

BLUEBERRIES

ATTENTION!

Blueberries must have a soil pH between 4.5 and 4.8. Have your soil tested. If the pH level is outside the specified range, begin amending it right away. Excessive amounts of sulfur can be toxic to your plants.

AT-A-GLANCE

pH: 4.5 - 4.8

In-row spacing:
4' - 5'

Between rows:
10' - 12'



Blueberries are a tasty and nutritious fruit, borne on a plant beautiful enough to grow as an ornamental. A well-prepared site, planted properly, will pay dividends of a lifetime of fruit. They are easy to grow and relatively pest-free.

Soil pH

The term pH refers to the acidity or alkalinity of soil. The pH level is important to know because it affects a plant's ability to obtain nutrients from the soil and each type of plant has different soil pH requirements. Soil pH should be between 4.5 and 4.8 for blueberry plants. A pH of 5.0 is too high!

For best results when planting blueberries, amend pH levels **before** planting. However, by following our planting instructions, you can establish plants successfully without prior pH adjustments. Addition of sulfur is often necessary to adjust the pH. Regular garden sulfur is the best material to use to reduce pH. Amend soil with sulfur, **not** ammonium sulfate. It is important to test the soil's pH level so you are able to amend it properly. Consult your local Cooperative Extension service for advice on how to test your soil. (See page 26 for our detailed recommendation.)

Caution: Excess sulfur, resulting in a pH that is too low, can be toxic! Do a soil test and apply the proper amount of sulfur. Do not guess.

Planting

Do not apply fertilizer at planting. Be sure to cover the top of the plug with 1/2" - 1" of topsoil - don't plant too deeply. Don't allow the roots to dry out during the planting process.

Aged wood chips can be mixed into the soil prior to planting. Wood chips aerate the soil, increasing drainage and root penetration. This method is good for all types of soil, but most beneficial in heavier, silt loam or clay loam soils. Put a 2"-3" deep layer of wood chips over your planting row and incorporate it thoroughly into the top 6"-8" of soil. Mix in the required amount of sulfur as determined by your soil test. Then you're ready to plant.

If you use peat moss, thoroughly mix 40% peat with 60% soil making sure the peat is thoroughly saturated with water before mixing. Place this mixture under and around each plant. Make sure the peat/soil mix is thoroughly covered with 1/2"-1" of plain soil after backfilling the hole. This practice is to benefit the first 60-90 days of root development for strong plant establishment. Any peat not covered with soil will quickly wick moisture away from the plant and cause the roots to dry out rapidly.

Tip: Instead of removing sod, measure a 2"-4' wide strip the length of your required row and apply Roundup™ to the row when the grass is 4"-6" tall.

Warning: Shavings or sawdust with manure has too much nitrogen for first-year plants.

Irrigation

Because of a very shallow, fibrous root system, frequent watering is required. Maintain moisture, and do not allow roots to dry out. Water 1-3 times per week, not every day. Drip irrigation placed beneath the mulch layer is healthiest and most efficient method. Water is applied directly to the root zone where it is needed, while keeping moisture off the plants, thereby reducing disease pressure.

Fertilization

First Year: Wait 4 - 6 weeks after planting before fertilizing to avoid burning the roots. Apply 1 oz. ammonium sulfate in a circular band around each plant.

Subsequent Years: Apply 2 oz. per plant at bloom time, and again a month later.

Home gardeners may use fertilizers available at local garden centers that are formulated for blueberry plants. Do not apply fertilizer in late summer or early fall. Late-season fertilizing could lead to new, tender growth which is susceptible to winter injury and may lead to entry points for disease.

Warning: Do not use fertilizer that contains potassium chloride, blueberries can be adversely affected. We also do not recommend aluminum sulfate.

Weed Control & Mulching

Maintain a 3" - 4" layer of aged wood chips as mulch to support water retention. Avoid treated or colored wood chips or mulch. Do not use Cedar or Black Walnut chips. Also avoid using leaves, or an excessive amount of sawdust, as both can mat down and prevent moisture from reaching the plant's roots. Regular, manual weeding will be necessary. We highly recommend using drip irrigation placed under the mulch.

Pruning

Remove all flowers during the first year-do not allow berries to develop. For the first 3 years, no pruning is needed unless you discover broken, damaged or diseased branches. After the first three years, blueberries should be pruned annually during the dormant period. Your goal is to have approximately 12 canes per plant. Older, heavy branches in the center should be removed to allow air and sunlight to penetrate. Remove lower, weak and damaged branches and branches less than 6 inches long. These branches will never fruit and can serve as an entrance point for disease.

New wood produces the largest fruit. Canes should be a mix of different ages and any canes over 2" in diameter should be removed. For detailed pruning information, we highly recommend Oregon State University's how-to video: A Grower's Guide to Pruning High bush Blueberries, available from Nourse Farms. Rutgers University also publishes a Blueberry Bulletin, which is very informative.





How to amend your soil for the healthiest, most productive blueberry plants

Contact your local Cooperative Extension (see page 7.) for additional advice on the proper procedure and materials for testing and lowering the soil pH, using amendments such as sulfur, sawdust, aged wood chips, old leaves or finished compost. A combination of the above materials gives the best results.

Use the table below to determine how much sulfur to apply.

Note: The amount of sulfur to be incorporated varies according to the soil type: sand (light), loam (medium), clay (heavy), as well as the present pH level of your soil.

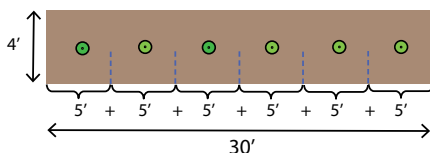
Optimum pH value for growing blueberry plants is 4.5

PRESENT SOIL pH	Amount of Sulfur in Pounds per 100 Square Feet Required to Lower Soil pH for Blueberries		
	SAND	LOAM	CLAY
4.5	0.0	0.0	0.0
5.0	0.4	1.2	1.4
5.5	0.8	2.4	2.6
6.0	1.2	3.5	3.7
6.5	1.5	4.6	4.8
7.0	1.9	5.8	6.0
7.5	2.3	6.9	7.1

Source: Midwest Small Fruit Pest Management Handbook, Bulletin 680

Formula: Square feet (row length x row width) divided by 100, multiplied by the recommended number of lbs. per sq. ft. equals how many lbs. you need for your planting area.

Example: If your soil pH test result is 6.5 and you are planting in a loam soil, it will require 4.6 lbs. of sulfur per 100 sq. ft. The area for 6 plants spaced 5' apart, in a 4'-wide row, is 120 sq. ft. The 120 sq.ft. ÷ 100 = 1.2 and 1.2 x 4.6 = 5.52 lbs.



row width x row length = square feet

$$4' \times 30' = 120 \text{ sq. ft.}$$

Blueberry Trouble-Shooting

Yellow leaves on blueberries can be quickly corrected with a foliar application of one tablespoon iron chelate per gallon of water sprayed over the leaves. You should see greener leaves in a few days. Often, the underlying problem is that the soil pH is too high. Have your soil tested and make required amendments. You should see 12"-18" of new growth each year. If not, check your soil pH and/or use a little more fertilizer. Be sure your plants are receiving enough water, especially during dry spells.