

soil to function, weeds will be destroyed, and conditions created which will give the best results.

Grafting

At the present time, too, many varieties of apples which are of little or no commercial value are grown. Although some growers are reluctant to dispose of these varieties, serious consideration should be given to the over-working of these trees.

Varieties known to be unsuitable for a particular district should be replaced by other varieties of proved value, while trees known to be uneconomical from the working and marketing point of view should be grafted over to better commercial varieties. The

reduction in number of varieties in an orchard will prove more profitable in the long-run. The aim should be to have a succession of good varieties throughout the season, avoiding as many small lines as possible.

Grafting can be carried on throughout September and October. The two methods now adopted are either the form of grafting in which the trees are de-headed and scions are inserted in the main branches, or the refurnishing method, by which trees are more or less skeletonised and scions are inserted along the length of the main limbs and larger laterals. The former method is the quicker, but the time which elapses before the variety grafted on comes into bearing is longer.

The refurnishing method, although entailing much extra initial work, has the advantage of the trees coming back into production within two seasons.

Whichever method is adopted, it is imperative that the scions should be healthy, well-ripened, one-year-old wood which has been kept in good fresh condition by placing in cool, moist soil until required. Care in the cutting of both stock and scion, the clean insertion of scions (making sure that the cambium layers of both stock and scion are in contact), and the secure binding of the grafts to exclude all air should result in a high percentage of successful taking.

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Citrus Notes

Classification of Oranges

THE recognition of the varieties of sweet orange is an even more complex problem than with lemons, because of the very large number of varieties which have been planted. The classification system for oranges adopted by H. Harold Hume in his publication "The Cultivation of Citrus Fruits" will be followed as closely as possible. The chief classifications are Spanish oranges, Mediterranean oranges, Blood oranges, and Navel oranges. An additional classification is the Island orange.

The Spanish oranges are large trees of vigorous growth, well foliaged, the leaves are oval, pointed, and with petioles frequently strongly winged. The fruit is rather coarse grained, and has numerous seeds. Example: Parson Brown, rounded, colour yellow-orange to yellow, 16 sections, should be picked early to obtain best flavour.

The Mediterranean oranges are smaller trees with abundant foliage, the fruit being fine-grained and generally round in shape. In this category are many locally-grown varieties, and they should be grouped into subdivisions as follows:—Shamooti, Jaffa, Joppa, St. Michael, Hamlin, Pineapple, Valencia Late, Lue Gim Gong.

The Palestine oranges are Shamooti, Jaffa, and Joppa. All three are vigorous, thornless trees, and bear fine-textured fruit. The Shamooti is the original Palestine orange—oval in shape and not often seen in New Zealand. Jaffa and Joppa are round fruit, and originated as seedlings from Shamooti.

Jaffa.—Jaffa generally ripens about September. The fruit is rounded, of

Reminders for the Month.

Get the orchard soil in good tilth.
Hoe lightly around the trees.
Complete spring manuring.
Apply the first 3-4-50 Bordeaux spray.
Begin systematic pruning as the main harvesting is completed.

medium size, juicy, of good flavour, and fine texture. There are 11 well-defined sections, and the flesh is orange-yellow.

Joppa.—Joppa is generally not as good as Jaffa, for although in flavour the fruit is practically identical it is generally smaller. It will, however, hang longer on the tree. The rind is somewhat rough, and there are 10 sections.

St. Michael.—This tree is a vigorous, prolific bearer, the fruit ripening in October-November. The fruit hangs well, and holds its juice; it is oblong in shape, of medium size, and seedy. The rind is slightly thick, somewhat rough, and yellow in colour, with a slightly-pitted appearance through countersunk oil cells. There are 9 to 13 sections. Paper rind St. Michael is probably a seedling of St. Michael, and generally has smaller fruit.

Hamlin.—Hamlin is probably better known than St. Michael, and ripens in August. It is a medium-sized fruit, changing in colour from deep golden yellow to orange-red at maturity. The rind is very smooth and bright; there are 11 to 12 uneven sections, and the juice is of good flavour. There are few seeds.

Pineapple.—This tree is characterised by large foliage. The fruit ripens in September-October. It is round in shape, medium to large in size, and a deep orange colour when mature, with sometimes a reddish tinge. There are 11 sections, a large solid pith, and generally 15 to 30 large seeds.

Valencia Late.—This variety has medium-sized pointed leaves. The fruit ripens in November, and is characterised by the fact that locally it seldom develops full colour and if left on the tree has a habit of turning green again. This habit is more noticeable with young trees, with more fertile soil, and when heavy manuring is practised. The fruit is usually slightly oval or elongated in shape and medium to small in size. The rind is often ribbed, pebbled, and tough. A blue appearance is often noted inside the inner lining of the rind (albedo). There are nine or more sections and up to six large and plump seeds. The flavour is often insipid.

Lue Gim Gong.—Lue Gim Gong is reported to be a cross between Valencia Late and Mediterranean Sweet. It has the same general characteristics as Valencia, but the fruit is reported to hang on the tree longer.

The Blood oranges are characterised by the pulp of mature fruit having a distinct red streak. The fruit is generally small or medium sized, and the rind also assumes a reddish blush at maturity. The trees are of a dwarfish distinct growth habit. The foliage is abundant, and leaves are small and oval, petioles being generally without wings. Varieties are Ruby Blood and Maltese Blood.