

Cultural Directions For Cultivated Blueberries

Blueberries will thrive in the garden when their needs are understood and met. Where wild blueberries grow, and in some other locations, the right conditions may already be available. In other places, especially in gardens and lawns, special preparation of the soil may be necessary, but it is no greater than that demanded by many other plants commonly grown in gardens. Once the right conditions are provided very little care is needed. The following are the points needing special attention:

1. Plant in an acid soil, which means one that contains no lime.
2. Provide plant food in the form of peaty material, such as peat, rotten leaves, rotten sawdust or other partially decayed vegetable matter.
3. A light, well-drained soil that holds moisture well is to be preferred.
4. Mulch at least 6 inches deep and 2 feet each side of the plants with leaves or other loose vegetable material.
5. In a dry location leave a shallow basin around the plants, as illustrated, and when the soil becomes dry, water liberally.

The above points cover the essentials for growing blueberries. However, many gardeners like more detailed information on how to care for their plants to secure maximum results. To these we offer the following suggestions, which will be of especial value to those who must plant in a dry location or in a soil containing lime.

Requirements for Growing Blueberries

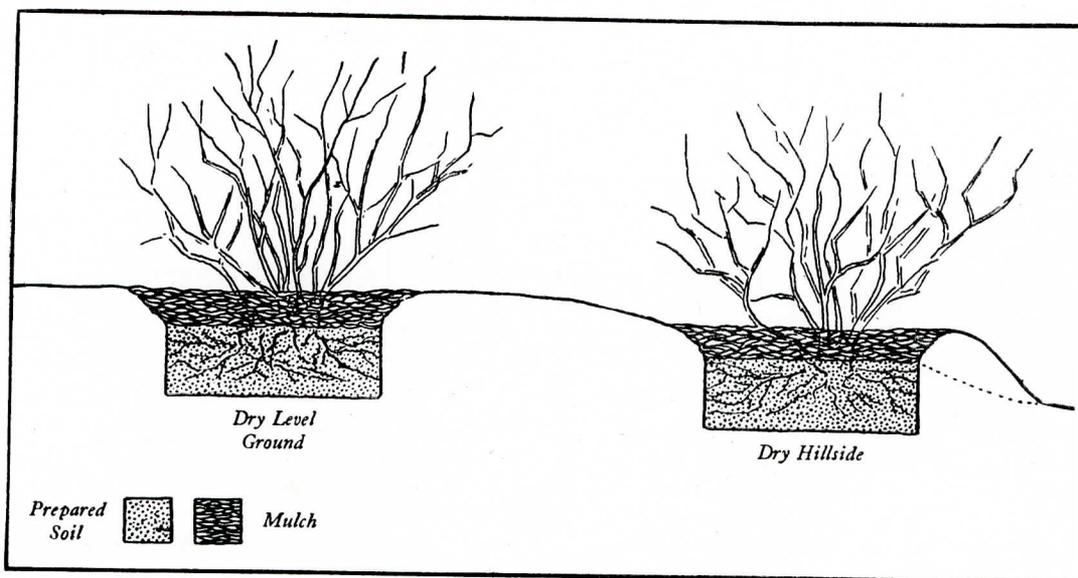
The requirements, according to Dr. Coville, are (1) an acid soil, especially one composed of peat and sand; (2) a moderate supply of soil moisture, and (3) good drainage so that the roots can get air during the growing season.

PEAT. The acid peat or peaty material necessary for blueberries consists of partially decayed vegetable matter. Natural peat is found in many bogs and swamps and is the best material to use if it can be obtained. Partially decayed leaves, especially oak leaves, pine needles, or other leaves which rot slowly, give excellent results. Well rotted wood that can be broken into fine pieces, rotten sawdust or the rotten chips and litter to be found around an old wood pile are all good.

LIME. Lime is poison to blueberries and is not found in the acid soils which they require.

Selecting a Location

SOIL. If wild blueberries grow on your land, by all means plant your cultivated blueberries where they will have the same general conditions. A soil that will grow wild blueberries is suited to Cultivated Blueberries, although sometimes it can be improved by adding peaty material, and occasionally it needs additional moisture or better drainage. If you cannot use soil where wild blueberries grow, the next best is a moist sandy soil. A light soil is always to be preferred to a heavy clay, as it will require less preparation and the blueberries are likely to make a more satisfactory growth.



On dry, level ground dig a trench at least 3 feet wide and 18 inches deep, put in 12 inches of prepared blueberry soil and after the blueberries have been planted fill the remaining 6 inches of the trench with leaves or other mulching material.

On a dry hillside plant as on dry level ground, using the excavated soil to build up the lower side of the trench.

SOIL MOISTURE.

While highbush blueberries are sometimes found growing on hillsides or in other dry places, Cultivated Blueberries will give the greatest satisfaction if they are planted where the soil remains moist throughout the summer months. If you do not have a moist location, it is advisable to plant your blueberries where they can easily be watered during extended periods of dry weather.

DRAINAGE.

While blueberries require a moist soil, they will not tolerate swampy conditions during the growing season. We have found it necessary to ditch the wet parts of our blueberry fields to a depth of at least 18 inches. Where blueberries are to be planted in a low place that cannot be ditched, the necessary drainage can be secured by building a low ridge and setting the plants on it. Water standing over the roots of the plants in winter will do little damage and for a day in summer no serious damage. Soil texture that will retain moisture and at the same time permit circulation of air about the roots is vital.

SUN VERSUS SHADE.

Blueberries grow and produce best in full sun. They will give fair results in partial shade. It is possible that in the South partial shade will be a benefit.

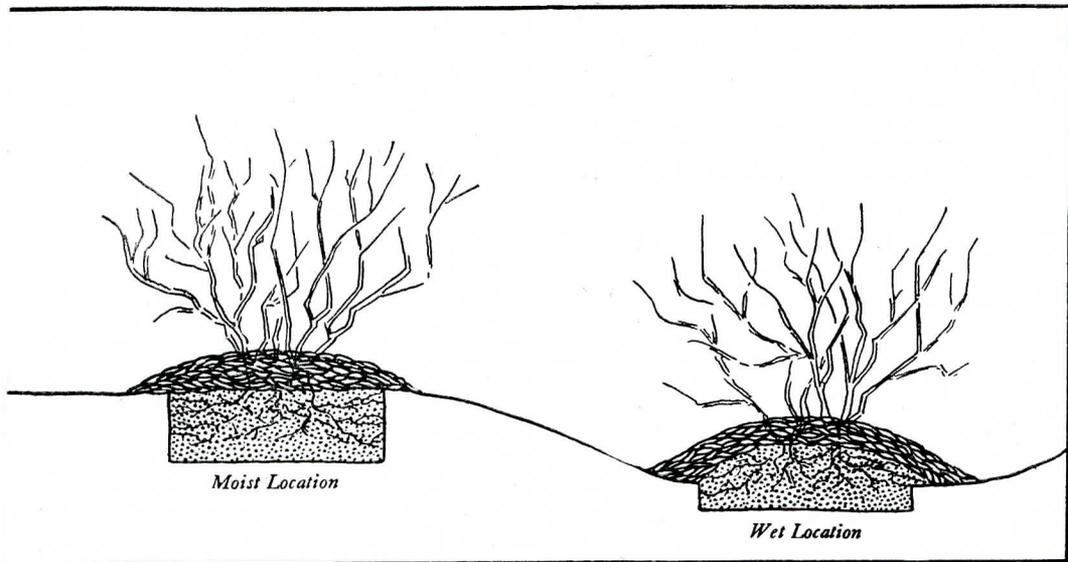
SPACE REQUIRED.

For garden culture a satisfactory arrangement is to plant blueberries in a bed, spacing them 3 feet apart in one direction and 4 to 5 feet apart in the other. If they cannot be placed in a bed, they may be spaced 3 feet apart in a row. Where a hedge-effect is desired it is preferable to place the plants about $2\frac{1}{2}$ feet apart.

PREPARATION OF THE SOIL.

Where conditions are naturally suited to blueberries the only preparation needed is to thoroughly spade the soil to a depth of 8 or 10 inches for at least 18 inches each side of where the plant is to be placed. If the soil is very sandy or otherwise deficient in plant food, it will be greatly benefited by working in some peaty material.

Most gardens are not on natural blueberry soil and will require special preparation. To secure the best results it is advisable to dig a trench at least 3 feet wide, 4 feet is better, and place in it prepared blueberry soil to depth of 12 inches. The method of preparing and filling the trenches in various locations is illustrated above. The best blueberry soil consists of a



In a moist location fill the trench to the ground level with prepared soil and place the mulch above the ground level.

In a wet location build a mound or ridge of blueberry soil and plant the blueberries on top and heap the mulch on and around the ridge.

mixture of half peaty material and half sand. A mixture of two parts of peaty material, one part of sand and one part of loam is also good. If sand is not available a mixture of half peaty material and half loam that has not recently been limed will prove satisfactory. Heavy clay should not be used in the mixture if lighter soil is obtainable. If necessary to use clay it will probably be beneficial to add some coal ashes to lighten it. Even in dry locations if the subsoil is heavy or impervious to water it will be beneficial to place 6 inches of stones, cinders or other drainage material in the bottom of the trench below the 12 inches of prepared soil.

In dry locations excellent results have been secured by leaving a shallow basin below the general ground level around the plants, as shown in the accompanying illustration, and filling this basin with mulching material. Such a hollow catches extra water during a rain and holds water that is applied to the plants until it can soak into the ground around the roots of the plants. In a dry location never heap the soil up around the stems of the plants.

Planting

CARE BEFORE PLANTING. If dormant plants are received in cold weather they can be kept in perfect condition without unpacking as long as they can be stored at a temperature under 40 degrees. Freezing will not hurt them, but frequent freezing and thawing is to be avoided. Plants which have started to grow should be unpacked as soon as received and exposed to the air and light in a shady place until the leaves and buds have turned green. In warm weather the plants can be kept for a few days "heeled in" in a moist, shady place by covering the roots with moist soil, but they should be planted in their permanent location just as soon as possible.

WHEN TO PLANT. Blueberries may be planted in the spring as soon as the ground is open, or early in the fall. Most gardeners prefer to do their planting in the spring. Spring planting should be completed as soon as your conditions permit—the earlier the better.

HOW TO PLANT. Blueberry roots are fine and will be damaged if they dry out. Keep them covered and never let the sun strike them. It is advisable to take the plants to the garden wrapped in the packing material in which they were shipped. When ready to plant them, remove all of the packing material and the moss in which the roots were wrapped but be careful to shake as little soil as possible from the roots. Dig a

hole amply large to spread out the roots. Set the plants a half inch to an inch deeper than they grew in the nursery. Partially fill the hole with soil which should be packed tightly but carefully so as not to break the many fine roots. Be sure that no air spaces are left around the roots. When the hole is nearly filled with soil, water the plants thoroughly to settle the soil about the roots. Then finish filling the hole with soil. The name label which is attached to the plant should be carefully removed and attached to a stake driven near the plant. Do not leave it on the plant as the wire will cut into the bark as the stem grows and seriously damage the plant.

PLANTS CUT BACK. It is our custom to cut back blueberry plants before shipment. We do this because plants properly pruned when transplanted make better growth and produce good fruit more quickly.

Care of the Plants

MULCH. A mulch of leaves, hay, straw, lawn clippings, old shavings or similar loose material at least 6 inches deep and extending at least 2 feet each side of the plant is very necessary to conserve the moisture and keep down weeds. This mulch should be put on as soon as planting is completed and should be left on the year round. If for any reason it packs it should be shaken up to assure the free passage of air to the soil. While we practice clean cultivation in our large fields of natural blueberry soil, we have found that a mulch gives more satisfactory results in the garden especially in dry locations. It is also easier and cheaper as it eliminates cultivation. Where plants are grown in a bed the whole bed should be covered with the mulch. As the mulch decays it furnishes a new supply of plant food for the blueberries. The mulch may be held in place with branches or with pieces of chicken wire. It is desirable to place new mulching material on the old at least once a year.

FERTILIZER. Peaty material such as furnished by the decaying mulch is just about the best kind of fertilizer there is for blueberries. Cottonseed meal applied at the rate of a half pound to the plant has been very beneficial. It has the advantage of being perfectly safe to use and can usually be secured at any feed store. The best time for applying fertilizer is just after the plants have bloomed in the spring. Never use stable manure on blueberries, for although it may appear beneficial when first applied, its after effects are likely to be harmful.

WATER. It is very important for the plants to have plenty of water especially during the first summer. If they are not in a moist location, it may be necessary to water them. Watering will be much easier and more effective if a basin is left around the plant to hold the water until it soaks away. A thorough watering once a week is better than a light watering at more frequent intervals. By a thorough watering we mean sufficient water to wet the soil to a depth of at least 6 inches. This will take more water than you think but it will pay to put on plenty.

PRUNING. The only pruning needed the second year is to remove the flower buds in order to throw the full strength of the plants into the top and roots. The third summer the flower buds may be left and the plants should produce a good crop of fruit. As the plants get older it is advisable to remove the twiggy growth and cut to the ground some of the older stems each year. Ordinarily stems 4 years old begin to lose their productiveness and produce smaller berries than the younger stems. The purpose of pruning is to remove these older stems in order to make room for young wood that will produce fruit of the finest quality.

WINTER PROTECTION. We have found our varieties perfectly hardy in New Jersey and they have been reported as hardy in several localities in northern parts of the United States. There are undoubtedly locations where winter protection will be necessary, but we have had no experience as to the best means of applying it.

PESTS. One of the great advantages of blueberries is that they do not require spraying. Rabbits are very fond of the young sprouts during the winter. If you have wild rabbits, it will be advisable to protect the plants with a low fence of chicken wire. Rabbits are not likely to get over a fence that is 18 inches high.