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Strawberries for the Backyard Gardener

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Strawberries are one of the most popular fruits for the home gardener. With proper care, plants will produce an abundance of high-quality berries in a very limited space.

Selecting site and soil

Strawberry plants grow and produce satisfactorily on a wide range of soil types, from sandy to clay loams, although best production is obtained from deep, well-drained soils with high moisture-holding capacity. Soils well supplied with organic matter are most desirable. The optimum pH range is from 5.8 to 6.5; however, this is not a rigid requirement.

Strawberry plants grow best if exposed to full sunlight; thus, shaded areas of the garden should be avoided. Avoid areas in which strawberries are forced to compete with tree roots or other plants for available moisture.

Soil preparation

Add organic matter, either barnyard manure or crop refuse, to the soil. Raw organic matter must be worked into the soil in the fall in order to insure complete decomposition before spring planting. Well rotted organic matter may be worked into the soil in the spring. Spring applications should not exceed a one-inch layer of material spread over the entire row. Work the soil thoroughly to insure a firm, weed-free planting bed.

Fertilizers for new plantings

Apply a fertilizer that contains nitrogen, phosphorus, and potassium before planting. Apply a 6-10-4 or 5-10-5 fertilizer* at a rate of one quart of the dry material per hundred feet of row. Work the fertilizer into the soil at the edge of the row and avoid direct contact with the plant roots. Applications of manure stimulate plant growth and improve the physical condition of the soil. If manure is used, then reduce the amount of commercial fertilizer by one-half. If plant growth is weak, add more nitrogen fertilizer three to six weeks after planting.

An additional application of nitrogen in July or August of the planting year is advisable. Broadcast ammonium nitrate (33-0-0) at a rate not to exceed one pint per hundred feet of row. The same amount of nitrogen from other fertilizer sources may be equally satisfactory. Apply when the foliage is dry and then remove fertilizer from the leaves by brushing or by sprinkling with water. If the soil is dry, plants should be thoroughly irrigated immediately following summer application of fertilizer.

Varieties for Oregon

The backyard gardener can choose from a large number of strawberry varieties; however, greatest production is usually attained if one of the tried and proven commercial varieties are grown. Regardless of variety, only vigorous, disease-free plants should be planted. Plants which are certified as true to variety and free of virus and other disease and insect pests are preferred.

Marshall: An 1890 Massachusetts introduction which was the leading processing berry in Oregon for more than fifty years. This is an early mid-season variety that produces large, deep crimson-colored fruits which are best known for their excellent and distinctive flavor.

Northwest: A 1949 Washington introduction which is now the leading commercial variety grown in Oregon. The fruits are firm, bright crimson-colored, and especially well suited for freezing and canning. The fruit ripens about one week later than the Marshall variety.

Hood: A 1965 Oregon introduction that is gaining rapidly in commercial acceptance. The fruit is bright red with a glossy surface and is especially suited for making jam and preserves. Hood is a mid-season variety that ripens about the same time as Northwest.

Siletz: A 1955 Oregon introduction with the notable characteristic of being partially resistant to red stele—a destructive strawberry disease in Oregon. Berries are medium in size, and bright red with solid red flesh. Siletz is very productive and is best suited for freezing and canning.

Vale: A 1966 Oregon introduction, recommended only as a home garden variety for eastern Oregon. Vale is a very productive variety that begins ripening about June 1 in eastern Oregon. The berries are large, dark red, and somewhat soft. Its outstanding characteristic is its winter hardiness in eastern Oregon.

Everbearing varieties: Adding one or more everbearing varieties to the backyard collection insures one of having fresh strawberries throughout the growing season. Everbearers are those varieties that produce fruit during the summer and fall, as well as in the spring. Their culture is essentially the same as for other varieties, but since they bear fruit throughout the season, special attention must be given to moisture and fertility. Some varieties to consider are Gem, Ozark Beauty, Rockhill, Nisqually, and Quinault.

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

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Planting

Plants should be set early in the spring as soon as the ground can be thoroughly worked and danger of severe freeze has passed. Place plants in the soil so that the point of attachment of the topmost roots is just below the soil surface. The roots should be spread out and pointed downward with the soil packed firmly around them.

The most common planting systems are the hill system and the matted row. The matted row is more commonly used with spring fruiting varieties. Plants are set 1½ to 2 feet apart in rows 3 to 4 feet apart. Runners are allowed to develop freely and produce a matted row approximately 18 inches wide. Relatively little labor is required to maintain plants grown in this manner.

Everbearing varieties are best adapted to the hill system. Plants are set 12 to 15 inches apart in rows 12 to 15 inches apart. Each third or fourth row should be left blank to provide space for a foot path. In order to maintain strawberry plants in a hill system, all runners should be removed by cutting or pinching at two-week intervals during the growing season.

Care after planting

The soil should be kept weed free, moist, and in good tilth in order to maintain healthy plants and encourage establishment of new runner plants. The blossoms should be removed throughout the first growing season on spring fruiting varieties. With everbearing varieties the blossoms may be allowed to develop after the first of July; thus, some fruit will be formed the year of planting. Blossom removal allows the plant to make maximum vegetative growth which is necessary to support later fruit production.

Mulching. Mulching may be practiced, but this is not necessary with adapted varieties. The chief advantage of mulching is that it keeps the berries clean and conserves moisture during the heat of summer. Winter protection and weed control also are possible benefits. Mulching materials may include peat moss, sawdust, pine needles, or plastic film.

Plant renewal. Immediately following harvest the planting should be renewed in one of two ways. The bed may be reduced in width to a narrow 6 to 10 inch strip of plants or the old and weak plants may be thinned out leaving only the one-year-old vigorous plants. In either case, the remaining plants are then cared for as a new planting and a new matted row is encouraged. If plants are grown in a hill system, after-harvest plant renewal is unnecessary.

Fertilizing established plants. Strawberry plants should receive an annual application of fertilizer following harvest. Three pints of 16-16-16 broadcast over 100 feet of row is adequate. An equivalent amount of other 1:1:1 ratio fertilizer is equally effective. Fertilizer particles that stick to the plant foliage should be removed by brushing or by sprinkling with water.

Pest control

Strawberries are relatively free of pests which cause serious garden problems. Home gardeners should, however, be aware of the more common problems and their control.

Insects. Several species of root weevil may damage strawberry plants. Although the adult beetle feeds on the strawberry leaves, the most serious damage results from the larvae feeding on the roots and crowns of the plants. Plants are consequently weakened and stunted, and may eventually die. Control is best accomplished by applying aldrin or dieldrin at the rate recommended on the container. These insecticides should be mixed into the top six inches of soil. Applications should be made immediately before planting and should not be repeated within three years.

In established plantings, control measures should be directed toward the adult weevils. Their presence can be detected by notches they chew in the edges of the leaves. Control by spraying or dusting with malathion.

Spittlebugs are a common strawberry insect in Oregon. Their presence is easily detected by the frothy "spittle" material that covers the nymph on the stems and leaves of the strawberry plant early in the spring. The nymph sucks its food from the young leaves and stems and may materially weaken the plant and reduce berry production. For control, apply either a spray or dust of methoxychlor or malathion. Application should be made when the first blossom cluster appears.

The appearance of strawberry leaves rolled or folded together and held in place with a silk-like web is evidence of strawberry leaf roller insects. The larvae of this insect feed on the leaf surfaces and may cause withering of leaves and fruit. If infestation is severe, malathion may be applied at any time other than the three-day interval before harvest.

Weeds: Weeds compete with strawberries for water, nutrients, and light, and they often host destructive insects and diseases. Control is possible through either manual or chemical methods. However, because of the precision required in measuring and applying chemical herbicides, hand hoeing or weeding is most efficient for small backyard plantings.

Birds: Although bird control is not a common practice in commercial strawberry fields, protection from birds may be a necessity for small backyard plantings. Various netting materials are manufactured for this purpose. A small mesh chicken wire laid over the plants may work equally well; however, care must be taken so that the material can be readily removed at each harvest.