6"-deep layer of mulch around the base of the plants to conserve soil moisture and reduce weed growth. Sawdust, woodchips, shavings, bark, pine needles, straw, or

composted leaves can be used as mulching materials. Make sure the mulch is free of weed seeds. A new layer of mulch should be applied when the old layer starts to break down.

### FERTILIZING

Four to six weeks after planting, add a small amount of compost as a top dressing to the soil, or add 2 ounces of a balanced fertilizer (e.g., 10-10-10) in a circle, 15–18" from the base of the plant. In subsequent years, fertilizer can be applied once when the plants flower and then again 4–6 weeks later. Blueberry plants generally do not require high amounts of fertilizer. Over-fertilization can lead to excessive tender growth and increase the potential for winter injury.

### PRUNING

Newly planted blueberries should not be allowed to fruit for the first 2 years after planting. Remove all flower buds in the spring to encourage root development and plant growth. In the third year, you can leave a few flower clusters on the plants to produce a small crop of fruit. By the fourth year, you can allow the plants to set a full crop of berries.

Once established, blueberry bushes should be pruned every year to produce high yields of good-quality fruit. Prune the plants when they are fully dormant during the late winter or early spring (January–March) according to the following guidelines:

- Prune out any weak, low-growing, or diseased canes.
- Prune out all canes that are over 6 years old; these are usually the thickest canes and are gray in color with peeling bark. Cut the old canes back to ground level unless new cane growth has been sparse, in which case you should leave a 4–8" stub above the ground. New canes may sprout from these stubs.
- Thin the remaining canes, leaving those with the most vigorous shoot growth (long, thick branches with good fruit buds). Leave six to seven vigorous, 2–5-year-old canes and two to three 1-year-old canes per bush. A mature blueberry plant should eventually have 12 healthy canes varying in age from 1–6 years old.
- Remove any weak fruiting branches on the remaining canes, especially those under 6" in length. Most fruit is produced on vigorous 1-year-old shoots on healthy 2–5-year-old canes. The fruit buds on these shoots are large and teardrop-shaped. Each bud will produce a cluster of 5–8 flowers. The shoots also bear smaller, pointed buds that will produce leaves.

## PESTS

The most common insect problem in blueberries is the blueberry maggot. This is the larva of a small fly that feeds inside the developing fruit. It can be managed with appropriate insecticide sprays applied when the fruits start to color, or with baited traps.

Of increasing concern is spotted wing drosophila, a pest of most soft-fruited plants, including blueberries. Use traps to monitor your plantings for the presence of spotted wing drosophila. Plants can be sprayed with a spinosad-based insecticide, but the best way to prevent this pest from damaging your crop is with frequent picking, avoiding overly-ripe fruit, and removing any discarded fruit from the planting area.

Birds are often the most serious pests of blueberries. Covering the plants with netting is the most effective control. It is best to use a post and wire frame to support the netting over the plants. This will provide the best protection of the fruit and prolong the usable life of the netting. Drape the netting over the frame just as the first berries begin to turn blue. Be sure the edge of the netting is weighted or staked to the ground to prevent birds from accessing the fruit. Remove the netting as soon as harvesting is complete and store it in a cool, dry place to prolong its useful life.

## HARVEST

Fruit should begin to ripen in mid to late July, and peak production generally occurs in early August. Pick the berries when they have turned a deep shade of blue. Time spent harvesting can be reduced with the use of a highbush blueberry rake.