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## Raspberries for the home garden

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### Quick Facts

Of all bramble fruits, only red and yellow raspberries are recommended for general cultivation in Colorado.

Summer-bearing raspberry varieties may do well on the Western Slope, but fall-fruiting varieties are more dependable.

Twenty-five feet of row should produce 15 to 20 pounds of raspberries per year.

Relocate a raspberry planting every eight to 10 years, with new, clean stock.

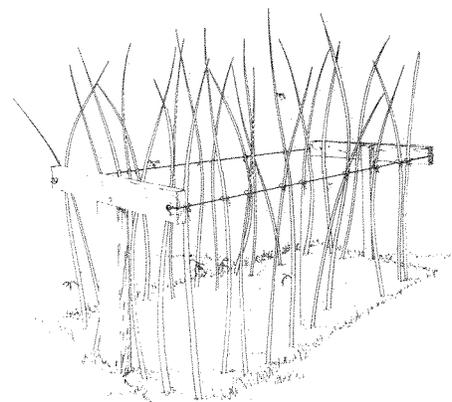


Figure 1: Raspberry trellis with dormant canes secured to wires.

### Varieties

Summer-bearing red raspberries recommended for trial include Latham, Boyne, Newburgh, Canby and Titan.

Fall-bearing red raspberries recommended for trial include Redwing, August Red, Heritage, Fall Red, Fall Gold (yellow-fruited) and September. Pathfinder and Trailblazer are two hardy varieties but are not yet readily available.

Selected varieties of red and yellow raspberries (*Rubus idaeus*) may be successfully grown in Colorado at elevations up to 8,500 feet. Colorado's climate is not especially favorable for bramble fruit production and only red and yellow raspberries are recommended. Black and purple raspberries as well as blackberries, boysenberries, loganberries and dewberries require special winter protection and are not recommended for growing in Colorado.

### Types

There are two types of red raspberries: summer-bearing and fall-bearing. The standard varieties are biennial summer-bearers that produce canes the first season and bear fruit on short lateral branches of these canes the following summer. Fall-bearing raspberries also produce canes (suckers) from the roots but require no dormant period for fruiting. These canes bear fruit in August and September of the first season. These canes may overwinter and produce a light summer crop, but this is done at the expense of a reduced fall crop.

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Based on Colorado State University tests, fall-bearing types, particularly Heritage and Redwing, seem best adapted to the Front Range. Both fall-bearing and summer-bearing varieties do well on the Western Slope, but fall-bearing varieties are easier to manage.

### Soil Preparation

Red raspberries grow in most garden soils provided they are amply supplied with organic matter and adequately drained. If summer-bearing raspberries are planted on a good garden soil, apply only a maintenance amount of fertilizer, consisting of 4 pounds of ammonium sulfate and 2 pounds of treble superphosphate per 1,000 square feet. However, if the soil has not produced a good garden it may be well to have the soil tested before planting.

If this is not done, apply 8 pounds of ammonium sulfate and 4 pounds of treble superphosphate, 1 pound of zinc sulfate, 1 pound of iron chelate and 10 bushels of organic matter per 1,000 square feet. Work these amendments in before planting. If fall-bearers are grown, increase the amounts of fertilizer by 50 percent.

Maintain fertility with a spring application of 4 pounds of ammonium sulfate and 2 pounds of treble super phosphate per 1,000 square feet. Scatter among the canes and cultivate into the soil.

Raspberries should receive enough water to maintain a moderate moisture level in their root zone. Withhold water after the first frost to help harden off the plants. A late November watering reduces winter desiccation.

### Planting Raspberries

Red raspberries are commercially propagated by rooted suckers. Generally these are planted in the spring, 2 to 3 feet apart in rows 5 to 10 feet apart depending on the width of the cultivating equipment. After planting, the tops are cut to within 4 to 6 inches of the ground. Care must be taken at planting if bare-rooted plants are used as they are somewhat difficult to establish. Soaking bare-root plants in a bucket of water five hours to overnight will aid in establishment. After one or two years, suckers fill in the row to form a hedge of canes. Thin the suckers to 6 inches. The hedge row should not be over 2 feet wide at ground level.

### Trellising

Fall-bearing raspberries seldom require trellising; however, summer-bearing varieties may require some kind of support. Support usually is provided by stretching a wire on either side of the hedge row, 3 feet above the ground. This wire confines the canes to the hedge row; however, to make them stand erect it may be necessary to tie the canes to the wire with soft twine. See Figure 1.

### Pruning

Remove the canes of summer-bearing varieties by cutting them off at the ground after they bear fruit. These canes are disposed of since they often harbor insects and disease. In the spring, remove the dead, weak and small canes, leaving canes no closer than 6 inches apart in the hedge row. Re-

move winter-killed tips of the remaining canes.

Mow the canes of fall-bearing varieties to ground level after the fall harvest.

### Winter Protection

To obtain a crop of summer-bearing raspberries in most areas of Colorado, protect the canes during the winter. This generally is done by laying the canes down in one direction and holding them in place with a shovel full of soil on their tips, sometime after November 1. They are further covered by plowing or shoveling a shallow furrow along side of each row and rolling the soil over the canes. In early April, a pitchfork is used to lift the canes out of the soil and the soil used to cover the canes is pulled back into the furrow.

The advantage of fall-bearing varieties is that the winter covering operation is obviated by the fact that the canes are mowed off after harvest. However, if a summer crop is desired from these canes, they must be protected as described for summer-bearing raspberries.

### Yield

A 25-foot hedge row of red raspberries should yield 15 to 20 pounds of fruit per year under optimum conditions. This level of productivity should be reached in the third year. After this, productivity will decline. After eight to 10 years, relocate the bed, starting with new stock.

### Disease and Insects

Raspberries are affected by a wide range of diseases and insects, as are most cultivated plants. However, the gardener can avoid most of these problems for several years if only quality, true-to-name, disease-free raspberry varieties are purchased.

It is almost sure, however, that during hot, dry weather, raspberries along the Front Range will be infested with spider mites. The mites themselves are not obvious, but their presence is indicated by tiny yellow spots on the leaves that eventually turn brown. The mites, which feed on the underside of the leaves, should be sprayed with one tablespoon of Diazinon 50-percent wettable powder or 1 teaspoon of malathion 57 percent emulsifiable concentrate per gallon of water. Observe the required waiting period between spraying and harvesting, as stated on the label.

Raspberry cane borers have been reported in Colorado. They are a serious pest that is evident in a sudden wilting and drooping of tops of canes. The white larvae of the borer, if left uncontrolled, burrows down through the cane killing it. Control may be achieved by removal of the infected canes at the first sign of an infestation. Sevin as well as other insecticides applied before blossoms open will control this insect. Follow directions on the label in applying any insecticide.

### References

- Lawrence, F. T. *Growing Raspberries*. Farmer's Bulletin 2165, U.S. Government Printing Office, Washington, D.C. 20402. 1979.
- Shoemaker, T.S. *Small Fruit Culture, 5th Edition*. AVI Pub. Co. Inc. Westport, Conn. 1977.