



## FERTILIZING HOME FRUITS

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The question of what kind and how much fertilizer to use for different fruits often puzzles the home gardener. While it is not possible to give specific recommendations for every situation, some general suggestions can serve as a guide to fertilizing home fruits.

There are many different kinds and grades of fertilizer on the market, but it isn't necessary to buy a different fertilizer for each fruit. A good garden fertilizer, such as 5-10-10 or 10-10-10, is satisfactory for any fruit grown in the home garden.

Where mulches of hay or lawn clippings are used, the amount of fertilizer may be decreased or omitted after the mulch starts to decay. Where sawdust is used for a mulch, the amount of fertilizer will probably need to be doubled, because soil bacterial rob nitrogen from plants to break down the sawdust.

Most Massachusetts soils require applications of lime to correct soil acidity. While only a soil test will determine the actual amount of lime needed, ten pounds of high magnesium lime broadcast over every 100 square feet of area should be sufficient to correct the acidity of most soils. Lime, which should be worked into the soil if possible, usually needs to be applied only once every five years.

*Caution:* Blueberries require an acid soil and should not be limed.

The amount of fertilizer to apply will depend on the natural fertility of the soil, plant vigor and size, and the system of soil management practiced. Therefore, it is not possible to give recommendations which will apply to all situations. Following are some general suggestions for fertilizing fruits commonly grown by the home gardener.

### BLUEBERRIES

On newly set plants, do not apply fertilizer until four weeks after planting. Then sprinkle fertilizer by hand thinly around each plant, keeping it six to 12 inches from the crown. This should be done carefully because the small plants are easily injured by too much fertilizer. The amount to apply is suggested in Table 1.

After the first year, spread fertilizer as soon as the frost is out of the soil. Apply the fertilizer evenly about the plant over an area approximately equal to the circumference of the top of the bush and at the rates suggested in Table 1.

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Table 1. Suggested annual rates of fertilizer for blueberries.

Years after plants are set	Ounces per plant		
	5-10-10	10-10-10	Ammonium sulfate
0 (4 weeks after planting)	1	1/2	-
1	2	1	-
2	4	2	-
3	6	3	1.5
4	8	4	2
5	12	6	3
6	14	7	3.5
7 or older	16	8	4

Iron deficiency, characterized by a yellowing or interveinal chlorosis of leaves (fading of normal green coloration), is often observed in blueberry plants. This deficiency can be corrected by mixing in the soil one-half to one ounce of chelated iron per plant or by fertilizing with ammonium sulfate at the rate suggested in Table 1. Ammonium sulfate should not be used on young plants because it is too high in nitrogen and may cause injury.

#### STRAWBERRIES

Approximately ten to 14 days prior to planting, broadcast one pound of 5-10-10 fertilizer per 100 square feet of area and then hoe or cultivate several times until the soil is thoroughly pulverized and in a fine mellow condition.

Fertilizer is not needed after planting unless the plants are making unsatisfactory growth. If this happens, applying fertilizer about a month after planting and again in late August may improve growth. Apply the fertilizer at the rate of four to six pounds of 5-10-10 for each 25 feet of row. Spread it on the soil surface in a continuous band near the plants. When 10-10-10 fertilizer is used, reduce the quantity of fertilizer to two to three pounds per 25 feet of row. If the strawberry foliage is dry, the fertilizer can be broadcast over the plants instead of being applied in a continuous band along the row. Apply it on a clear day when the humidity is low and brush off any fertilizer that sticks to the leaves.

*Caution:* Do not apply fertilizer in the spring of the fruiting year as it may make the fruits soft.

#### GRAPES

Since grape vines live for many years, it is important to prepare the soil before planting. This preparation should begin a year or two before the plants are set. It should be designed to subdue weeds, add humus and improve the physical condition of the soil. After spring planting, four to six ounces of 5-10-10 fertilizer should be scattered no closer than 12 inches from the vine trunk. In succeeding springs, this amount should be doubled each year until a maximum of three to four pounds of 5-10-10 or its equivalent is applied per vine yearly.

#### RASPBERRIES

Like grapes, the soil for a raspberry bed should be thoroughly prepared. In the spring, prior to planting, apply one pound of a 5-10-10 fertilizer per 100 square feet of area and hoe or cultivate several times until the soil is thoroughly pulverized. No additional fertilizer is needed after planting. In the following years, fertilize as early as possible in the spring. Hand broadcast the fertilizer between the rows at the rate of six to eight pounds of 5-10-10 fertilizer or its equivalent for each 25 feet of row.

*Caution:* Do not fertilize in the summer since overstimulation of plant growth late in the season may increase raspberry cane susceptibility to cold injury.

#### FRUIT TREES

Do not fertilize the trees the year they are planted until they begin to put out leaves. After growth starts, scatter fertilizer within one foot of the trunk. After the first year, fertilize trees annually sometime between mid-April and early May. The fertilizer should be applied in a band extending from the tip of the branches to within one foot of the trunk of

small trees, and to within three or four feet of the trunk of large trees. The suggested rates of application are given in Table 2.

Table 2. Normal rate of fertilizer for fruit trees.

Amount of fertilizer per year of tree age\*

Kind of fruit tree	5-10-10	10-10-10
Apple, plum, cherry	1 pound	1/2 pound
Pear	1/2 pound	1/4 pound
Peach	2 pounds	1 pound

*\*If an apple, plum or cherry tree is one year old, apply one pound of 5-10-10 fertilizer. A five-year old tree should receive five pounds of fertilizer and so on.*

The amounts suggested above apply to young trees. Ten to 15 pounds of 5-10-10, or five to eight pounds of 10-10-10 should be sufficient for mature apple, plum, cherry and pear trees. A mature peach tree should not require more than 15 to 20 pounds of 5-10-10, or seven to ten pounds of 10-10-10. Remember that these are suggested rates which will probably have to be adjusted to meet the conditions found in your plantings. Shoots on young peach trees should grow 16 to 20 inches annually; in mature trees, 12 inches is sufficient to maintain good vigor and productivity. Shoots on young apple trees should grow at least 12 to 15 inches each season. On fruit bearing apple trees, eight to ten inches of annual growth per shoot should be sufficient.

Trees are susceptible to Boron deficiency which causes premature ripening of fruit and localized spots in the flesh of the fruit. Application of Boron once every three years will prevent the occurrence of this deficiency in apple and pear trees. The rate of application per tree will vary with tree age and size. Apply one-quarter pound of borax (11.1 percent actual Boron) or its equivalent under young trees coming into bearing; one-half to three-quarters pound to medium size trees; and three-quarters to one pound to large or mature trees. Be sure to note the percent of actual Boron in the fertilizer being used to supply this element, because applying an excessive amount of Boron can cause tree injury. Boron fertilizers vary from approximately 11 to 21 percent actual Boron. Apply the borax at the same time and the same way as other fertilizers used under fruit trees. Fruit trees mulched with lawn clippings and/or hay probably will not require any fertilizer except for Boron.

*Cautions:* Do not apply more than the suggested amounts of borax since too much Boron is toxic to trees. Do not fertilize fruit trees in the fall because it may cause winter injury.