



GUIDE TO GROWING RASPBERRIES



Raspberries will grow almost anywhere provided they are planted on well drained soil. They enjoy a position in full sun or in light shade and prefer a soil with a pH of between 6.5 and 6.7. On heavy soils and on shallow, sandy or gravelly land, soil improvement will be required, for example digging in some well rotted organic matter. If the soil is inclined to be heavy, the canes are best grown on a raised bed, which can be made by digging trenches 45cm (18in) wide, 60cm (24in) from the proposed row of canes and spreading the soil over the bed, allowing it to settle before planting. Alternatively, a planting ridge may be formed by digging the soil towards a centre line on which the canes are to be planted.

A well maintained raspberry bed can be expected to provide worthwhile crops for ten to twelve years, before needing to be replaced. It is essential to keep raspberries free from weeds.

Planting

The correct planting depth is essential if the canes are to make satisfactory growth in their first year. The uppermost roots should be positioned not more than 5cm (2in) below soil level and the white growth buds may be as high as at soil level. We recommend the use of rootgrow™ when planting to encourage good root formation. The soil should be well firmed over the roots.

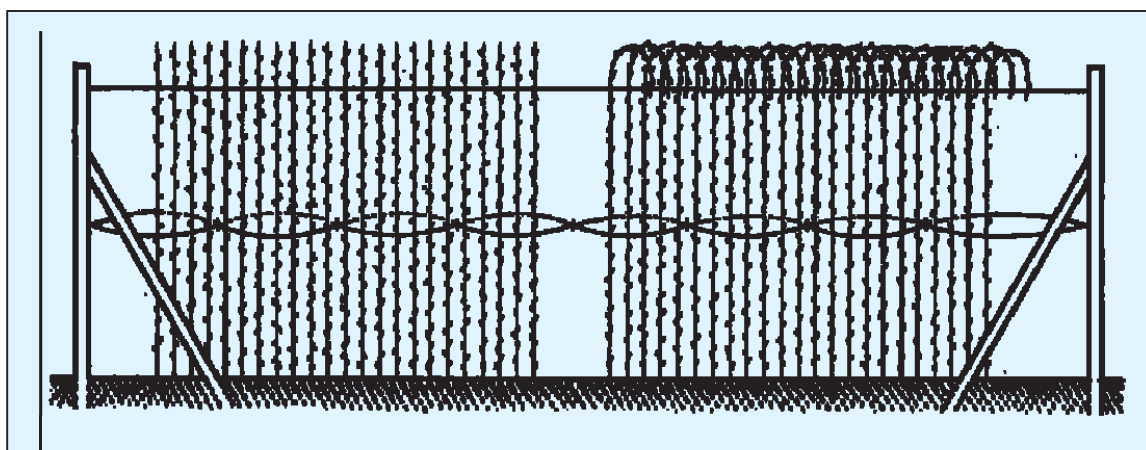
If the canes have not already been cut back to approximately 15-22cm (6-9in) prior to planting, this should be done immediately afterwards. This will encourage new growth from beneath the soil level. The existing cane will normally (but not always) produce fresh growth in the spring but the new growth from beneath the soil level may not show until the early part of the summer. When the new growth appears, the existing cane should be cut down to ground level to ensure the production of strong new canes.

Planting Distances & Training Methods For Summer Fruiting Raspberry Canes

The gardener has the choice of two types of training system — The English hedgerow system and the Scottish stool system. The best row width for each of these methods is 1.8m (6ft).

The English hedgerow system

The English hedgerow system remains the most popular and certainly makes sense where space is limited, since the plants can be planted closer. Fruit production per metre of row is greater under this system since the cane density is higher. When the English hedgerow system is adopted, all varieties (except 'Malling Jewel' which should have two canes planted in each position) should have single canes planted 40cm (16in) apart in the row. As new canes emerge between each stool they should be thinned to approximately one cane every 10cm (4in) so as to give as uniform and narrow a row as possible.

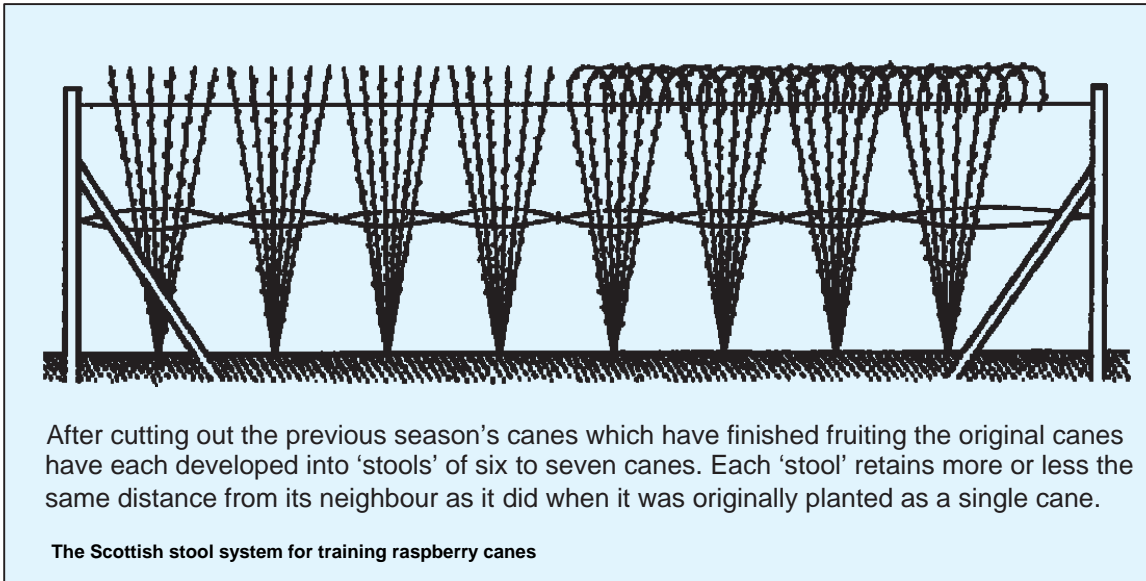


After cutting out the previous season's canes which have finished fruiting the spaces between the original canes have in filled with new canes.

The English hedgerow system for training raspberry canes

The Scottish Stool System

The Scottish stool system (which is always to be recommended) is easier to manage. Weeding and spraying is easier because the bushes are spread out and fruit quality is usually better because more light gets into the bushes and the air can circulate more freely. When the bushes are to be grown on the Scottish stool system the canes should be planted 68cm (27in) apart in the row. To produce heavy crops quickly, 'Malling Jewel', which is a poor cane producer, should have two canes planted at each planting position.



The above diagrams show both types of training system in an established row after cutting out the previous season's canes which have finished fruiting. The English hedgerow system illustrates where the spaces between the original canes have infilled with new canes. The Scottish stool system shows how the original canes have each developed into 'stools' of six to seven canes. Each 'stool' retains more or less the same distance from its neighbour as it did when it was originally planted as a single cane.

Planting Distances & Training Methods For Autumn Fruiting Raspberry Canes

Autumn fruiting varieties should be planted 40cm (16in) apart in the row, with 1.8m (6ft) between rows. Autumn fruiting raspberries do not normally require a supporting framework in sheltered gardens because the canes are short and sturdy, however in more exposed areas a post and wire system should be erected and the canes should be planted as per the English hedgerow system.

Posts & Wires

A supporting framework of posts and wires should be erected in the early winter following the first growing season and canes secured to the wires. The minimum size of the posts should be 5 x 7.5cm (2 x 3in) and 2m (6ft 6in) long, driven 52cm (1ft 9in) into the ground. The end posts should be strutted and if the rows are longer than 13.5m (15yd), intermediate posts 11m (12yd) apart will be required. No less than 12 gauge wire should be used to support the canes. Autumn fruiting varieties should not normally require a supporting framework in sheltered gardens because the canes are short and sturdy.

Control Of Cane Numbers

To obtain the maximum yield of fruit, it is essential that the number of new canes that are allowed to grow and bear fruit should be rigidly controlled. The number should be seven per stool for the Scottish stool system or ten per metre of row (nine per yard of row) for the hedgerow system — numbers in excess of this should be cut out or pulled out in early May and again in mid-June when they are 45cm (18in) tall. If there is still an excess number of canes present at the end of the summer, these should be dug or pulled up with their roots but not cut off at soil level.

Cane Vigour Control

Some varieties, for example 'Malling Jewel' produce canes that are too tall for the support system. This unwanted vigour should be reduced so that the fruit quality is improved, yield increased and picking made easier. This can be accomplished by pulling out or rubbing out every new cane before end of May when the average height is 10-20cm (4-8in). Within a fortnight a new set of canes will appear to take their place. They will not hide the fruit and their ultimate height will be much less.

Traditional Training Systems

The canes are secured between two bottom wires running parallel with each other at a height of 60cm (2ft) above ground level. The wires are tied or clipped together at intervals of 2.7m (3yd). The tops of the canes are either laced with a continuous piece of twine or individually tied to a single top wire positioned 1.2m (4ft) above the ground when the canes are fully grown.

Pruning & Tying-In

Summer Fruiting Varieties

Summer fruiting varieties produce fruit on the previous season's canes. They may be pruned at any time after picking has stopped and as late as the following February. However, it is an advantage to prune in August or September when the new canes are to be woven on the wires as the canes are more supple at this time. This method makes tying with string unnecessary.

The procedure should be to cut out with secateurs each spent fruiting cane, leaving the smallest stub possible. Then dig out or pull out by their roots all new canes that are growing away from the stools and in the case of the English hedgerow system, every cane that is situated at a distance of more than 15cm (6in) from the row. Next, cut off any spindly, short or damaged canes that are growing on the stools and in the hedgerow system similarly dig or pull out individual spindly, short or damaged canes. If after this there is still an excessive number of sound tall canes remaining in the row, the number should be reduced to a maximum of eight per stool, or nine per 90cm (1yd) of row. Once pruning has been completed, it is advisable that the canes should be secured to the wires to prevent them thrashing about in the wind and being damaged.

Raspberry canes frequently grow 2.1m-2.7m (7-9ft) tall and it is on the upper 60-90cm (2-3ft) that the better quality buds are borne. To avoid cutting off these buds, the canes should either be bowed over in a semi-circle and the cane tied a second time at its tip to the wire, or if this does not accommodate all the cane, a further measure should be to train the canes to the wires at an angle of 60°. The weaving of long canes along the upper wire makes pruning unnecessary but this method gives rise to a crowded mass of fruiting laterals that become drawn and easily broken. Whichever method of training is adopted, the final operation, in February, is to prune off the weak 15cm (6in) tip of each cane on which buds of poor quality are borne. Where canes grow to an excessive height in the following years, the application of fertilizer should be reduced or omitted and cane vigour control practiced in May.

Autumn Fruiting Varieties

An autumn fruiting variety is one that fruits on the tips of the new canes that have grown up from the ground during the current growing season. In order to maximise the crop, a bed of canes 60-90cm (2-3ft) wide is encouraged to grow and **late each winter every cane is cut down to ground level.**

It is possible for autumn varieties to produce two crops each year - the first crop in the autumn on the tips of the new cane growth and the second crop on the lower part of the overwintered canes the following summer, however there is a trade-off to producing two crops each season. The more canes that are left to overwinter, the poorer the autumn crop will be.

To produce two crops instead of pruning all the current season's canes down to ground level each winter, a proportion of strong canes should be pruned just below that part of the cane which produced the autumn crop, and everything else should be cut out at ground level completely. The canes that have been retained will overwinter and crop the following summer, after which they are cut out at ground level.

Growing Autumn Fruiting Canes In Containers

Single autumn fruiting raspberry canes can be grown in 38cm (15in) diameter containers, or three canes in a 60cm (24in) diameter pot using a John Innes No.3 compost. Keep the compost moist (using rainwater in hard water areas) during the summer and feed with a high potash fertiliser on a monthly basis during the growing season. Replenish the soil in autumn/winter when the plants are dormant. Pot grown plants can be killed by freezing winds which can penetrate the walls of containers, therefore it is advisable to move them to the side of the house, away from the prevailing wind, or overwinter them in a greenhouse. For extra root protection pots should be lagged with sacking, fleece or any other suitable insulation to keep the worst of the winter weather out.



Manuring

Immediately after planting, or by the middle of March, whichever is the later, broadcast in a band 45cm (18in) wide along the row of canes:

35g/m² (1¼oz/yd²) Nitro-Chalk (calcium ammonium nitrate)
and 10g/m² (¼oz/yd²) sulphate of potash.

Similarly at the end of May broadcast:

20g/m² (¾oz/yd²) Nitro-Chalk (calcium ammonium nitrate).

In the years following, in early March broadcast 90cm (3ft) both sides of the row:

10g/m² (¼oz/yd²) Nitro-Chalk (calcium ammonium nitrate)
and 15g/m² (½oz/yd²) sulphate of potash.

Alternatively, a compound fertilizer such as Ken Muir's 'Fruit Tree, Cane, Vine & Bush Feed' may be used after planting and thereafter annually, following the manufacturer's recommendations.