

Rootstocks for tree fruit

When buying tree fruit it is important to select a rootstock which suits your soil, site and other requirements. These notes aim to help you make the right choice.

A cultivated fruit tree is usually made up of two parts, grafted together. The lower section, which includes the roots, is known as the rootstock; this may be of the same species as the fruit variety, or one closely related to it. The upper section, which fruits, is known as the scion, and is the named variety we buy.

The performance and final size of a tree can vary dramatically, depending on the type of rootstock used, the vigour of the fruiting variety and soil conditions. An apple grafted onto a dwarfing rootstock may crop in its second year and grow only 6ft in height; the same variety on a vigorous rootstock could reach 30ft and take six or more years to bear fruit. Recent developments in dwarfing rootstocks have meant that it is now possible to grow tree fruit in containers and in restricted spaces.

Choice of rootstock

It is important to select a rootstock which suits your soil, site and other requirements. Do you want a small tree that is easily pruned and picked and will fit into a small garden; or a huge specimen that will last for generations? Or something in between? Is it to grow in bare soil, or do you want to grow grass right up to it? Do you want to be able to neglect it, or will you have time to keep it well fed and watered? All these are important considerations when making a choice.

A very dwarfing rootstock, such as M27 for apples, may sound the best choice for small gardens and quick crops, but this is not necessarily the case. This rootstock needs a good soil, permanent staking and regular feeding, weeding and watering to do well. The dwarfing effect comes about because the roots do not grow very far or vigorously. A more vigorous rootstock might be a better choice, with the tree trained as a cordon to keep it small.

Final height

The type of rootstock and choice of variety will have a bearing on the final height and spread of a tree. A Bramley on M27, for example, will have a trunk twice the diameter of a Cox's Orange Pippin, also on M27, planted at the same time - with spread and height to match. Soil fertility, location and the level of competition from other plants (weed, grass, etc) are also important factors. Trees can of course be kept smaller when trained - as cordons or espaliers for example.

Apples

The rootstocks you are most likely to come across, in order of vigour, are M27, M9, M26, MM106 and MM111. The letters 'M' and 'MM' simply designate which

research station developed the particular rootstock; they never got round to choosing more attractive names!

- **M27** - *Final height*: 5-8ft. *First crop**: 1-2 years.

Suitable for: pots and tubs; 'step over'; dwarf bush; cordons if fruiting variety is vigorous. Must have a deep fertile soil and be kept well fed, watered and weed free if is to thrive. Stake throughout life.

- **M9** - *Final height*: 6-10ft. *First crop**: 2-3 years.

Suitable for: dwarf pyramid, cordon, dwarf bush, espalier and spindle. Produces good sized, early ripening fruit.

Must have a rich, heavy, moisture retaining soil; M9 is fussier than M27. Sensitive to drought. Stake throughout life.

- **M26** - *Final height*: 8-12ft. *First crop**: 2 years.

Suitable for: dwarf bush on poor soils; bush trees, dwarf pyramid, cordon, espalier, spindle. Good choice where soil conditions are not ideal. Will need staking for first few years.

- **M106** - *Final height*: 10-20ft. *First crop**: 3-4 years.

Suitable for: Bush trees, dwarf pyramid, cordon, espalier, spindle.

Medium sized trees; tolerates a wide range of soil types.

- **MM111** - *Final height*: 18-25ft. *First crop**: 4-5 years.

Suitable for: a standard tree for a large garden or a medium bush on poor soil.

Good drought tolerance. Will make a very large tree on a good soil.

Pears

Pears are grown on quince rootstocks. The choice is more limited than for apples, and the final tree height greater.

- **Quince A** - *Final height*: 10-20ft. *First crop**: 4-5 years.

Suitable for: all forms including bush, dwarf pyramid, cordon, espalier, fan.

More vigorous than Quince C, it is the better choice for poor soils.

- **Quince C** - *Final height*: 10-18ft. *First crop**: 4-5 years.

Suitable for: bush, dwarf pyramid, cordon, espalier, fan.

Slightly smaller and earlier cropping than Quince A.

Plums, gages and damsons

Pixy and St Julien A are the most commonly available rootstocks, Pixy allowing plum growing in small gardens for the first time.

- **Pixy** - *Final height*: 8-12ft. *First crop**: 2-3 years.

Suitable for: bush, fan dwarf pyramid. 25% smaller than St Julien A.

Early cropper, producing smaller fruit. Requires a good soil.

- **St Julien A** - *Final height*: 12-25ft. *First crop**: 2-3 years.

Suitable for: bush, fan, pyramid.

The preferred choice for poorer soils. Will tolerate a wide range of soils.

Cherries

Colt, a 'semi-vigorous' rootstock is the usual choice, which can be used for fans, bush or half standard trees. For a full sized traditional tree F12/1 would be the rootstock to choose, but it is difficult to find.

- **Colt** - *Final height*: 15-25ft. *First crop**: 3-4 years.

Suitable for: fan, bush or half standard.

Early cropping and good fruit size.

- **Edabriz** - A new cherry rootstock, ideally suited to the keen amateur who will look after the trees. It needs a good soil to perform well, and should give a much smaller tree than Colt (around 8-10ft). Not widely available as yet.