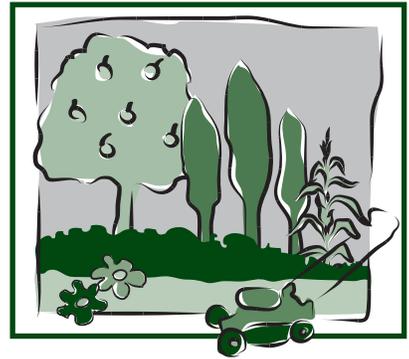


Raspberries for the Home Garden

Fact Sheet No. 7.001

Gardening Series | Fruits and Vegetables



by J. Reich, H. Hughes and J.E. Ells*

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

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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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.

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

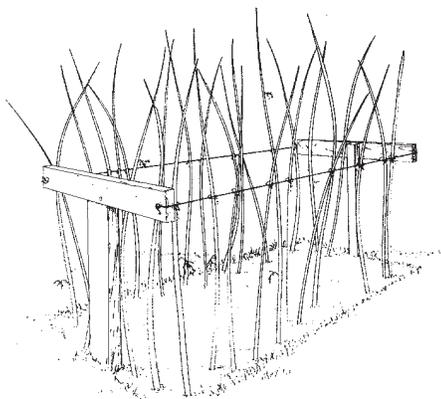


Figure 1: Raspberry trellis with dormant canes secured to wires.

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 can be 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. This typically means mail-ordering bare-root plants. These should be planted mid-April through early May.

It is not uncommon, during hot, dry weather, for raspberries along the Front Range to be infested with spider mites. The mites themselves are not always obvious, but their presence is indicated by tiny yellow spots on the leaves, which eventually turn bronze and/or brown. The most effective way to avoid mite problems is to maintain healthy plants. This means applying a balanced fertilizer at least once a year, in May. Many plantings will benefit from additional fertilizer in June and July. In addition, make sure plants are adequately watered. Drought-stressed raspberry plants are a great place for spider mites to feed and breed. It is also important to prevent the planting from becoming too dense, as an overcrowded planting makes life easy for mites. This can be achieved most effectively by removing the thinnest, weakest canes, thereby allowing more light and air to reach the center of the planting. Regularly watering the foliage during hot weather will also help control mite populations.

Insecticides tend to be ineffective against mites, and their use often makes mite problems worse by killing a variety of beneficial, predatory arthropods. If a spray is desired, best results are often achieved with a “summer weight” (2%) application of horticultural oil.

Raspberry cane borers can be an important pest in Colorado. Symptoms of this pest include a sudden wilting and drooping of the tops of canes. The white larvae of the borer, if left uncontrolled, burrow downwards through the center of the cane and kill it. Management in the home garden is best achieved by removing the affected canes at the first sign of

damage. Depending on location, mid-May through June is when these pests tend to do their damage. If caught early enough, while the larvae is still near the tip of the cane, the undamaged portion of the cane may be saved, allowing it to produce fruit.

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