

INTRODUCTION

Cane fruits (e.g. raspberries, blackberries, tayberries, loganberries) are increasing in popularity as they are versatile and need minimal preparation before eating. They are a healthy option, being high in antioxidants and vitamins. Cane fruits are useful for the production of jams, coulis and juices.

Most of the interest in cane fruits has come because of supermarkets offering an increasing range of fruits; these fruits may be either imported or home grown. For Welsh producers, other possible markets for the fruits include pick-your-own, farm shops and farmers' markets. Surplus fruit can be frozen down for future conversion into value-added products or simply sold as frozen, ready to use fruits.

The season for the production of cane fruits outdoors in Wales is potentially June to November – depending on location and weather conditions. Production in heated glasshouses starts in April but caution is needed with this system, as there is a high volume of cheap Spanish product available to UK markets at this time of year. Therefore, aiming for production from mid-May, with consequently lower inputs in terms of heating, may be a better option.



Loganberry (left) and Tayberry (right)

As raspberries are the most common cane fruit, the remainder of this leaflet focuses on their agronomy.

GETTING STARTED

Raspberries are very sensitive to poor drainage. It is imperative to give serious consideration to the drainage characteristics of the planned growing area. Ideally, soils should be of a sandy loam or lighter texture but heavier soils can successfully produce cane fruits provided they are managed particularly carefully. Ideally, any prospective site should be inspected by someone with knowledge of the crop prior to any activities being undertaken. If site drainage is poor, or there are low places where water may collect, out of soil growing should be investigated. If this is not possible, another site will be needed. It is a waste of effort to try and produce a crop on wet land.

Marginal soils can be improved with a raised soil bed and further improved by applying polythene mulch.

Soil analyses are vital prior to planting and analysis for diseases such as verticillium wilt can also be done. Counts of free living nematodes are also useful to support management options.

A good plantation should last 10-12 years so it is worth a little trouble to start correctly.

Raspberries are susceptible to viral infections and if infected the crop will fail. This means certified stock is vital to ensure a clean start. Fortunately certified stock, acclimatised in Wales, is available from Welsh Fruit Stocks email sian@welshfruitstocks.co.uk they offer a good range including organic. Other suppliers are Hargreaves email sales@hargreavesplants.co.uk or Walpoles sales@rwwalpole.co.uk.

Traditional plant material (stools) is available for planting in the dormant season, i.e. November-March. However, recently long cane planting material has become available and also module plants. Long cane is sometimes cold stored to give out of season production and can be established in the dormant season to bring cropping forward to the first year. Modules can go in at anytime, but water may be needed if a drought threatens.

Usually the best results are from March plantings.

VARIETIES

Good varieties of raspberry include Glen Moy as an early going on to Glen Ample early-mid followed by Tulameen as a late mid with Octavia finishing as a late (August).

Autumn fruited, or primocane varieties, include Polka, Autumn Bliss, Himbo Top, and Joan Squire.

There is normally a dip in production between Octavia and the primocane varieties.

PLANTING

Raspberry canes are normally planted at 3.5 m between rows and 0.45 m down row giving 6,350 plants per Ha (but see tunnels below). Canes can be planted by hand; this is usually carried out by a two-person team - one person makes a nick in the ground with a sharp spade and the other places the plant in the nick. On a large scale, specialist planters can be used or a sub-soiler can be used to make a groove for planting in.

The first cardinal rule in establishment is **DO NOT PLANT CANE FRUIT DEEP**. Put them in as near as possible to the nursery level and avoid excessive firming.

Do not plant when wet.

Except for long cane, which is supported by post and wire at planting, canes are cut down to 0.6m after planting. This helps avoid wind-rock and loosening.

Irrigation in the form of a trickle tape will usually improve yields. The canes are watered and fed from the critical time of early flower to the end of fruit picking, with a general rule of 25mm water/week.

Once planted, the canes will begin to throw young shoots from their base. These new canes form the fruiting cane for the following year (except for primocane varieties which will fruit same year).



Raspberries supported by trellis

As they emerge, the canes are vulnerable and it is important to keep a close watch on them. If the canes are being eaten down to soil level suspect slugs or rabbits and treat or wire accordingly. If they are nipped off underground and seen wilting the culprit is likely to be leatherjackets: this is especially likely if the canes are following turf.

TRELLIS

Ideally each planted cane will produce 1-3 new canes to fruit that autumn (primocane) or the following summer. These new canes will need tying in, so a post and wire system is needed. This must be installed, at the latest, in the September following planting. Posts are braced at each end and usually go in at 20m apart, although closer spacing is used on windy sites.

A height of 1.6 m of post is needed above the ground, therefore posts a minimum of 2m in length are needed. The posts must be treated with preservative to prevent rot.

Two strands of wires (normally 12 gauge) are stretched between the posts at 0.7m and 1.5m to tie canes to. Sometimes a string is used to sandwich canes on to the lower wire or two wires. At the top

canes are secured with string or plastic clips. It is important the canes cannot move or there will be berry damage.

TUNNELS

Most UK supermarket production is now grown in tunnels. If you are considering production from tunnels, plan for 3 rows in an 8 metre tunnel. Tunnels either go on in March for early crops or pre-pick on main-season and primocanes for rain shelter.

YIELDS

A good plantation will produce 12 tonnes/ha but the range is 2.5 – 15 so it is easy to see the value of good husbandry. Prices range from £3 - £7 per kg depending on markets. Plantations should be in full pick by their third year.



Raspberries in polytunnel