

Marianna plum is also quite a good stock, but the resultant trees are not quite as vigorous as those on Myrobalan. For very vigorous-growing Japanese varieties such as Purple King, Marianna is probably the more suitable stock to use. Like Myrobalan it does not sucker badly, but it is sometimes hard to bud, as the bark tightens early in a dry season, and it is not compatible with all varieties.

Plum suckers dug up from under mature trees are not suitable for stocks, as they themselves will sucker in the same manner as the tree from which they were taken.

Peach seedlings have occasionally been used as stocks for plums, but they usually reduce vigour considerably and shorten the trees' life. They may be suitable for vigorous-growing Japanese varieties such as Purple King in some localities.

Plum rootstocks for both European and Japanese varieties can be raised in various ways—by seed, by root cuttings, by hardwood cuttings, or from stool beds. Myrobalan stocks are generally raised from seed, but can also be propagated from both hardwood and root cuttings. Marianna stocks propagate quite readily from hardwood cuttings, and this is the method usually adopted for this stock, though root cuttings are also satisfactory.

Trees raised from seed vary to some extent in their vigour. There is also some variation in their compatibility with some varieties. Trees raised from cuttings are more even in vigour and compatibility does not vary.

Stool beds are necessary only where a large number of stocks are needed annually.

For Apricots

Apricots can be grown on plum, apricot, or peach roots, the choice depending largely on the soil conditions where the trees are to be grown.

Plum stocks are most suited to a soil which is inclined to be slightly heavier or slightly wetter than the ideal apricot soil, but even on this stock apricots should not be planted in heavy, wet soils. Apricots on apricot seedling roots are suited to well-drained, loamy to light soils; on peach stocks they often do well on some sandy or shingly soils. The life of the tree in most soils is much longer when it is grown on plum stock than when it is on peach.

Myrobalan plum stocks are often used for apricots, but some variation in compatibility will be found if seedlings are used, and the percentage of takes is generally less than where apricot or peach stocks are used.

Marianna has been used to a limited extent, but has a narrower range of compatibility than Myrobalan.

For Cherries

The Mazzard, a wild sweet cherry, parent of the cultivated varieties, is generally considered to be the best stock for cherries. It produces large, vigorous trees and is compatible with all varieties of cherries.

Another stock that has been used to some extent is Mahaleb, which can be grown in a greater range of soil types than Mazzard. Some varieties on Mahaleb stock may not last as long

as on Mazzard, nor are they generally as vigorous.

Stocks for cherries are mostly raised from seed of the desired stock variety, but they can also be propagated from root cuttings and by layering.

The table on page 399 shows the stocks considered the most suitable for the various kinds of stone fruit, how they are raised, the method used to work the scion variety on to the stock, and the time of year to do it.

Selecting Rootstock

Except in minor details, the methods of raising seedlings of peach, plum, apricot, and cherry are the same. Seeds should be saved from trees free from any signs of disease, especially any of the viruses. The seed should be collected from mature fruits, and all flesh should be removed, especially if it is to be held for some time, and the seed dried before storing.

Seeds of stone fruit trees, when freshly removed from fruit, will not germinate, even under ideal conditions of moisture and temperature. They need after-ripening, which occurs when they are kept moist, but not wet, at a low temperature, 33 degrees to 40 degrees F. being the optimum range. This process, known as stratification, may take from 1 to 3 months, depending on the kind of seed. Peaches, plums, and cherries will need at least 3 months at low temperatures; in warmer climates a longer period would be necessary unless artificial cold is used. Under most circumstances these seeds could be stratified almost as soon as they are harvested, because, though after-ripening may be completed before the end of winter, germination will not take place until conditions are favourable in spring. Apricot seeds need a much shorter after-ripening period, 1 month usually being sufficient. In addition apricot seeds germinate at a comparatively low temperature and therefore stratification should not be begun until a month or so before the expected time of sowing.

The seed is mixed with sand and placed in a frame or box, which is sunk into the soil in a cool position and maintained in a reasonably moist



One-year peach seedlings which have been budded. Tops will be cut off in early spring, when the buds should begin growing.

condition until the seed begins to swell; coarse sand is much better than fine, as it allows better penetration of air and provides better drainage. Swelling should start in late winter, and once it has started the sand must not be allowed to dry out or germination will be adversely affected.

The swollen seed should be sorted, those obviously not viable discarded, and those showing movement sown into nursery rows 30in. to 36in. apart. In the rows the seeds should be spaced 15in. to 18in. apart, the depth varying with the kind of seed—peaches at 2in. to 3in., plums and apricots at 1in. to 2in., and cherries at no more than 1in. By selection and spacing in this manner very few gaps are likely to occur.

The distances mentioned are far greater than those used by nurserymen, but the grower raising trees for his own use only does not require a large number, and more space can be given to each tree. These wider spacings also allow the tree to be grown in one spot until it is ready for