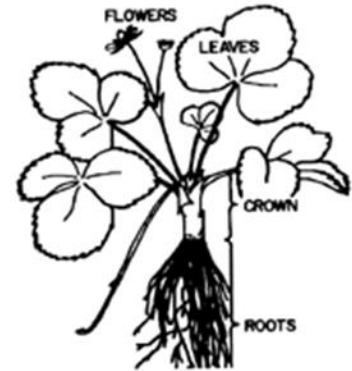


Growing Strawberries

Strawberries are well suited for planting in the home garden since they produce fruits very quickly and require a relatively small amount of space. Each plant may produce up to one quart of fruit when grown in a matted row during the first fruiting year. 25 plants will normally produce enough strawberries for an average sized family. Production usually declines during the second and third years of fruiting; therefore, a new planting should be established after strawberry plants produce fruits for more than 3 to 4 years for maximum production.



June-Bearers vs. Day-Neutral Types

Strawberry plants may be of two major types, June-bearing or day-neutral. June-bearing plants are cultured to produce a full crop the season after planting. In Ohio, the ripening season of June-bearing strawberry cultivars range from late May to the end of June. Day-neutral type strawberry plants differ from the standard or June-bearing types in that they produce a full crop the first season they are planted. June-bearing types are most popular for the home garden and commercial use and are well worth waiting for because of their flavor and quality. One cannot tell by looking at the plant whether they are of the day-neutral or June-bearing type; therefore, when purchasing plants, it is important to specify which type is desired. It is certainly a good idea to plant both types to get fruit production in the first year from day-neutral strawberries, and high yield and quality from June-bearing strawberries.

Planting Site Requirements for Strawberry Plants

Strawberry plants require full sun for the maximum yield and the best quality. They will grow and produce crops in several different types of soil. However, best results are obtained when the plants are grown in loose, fertile soils containing large quantities of organic matter. The soil should be slightly acidic, having a pH of 5.8 to 6.5. The strawberry plant is sensitive to excessive soil moisture. Strawberries should be planted in raised beds or on ridges if drainage is a problem.

Cultural Problems for Growing Strawberry Plants

Important cultural practices for growing strawberries include planting techniques and spacing, weed control, proper fertilizer, blossom removal, irrigation, renovation of strawberries after harvest, insect and disease control, and mulch for protection from cold temperatures and diseases.

Planting and Spacing

Early spring is the best time to plant strawberry plants as long as soil is not too wet. Fall planting is not recommended because plants can be injured by soil heaving (alternate freezing and thawing). Strawberry plants have roots, a crown, and leaves. The crown is a short stem between the roots and leaves. When planting, make sure to cover the roots and only half of the crown with soil. Make a trench deep enough to set the roots vertically. Do not bend roots horizontally.

June-bearing plants are spaced 12 to 24 inches apart. On close-spaced plants, runners are controlled by removing unwanted runners during the first season. In August, rows should be 18 to 24 inches wide with plants 6 to 8 inches apart in the row. Generally, rows are 36 to 40 inches apart. For day-neutral strawberries, plants are set 8 to 12 inches apart in the row with 30 to 36 inches between rows. Remove runners throughout the first season and remove flowers for the first 6 weeks after planting. Mulch the planting with 3 to 4 inches of straw or wood chips to conserve moisture.

Weed Control

Mechanical cultivation, mulching, and certain herbicides are suited to maintain essentially weed-free planting. Mechanical cultivation and mulches are recommended.

Lime and Fertilizers

Soil testing every two to three years is highly recommended for the best yield and quality. Apply nutrients and lime (if needed) prior to planting according to soil test results. Apply 1 ounce (10 oz. 10-10-10) of actual nitrogen broadcast per 100 square feet of plant or 0.5 ounce (5 oz. 10-10-10) banded 4 to 6 inches away from the plants 7 to 10 days after planting. Apply 1 to 1.5 ounces' actual nitrogen broadcast in mid-June if rainfall has been excessive and again in mid-August. In the fruiting years, apply 1 to 1.5 ounces' actual nitrogen broadcast after harvest and again in mid-August.

Blossom Removal

Remove the flower stalks of June-bearing strawberry plants as they appear throughout the first growing season. More production can be expected if the plants are allowed to attain large size before fruiting. Remove the blossoms of day-neutral types of plants as they appear until about the middle of June (first year only). Then allow flowers to set fruit for harvest during the remainder of the season (August through October).

Cultural Characteristics of Recommended Strawberry Cultivars

Cultivar	Ripening Season (Days After Earliglow)	Berry Size	Freezing Quality	Dessert Quality	Yield
June-Bearers					
Earliglow	0	Med / Large	Very Good	Very Good	Medium
Lester	5	Large	Fair	Good	Medium
Redchief	5	Large	Very Good	Good	High
Surecrop	5	Large	Good	Good	Medium
Guardian	8	Very Large	Fair	Good	High
Midway	9	Med / Large	Very Good	Good	High
Kent	10 Large	Poor	Fair	High	
Delite	10	Large	Good	Fair	High
Lateglow	12	Large	Fair	Good	High
Day-Neutral					
Tristar	5	Small	Good	Fair	Medium
Tribute	5	Small	Good	Fair	Medium

Disease Resistance of Recommended Strawberry Cultivars

Cultivar	Leaf Spot	Leaf Scorch	Red Stele	Verticillium Wilt	Powdery Mildew
June-Bearers					
Earliglow	R	R	R	R	S to I
Guardian	S to I	R	R	R	S
Midway	VS	S	R	I	U
Lester	U	R	R	S	R
Redchief	S	R	R	I	R
Kent	S	I	S	S	S
Surecrop	I to R	I	R	VR	U
Delite	R	R	R	R	U
Lateglow	R	R	R	VR	S
Day-Neutral					
Tristar	T	T	R	T to R	R
Tribute	T	T	R	R	R

S = susceptible, VS = very susceptible, I = intermediate reaction, R = resistant (disease doesn't occur on that cultivar or only to a very small degree), VR = very resistant, T = tolerant (disease is clearly evident, but with little or no apparent detrimental effect on plant or yield), U = unknown.

*Cultivars are only resistant to specific races of the red stele fungus. If races are present in the planting or are introduced into planting for which resistance genes are not available, red stele can develop on "resistant" cultivars.

Irrigation

Additional watering is needed during dry seasons. Plants require 1 inch to 1.5 inches of water per week from mid-June to mid-August. Take care in watering so the soil does not remain soggy for any prolonged period.

Renovation of Strawberries After Harvest

Strawberry plants can be fruited more than one year but probably not for more than three harvest seasons, depending on the vigor and number of plants. June-bearing strawberries should be renovated every year right after harvest if one desires excellent fruit production for more than one year.

First control weeds by mechanical means or labeled herbicides. Remove all old leaves with a mower or a sickle. Make sure to set the mower as high as the blade will go to avoid injuring plant crowns. Narrow the rows to a width of about 12 inches by cultivating between them with a rotary tiller. Thin the plants within each row, leaving 4 to 6 inches between plants. Top-dress beds with 0.5 to 1 inch of soil. Broadcast 2.5 pounds of 10-10-10 fertilizer per 100 square feet of planting. Apply 1 inch of water each week to promote growth if it does not rain. The strawberry patch may look very depressing right after renovation. However, strawberry plants do recover beautifully and will be much more productive.

Insect and Disease Control

Many problems due to insects and diseases in the home garden can be avoided by selecting sites where sod, tomatoes, or potatoes have not been recently grown; planting disease-free and disease-resistant planting stock; and using good cultural practices.

Winter Mulching

In addition to value for weed control, mulching is necessary to provide winter protection for the plants. Apply straw that is free of weed seeds two to three inches deep over the plants after they have been subjected to several sharp freezes in the low 30s or high 20s in fall. This is generally between November 15th and 30th, but no later than December 15th.

Source: OSU Ext., Gary Gao