

HOME GROUNDS FACT SHEET



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Strawberry Growing in Home Gardens



Strawberries are a fruit crop easily grown in New York State. This low-growing perennial plant produces fruit low in calories and rich in vitamin C. A backyard garden of 12 properly-managed plants can produce 7-15 quarts of berries.

There are three types of strawberries generally available to home gardeners.

- June-bearers produce loads of fruit for 1½ to 2 weeks beginning in June.
- Ever-bearers have two crops of berries, one in early summer and the other late in the season. This is because flower buds are formed during the short days in both late summer and early fall. Ever-bearers are desirable for their long fruiting season but the total yield is lower - about half that of June-bearers.
- Dayneutral, a recently-developed strawberry breed, permits flowers to form in all day lengths. Dayneutrals can fruit from August through September in the first year of planting and for 5 months during the second year. They require a tremendous commitment of time and labor. They must receive regular irrigation, fertilization and pest control to keep them healthy and productive. Also, berry size is naturally small and further decreases during summer heat.

Soil and Site Preparation

Strawberries grow best in full sun in a sandy loam soil with a pH of 6.2 but will tolerate a wide range of conditions. Avoid sites infested with perennial weeds and areas where tomatoes, potatoes, peppers or eggplants were grown within the previous two years; these plants harbor verticillium wilt that can destroy strawberry plants. It is best to prepare at least one year prior to planting strawberries by incorporating organic matter, lime (pH test determines if necessary) and fertilizer (2 pounds of 10-10-10 for every 100 square feet) into the top 4-6 inches of soil.

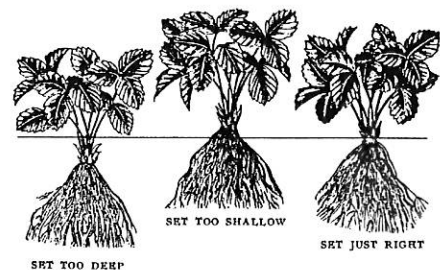
Varieties

There are many varieties available, depending on the breed of strawberry desired. The best June-bearers are Earliglow, Allstar, Honeoye, Jewel, Blomidon, Fletcher, Lateglow, Catskill and Sparkle. Ever-bearing varieties recommended include Geneva and Ozark Beauty. Both Tribute and Tristar are dayneutral cultivars that have excellent flavors and good production with any variety. Be sure to purchase quality plants from a reliable source.

Planting and Spacing

Plant strawberries in early spring as soon as the soil is dry enough to work. If plants arrive too early, separate them, place in a plastic bag and keep in the refrigerator for a short time. Dig the planting holes deep enough to accommodate the entire root length vertically. Excessively long roots should be trimmed to 4 inches. Firm the soil around the plant, making sure the crowns are covered to the original level; do not cover too shallow or too deeply. Space plants 1 foot apart leaving 2 feet between rows. Since dayneutral cultivars do not create many runners, plants can be grown closer together. After planting, it is desirable to remove all flowers that develop the first year until July 1 so the newly-established plant can put energy into vegetative growth. This practice increases plant vigor and promotes earlier production of runners. This results in larger yields the following summer.

After runners become 12 to 15 inches long, they can be trained along the row and spaced 6 to 9 inches apart. Gently press the runner into the soil and cover to a depth of 1/2 inch. Do not cut the runner from the parent plant.



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Care and Management

Irrigation

Strawberries should receive an inch of water per week from either rainfall or irrigation. This is necessary for plant vigor, fruit size and runner production. Using a fine sprinkler during bloom may be helpful in avoiding frost.

Mulching

Applying a mulch immediately after planting (or at planting, as is the case with black plastic mulch) helps to control weeds, conserve moisture and keep berries clean. It also prevents low temperature injury to the crown when applied in the fall. Place mulch over the plant tops in November (around 20°F.); use approximately one bale of straw per 50 linear feet of row or 1 to 1 1/2 inches of sawdust, woodchips or pine needles. Next spring when the forsythia are in full bloom, remove about half the mulch and place it in the alley between the rows to suppress weeds. Floating row covers may also be used to suppress weeds and protect against pests.

Fertilizing

Additional nutrients must be supplied throughout the season for good production. Plants will benefit from a monthly sidedressing of 1 pound of 10-10-10 fertilizer for each 25 feet of row. Be sure to brush or wash fertilizer off the foliage to prevent damage.

Harvesting

Pick the fruit when it is fully ripe (1 to 2 days after reaching full color) leaving the caps and stems attached. Keep harvested berries out of the sun and keep them unwashed in the refrigerator up to 4-5 days. Wash and hull berries before serving or freezing.

Renovation

If the root system is healthy, cut strawberry leaves immediately after harvest, using a rotary lawn mower set at a height of 2-3 inches. Evenly apply 1 pound of 10-10-10 fertilizer per 25 linear feet of row and rototill or space the mulch, plants and weeds in the alley between rows. Keep walkways open and beds no wider than 18 inches. Irrigate if necessary during the remainder of the growing season to encourage development of vigorous new foliage. A properly-managed strawberry bed may be renewed each year for up to 5 years. As soon as production falls off or plants decline in vigor, plan to move to a new site and purchase new planting stock.

Integrated Pest Management

(IPM) Considerations

IPM is a common sense approach to pest control and plant care. It employs a number of measures to prevent, control or reduce plant problems. These include using resistant plant varieties, proper plant selection and placement, good aftercare and biological and/or mechanical controls. As a last resort, after all other remedies have been explored, a pesticide* that is least toxic to people and natural predators, can be considered. Prior to using any pesticides, plants should always be monitored for the degree of infestation and a sensible control measure considered.

* A pesticide is a substance that kills, or attempts to kill, a particular pest, e.g. *insecticide*, *fungicide*, *herbicide*, etc.

Insects

■ Tarnished Plant Bug

The **tarnished plant bug** is a serious pest that causes hard, nubby fruit. This 1/4" long brownish bug has yellow and black markings. Immatures resemble wingless aphids (greenish) but are much more active. They first appear just before bloom. Check by striking plants over a flat, light-colored dish. Adults overwinter in weedy gardens. Row covers in weed-free gardens may protect newly-opened flowers.

(see note A)

■ Bud Weevil (blossom clipper)

Small (1/10 in.) red-brown snout beetle. Females puncture the bud and deposit an egg within, then girdle the fruit stalk below injured bud, causing it to droop and fall. Remove foliage and mulch over the winter. Monitor for damage, and treat if there is more than one cut bud per foot of row. Change the site after three years if the problem is severe. Row covers in weed-free gardens will act as barriers. (In weedy gardens, row covers could increase damage because insects get a head start.) (see note A)

■ Cyclamen Mite

This tiny (not visible to the naked eye) whitish to caramel-colored mite occurs in groups in crevices of leaves, on stems, and among hairs of plants. Feeding causes severe distortion, stunting, and sometimes kills the leaves. Blossom feeding causes distortion of fruit. Infested plants usually become unproductive within a season. Cyclamen mite is difficult to control. Rogue (dispose of) infested plants.

■ Two-spotted spider mite

Affects plants same as cyclamen mite. (see note A)

■ Slugs

Damage is worse in years with wet spring weather. Slugs feed at night, eating out large, irregular areas in fruit and foliage, hiding during the day in damp refuse. They leave a glistening slime trail that can be seen early in the day. Homemade traps can help. Handpick and destroy slugs. Slug bait or diatomaceous earth may be applied to ground surrounding plants. Bait looks like pet food. Use care in placement if you have pets or young children.

Diseases

■ **Gray mold** or **botrytis fruit rot** is a disease promoted by lack of air circulation. Harvest regularly. Remove and dispose of rotten or severely damaged fruit throughout the season. Improve air circulation around fruit by narrowing bed widths in early spring. Avoid spring application of nitrogen, which promotes excessive leaf growth (apply nitrogen in summer or early fall). Weeds should be eliminated.

(see note A)

■ **Verticillium wilt** is a soil disease that cannot be easily prevented. Plant new strawberry plants in a different part of the garden from where they grew last year. Also avoid parts of the garden where tomatoes, potatoes, eggplant, or peppers have been grown within three years. Plant resistant varieties: Earlyglow, Guardian, Scott, Delite, Tribute, and Tristar.

■ **Red stele** is another disease to which there are resistant varieties. They include Earliglow, Redchief, Allstar, Tribute, Tristar and Sparkle. Be sure to establish plants on well-drained soil.

note A. Chemical pesticides are available. If you choose to use chemical pesticides, contact your local Cooperative Extension office for specific recommendations.

"This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold, or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office (631) 444-0340. Read the label before applying any pesticide. Cornell Cooperative Extension and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products is made or implied."