

RASPBERRIES

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IN THE HOME GARDEN

Horticultural Branch, B.C. Ministry of Agriculture

Raspberries are an easily grown and very productive addition to the home garden. They are best suited to the milder coastal areas but can be grown in the colder parts of British Columbia. Once established on a suitable site, they will continue to produce large crops for many years with proper treatment.

There are four types of raspberries - red, yellow, black and purple. The yellow, black and purple types are seldom grown and for this reason are not discussed in this publication.

All raspberries are biennial. New shoots are produced by the roots each spring. The following summer they produce fruit and die. The everbearing or autumn fruiting types are the only exception; their canes produce two crops of fruit - one in the fall of the first year in addition to the normal summer crop in the second year.

SITES

Raspberries do not like "wet feet." They should not be planted in low lying or poorly drained areas. However, they will tolerate a wide range of soil types from sandy loams to clay soils. Irrigation should be available to prevent the soil from drying out. Good air circulation will help control diseases but overly exposed sites should be avoided. Raspberries, along with potatoes, tomatoes, peppers and eggplants, are all susceptible to Verticillium Wilt. Therefore, avoid growing raspberries in soils that have recently grown these crops. Also it is recommended that these crops not be grown adjacent to raspberries.

NURSERY STOCK PROPAGATION

Most reputable garden supply centers can supply prepackaged one-year-old plants. Whenever possible, select plants which are certified virus free as they will be more vigorous and productive than will virus infected stock. It is unwise to get your planting stock from your neighbour.

The root system of the red raspberry produces suckers or new canes adjacent to the established plants. They are dug in the late winter while still dormant. The canes are shortened to 20 - 25 cm. (8 - 10 in.) to facilitate handling. If they cannot be planted immediately, they should be stored, sealed in a plastic bag in a refrigerator, at 2° - 5° C. or they can be temporarily planted in a trench in a cool location. It is also possible to transplant the newly emerged sucker plants in the spring provided a good piece of the root system is dug with each new sucker plant.

TRANSPLANTING

Raspberries have a very active root system during the late winter and early spring. Therefore, transplanting should be done as early as possible (February or March in the milder coastal areas). Consequently, it is important that soil preparation be completed by the fall prior to planting in order to avoid unnecessary delays in the spring.

Protect the roots of planting stock from sun and wind to prevent drying out of the roots during the planting operation.

Red raspberries should be set out at the same depth at which they grew in the nursery, about 10 cm. (4 in.)

After transplanting, the dormant canes should be shortened to 10 cm. (4 in.) in length so that they will not produce fruit the first year.

PLANTING SYSTEMS

There are many different methods of growing raspberries and they all have certain advantages. However, they are generally modifications of the three methods discussed below. If you find your system better for your conditions, then continue to use it; however, if you have not grown raspberries before, select the system which best appears to suit your situation.

Linear System - This is the most commonly used system for all types of raspberries and is simply rows of individual plants. The plants are set in rows 2.5 m. (8 ft.) apart (depending upon the vigour of the variety) and are spaced 60 - 65 cm. (2 - 2 1/2 ft.) apart within the rows. The plants are supported by a system of post and wire trellising.

Hedgerow System - This is similar to the linear system as it is planted out in the same manner. However, the suckers which develop between the plants are retained. Thus, within a couple of years the plants have formed a solid row. Although this method of training red raspberries is sometimes used, it is generally not preferred. The plants are then supported by a system of post and wire trellising.

Figure 1

A dormant red raspberry plant being grown on the linear system. Only the strongest canes are retained for fruiting and they are tied to the support wires in small bunches or individually. The lower pair of wires for supporting the new shoots are optional.

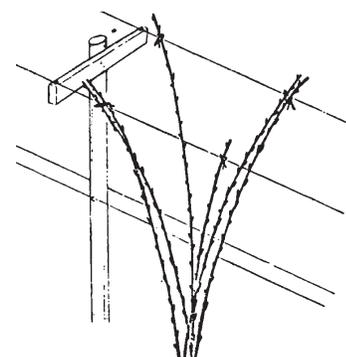
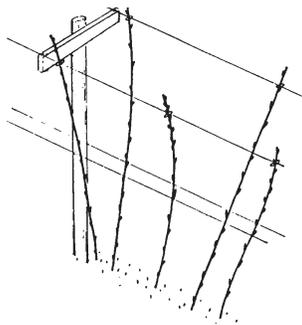


Figure 2.

In the hedgerow system of training red raspberries, select strong fruiting canes which are fairly evenly spaced along the rows. The canes are tied alternately to the two top support wires. The lower wires for controlling the new canes are optional.



Hill System - The hill or individual bush system is sometimes used especially where space is not at a premium. Sturdy stakes or posts are driven into the ground on a 1.5 - 1.8 m. (5 - 6 ft.) grid. They should be topped at 1.4 - 1.7 m. (4 1/2 - 5 1/2 ft.) and then one or two plants are set out next to each stake. The canes are tied to the posts with twine, as required, to keep them upright and under control.

Black and purple varieties can be grown in the hill system without support stakes unless their growth is very vigorous or the location is subject to strong winds.

Figure 3.

A dormant red raspberry plant being grown on the hill or individual bush system. The canes are tied to the support post in one or more locations. Plants grown under this system are easy to maintain and harvest. The system is ideally suited to gardens where only a few plants are wanted or where space is not at a premium. This system is also suited to high snowfall areas where cane damage is a problem when post and wire trellising is used.



POST AND WIRE TRELLISING - A system of support is needed for red raspberries and the post and wire trellis is the most satisfactory. Only cedar or preservative treated posts should be used. Either 8 cm. (3 in.) diameter posts or 10 cm. x 10 cm. (4 in. x 4 in.) posts are adequate, but smaller dimensioned wooden posts should be avoided. Pipes embedded in concrete can also be used. Usually 1.4 - 1.7 m. (4 1/2 - 5 1/2 ft.) is left above the ground and 45 - 60 cm. (1 1/2 - 2 ft.) is buried. Posts are required at intervals of 6 - 7.5 m. (20 - 25 ft.) and closer if smaller posts or light gauge wires are used. Pieces 60 cm. (2 ft.) long of 5 cm. x 10 cm. (2 in. x 4 in.) are attached to the posts at the 1.2 - 1.4 m. (4 - 4 1/2 ft.) level to form cross-arms. A 12 or 14 gauge wire is securely fastened to the end of each crosspiece. Subsequently, the canes are distributed evenly along both wires and tied to them in groups of two or three. Any sturdy string or twine is satisfactory for tying the canes to the wires.

Some people find it convenient to string a second pair of wires along the sides of the posts at the 60 cm. (2 ft.) level to help support the emerging new canes.

WEED CONTROL

Cultivating or hoeing keeps the surface loose and prevents the soil from drying out during hot weather. It also keeps the weeds under control. Raspberries are fairly shallow rooted plants and thus are poor competitors with weeds, so good weed control is essential. Never cultivate deeper than 8 - 10 cm. (3 - 4 in.).

FERTILIZING

Raspberries respond well to fertilizer applications. Barnyard or poultry manures are excellent when available. They should be applied any time during the late winter or early spring. The rate of application depends upon the kind and nature of the manure and the fertility level of the soil; however, as a guide, two to four forkfuls per plant are suggested.

Commercial fertilizers also give good results. A balanced fertilizer such as 6-8-6 is satisfactory and can be applied at the rate of one-half cupful per individual plant or one pound per 6 m. (20 ft.) row. As with manure application rates, the commercial fertilizer application rates suggested are general guides and as such should be adjusted as necessary for the variety, soil and local climatic conditions.

All fertilizers should be applied 15 cm. (6 in.) to the sides of new plants or 45 cm. (18 in.) to the sides of established plants. In order to ensure the maximum results, cultivate, rototill or hoe the fertilizers and manures into the top 8 cm. (3 in.) of the soil.

IRRIGATION

Raspberries do not like dry conditions. Irrigation should be applied as necessary to keep the plants growing normally. It is especially important to ensure the soil is adequately watered between blossoming and the end of the picking season.

TRAINING

Summer - Red Raspberries should never be pruned or topped during the growing season. However, any time during the growing season the unwanted new shoots may be cut out by hoeing.

Post Harvest - In late summer, immediately after harvest cut out and destroy the old canes which have produced fruit. Make all pruning cuts as close to the ground as possible - this helps control pests and diseases. Never prune out any of the current season's growth at this time.

In areas of cold winters and/or high snowfalls, it is sometimes better to leave the pruning of the old canes until spring so that they can help support and protect the next year's fruiting canes.

Late Winter - The main pruning of raspberries takes place at this time. All weak, damaged and unwanted canes are removed at the ground level. Only the strongest canes are retained. In the linear and hill systems, five to ten canes are kept while in the hedgerow system, the canes should average about 20 cm. (8 in.) apart. Top at the 1.2 - 1.4 m. (4 - 4 1/2 ft.) level.



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