



## STRAWBERRIES

Strawberries are perhaps the most ideal fruit for the home garden or for a small-scale planting. They are easy to grow, relatively pest free, and require little space. Twenty-five plants should provide enough berries for a family of four.

### VARIETIES

There are many varieties available that are suitable for Massachusetts. Be sure to purchase certified, virus-free plants. They cost a little more but produce healthier plants and greater yields of fruit. Verticillium-resistant and red stele-resistant varieties are advisable, especially where garden space is limited and other verticillium susceptible plants have been grown.

Recommended strawberry varieties include:

EARLY - Earlidawn, Catskill, Raritan

MIDSEASON - Surecrop, Redcheif, Midway

LATE - Guardian, Fletcher, Sparkle

### SOIL PREPARATION

Strawberries will grow in almost any soil type, but prefer a sandy loam. The important soil factors to consider are adequate water drainage and abundant organic matter. Soil should be well-cultivated and free of perennial weeds. At planting time, soil should be loosened and pulverized to a depth of eight inches and kept loosened to allow runners to take root. To avoid problems with verticillium wilt, do not plant strawberries where potatoes, tomatoes, peppers, eggplants strawberries or raspberries have grown within three years.

### LIME AND FERTILIZING

1. Before planting - A soil pH range of 5.5 to 7.0 is preferred; 6.0 - 6.5 is ideal. Have your soil tested and follow the recommendations given. Lime (if needed) should be applied before planting and mixed thoroughly with the soil.

Aged cow or horse manure at two to five bushels per 100 square feet, or compost, can be added to the soil to increase available organic matter. In addition, work into the soil about two pounds of 10-10-10 (four pounds 5-10-10, or equivalent) per 100 square feet to increase the nitrogen level.

2. After planting - Apply one to two pounds of 10-10-10 (or equivalent) per 100 square feet four to six weeks after planting and again in late August, depending on plant growth.

3. Fruiting year - Do not apply fertilizer the spring of fruiting year. Too much nitrogen results in large, soft berries and excessive vegetative growth.



4. After renovation - Immediately after renovation, apply four pounds of 10-10-10 (or equivalent) per 100 square feet over the rows when plants are dry. Fertilizer application to wet plants can result in phytotoxicity.

## PLANTING

Complete preparation of the planting site is the most important consideration at planting time. Work the plant site as soon as possible in the spring. Purchase plants from a reputable nursery. To avoid disease problems, do not transplant from another strawberry field.

There are several systems for planting strawberries. The most common is the matted row system in which mother plants are set 18 to 24 inches apart in rows that are three-to-four-and-a-half feet apart. Daughter plants, or runners, are allowed to root anywhere within the row. In the spaced row system, mother plants are set 12 to 15 inches apart, and runner plants are allowed to set at five-to-seven-inch spacings. Other systems include single and double hedgerow and hill systems.

## WATERING

After the plants are set out, during the period of fruit bud development in the fall, during production, and after renovation, extra water may be necessary. Generally, an inch of water per week, either supplied by normal rainfall or supplemental waterings, is recommended.

## WEED CONTROL

The most important aspect of strawberry culture is weed control. Proper site preparation will help control troublesome perennial weeds. After the plants become established, cultivating can begin. Shallow cultivation as close to the plants as possible, combined with hand hoeing, is the recommended practice. To give the strawberry plants maximum growth advantage, weeds should be removed as soon as they appear. Weed control should be practiced until growth stops in the fall.

## FIRST-SEASON CARE

In addition to weed control and watering, blossoms should be removed from newly set out plants. If fruit is allowed to form on new plants, these plants will not make maximum growth.

## MULCHING

After growth has stopped in the fall, apply at least a three-inch layer of straw, marsh hay, pine needles, sudan grass or other suitable material over the tops of the plants. Mulching helps protect the plants during severe winters, delays growth in spring (to protect against frosts), helps conserve moisture, and helps with weed control. Remove the mulch in spring as soon as new leaf growth begins to turn yellow (due to lack of sunlight); but not before there is still any danger of temperatures dipping into the 20's. Part the mulch over the top of the row, moving the mulch into the alleyways. Leave a thin layer of mulch on the plants to protect the developing berries and help with moisture conservation.

## RENOVATION

If a strawberry bed is free of weed, disease, or insect problems and has borne a good crop of berries, you should consider fruiting the bed another year. After harvest, remove mulch and mow the foliage as close to the bed as possible. Remove weak and extra plants and weeds. Cultivate between the rows of plants. Apply fertilizer as indicated above. Treat as a "new" bed. Normally, mother plants and the first daughter plants to form are kept, because these are the most productive plants.

## PESTS

The main insect pests are tarnished plant bugs, strawberry weevils, spittlebugs, and mites. Root rots, berry rots, and leafspot are the major disease problems.

## OTHER PROBLEMS

Problem: Blossoms open, but center of the blossom is brown or black.

Cause: Frost injury to flower bud.

Problem: Small, deformed berries with lots of seeds (achenes).

Cause: Tarnished plant bug injury.

Problem: Poorly shaped berries without seeds (achenes).

Cause: Poor pollination.

## HARVESTING

During the "height" of the season berries should be harvested daily. Strawberries should not be left in the hot sun, but should be kept in a cool, dry place - preferably refrigerated. Wet berries do not hold up well and mold quickly.

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