

Rural Broadcasts :

I.—NATIVE AGRICULTURE AND NATIVE PRODUCTION

WITH the exception of some small and strictly limited groups, the Native population of the Territory is dependent for subsistence on the production or collection of various vegetable foods. Although the methods used are essentially primitive, they are by no means unsystematic, and although variations are found with varying environmental conditions, it is not difficult to detect an overall similarity of method.

Of prime importance in the Native system is the production of the staple foodstuffs, invariably a starchy vegetable. Sweet potato, taro, yams, sago and bananas are the main crops of this type, and varying with the environment one or other of them is usually dominant to a marked degree in the agriculture of a particular community. Cassava is the most important accessory starch food crop, while any one of several of those mentioned above may also be grown as accessories.

Both wild and planted stands of sago palms are widely distributed in the extensive low-lying swampy areas associated with the larger river systems. All the remaining staples are treated as annuals, and the basic unit of cultivation is a small garden clearing cut from forest or grassland; interplanting of other annuals such as maize, sugar-cane and pit-pit is not uncommon, but is rarely done systematically. With the exception of some limited areas of high fertility, these gardens are abandoned after a single cropping, and are allowed to lie fallow for as long as the local population pressure will permit, with the usual variants such as accessibility and floodability operating. This period of fallow is sometimes long enough for high secondary jungle to develop before the cultivator returns to such a plot—the system has accordingly earned the appropriate name of “Bush Fallowing Rotation”.

A number of perennials are also commonly grown for food usually as fruits or nuts. The practice is to locate them in irregular groves, usually associated with places of habitation. Of these the most important are the coconut palm, bread-fruit, betel-nut palm, and the mountain pandanus.

Livestock do not play an important part in the land use methods of the people. Pigs and fowls are the only types kept, and the methods of husbandry are primitive. Stock are rarely enclosed, but are mostly allowed to roam free in the habitated area. Hand-feeding is irregular and aimed more at keeping the animals domesticated, than providing them with any definite dietary level. The eating of pig meat is confined almost universally to ceremonial occasions. The typical Native fowl is small, lean and leggy with variegated plumage—it has a very low egg production rate, and is prized principally for its coloured feathers. Dogs are kept as household pets and for hunting and sometimes figure as a source of meat, although this practice has been dying out with the extension of European influence.

The principal economic factors affecting Native agriculture in Papua and New Guinea are (1) the generally low population density, (2) the low degree of technological development associated with food production and (3) the limited scope for export and trade provided by local political and geographical conditions. The extensive long-fallow type of land use method which has been described is only possible where the available acreage per head is high, but it must be remembered that a considerable portion of the land so employed is for topo-

graphical and climatic reasons of dubious value under any other type of cultivation. The implements used are simple—axes and knives for clearing, and the digging stick and the hoe for cultivation. Inevitably burning is widely used in clearing and has a special significance in that it raises the initial level of available potassium in garden soils. Crude irrigation systems are found very occasionally, while fertilizers and manures are virtually unknown.

As with most peasant people women play an important part in agricultural production and the sharp sexual division of Native communities is reflected in agricultural methods. With minor variations in particular communities, certain tasks are invariably regarded as the work of one or other sex. The heavier work such as felling and clearing jungle falls to the men, while the lighter but more tedious jobs such as planting, weeding and harvesting are the women's responsibility. Under primitive conditions this division of responsibility is strictly observed and is reinforced by taboo.

In the wet, swampy lowlands and in the tropical rain forests of the foothills and lower mountain slopes the forest vegetation is extremely diverse, a variety of trees and palms with edible fruits, foliage, or pith, occur and collection becomes an important factor in food-getting with cultivation showing limitations accordingly. This is particularly the case in some of the larger river valley plains and in the Delta areas. The sago palm grows readily in semi-inundated areas and species of edible fruits, nuts, and leaves occur in the forests. Additional foodstuffs are available in the form of edible fungi, the hearts of tree ferns, palms and the young unopened fronds of nipa palm.

Taro is the characteristic staple food crop in lowland rain forest areas of moderate fertility, and in its cultivation the surface soil is least disturbed. The forest is cleared and the garden area may be lightly burned over, after which the taro shoots are planted in cylindrical holes of no great depth made with a pointed stick. The soil around the top of the holes is tamped in tightly and the taro plant is then left to mature, with perhaps a light weeding from time to time. Yams are typical of better drained soils of high mineral fertility such as the new volcanic soils of the Prince Alexander and Torricelli Mountains and of some of the smaller volcanic islands such as those lying to the south-east of Manus and also of the richer soils derived from coralline limestones as in the Trobriand Islands. The soil is deeply worked in preparation for planting, and the area around the base of the yam vine receives considerable attention during the growth, the soil being kept loose to facilitate the best development of the tubers. Sweet potatoes are the main crop of cooler upland areas and in their cultivation the whole of the garden topsoil is usually broken up with digging implements and then scooped up into planting hills or mounds. Bananas become an important crop in areas with a pronounced dry season such as the belt stretching along the coast of Papua to the east and west of Port Moresby. Cassava is salt-tolerant and sometimes becomes an important subsidiary crop in estuarine areas.

Under the guidance of the Department of Agriculture, Stock and Fisheries, improvements have been made in Native agricultural methods, particularly with the introduction of new crops of nutritional value and the introduction of permanent cash crops.

Native agricultural production now covers a wide variety of commodities, including copra, cocoa, coffee, peanuts, rice and vegetables. The monetary value to the Native people from copra alone is estimated at over £1,000,000 and this would be greatly increased when the other commodities are taken into consideration.

Officers of the Department of Agriculture, Stock and Fisheries have been stationed in specific areas to assist the Native people in the development of cash