



# FRUITS & VEGETABLES

## Raspberries for the Home Garden no. 7.001

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### Quick Facts...

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

Blackberries are considered marginal, due to inadequate hardiness, but some varieties can be successful.

Red raspberries grow well in most garden soils that are amply supplied with organic matter and adequately drained.

Bramble plants are perennials, but their canes are either annual or biennial structures.

Plant only true-to-name, disease-free stock from reputable sources.

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

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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 for general cultivation. Several varieties of blackberries can be grown in the lower-elevation areas of the state. Purple raspberries, boysenberries, loganberries and dewberries require special winter protection and are not recommended for Colorado. Black raspberries are not currently recommended, but new varieties suited to Colorado conditions should be available by 2012.

### Types

There are two growth-types of raspberries: summer-bearing and fall-bearing. Summer-bearing varieties produce flowers and fruit on canes that are in their second year of existence. In Colorado, they typically produce ripe fruit throughout the month of July. Fall-bearing varieties produce flowers and fruit on canes that are in their first year of existence. In Colorado, they typically produce ripe fruit from early-mid August until freezing night temperatures occur. The traditional varieties are biennial summer-bearers. This means that a given cane will grow vegetatively in its first year, followed by fruiting on that cane in its second year. Fall-bearing raspberries fruit along the upper portions of canes in their first year of growth. These canes may overwinter and produce a light summer crop on their lower portions, but this is at the expense of a reduced fall crop.

### Varieties

Recommended summer-bearing red raspberries include Nova, Killarney, Boyne, Latham, Newburgh and Titan. Recommended fall-bearing raspberries include Autumn Britten, Anne (yellow-fruited), Polana, Jaclyn, Joan-J (nearly thornless), Himbo-Top, Redwing, August Red, Heritage, Fall Red, Fall Gold (yellow-fruited) and September.

Based on Colorado State University tests, fall-bearing types seem best adapted to the Front Range. However, the summer-bearing varieties Nova and Boyne have also performed well on the Front Range. Both fall-bearing and summer-bearing varieties do well on the Western Slope.

### Soil Preparation

Red raspberries grow in most garden soils if they have ample organic matter and adequate drainage. For summer-bearing raspberries in good garden soil, apply only a maintenance amount of fertilizer: 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, have it tested before planting. If soil is not tested, 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 in before planting. For fall-bearers, increase the amounts of fertilizer by 50 percent. If soil pH is above 7.0, a significant amount of the organic matter added should be sphagnum peat as this will help lower the pH in the rooting zone.

Maintain soil 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.

Apply enough water to maintain a moderate moisture level in the root zone. Withhold water after the first frost to help harden off the plants. A late November watering reduces winter drying.

## Planting Raspberries

Red and yellow raspberries are commercially propagated by rooted suckers. These can easily be purchased from a variety of online and mail-order sources. They are typically sold as "handles." A handle consists of a 12-18 inch section of a dormant cane with a large root mass attached. Plant them in the spring, 2 to 3 feet apart in rows 5 to 10 feet apart, depending on how much pathway space you desire and the width of any cultivating equipment that may be used. After planting, cut the tops to within 4 to 6 inches of the ground. Soak bare-root plants in a bucket of water five hours to overnight to help them get prepared for planting.

After one or two years, suckers fill in the row to form a hedge of canes. During dormant-season pruning, thin the resulting collection of canes so that you leave five to six of the strongest canes per linear foot. The hedgerow should not be more than 2 feet wide at ground level.

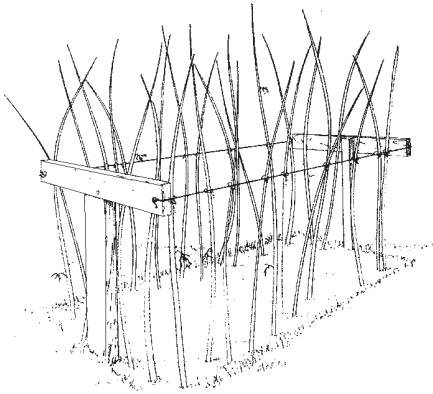


Figure 1: Raspberry trellis with dormant canes secured to wires.

## Trellising

Trellising is advisable for all bramble crops in Colorado. Without some type of support, canes will flop and sprawl in such a way as to make weed control and harvesting much more difficult (and prickly). Stretch a wire on either side of the hedge row, 3 feet above the ground. This wire confines the canes to the hedge row. To make them stand erect, you may have to tie the canes to the wire with soft twine. See Figure 1.

## Pruning

Remove the spent floricanes of summer-bearing varieties by cutting them off at the ground after they bear fruit. Dispose of these canes -- they often harbor insects and disease. In the spring, remove the dead, weak and small canes. Remove winter-killed tips of the remaining canes. Mow or cut the canes of fall-bearing varieties to ground level after the fall harvest. New canes will be produced in the spring.

## Winter Protection

To obtain a crop of summer-bearing raspberries in many areas of Colorado, it will be necessary to protect the canes during the winter. This does not appear to be necessary for the varieties 'Nova' and 'Boyne,' as they appear to have adequate winter hardiness in all but the coldest locations. For all other summer-bearing varieties, follow these steps. Sometime after November 1, lay the canes down in one direction and hold them in place with a shovelful of soil on their tips. Plow or shovel a shallow furrow along each row and roll the soil over the canes. In early April, use a pitchfork to lift the canes out of the soil. Put the soil used to cover the canes back into the furrow.

The advantage of fall-bearing varieties is that winter covering is not needed -- 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

By the third year, a 25-foot hedge row of red raspberries should yield 15 to 20 pounds of fruit per year under optimum conditions. After this, it is likely that productivity will decline gradually. 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. You can avoid most of these problems for several years by purchasing only quality, true-to-name, disease-free raspberry varieties.

It is likely, 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, which eventually turn brown. Spray the mites, which feed on the underside of the leaves, with diazinon or malathion according to label directions. Observe the required waiting period between spraying and harvesting, as stated on the label.

Raspberry cane borers have been reported in Colorado. Symptoms of this serious pest include a sudden wilting and drooping of tops of canes. The white larvae of the borer, if left uncontrolled, burrow down through the cane and kill it. Remove infected canes at the first sign of an infestation. To control this insect, apply Sevin (carbaryl) or another insecticide before blossoms open. Follow directions on the label when applying any insecticide.

## References

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