Hints on STRAWBERRY GROWING IN HOME GARDENS

By STAFF MEMBERS of the DEPARTMENT OF HORTICULTURE

MICHIGAN STATE COLLEGE COOPERATIVE EXTENSION SERVICE EAST LANSING

HINTS ON STRAWBERRY GROWING
IN HOME GARDENS

This folder is intended for home gardeners who wish to produce a small amount of high-quality fruit. While commercial growers may find helpful information in this folder, they should write for Extension Bulletin 297, "Strawberry Growing in Michigan" for a discussion of commercial practices.

The strawberry is adapted to all sections of Michigan, and should be considered by all home gardeners. Plants are hardy and require little or no spraying for insect and disease control. A row 100 feet long should produce adequate fresh fruit for a family of four—with additional fruit to be canned, preserved or frozen. The success of a planting will depend to a considerable extent upon the consideration given to the factors listed below.

Site and Soil

When a choice exists as to site and soil, it would be well to consider the following:

Select a site with enough slope to insure water and air drainage—a slope of two feet in 100 is about ideal.

Site should be open to direct sunlight. Shady areas are to be avoided.

Soil should be a sandy to gravelly loam.

Soil should be well drained.

Soil should be well supplied with organic matter.

Soil Preparation

Grow several cultivated crops to rid the soil of weeds and grubs.

Build-up the organic matter content of the soil, either by adding organic residues or by growing green manure crops. In general, it is more practical to add available organic residues such as manure, lawn clipping, leaves, sawdust, or similar products than to grow green manure crops. Additional nitrogen will likely be required if organic residues are added—consult your county agricultural agent or your local fertilizer dealer. Care should be taken to add not more than 10 pounds (dry weight) of the organic residues per square yard of soil surface.

Plow or spade deeply as early in the spring as the soil can be worked. Cultivate several times, until the soil is thoroughly pulverized and in a fine mellow condition.

Time of Planting

Plant as soon as the soil can be properly prepared in the spring. This should give a maximum growth and yield with a minimum of expense and effort. For best results set some plants every year. Everbearing varieties give best crops in the year they are set, while June bearers will produce best crops the following year.

Plants

Purchase only inspected and certified plants, since under the state law only certified plants may be sold or given away. The cost of plants is only a minor factor in the development of a good strawberry bed.

Plants should have medium-to-large crowns and large, light-colored, healthy roots. Plants with black roots are old plants; they will either fail to grow or grow very poorly, and should not be planted.

Systems of Training

MATTED-ROW SYSTEM is most commonly used in home gardens. Rows are spaced 3-4 feet apart, and plants set 18-30 inches apart in the row. Allow runners to form a mat 15-18 inches wide, with plants 4-6 inches apart. Many home gardeners allow the plants to grow too close together; this results in small and inferior berries.

HILL SYSTEM is sometimes used to obtain large berries of exceptional quality. It requires more hand work than the matted-row system. Space rows 2-3 feet apart, with plants 12-15 inches apart in the rows. Remove the runners as they appear.
**HEDGE ROW SYSTEM** is sometimes used to good advantage by the home gardener, but not by commercial growers in Michigan. Space rows 3 feet apart. Set plants at intervals of 24 inches; allow each plant to produce two runners and remove all others.

**Transplanting**

Plants should be unpacked, and either planted or heeled-in as soon as received. Plants may be killed or seriously damaged by several hours of high temperatures.

Remove blossom buds, old runners, and all but two or three inside leaves before planting.

The plant crown should be set level with the ground surface. Plants which are set either too deep or too shallow may start growth but will lack vigor, and will likely die prematurely.

The plant roots should extend vertically into the soil, spreading out like a fan. The soil should be packed firmly about the roots—so that when a leaf is grasped and pulled suddenly it breaks without moving the plant.

**Fertilizers**

Apply the bulk of the fertilizer the year the plants are being produced. Use very little fertilizer the next year before the fruit is harvested.

Manures, especially well-rotted manures, are good fertilizers for strawberries. Apply ½ bushel per square yard before plants are set. Sidedress 10 days after setting with 2 to 3 pounds of a 10-6-4 fertilizer per 100 feet of row, and repeat again in 4 to 6 weeks if needed. An equivalent amount of nitrogen and phosphorus from other fertilizers may be satisfactory. (Consult your county agricultural agent or fertilizer dealer.) When plants make unsatisfactory growth, it may be helpful to have the soil tested.

A complete fertilizer such as 4-16-4 may be helpful if manure is not available, using 5 pounds per 100 feet of row. Apply in a 6-inch strip before planting, and work into top 4-6 inches of soil. Then sidedress with 10-6-4 as suggested above.

When sidedressing strawberries, the fertilizer should not come in contact with damp foliage or be placed more than 4 inches from the plant crowns. When foliage is dry, broadcast fertilizer over the plants and then remove fertilizer from the leaves by brushing gently with a broom or a rake.

**Care During First Season**

Remove all flower clusters as they appear, up to the first of July. The production of fruit on recently set plants restricts vegetative growth and results in low yields.

Shallow cultivation and hand hoeing are necessary, primarily for weed control. Start early and repeat every 10 days or 2 weeks as long as weeds appear. Crab herbicide, a weed spray, may aid in weed control—follow manufacturer’s directions. However, a good hoe is more practical than weed sprays in home gardens.

Plants grown in matted rows should be thinned or spaced 4 to 6 inches apart. Allow the early runners to root and remove the later ones. Many home gardeners allow plants to become too close together in a matted row. This results in small berries, of a poor quality, and more disease problems.

**Mulching**

Mulching protects the plants from winter injury, eliminates dirty berries, retards time of blossoming, suppresses weed growth, conserves moisture, and decreases fruit rots. Mulch should be applied in November as soon as the temperature has fallen to approximately 20° F. Plants may be damaged by mulching too early and/or too late. Plants mulched early may be injured by warm fall days after the mulch was applied. In cases where plants are mulched late, winter injury may occur before the mulch is applied.

Use a loose organic material such as straw, hay, or shavings, which are free of weed and grain seed. Cover the plants to a depth of 2-3 inches, or 1 inch if using sawdust.

Some frost protection and late fruiting may be obtained by leaving the mulch over the plants as late as possible in the spring. Examine the bed every few days during warm weather. Remove only a portion of the mulch when the leaves turn a faint yellowish-green. If the mulch is loose and thin, the plants will grow up through it.

Early fruiting may be obtained by removing all the mulch as soon as growth starts in the spring.

---

The figures refer to the percentage of nitrogen, phosphoric acid and potash in the fertilizer; thus, a 10-6-4 contains 10 percent nitrogen, 6 percent phosphoric acid and 4 percent potash.
Spring Tillage

Cultivation may be necessary in the spring if the bed becomes weedy. The cultivation must be very shallow, because it is easy to damage strawberry roots by deep cultivation.

Harvesting

Pick the rows clean. The removal of the berries damaged by diseases and insects will reduce the amount of fruit rots.

Fruit for freezing should be left on the plant until well ripened.

The picked fruit should be kept in a cool place until used.

Renewing the Plantation

Renewal should not be attempted unless the plants are vigorous and relatively free from weeds, insects, and diseases.

Renewing is accomplished in the matted-row system by narrowing the rows with a plow, cultivator, or hoe to a strip 8-10 inches wide. Thin out the plants, leaving only the most healthy and vigorous. Then proceed as with a new planting.

Many insect, disease, and weed problems can be avoided by fruiting a bed only two seasons—and then starting a new one.

Frost Control

When a frost is forecast, fork the mulch or other covering over the top of the plants and then remove it the next morning.

Sometimes a sprinkler may protect a small area. Turn on sprinkler when temperature drops to 32°F and keep it on until ice disappears.

See section under mulching.

Varieties

Premier and Robinson varieties are commonly grown in Michigan gardens. With a minimum effort these varieties produce considerable fruit even under adverse conditions. Other varieties are superior in quality to these, although somewhat more difficult to raise.

PREMIER plants are healthy, productive and sufficiently vigorous to make a fair matted row. The blossoms are borne under a canopy of leaves which gives the variety unusual resistance to light spring frosts. The fruit ripens early, has bright red flesh, moderately firm, and of good quality. Berries are large during the first picking, although size may decrease rapidly at later pickings. Plants grow better in loams and heavy soils than on sandy ones.

ROBINSON begins to ripen a few days later than Premier. Berries are very large, bright red, attractive, flesh firm, and white at center. Plants very vigorous and productive—especially on sandy soils. Somewhat susceptible to leaf blight and stem-end rot. While one of the best for the fresh fruit market, it is not a good berry for freezing unless well ripened on the plant.

DORSETT berries are more attractive than Premier and far better in quality. The plants are vigorous and productive. The blossoms are very susceptible to frost injury, and plants may be unfruitful if too much nitrogen fertilizer is applied.

FAIRFAX berries are larger than Premier and much better in quality. The plants may be highly productive, although rather erratic in performance and quite susceptible to cold weather. Fruit is too soft for shipping or holding very long.

MIDLAND berries have quality similar to Fairfax—perhaps not quite as sweet but just as much flavor. Plants do not make runners freely— for this reason it does well in a hedge row or hill system.

Many other strawberry varieties are worth trying—consult your local county agricultural agent, plant dealer, and neighbors.

Everbearing strawberries are of interest to home gardeners because they will bear fruit in July, August and September, even if the June crop is destroyed by a late frost. A large number of everbearing varieties are available—consult your plant dealer.

Insects and Diseases

White grubs feed on large roots and crowns. They should be eradicated by growing cultivated crops before strawberries are set.

Strawberry leaf rollers draw the leaflets together from a web and feed from the inside. In a small patch, the infested leaves may be removed by hand and burned.
In most plantations the use of preventive measures such as mowing and burning after harvesting, clean tillage, the removal of weeds and rubbish from the borders of the plantation; together with the use of healthy planting stock, short rotations, and proper management methods—is more effective than spraying for control of strawberry pests.