

weather is fine and the soil sufficiently dry.

Planting seems quite a task to the inexperienced, but it is really quite simple. It has often been said that more trees are killed by kindness than by wilful neglect. Many people are so fussy in planting trees that they consume a great deal of time in getting a single tree into the ground, while there are twenty others drying up waiting their turn.

The depth to plant will be indicated by the collar of the tree, and they should be planted about 1 inch deeper than they were before being lifted from the nursery.

Some "don'ts" in planting are:—

(1) Don't forget that deep cultivation before planting is one of the secrets of success.

(2) Don't cram the roots of fruit trees into small holes; make the holes roomy enough to allow the roots to be well spread out.

(3) Don't plant the trees while the soil is wet and sticky.

(4) Don't buy poor trees because they may happen to be cheap; it is

cheaper in the end to pay a good price for good trees.

Manures

In order to get the best possible crops, the trees must have sufficient food. For some time after they are planted they may be able to find in the soil all that they require, but as a rule there is a deficiency of one or other of the three principal ingredients in a complete food. The three ingredients are phosphate, potash, and nitrogen.

When bearing heavily, fruit trees exhaust the soil of its nutriment. Application of fertilisers should therefore be made at least once a year in order to maintain the vigour and productivity of the trees. As animal manures are practically unobtainable, one has to resort to the use of artificial or chemical manures.

A general recommendation has been given as follows:—

Nitrogen (N) 30lb contained in 100lb of nitrate of soda, or 150lb of dried blood, or 150lb of sulphate of ammonia.

Phosphoric acid (P₂O₅), 50lb, contained in 350lb of acid phosphate, or 200lb of bone meal, or 300lb of basic slag.

Potash (K₂O), 25 to 50lb contained in 50 to 100lb of muriate of potash, or 100 to 200lb of low-grade sulphate of potash.

The above amounts are for an acre of bearing trees, and would be reduced for younger trees.

Peach trees require more fertilisers than apples, as they grow more rapidly and bear fruit much earlier. When peach trees come into bearing a more liberal supply of nitrogen is required than at the outset.

Constant watchfulness is required to make sure that neither too little nor too much nitrogen is used. An excess of nitrogen will delay the ripening of the fruit, whereas too little may mean lighter crops and loss of vigour in the trees.

—L. PAYNTER, District Supervisor, Auckland.

Citrus Notes

Planting Trees and Shelter Belts

NOW is planting time for citrus trees and shelter belts—the time when the future of the new citrus orchard may be made or marred. There are six key factors which must receive consideration now, because after an orchard is established little can be done to alter these original factors. These factors are:—Climate, soil, topography, shelter, rootstock, and variety.

Climate

Under climate must be considered primarily freedom from frost, adequate rainfall, and number of hours of sunshine. The site chosen must be practically frost-free, as frost prevention by heaters is not considered an economic proposition in New Zealand. To run the risk of periodic severe frosts would be unwarranted while frost-free land is available. Such plants as Poinsettia, Jacaranda, and tree tomato are suitable indicators as to the degree of frost experienced in the district.

Adequate rainfall is essential when the citrus growing areas do not practice irrigation, but it must be borne in mind that the total annual rainfall is of far less importance than even distribution. A rainfall of 40 to 50 inches with an even distribution of 4 inches per month is of much greater value than a rainfall of 80 inches with



A shelter belt of *Bambusa vulgaris* in an orchard at Henderson.

60 inches from April to September and practically none from January to March.

Citrus trees must have adequate moisture at their roots during their actively growing period from Octo-

ber to March. The number of hours of sunshine in most citrus fruit areas in New Zealand is adequate, and this seldom becomes the limiting factor except for certain varieties, such as American grapefruit.