

FOOD PRODUCTION ON ESTATES

ROLAND V. NORRIS

As readers are already aware, under the terms of the Food Production Order (Estates) all estates over 35 acres in extent are now required to assist in the production of food by placing under cultivation with food crops an area of land proportionate to the cultivated area of the estate. By cultivated area is meant the area under the permanent crop. In this connection it is understood that recently planted or cleared areas will be treated as land not under permanent cultivation. The proportion to be cultivated depends on the nature of the land to be utilised. Thus in the case of tea estates if the food crop is grown interplanted with the tea the proportion is 24 per cent, which is reduced to 12 per cent, if land outside the tea and wholly planted up with food crops is utilised. Land which has been handed over by Estate Proprietors for cultivation by villagers may be regarded as forming part of the prescribed percentage provided that the rental charged does not exceed 10 cents per acre per annum and that the area is planted up with the crops specified in paragraph 2 of the Order. Similarly labourers' gardens form part of the required area if they likewise comply with the latter conditions.

As an alternative estates may combine to form syndicates to acquire land in other more suitable areas, *e.g.*, under several of the new irrigation schemes, for food production purposes. In this case the estate must contribute to the syndicate a sum not less than Rs. 10 per planted area of the estate and the syndicate must be approved by the Minister. A combination of the above methods may of course be adopted. In such a case the sum to be contributed

to the syndicate would be calculated as shown below:—

- (a) Cultivated area of estate (say) = 1,000 acres tea.
- (b) Area cultivable in foodstuffs (if grown out of the tea) = 120 acres.
- (c) If the estate cultivates in foodstuffs 70 acres, the balance cultivable = 50 acres.
- (d) The 50 acres is in respect of $50 \times \frac{100}{12} = 416.66$ acres of cultivated land.
- (e) The sum to be contributed by the estate to the syndicate would therefore be $416.66 \times 10 =$ Rs. 4,166.60.

In calculating the area to be cultivated allowances will also be granted to estates producing fruit or maintaining cattle, poultry, pigs or other livestock contributing to the production of food. At the moment the extent of the allowance* to be made for such stock has not been finally determined and it is probable a small panel will be set up to adjudicate on such claims. Any application for an allowance under this head should be made at an early date to the Land Commissioner.

Paragraph 2 of the Order gives a list of the foodstuffs which are approved under the Order but other varieties may be added to the list by the Minister and it is likely such additions will in fact be made. The most notable omission from the list is green vegetables and many enquiries on this point have been received. The matter has

*Allowances for stock have since been fixed.—Ed.

already been under consideration and it is likely that estates in areas which offer special difficulties in regard to other form of food crops will be permitted to cultivate vegetables to the extent of 25 per cent of the prescribed area.

Under Paragraph 4 of the Order the Minister or any officer acting under his instructions may specify the description of foodstuffs which must be cultivated by any particular estate. It is unlikely, however, that action will be taken under this section unless experience shows that an excess of any one crop is being produced to the detriment of other varieties.

Considerable doubts have been expressed in many quarters as to the feasibility of producing food crops by interplanting these with our permanent crops such as tea, rubber and coconut. Everyone however will recognise the urgent necessity, having regard to the general food position of the Island and the possibility of further restriction of imports of foodstuffs, of increasing by every means possible the amount of food produced in Ceylon. The need for such action is fully appreciated by Proprietors and Agency Firms and it may be taken for granted that Superintendents will co-operate in the fullest possible manner. While the economic aspect must temporarily receive less consideration than would be the case in normal times, it is nevertheless true that what is required is *food* and not merely unproductive cultivation of large areas of land. From this point of view it can hardly be disputed that the cultivation of areas outside estates under suitable conditions of climate and fertility and with facilities for irrigation is likely to produce far greater practical results than the interplanting of possibly larger areas on estates often in districts which, due either to elevation or excessive rainfall, are really unsuit-

able for many varieties of crops, particularly grain crops. The possibility of forming syndicates for the development of land in suitable areas under irrigation schemes therefore demands the closest and most careful examination. It is not impossible that Government may offer some financial inducement to encourage estates in such schemes, possibly by compensating them to some extent when the areas are ultimately restored to Government for the expenditure incurred in development. The chief practical difficulty at the moment however seems to be the question of labour. Estates generally have no surplus of labour at the present time and there are in any case difficulties in transferring labour from up-country to undeveloped areas with inadequate facilities for housing and unsatisfactory health conditions.

We may now pass on to consider the general organisation of food production work on estates. A Central Co-ordinating Committee has been set up under the Chairmanship of the Deputy Director of Agriculture and including the Food Production Officer (Estates) and the Directors of the three Research Institutes. The functions of this Committee, which is advisory to the Director of Agriculture, is to collect as rapidly as possible all possible information in regard to the varieties of foodstuffs which can possibly be grown in different areas, the methods and times of planting and the type of cultivation required and to disseminate such information to estates by the issue of frequent circulars. The Committee will likewise investigate and advise in regard to the storage and utilisation of the crops produced and the damage which may be caused by pests and diseases. The Committee will also act in an advisory capacity in regard to possible amendments which may be required from time to time

to the Food Production Order as experience on food production is accumulated.

To assist the Committee in acquiring the necessary information all District Planters' Associations have been asked to form local food production committees. It is suggested these should not necessarily be confined to planters but should, if available, include others who may have special local knowledge or experience in regard to food production. Such committees should be in a position to collect information rapidly in regard to the work in their own areas, to bring to notice any special difficulties that may arise, to suggest additional food crops considered suitable for trial and to indicate particular areas which might be adopted as special observation areas from which reliable data can be obtained as to what can be achieved and what may be impossible in districts under different climatic conditions.

To assist such committees it is proposed that technical officers from the Department of Agriculture or the Research Institutes should be attached to them to act as liaison officers and to make such advisory visits to districts as may be found necessary. To make this possible the Board of the Tea Research Institute has decided that with the exception of the permanent field experiments, work on food production is to take precedence over other problems and as much time as possible of the staff will be devoted to food production. Trials of different crops will of course be made on St. Coombs Estate.

To assist further in obtaining the required information from estates in regard to the success or failure of their efforts to produce food it will probably be necessary to call for quarterly returns from estates. These reports will be in a simple form involving as little trouble as possible to Superin-

tendents in filling them up. Data however are required concerning the acreages of the different crops planted, their manner of growth, maturing period and yield under different climatic conditions. Such information will assist materially in organising inspectional and advisory work. In this connection it should be mentioned that in order to reduce mileage and time in visiting districts, such districts will be divided amongst the available staff of the Department of Agriculture and the Research Institutes on a geographical basis and in certain areas therefore tea estates in regard to food production, will come under the general supervision of officers other than those of the Tea Research Institute and *vice versa*.

To pass to more technical matters, an advisory circular drawn up by the Department of Agriculture in consultation with the Staff of the Tea Research Institute, and dealing with the growth of crops in pruned tea, has already been issued to all tea estates. [Leaflet No. 192 (Food Production Leaflet No. 13) of the Department of Agriculture.] It will be recognised that the initial difficulty to be faced is that little or no experience is available in regard to the growing of food crops at the higher elevations and especially when interplanted with tea. The recommendations in the above leaflet have necessarily therefore had to be based almost entirely on general principles and it is for this reason that the importance of receiving as early as possible information from estates as to the results achieved has already been stressed. This will enable the recommendations made to be amended as found necessary and additional advice to be given. Leaflet No. 192 does not deal with root crops in regard to which there was at first some doubt as to the feasibility of growing them in tea. Experimental evidence from the cultivation experiments at St.

Coombs indicates however that it is unlikely that such crops will have an unduly detrimental effect on the tea and the recommendation is that they should therefore be tried. In the wetter areas it is indeed likely that in the South West Monsoon period they may prove to be the crop of most importance and this applies particularly to sweet potatoes and to a less extent to manioc. A leaflet dealing with these crops will shortly be issued; meantime some details in regard to their production will be found in Food Production Leaflets Nos. 11 and 12 of the Department of Agriculture.

Leaflet No. 192 has already been issued to all estates and it is unnecessary therefore to go over the same ground again. Attention however is drawn to the time factor imposed by the short interval, particularly in the low-country, between the time of pruning and the period when the tea on recovery may begin to interfere with the food crop. Careful planning in regard to the arrangement of pruning and cultivation programmes is therefore necessitated as also attention at lower elevations to the type of pruning. Recommendations in regard to these points are made in the leaflet. The importance of manuring the food crop and the methods of carrying this out are also indicated. In this connection it seems likely difficulties will be encountered owing to restrictions on transport facilities delaying the delivery of fertilisers to estates. In the case of cereal crops especially, this delay may have a detrimental effect as such crops take up a large proportion of their nitrogen in the early stages of growth. The Co-ordinating Committee has taken up the question of fertiliser supplies with the Authorities concerned but in face of military demands on the railway, deliveries must necessarily be somewhat uncertain.

Every effort should therefore be made to make use of all available cattle manure and waste materials which should when necessary be composted. This will apply likewise to the residues from the crops produced.

Leaflet No. 192 deals with foodcrops in pruned tea. In developing uncultivated land for food production it is necessary to stress the urgent necessity for opening such land on sound agricultural principles with special attention to the question of soil conservation. If this be done, the fertility of such areas will be maintained and they may well prove suitable at a later date for planting in tea. In connection with the conservation of soil fertility it will be essential to see that a proper crop rotation is adopted. Attempts to raise the same crop on any one area in successive cropping seasons will inevitably result not only in a failure to secure reasonable yields but also in a rapid deterioration of the area so treated.

A word must be said in regard to the storage of the crops which it is hoped will be produced. Many of these are subject to rapid deterioration on storage and this question is already being dealt with by the Co-ordinating Committee. This applies also to the question of the best utilisation of such crops as manioc and sweet potato. It is hoped that information on such points will be available at a relatively early date and all information obtained will of course be passed on to estates in further leaflets. The question of exchange of produce between different areas is also being examined.

Some difficulty, chiefly in regard to transport, has been experienced in obtaining the necessary supply of seed for estate use. Orders for these were placed at an early date by the Department of Agriculture and

supplies are now coming forward, and it is hoped there will be no undue delay in meeting estate requirements. Enquiries on this question should be directed to the Director of Agriculture (Seed Distribution), Peradeniya.

In conclusion, it must again be stressed that the repetition of mistakes can be

avoided and more rapid progress achieved only by a pooling of all available information. It is hoped therefore that Superintendents will co-operate in this direction and make generally available, either through their District Food Committees or their Research Institute, all possible information they may gain in their food production efforts.