

A BALANCED PLANTATION.

(By F. C. Swinbourne, Kila.)

The plantation which produces only one product is much exposed to market fluctuations which are beyond the control of the planter. This risk is diminished by a diversity of crops, as it is very unlikely that the market will prove unfavorable for all the crops at the same time. The diversity of crops also lessens the risk of a total loss due to pests or climatic disturbances.

It is also difficult to meet the heavy seasonal labour requirements that are necessary with such crops as coffee and cacao except where plenty of casual labour is available. With indentured labour there will be either a surplus during the slack period and, therefore, excessive expenditure, or there will be insufficient labour during the busy season and produce will be lost. By combining such crops with a sufficient area of coco-nuts, an adequate labour force can be permanently engaged, and the copra output will not be seriously affected if this portion of the plantation is periodically neglected during the short periods when the whole labour force is required for the other crops. By stocking some coco-nut areas with cattle, the maintenance costs of the area can be considerably reduced, and, at the same time, fresh meat becomes available.

No hard and fast rules as to the areas to be devoted to each crop can be made, as these must be based on productive costs, but, in general, the areas are proportioned in such a way that any one of the crops can with a fair market cover the running expenses of the whole plantation.

By proper selection of plant, a further economy can be made in cacao driers, and fermenting tanks can be so chosen as to be equally suitable for coffee, although most coffee driers are unsuitable for cacao (Gordon cacao drier). Cement coffee tanks fitted with removable wooden linings are suitable for cacao. The one grading machine does for both crops, only the screens being changed.

This is the system of agriculture adopted in the New Hebrides.

ENTOMOLOGICAL NOTES.

CALCIUM ARSENATE AS AN INSECTICIDE.

The use of calcium arsenate is not nearly as dangerous to man and animals as that of Paris green; it does not possess the caustic characteristics of the latter, but it is undoubtedly attended with a certain amount of danger. Hence, precautions should be taken to prevent the material being swallowed, and also to prevent, as much as possible, the inhalation of the dust in breathing. Absorption through the skin may also take place, and therefore excessive handling of the poison should be avoided. This danger can be reduced by frequent washings. If calcium arsenate is properly made it will not injure plants. In case any burning or scorching of the leaves should be noted, the use of this material should immediately be discontinued, as a comparatively small amount of leaf-burning may easily induce a serious amount of fruit-shedding.

It has been found that, with experienced operators handling the dusting machinery, satisfactory results can be secured from the use of about 5 lb. of calcium arsenate per acre for each application, but a new operator will generally have to be supplied with about 7 lb. per acre, which figure ought to form the basis of calculations.