

DEPARTMENTAL NOTES

A NOTE ON THE BAGGING OF GRAPE FRUIT

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PROFITABLE grape fruit cultivation implies the production of readily marketable fruit of good quality, fair and even size and free from unsightly blotches of citrus canker and the less easily seen but more serious fruit-fly injury. The flavour of Ceylon grape fruit though more acid and possessing more of the characteristic grape fruit bitterness than imported fruit is pleasing when the fruit is properly prepared. Many people prefer the flavour of local grape fruit and raise no objection to the slightly coarser flesh. The presence of too many seeds is undesirable, but seeds are easily removed during the preparation of the fruit for eating. Good strains of Marsh's Seedless are seedless or almost seedless. Only reasonable and even-sized fruit should be marketed if grape fruit growing is to expand into an industry in Ceylon. The writer has recently seen offered for sale grape fruit no larger than a small orange and it cannot be doubted that the marketing of fruit of this sort will destroy a valuable potential demand. Good cultivation to reduce the number of small fruits produced and rigorous grading must be practised.

Citrus canker (*Pseudomonas citri*) is found on most citrus trees in Ceylon and although it can be kept in check in the drier regions by the frequent removal of affected fruit, leaves and branches, combined with regular spraying*, control has been found difficult at Peradeniya and even at Bibile. On the Experiment Station removal of affected leaves has with some plants resulted in such a degree of defoliation that development has been arrested. Many trees which by now should be in bearing have the appearance of being no more than two years old. Extensive defoliation, unless the disease is completely

* The spray at present recommended is made up of 1 oz. Sulsol, 1 oz. soft or ordinary soap, $\frac{1}{4}$ oz. nicotine sulphate to 1 gal. water.

eradicated, would appear to be impracticable and whether complete eradication is possible or not still remains to be seen. In the meantime a practical method of keeping the fruit free from canker is to enclose every fruit soon after it has formed, and while it is yet only an inch or so in diameter, in a grease-proof paper bag. Generally single fruits are bagged but it is sometimes more convenient to use a larger-sized bag for two or even three fruits. A small perforation should be made in each corner of the bag to allow rain water to escape before it collects in sufficient amount to cause the gummed edges of the bag to give way. The cost of bags (9" × 10½") for single fruit is about Rs. 6 00 per 1000 and of bags (10½" × 15") large enough for two or three fruits Rs. 10·00 per 1000.

The fruit-fly (*Dacus ferrugineus*) is a serious pest of grape fruit in many places in Ceylon. Eggs are laid in the ripening fruit and small white maggots have developed by the time the fruit is ripe. The presence of these maggots make the fruit unsalable. It is not always possible to determine if a fruit has been attacked and if a purchaser finds maggots in even a few fruits the demand for Ceylon fruit will be seriously affected. It is essential, therefore, in the interests of grape fruit growing to make certain that all fruits marketed should be free from fruit-fly damage. Although fruit-flies can be kept in check by natural parasites and can be destroyed by poisoned baits the safest and most practical method of preventing attack is to bag the fruits.

So far as can be determined from several months experience on the Experiment Station bagging gives complete protection from canker and fruit-fly. It may occasionally happen that the very young fruit is infected by canker before bagging. No serious drawbacks to the use of bags have been observed; pink patches have been noticed on some bagged fruits, but these have apparently no effect on the flesh.

On the Experiment Station almost ripe fruit are plucked, washed with soap and water and, in order to give a more pleasing appearance, coloured by acetylene gas in a home-made gassing chamber.