

## HISTORY

Plums (*Prunus domestica*) have been cultivated for over 2000 years. They were introduced into Europe by the Romans, but there is little trace of serious plum culture until the monasteries started recording their gardening activities. In their present form, plums are grown in almost all temperate countries.

## SITE SELECTION

Plums flower around April, with the blossom appearing before there is leaf cover of any quantity. The blossom is very susceptible to frost damage so the trees must be sited where damage from spring frosts is unlikely. Frost pockets must be avoided, as must exposed hillsides where cold winds will disrupt pollinating insects and damage the blossom.

Plums will do best in areas where the annual rainfall is between 50cm and 90cm. Damsons will succeed in areas with higher rainfall, and less sunshine, than plums. Most plum varieties are self-fertile, but sheltered warm sites that will aid the shedding of pollen and the rapid fertilisation of the flowers will help to ensure regular cropping.

The trees will succeed best on deep heavy loams and well-drained clays of a pH between 6.0 and 6.5. Plums planted in thin soils overlying chalk often suffer seriously from lime-induced iron deficiency.

## ROOTSTOCKS AND SPACING

The rootstock determines the vigour and final size of a plum tree. Table 1 show rootstocks which are readily available.

The shape of the tree will affect the spacing in the orchard. Trees grown on St Julian 'A' as a bush tree will require a spacing of 4-5m and on Brompton or Myrobalan 'B' will need 6-7m. A semi-dwarf pyramid would require a spacing of approximately 3.3m

## CERTIFICATION

Plum rootstocks and varieties can be infected by a range of virus diseases; only trees that have been tested and certified should be planted.

## TYPES OF TREE AND PRUNING

Plum trees are mechanically ill-proportioned and if the trees are grown as standards with 150cm-180cm of trunk the fruiting head branches are likely to break under the weight of the crop. A multi-stem or ¼ standard (99cm-120cm of trunk) is likely to be a more robust structure if the main branches are allowed to develop upwards and out before being allowed to hang down with the crop.

Pruning is generally restricted to early / mid-June to reduce the chance of silver leaf infection. The method used will depend on the form required. Cuts must be as clean as possible and large cuts should be painted with a wound sealant. Any diseased or dead wood should be disposed of by burning. For bush trees all leading shoots should be cut back by a third and all other shoots to 15cm from the their main stem. The centre of the tree should be kept un-crowded to allow air to circulate freely and maintain light levels. In period of exceptional fruit set, the crop must be thinned, branches propped up, or weight reduced by cutting out parts of branches with the excess crop attached.



Fig 1: Plums

Table 1 Readily available rootstocks for plums

Rootstock	Habit
Pixy	Dwarfing
St Julian A	Moderate vigour
Pershire yellow egg	Moderate vigour and grows well on clay soils
Brompton	Vigorous
Myrobalan B	Vigorous

## PLANTING

The best time to plant plums is late autumn when the residual heat in the ground will aid root establishment. The tree should be planted at the same depth as the nursery mark, ensuring that the graft union is at least 5cm above ground level. The tree will benefit from stake support for the first two years of its life.

## PESTS AND DISEASE

Stone fruits suffer from a range of pests and diseases, some problems such as witches brooms are of little consequence and can be pruned out while Pocket Plums (*Taphrina pruni*), which can appear in the north and west, can be controlled by collecting up the infected fruit and destroying them. Other more serious diseases exist such as bacterial canker, silver leaf, blossom wilt and leaf curl. Pests such as aphids, plum fruit moth and plum sawfly can cause devastating damage unless identified and dealt with early.

## POLLINATION

Most plums do not require pollinators. Those that do are marked in the varieties lists. When selecting a variety that needs cross-pollination, the pollinator must be chosen from the same group to ensure they flower at the same time. Insects, mainly bees and flies, carry out pollination. Bees are generally regarded as the main agents but midges and fungus gnats are generally present in large numbers

## THINNING

When the conditions are favourable, a tree may set more fruit than it can cope with resulting in small fruit or damage to the branches. If the crop looks heavy, thin after the June drop aiming for a minimum of 10cm between fruit. If thinning is not practical then consider staking and supporting the branches.



Fig 2: Bee on plum blossom

## FEEDING

An established plum will need regular organic mulches to maintain moisture levels and 28g of nitro-chalk with 14g of sulphate of potash per m<sup>2</sup> in February. Every third year include 28g of super-phosphate.

## VARIETIES

There are over 2000 varieties of plums, ripening at different times throughout summer and autumn although only about a dozen are available in the shops. Dessert plums are usually up to 10cm long and can be eaten on their own. Cooking plums are usually drier with a tart flesh that is more ideal for pies flans and jams.

- **Pershire yellow egg:** A very versatile cooker and can be used as a base for jams.
- **Marjorie's seedling:** A versatile variety, good for cooking or eating. The fruit is small and the skins are purple with a green flush. The flesh is green and sweet but the skins tend to be bitter. Does not require a pollinator. (Pollinator group E)
- **Victoria:** The most prolific of all the varieties. The original selection was made in 1840 from a stray seedling found in Sussex. The large fruits with yellow skins flushed with scarlet are good for bottling, canning, stewing or eating raw. Does not require a pollinator. (Pollinator group C)
- **Czar:** Medium sized purple plum. The flesh is yellow-green and juicy. The tree crops well and is regarded as hardy (some frost resistance). Does not require a pollinator. (Pollinator group C)
- **Opal:** One of the earliest varieties. Reddish-purple fruits similar in appearance to Victoria but smaller in size. The yellow flesh has a gage like flavour. (Pollinator group A)
- **Early Prolific:** One of the earliest varieties. Very good as a dessert plum when ripe and can also be used for cooking and jam. (Requires a pollinator from group D)

## HARVESTING AND STORING

Plums are generally picked and sold as they become ripe. They can be stored for short period and at temperatures of 2°C - 5°C they will maintain quality for about a week. Picking slightly under-ripe and storing in low temperature will maintain quality for longer