

Are Blueberries For You?

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Blueberries are native to North America, and the delicious fruit has been harvested in the wild for centuries. Blueberries belong to the same family of plants as cranberries, rhododendrons, and azaleas. They have limited adaptation to the cold winter temperatures of northern New England, but may grow satisfactorily on protected sites where the winter temperatures do not fall below minus 25 degrees F.

Selecting and Preparing a Planting Site

A blueberry site should full sunlight and protection from strong winds. Avoid low areas that drain poorly or are prone to early frosts. Blueberries prefer a well-drained, sandy loam soil, rich in organic matter. Heavy clay soils should be avoided, but may be made more suitable for blueberries with the addition of organic matter such as peat moss, rotted or aged sawdust, and/or compost. All perennial weeds should be eliminated from the site before planting. If necessary, grow cover crops such as buckwheat, rye, or oats on the site and plow them under for one to two seasons before planting blueberries to eliminate the weeds. Planting cover crops will also add valuable organic matter to the soil.

Have your soil tested to determine its pH and fertility status. Blueberries require a relatively acid soil for good growth. The soil pH should be within the range of 4.5 to 5.2. Soils with a higher pH may require additions of finely ground sulfur or aluminum sulfate to lower the pH. It requires approximately 1.2 pounds of ground sulfur, or 7.2 pounds of aluminum sulfate, per 100 square feet to lower the pH of a loam soil one half of a pH unit (e.g. 5.0 to 4.5). Sandy soils require only half these amounts to accomplish the same pH change. Follow the recommendations of your soil test results. Soil organic matter should be at least 4%. Organic matter levels can be increased by plowing down cover crops before planting and/or incorporating manure or compost into the soil.

Planting

Plant blueberries in the early spring. Healthy two- or three-year-old plants from a reputable nursery generally perform best. Younger plants, such as one-year-old rooted cuttings, tend to grow very slowly for the first two years and take longer to bear large crops of fruit. Plants older than three years are more expensive and the additional cost is usually not justified by earlier production. Space the plants five to seven feet apart in rows eight to ten feet apart. Dig a planting hole about two times the diameter of the plant root ball. Blend the removed soil with pre-moistened peat moss, compost, or rotted sawdust in a 1:1 ratio. Set the plants slightly deeper than they were in the nursery and fill the hole with the soil mixture. Do not place any fertilizer in the planting hole. Water the plants thoroughly immediately after planting. Prune out any dead, weak, or broken branches.

Care and Maintenance

After planting, apply a four- to six-inch layer of mulch around the base of the plants to conserve soil moisture and reduce weed growth. Coarse sawdust, woodchips, shavings, bark, pine needles,

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

Three to four weeks after planting, apply a small amount of a balanced fertilizer (e.g. 2 oz. 10-10-10) or one ounce of ammonium sulfate around each plant. Organic equivalents, such as bloodmeal or composted manure, may also be used. Apply the fertilizer in a circle 15 to 18 inches from the base of the plant. Use the same amount the year after planting. Each year following, increase the amount of fertilizer incrementally by roughly two to four ounces each year, using the lower rate for more concentrated fertilizer products. Fertilizer can be applied once in the early spring or, for best results, split the application, and apply one half of the recommended rate in the early spring and the other half four to six weeks later. Blueberry plants generally do not require high amounts of fertilizer. Over-fertilization could lead to excessive tender growth and increase the potential for winter injury.

The plants should be watered regularly throughout the growing season. A blueberry planting should receive one to two inches of water per week. Newly planted blueberries should not be allowed to fruit for the first two years after planting. Remove all flower clusters in the spring to encourage root development and vegetative growth. Leave a few flower clusters on the plants to produce a small crop of fruit in the third year, and plants may be allowed to set a full crop four or five years after planting.

Pruning

Blueberry bushes should be pruned every year to produce high yields of good quality fruit. Pruning occurs during the dormant season, usually in the late winter when the snow has receded. The object of good pruning is to maintain plant vigor and promote fruit quality. The bushes are pruned to an open habit to allow good light penetration and air movement. The time and labor commitments for pruning are considerable, but will pay off in long-term fruit quality and productivity.

Harvesting

Fruit begin to ripen in mid to late July and peak production generally occurs from early to mid August. Fruit is borne on clusters of five to eight berries that ripen in succession over a period of several weeks. Pick the berries only when they are fully ripe, generally one to three days after they turn blue. Be sure there is no tinge of red color on the fruit before harvesting. Blueberries work very well as a pick-your own crop, as long as customers are properly informed regarding how to pick, and are kept in rows where plenty of ripe fruit is available. Picking for the retail or wholesale market is labor intensive and costly, but prices are typically good enough in local markets to justify hiring labor for harvest.

Pest Management

Although blueberries are not bothered by many pest problems, it is wise to become familiar with the different blueberry pests, their life cycles, and the damage they cause. The key to good pest management is prevention. Keep your planting free of weeds. Weeds compete with blueberries for nutrients and water, and may also harbor insects and diseases.

Spotted wing drosophila has become a major pest of blueberries in New England, and can be very challenging to manage in a blueberry field. At this time, only frequent, regular insecticide sprays will prevent larvae from infesting the fruit once the fruit fly has become established in a field. Growing early maturing varieties that ripen before the fly populations build to damaging levels can greatly reduce the amount of effort required to manage drosophila, but will shorten the fresh market season for growers

Another common insect problem in blueberries is the blueberry maggot. This is the larva of a small fly that feeds inside the developing fruit. It also can be managed with appropriate insecticide sprays applied when the fruit start to color.

The most common disease problem for blueberries is mummy berry. This is a fungus that causes the fruit to shrivel and turn hard. It may be managed with fungicides applied in the early spring, or by vigilant removal of all the infested fruit (“mummies”) from the planting every year to prevent new infections. Several varieties are resistant to this disease, including Jersey and Blue Crop.

Birds are a serious pest of blueberries. Covering the plants with netting is the most effective control. Plastic or cloth netting is available through agricultural equipment dealers. It is best to use a post and wire frame to support the netting over the plants.

Bottom Line

The cost of establishment of a highbush blueberry planting is thought to be in the range of \$5,000 to \$8,000 per acre, depending on how much equipment you already own, labor costs, etc. The annual gross returns once the plants come into full production (4 to 6 years) should be in the range of \$12,000 to \$16,000 per acre with a net return of \$5,000 to \$8,000 per acre, assuming yields of 5,000 to 8,000 lbs. of fruit per acre and a sale price of around \$2.50 per pint.

Blueberries can be a profitable crop in New England, if managed properly. Although establishment costs are relatively high and there are significant potential pest problems that will have to be constantly and consistently monitored and managed. In most areas demand for blueberry fruit is high and customers are happy to purchase them as a pick-your-own crop or as pre-picked fresh retail at farm stands and farmers markets.