Growing Blueberries in Utah

Blueberries are a very popular fruit in the United States because of their unique flavor, small edible seeds, and ease of preparation. Blueberries can be eaten fresh or used for jelly, jam, pies, pastries, or juice. Blueberry fruit is also low in calories and sodium, contains no cholesterol, and is a source of fiber. A major constituent of the fiber is pectin, known for its ability to lower blood cholesterol. Blueberries contain measurable quantities of ellagic acid, which has inhibiting effects on chemically induced cancer in laboratory studies. Blueberry juice also contains a compound that prevents bacteria from anchoring themselves to the bladder, thereby helping to prevent urinary tract infections.

Should I Grow Blueberries in Utah?
Blueberries could make a good fruit crop for home gardens since they require small space. At present, blueberry plants are not common in home plantings because the plants require highly acidic soil conditions for best results. Backyard soils in Utah are not naturally acidic enough to grow quality blueberries. The grower of blueberries must, therefore, make extra effort to acidify the soil before plant establishment. Then, the acidity level must be maintained over the life of the planting. Due to the special concerns associated with the rather demanding soil requirements of growing the crop, the soil must be amended with organic matter and the pH must be corrected before proceeding to establish the planting, which will be discussed in detail later.

Blueberry plants begin to produce fruit in the third season; however, they do not become fully productive for about six years. Once in production, it is necessary to protect the fruit from loss to birds.

Blueberry Types and Cultivars
There are three main types of blueberries: highbush (including half-high), rabbiteye, and southern highbush. Only highbush blueberries and half-high blueberries are recommended for Utah. Half-high blueberries possess greater cold hardiness and are the best choice for gardeners in Northern Utah. Plants are relatively small (varieties commonly grow only 1 to 2 feet tall) and produce small to medium size berries. Suggested varieties are ‘Northblue’, ‘Northsky’ and ‘Northcountry’. ‘Northblue’ must have a pollinator—specifically ‘Northsky’. ‘Northsky’ and ‘Northcountry’ are self-pollinated, but yield will increase greatly when paired with ‘Northblue’.

Site and Soil Requirements for Blueberry Production
The highbush and half-high blueberry requires full sun for optimum yield and quality, and grows best where the soil is very acid and well supplied with moisture. Soil pH should be in the range of 4 to 4.5 and have 4 to 7% organic matter or more. On loam or clay loam soils, it is suggested that plants be grown on raised beds, 4 feet wide and 9 inches high for better water drainage. Such beds are not needed for production on sandy soils.

Because blueberries require such a low pH to produce and thrive, it is imperative that you adjust your pH and drainage before planting your blueberries. Ideally this should be done at least 1 year prior to planting. We recommend equal parts sand, organic material (compost, nutra-mulch, soil pep, redwood soil conditioner) and peat moss. Peat moss is a great fast temporary acidifier. It’s naturally acid to about a pH of 4-5. Sand is needed because blueberries must have good drainage. Organic material is needed not only for it’s nutrient additive, but also it helps to keep soil more acidic longer.

Blueberries have very shallow roots, so make sure that this soil mix is beneath the root ball, and at least 1-2 feet around the root ball. Even with all this soil prep, our rain is very alkaline, and will quickly change your pH without continual additives. Soil Sulfur is a great long term, however slow, approach to keeping the soil around blueberries acidic. Use Soil Sulfur at about 0.5 lb per 10 sq. ft. Make sure to work into the soil slightly after application. Use in spring and fall. Ammonium Sulfate is the other option for acidifying your soil. This is a faster approach, however not long term. In the second through twelfth years, apply 1 to 1.5 pounds of ammonium sulfate (2 to 3 pounds of 10-10-10) per 100 feet of row each year for fertility and acidity maintenance. Apply 0.5 pound of the ammonium sulfate at bloom, and the remaining 0.5 pound 4 to 6 weeks later. If plant leaves become chlorotic, apply 2 to 3 ounces of ferrous sulfate or iron chelate around the base of the plants each year.

It is very important to test soil for pH, nutrient status, and organic matter content before conducting soil preparation. Your soil should be tested twice; once before soil preparation and acidification, and once after sulfur and fertilizer have been added. Further adjustments may then be necessary. Your local Extension offices have soil-testing forms, bags, and instructions available. Soil testing kits and materials are also available at Anderson’s.

Set plants 5 feet apart with rows 10 feet apart. Apply 4 inches of a good mulch such as wood chips, peat moss, compost in a 2 feet wide band after planting, and maintain a 4 inch depth and 4 feet band over the life of the planting.
Blueberry bushes have very shallow root systems and are very sensitive to water fluctuations. They need at least 1 to 2 inches of water per week. In dry seasons, supplemental watering is essential to obtain good yields of high quality products. However, do not apply water after early September unless soil is very dry.

**Pruning**
Blueberry plants normally do not need to be pruned for the first three years. Remove blossoms that appear in the year of planting and second year after planting to stimulate vigorous growth.

It is important to know the anatomy of a blueberry bush before attempting to prune blueberries. During the fourth year, the dormant plants should be pruned in mid-March. At this time, remove dead and weak branches and thin, terminal wood with small buds. Prune interior crossing branches to admit light to the center of the plant.

In subsequent years, thin out older branches to force new growth. Tall-growing branches can be headed back and thin branches removed. Flower buds of blueberry bush are produced on tips and down the second year old shoots. Blueberry bushes tend to produce smaller berries when they are over loaded with fruits. Hence, it is important not to have too many flower buds.