



SUGGESTIONS FOR ESTABLISHING A BLUEBERRY PLANTING IN WESTERN NORTH CAROLINA

Bill Cline and Gina Fernandez
Extension Horticultural Specialists

Blueberry production in Western NC differs from the main commercial production areas in the southeastern part of the state because of differing climate and soil conditions. Highbush blueberry cultivars (*Vaccinium corymbosum*) should be used exclusively; rabbiteye blueberries (*Vaccinium ashei*) will not consistently survive low winter temperatures that occur in Western NC. For general information on PYO and home blueberry production, see HIL-202, *Blueberry Production for Local Sales and Pick-Your-Own Operations* and HIL-8207, *Growing Blueberries in the Home Garden*. For specific information on pruning blueberries or on using overhead irrigation for frost/freeze protection, see HILs 201-B and 201-E, respectively.

Site Selection

- Well-drained, sandy or loamy soils.
- pH 4.0 to 5.0, high organic matter — 3% or greater.
- Level or rolling land, elevated area with good air drainage.
- Possibilities for irrigation.

Preparation of Land

- Test soil and bring to a medium level of phosphorous before planting.
- Eliminate problem weed species with herbicides or cultivation the year before planting.

- Incorporate bark humus or sawdust into the soil to bring organic matter to 3% or greater if needed in the rows (2- to 4-ft-wide strips) before planting.
- Set plants 5 ft apart in rows, 9 to 10 ft between rows, in late winter or early spring (as soon as the soil can be worked).
- Sawdust mulch (4 to 6 inches deep) over row immediately after setting plants.
- Row middles should be in sod (fescue or bluegrass).

Planting Tips

- Before setting plants in the field, prune to remove at least half of the height of the canes, and thin to 1 to 3 strong canes per plant, removing all weak or twiggy growth.
- Early fruiting places stress on young plants. Plants should not be allowed to fruit the first 2 years. Remove fruiting wood and weak growth during the dormant season.

Availability of Plants

Nurseries usually have ample supply of plants priced from \$0.50 to \$3.00 per plant, depending on quantity, variety, and size. Two-year-old plants are preferred. Additional plants may be obtained in later years from locally grown cuttings. See HIL-8207 for a current list of blueberry nurseries.

Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Employment and program opportunities are offered to all people regardless of race, color, national origin, sex, age, or disability. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.



North Carolina
Cooperative Extension Service
NORTH CAROLINA STATE UNIVERSITY
COLLEGE OF AGRICULTURE & LIFE SCIENCES

Cultivar Selection

Cultivar Name	Harvest Begins	Harvest Ends	Berry Size	Berry Color	Berry Flavor
*Weymouth	6/15 to 7/1	7/15 to 8/1	small	dark blue	poor
*Earliblue	6/15 to 7/1	7/11 to 7/28	medium	med blue	good
Spartan	6/21 to 7/6	7/21 to 8/7	large	light blue	excellent
Collins	6/22 to 7/7	7/22 to 8/8	medium-large	light blue	good
Patriot	6/28 to 7/13	7/28 to 8/12	large	med blue	excellent
Bluejay	6/30 to 7/15	7/30 to 8/20	med-large	light blue	good, mild
*Blueray	7/3 to 7/19	8/3 to 8/20	large	dark blue	good
*Bluecrop	7/7 to 7/23	8/13 to 8/29	med-large	light blue	good
*Berkeley	7/7 to 7/23	8/7 to 8/20	large	light blue	fair, mild
*Jersey	7/14 to 7/30	8/18 to 9/3	small	light blue	good
Coville	7/20 to 8/5	8/20 to 9/5	med-large	med blue	good, tart
Elliott	7/30 to 8/15	8/30 to 9/15	med	light blue	good

*Varieties that have been grown successfully in mountain areas of NC. The other varieties are suggested for trial planting. Other cultivars worthy of trial use include 'Duke', 'Sunrise' and 'Toro'.

Cultivation

Cultivate during the first year only to control weeds and grass. A 4- to 6-inch mulch of sawdust or bark helps control weeds and grass. Keep row middles mowed to conserve soil moisture and to keep the ground cover under control.

Fertilization

(Caution: Blueberry plants are easily damaged by too much fertilizer.) Acid-forming fertilizers that have little limestone filler are desirable. Special azalea or rhododendron fertilizers meet this requirement, but the price maybe prohibitive for more than a few bushes. A standard 12-12-12, 10-10-10 or 8-8-8 can be used if a special blueberry fertilizer is not available. The high analysis fertilizers such as 12-12-12 generally have lower amounts of limestone filler than lower analysis fertilizers like 8-8-8. Ammonium nitrate (33.5-0-0) or ammonium sulfate (20.5-0-0) are desirable sources of supplemental nitrogen. If the soil pH is below 5.0, use ammonium nitrate, but use ammonium sulfate for more acid forming effect if the pH is above 5.0. Special attention should be given to leaf yellowing (complete area of young and old

leaves) caused by nitrogen deficiency when sawdust or bark was combined with the planting soil. Organisms in the soil deplete the available nitrogen and cause a deficiency for the blueberry plant as the sawdust or bark decomposes.

First Year — Uniformly distribute 16 lb of nitrogen per acre after the first flush of growth is complete (6 to 8 weeks after planting) within a band 1 ft on each side of the plant. The 16 lb of nitrogen are supplied by 133, 160 or 200 lb, respectively, of 12-12-12, 10-10-10 or 8-8-8.

Fertilizer can also be applied by hand around individual bushes. Uniformly distribute ½ oz (1 Tbsp) of 12-12-12 within a circle 1 ft from the plant. Use proportionately more 10-10-10 or 8-8-8. Repeat applications using ammonium nitrate or ammonium sulfate every 4 to 6 weeks until July 1. Extend application intervals during dry periods until rainfall has totaled 4 inches. Use 50 lb per acre of ammonium nitrate or 80 lb per acre of ammonium sulfate in a 2 ft band (1 ft on each side of the bush). This rate corresponds to about ¼ oz (½ Tbsp) ammonium nitrate or ¾ oz (¾ Tbsp) of ammonium sulfate within the circle 1 ft from the plant.

Second Year — Double the first-year rates, but increase the band width to 3 ft or the circle around individual plants to 1 1/2 ft.

Bearing Plants — Apply 300 to 500 lb per acre of 12-12-12 or an equivalent amount of 10-10-10 or 8-8-8 in a 3- to 4-ft band. For individual bushes, apply the equivalent of 1/2 lb (1 cup) of 12-12-12 within a circle 3 ft from the plant. Side dress with 30 lb of N (about 100 lb of ammonium nitrate or 150 lb of ammonium sulfate) per acre 4 to 6 weeks later. For individual bushes, this is 2 oz (1/4 cup) of ammonium nitrate or 3 oz (3/8 cup) of ammonium sulfate.

Insect and Disease Control

Insects and diseases have not been serious problems; however, check for damage periodically. Wild blueberries are common in western North Carolina; and, therefore, some pest problems may be expected at one time or another. For more detailed information, refer to N.C. Extension Bulletin AG-468, *Diseases and Arthropod Pests of Blueberry*.