

Strawberries for the Home Garden

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LEONARD B. HERTZ

The strawberry is popular in the home garden. It is easy to grow almost anywhere in the state if you select a suitable site and plant adapted varieties. Plentiful fruit can be produced on small areas. If grown for home use, the surplus can be processed into jam or frozen for later use. Sold locally, the fruit can bring a good income from a small area.

THE STRAWBERRY PLANT

Strawberry plants are set out usually in early spring, using healthy dormant plants. Runners emerge from July through early fall and form new plants, taking root several inches from the original plant. Soon a succession of independent new plants are growing around the original plant.

During the first year, the mother plants often produce flowers which develop into fruit. These flowers should be removed, however, so the plant will develop and grow vigorously. As fall approaches, the growing points in each crown change into flower buds. These buds eventually will develop into flowers and, the next year, berries. The new plants become dormant after the days become short and cool. The older green leaves and many of the connecting runners die.

In the spring of the 2nd year the flower buds renew growth and develop into flowers, which generally produce mature fruit in about 30 days. The first flowers to open become the largest fruit, often called the "king berries." As later flowers develop the resulting fruits are successively smaller.

SITE SELECTION

Choose a site for strawberries which has enough slope to permit good air and water drainage. Cold air drains into low flat lands making frost injury to blossoms likely. In addition, the slope helps provide water drainage. Although plenty of moisture is desirable, standing water is definitely harmful. Plant vigor and growth will be retarded greatly and disease problems will be much greater in wet soils.

Strawberries grow well on many soils. They grow best on well-drained loams and sandy loams. Clay soils will produce good strawberries if sufficient organic matter is worked into it before planting. Avoid muck and peat soils for strawberries because frost injury is likely.

SELECT GOOD VARIETIES

Several hundred varieties of strawberries have been named over the years. Most varieties are not widely adapted and do best in or near regions where they were developed. The following varieties are recommended (in the order of ap-

proximate harvest time): June bearing—Earlmore, Cyclone, Redcoat, Sparkle, Trumpeter, and Badgerbelle; and Everbearing—Ogallala (widely adapted), Brilliant, Gem, Superfection, and Ozark Beauty.

For additional information, see Horticulture Fact Sheet 3, Fruits for Minnesota.

OBTAINING PLANTING STOCK

The value of good planting stock cannot be stressed too highly. Always buy plants that are free of insects, viruses, and other diseases. If possible, obtain these plants from a local nursery. Plants that are shipped in from a long distance seldom arrive in the best condition for planting.

If you get your planting stock from an old patch, transplant only the most vigorous young plants. Choose plants that are free from disease and insect infestations.

PREPARING THE SOIL

Strawberries grow best in a well-prepared soil which is relatively free of weeds. If perennial weeds, such as quackgrass, are a problem, a cultural weed eradication program should be started at least 1 year before planting strawberries.

Plow or spade under a liberal amount of well-rotted manure (about 4 bushels for 50 square feet). In addition, incorporate a balanced commercial fertilizer (such as 10-10-10) at the rate of 1 pound per 100 square feet.

Do not plant strawberries on newly plowed sod unless the land has been treated for white grubs. White grubs are very destructive to strawberries planted on infested soil.

PLANTING

Plant strawberries in the early spring as soon as the soil can be tilled. Keep the plants moist before setting. The ends of long roots may also benefit from removing some outer leaves. Set the plants with the crown flush with the soil surface. If the soil is dry and hot, irrigate immediately after planting.

SPACING

Three main systems are used to train strawberries. June bearing varieties are grown most often in a matted-row. Set the plants 24 inches apart in rows spaced 4 feet apart. Let the runners root during the summer to form a mat of plants 2 feet wide.

Figure 1. Apply straw or marsh hay to a 2- or 3-inch depth over the entire planting.

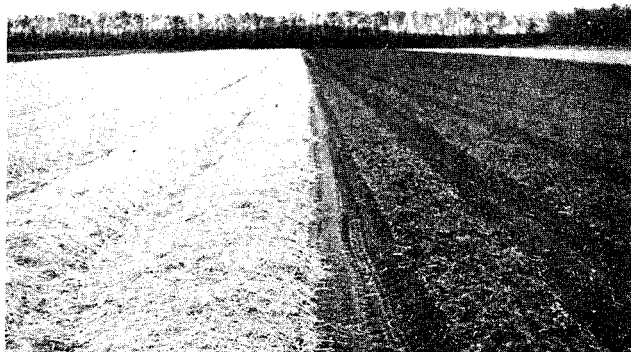


Figure 2. Rototill between the rows leaving a narrow band of plants about 8 inches wide.



June bearing varieties can also be grown in the spaced matted-row. Place mother plants as in the matted-row, but train the runners by hand so that runner plants are no closer than 4-6 inches. Remove later runners as they appear.

The hill system often is used with everbearing varieties. Set mother plants 12-18 inches apart within the row. Space rows 12-18 inches apart and leave every third or fourth row unplanted, so that a walkway is available for convenience in picking. Remove all runners, allowing only the original plant to grow.

CARE OF NEW PLANTING

During the first season, remove all flower stems on the June bearing plants. This strengthens the plant and also increases the number of runner plants. Remove all flowers on everbearing plants up to July 1 of the 1st year. Flowers that develop after that date generally produce a fall crop.

The strawberry plants require large quantities of water because they are shallow-rooted. If possible, they should be irrigated immediately after planting. In addition, if there is dry weather when the plants are getting established, or in the spring from blossom time through the fruiting season, irrigation is beneficial.

FERTILIZERS

Strawberries require adequate amounts of nitrogen and other soil nutrients to build runners and strong crowns. As a general rule, fertilizers may be applied at the time of planting, again during the first summer, and just before blossoming in the fruiting season. (Do not apply nitrogen just before the frost date, as chances of winter injury may increase.)

If plant growth is weak, apply a balanced fertilizer (such as 10-10-10) at the rate of 1 pound per 100 square feet 4 weeks after setting plants. Repeat in 3 to 4 weeks if growth is still weak. However, since soils vary greatly in fertility, have your soil tested to find specific fertilizer needs.

WINTER PROTECTION

In Minnesota mulching is needed to protect the plants from severe winter weather. Exposure to temperatures as low as 20° F. seriously reduces the yield of quality berries.

The time to apply the mulch varies with the season and location. Usually the mulch is applied after the plants have been subjected to a few good frosts to help harden the plants. Normally early November is right in the Twin Cities area.

Mulching also protects strawberry plants against rapid alternate freezing and thawing.

Apply straw or marsh hay 3-4 inches deep over the entire planting. If the area is not protected from wind, place boards or branches on the mulch to hold it down. Rake all but a light covering of mulch into the alleys between rows as soon as the plants begin to grow in the spring. If leaves start to turn yellow, remove the mulch at once.

RENOVATION

The vigor of the strawberry plants can be restored by renovating after harvest. Rototill between the rows leaving a narrow band of plants about 8 inches wide. Remove any diseased or weak plants, leaving only strong, young ones. A side dressing of a complete fertilizer applied at the rate of 1 pound per 25 feet of row generally proves beneficial. Space the runner plants that develop as recommended for the first summer.

WEED CONTROL

Successful strawberry culture requires that the bed be free of weeds. A bed kept free of weeds the first season will have few weeds developing prior to harvest time the next season. Cultivation (including hoeing and weeding) is effective but must be started early and repeated several times during the season. Chemical weed control in strawberries is effective and economical. However, the weed-killing chemicals must be used correctly.

Dacthal is effective in new and fruiting plantings for control of germinating weeds. It will not control emerged weeds. It can be purchased from your local nursery or garden center. Read the label on the container thoroughly and follow the directions carefully.

INSECTS AND DISEASES

Growers should be able to recognize common insect and disease problems of strawberries to combat them as soon as they are discovered. Although good cultural practices help to reduce most insect and disease problems, the ideal way to control them is with sprays or dusts. For additional information, see Extension Pamphlet 184, Home Fruit Spray Guide and Plant Pathology Fact Sheet 2, Strawberry Diseases.

Use of commercial names does not imply endorsement nor does failure to mention a name imply criticism by the Minnesota Agricultural Extension Service.

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