

All canes should be cut to ground level at pruning time, leaving as little as possible of the old cane on which fungus diseases can carry over infection to the following season. All prunings should be burnt immediately and dead stumps in hedges and shelter belts should be removed to minimise infection from silver leaf.

### Manuring and Cultivation

In most districts the application of fertilisers is somewhat haphazard, and there is scope for much experimental work in the use of organic and inorganic manures, green crops, and mulching material. Growers are urged to use more of these materials immediately to increase the vigour of the canes and to increase crop yields.

**Lime is used more or less throughout the raspberry-growing areas, but little thought is given to consequences through excessive amounts being applied, and it is suggested that all soils on which raspberries are grown should be tested before lime is added. Cases were seen where over-liming may have been the cause of chlorosis and crop deterioration in raspberry plantations.**

Cultivation is generally quite satisfactory, but, if it is continued right up to harvesting, the use of implements probably does more harm than good. Often weeds in the rows are allowed to take charge and become a nuisance to pickers; seeds of plants such as thistles and willow weed drop into the pickers' buckets and give a dirty appearance to the fruit.

### Possible Expansion

There seems to be opportunity and ample scope for increased production in all areas; suitable land and available labour are the limiting factors in most districts. Neither direct-to-consumer supply nor supplies to the factory are near saturation point in any part of New Zealand, while markets in the Auckland Province obtain practically no supplies of raspberries.

It is suggested that, while increased production in established areas will help to satisfy present markets, with more efficient transport new markets could be supplied. However, it is thought that areas suitable for raspberry production could be found in the King Country, particularly near the timber-milling towns, where labour would be available.

In this area winter conditions are fairly severe, rainfall is adequate, and the soil is suitable, while the wives and children of timber workers might provide an adequate supply of seasonal labour. Transport facilities would enable the fruit to reach the Auckland markets in good condition.

## Stand of Lucerne Successfully Established on Karaka Country

By A. D. MERCER, *Fields Instructor, Thames.*

**T**HE maintenance of an adequate feed supply for dairy herds during a dry summer is an often-recurring problem, particularly on soils which tend to dry out, such as the lighter soils on the karaka country along the southern shores of Manukau Harbour. A stand of lucerne is the best insurance against this difficulty, and that the crop can be successfully established on such soils has been demonstrated at the Kingseat Hospital farm.

**O**NLY in the past 20 years has the karaka country come to be recognised as capable of transformation into dairy farms. Previously the light soil of this scrub-covered region was considered of little value, but adequate top-dressing and pasture sowing have converted it into valuable dairy land. However, a dry summer is always likely to cause a fall in the returns of the farmer relying solely on pastures for summer feed, and the value of a stand of lucerne such as that at the Kingseat farm is far greater than the effort and expense involved in its establishment.

The area of 12 acres was ploughed out of mangolds in the winter of 1945 and a ton of lime an acre spread on the furrow. As the land dried out in the spring it was well worked to a fine seed-bed, the roller playing an important part in securing the necessary fineness and consolidation. After the final rolling inoculated seed was sown broadcast at the rate of 18lb. an acre and lightly harrowed, a dressing of 2cwt. of superphosphate and 2cwt. of lime an acre being applied at the same time.

### Good Strike in Dry Summer

The benefits of thorough cultivation and a good seed-bed were strikingly manifest on this area. From the time of sowing in November, 1945, until the middle of March, 1946, the Auckland district suffered the driest summer on record, but the strike was thick and even. Though by February the growth of the lucerne was at a standstill, and it appeared doubtful whether the young plants would hold out much longer, they survived until rain in March saved the situation. The field was topped with the mower early in February to remove the growth of *Amaranthus*, or redroot, and since then the thick stand and rapid growth of the lucerne have successfully kept weeds in check.

During the 1946-47 season the area was cut three times until March, when it was ready for another cut, but because of pressure of other work only a small portion was mown then. On this small area a fifth cut was ready for

greenfeed at the end of April. The first cut in the spring was made into silage, the later cuts into hay.

The success achieved with this first sowing in an unfavourable season led to the sowing down of a further 18 acres to lucerne in the following year, and if a practical demonstration of the establishment of lucerne on the soil of the karaka district was all that was lacking to convince the hesitant, this example should soon be followed on other farms.

## Identical Twin Calves Wanted For Research at Ruakura

**I**DENTICAL twin calves are again wanted this year for research purposes at the Department of Agriculture's Research Station at Ruakura, and farmers who believe they have sets of identical twin calves are asked to advise the station by telegraph or letter. The station's telephone number is 4790 Hamilton and the postal address Private Bag, Hamilton.

Through the willing co-operation of farmers, 41 pairs of twins were collected last season.

**Identical twins are always of the same sex and must also have exactly the same coat colour, head shape, body conformation, and pigmentation of ears. Mouth and tongue markings and whorls and body size must also be similar. Not too much attention should be paid to difference in white marking, although the general pattern should be similar.**

Identical calves will be paid for at £2 a head, plus 1s. 6d. a day per calf up to 14 days of age. If the calves are older than this on collection, the price will be by agreement.