CHAPTER XII

AGRICULTURE

AGRICULTURE, including cattle raising, though still in its infancy, is the real mainstay of the Colombian people. It is carried on in every part of the country, under widely varying conditions, but mostly on quite primitive lines. For instance, locally intensive cultivation is understood thus: a tract of virgin forest, in the mountainous region, is cleared of its useful woods, and the remainder is burned down, then for two or three years, four at the utmost, crops of cereals and vegetables are raised, and when the ground is exhausted of its fertilising ashes and native salts, the land is abandoned. It is extremely rare to find fertilisers used, even for such crops as coffee, cocoa and cotton, and although rich deposits of nitrates are to be found in the country, what little is used in the way of manure is imported.

It has already been pointed out that owing to the extraordinary range of altitude and temperature, almost all crops can be grown profitably in Colombia. Probably the most satisfactory plan to show the condition of affairs is to deal with the country in three zones, as already defined in the Chapter on Forests and Forest Products.

Taking, then, the tropical or warm region, we find the main crops are sugar-cane, tobacco, cocoa, bananas, coco-nut trees, rice, cotton and to a limited extent rubber.

SUGAR-CANE.—Four varieties are grown, known locally as *paipa*, *Colonial*, *peluda* and *morada*. The first named

gives the best results, and appears to be identical with the kind more widely known as Singapore cane. It is grown largely on the rich valley lands of Cauca, El Valle, Cundinamarca, Antioquia and the flat regions of the Atlantic. It grows without fertiliser, with very little cultivation beyond occasional hoeing of the land, and will yield for some eighty years, giving crops of over 80 tons of cane per acre in good localities, and an average of well over 40 tons In Antioquia, which is not the department of largest output, the crop amounts to well over 22,000,000 lb. of cane At one time there was a large export of sugar from Colombia, but although the acreage under crop has increased, now the product hardly suffices for local needs. Yet, though in the main a crop of the tropical zone, it will flourish and is fairly widely cultivated up to 7,000 feet. The cane juice is usually worked in small primitive mills, but there is a large modern establishment at Cartagena and another in the Cauca valley.

The greater part of the juice is made into *panela*, a brown maple-like sugar, which forms a staple food among the peasantry and travellers. It is palatable and nourishing. Next in importance is the preparation of fermented beverages, such as *aguardiente, chicha, guarapo*, etc. Finally, refined sugar is made for table use and for the numerous chocolate factories. Given adequate labour, there ought to be a great future for sugar grain.

Tobacco —Tobacco of excellent quality, some said to be equal to the best Havana, is largely grown, though mostly for local consumption. Germany, however, is a large and increasing customer for Colombian tobacco.

The chief centres for these crops are Bolivar, the Magdalena and Cauca valleys. Up to 1909 the sale of tobacco in the Republic was reserved as a Government monopoly, but this is no longer so. The cultivation and export of tobacco are now free.

Cocoa.—*Cacao theobroma* grows wild in the forests (in damp lowlands), the indigenous plants yielding moderate crops of small beans, containing a heavy percentage of fat. It is met with in the wild state covering thousands of acres, and rising to about 45 ft. high. However, the gathering of wild cocoa beans has not been found profitable. It is susceptible to cultivation, and then gives good results. The varieties generally planted are the cajizo or cacao morado, with a bean as large as a Jordan almond; the verdoso, or white, with a larger bean; the bicolor, and the cimaron. It is planted under bananas for early protection, with guamo colorado, cambulo and cumulo for permanent shade While the climate is admirably suited to this cultivation, and the cocoa enjoys a very good reputation in the market, little more than enough for local demands (which are great) is grown. The chief centres of cultivation are Tolima, Cauca, Huila and Antioquia.

Plantains and Bananas.—Over certainly more than half of the inhabited districts the fruit of plantains form the principal article of food among the masses. Plantains are, therefore, grown on quite a large scale in the low-lying, damp and hot sea borders and in the tropical valleys, but plantations extend well through the temperate zone. It is, however, in the hot damp regions that the most prolific crops are secured. The plants

require very little cultivation, beyond occasional removal of weeds. When the crown of fruit is ready for consumption, the plant is cut down, fresh stems shoot up from the suckers to bear fruit and in their turn to be cut down. In this way good stools will last for many years. The crops are heavy, and the fruit are eaten green or ripe. The Atlantic and Pacific coasts, the lower Magdalena valley and Antioquia are among the largest centres of this crop. With regard to the banana, this industry is a matter of recent growth, and is largely due to the action of the United Fruit Company. Export of bananas from Colombia has risen from 1,295,228 bunches in 1905-6 to over 6,000,000 bunches in 1911-12. Bananas thrive best in a hot damp atmosphere, and rich, light, moist soil, at an altitude of not more than 1,500 meters. About 350 trees are planted per acre; the land requires irrigation and periodical clearing from weeds. Within two years a paying crop may be cut. The industry has been brought to its highest pitch in the district of Santa Marta, where close on 40,000 acres are under cultivation, and about 100,000 more acres available. The plantations are here well laid out, with irrigation canals, often short lines of rails leading to the Santa Marta Railway, managers' houses and labourers' quarters. There is also considerable cultivation of the banana in the Magdalena valley and in Bolivar. Some four years ago the Hamburg-Colombian Bananen Aktien-Gesellschaft, connected with the Hamburg-American Steamship line, obtained a grant from the Government of 12,000 acres on the Gulf of Uraba in order to develop the banana industry. About a third

of this area is now under cultivation. The company binds itself to the construction of a pier and wharf—Puerto Cesar, and a railway, with telegraph, telephones and wireless station. All bananas are to be free of export duty and taxation, while much of the material required for establishing and developing the estate is to be imported duty free. This shows the importance attached to the industry by the Government, and the liberal views they take of their duties in assisting capitalists. Hitherto rather more than half of the exports have gone to the United States and the balance to the United Kingdom.

Coco-nut Palms.—Most of the large coco-nut palm plantations are found on the Atlantic and Pacific coasts. The exports are chiefly to the United States and to Germany, but there is a considerable use of fibres, and also of oil for soap and candle making, locally.

Rice grows freely, without much attention, wherever rich, hot irrigated land is available. Both Patna and Carolina varieties are sown. In a few places cultivation is carried on under scientific conditions and gives very good returns.

Cotton.—An excellent cotton, derived from Egyptian seed, is grown mostly in Antioquia and on the Atlantic coast. The qualities grown on the slope of the Orinoco are unrivalled for the length of the fibre. So far comparatively little attention has been given to this crop, although it does not entail much trouble and is in good local demand, to supply the native spinning mills. On the other hand, locusts have been the greatest obstacle to the development of cotton cultivation.

AGAVE AMERICANA.—The agave is chiefly cultivated as a hedge, but it merits closer attention, as even at present the local demand for hennequen fibre is insufficiently met by local supply. MANIOC, or Yuca, is also a plant grown largely on the coast and certain hot valley zones, to yield flour for the peasant and labouring classes.

In the temperate zone, the principal crops are coffee, ground nuts, cereals, beans.

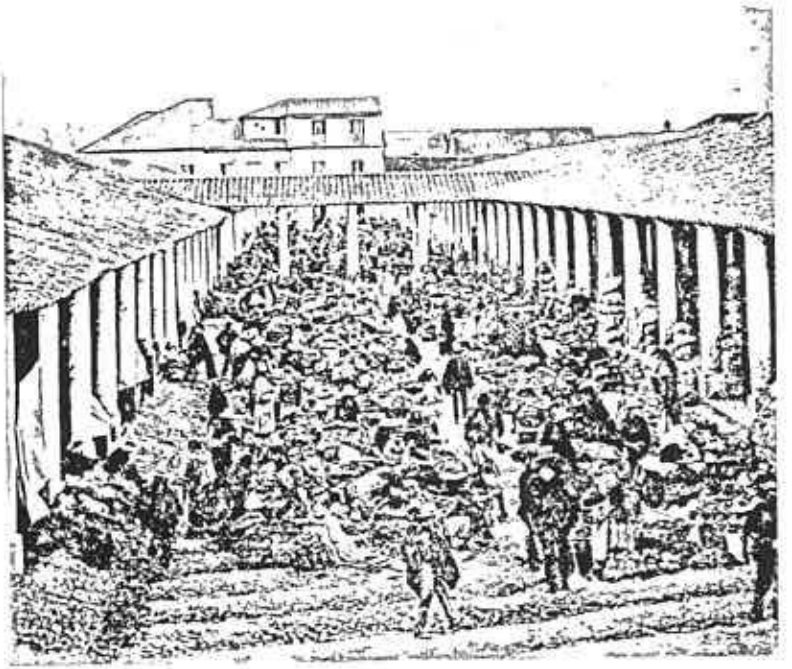
COFFEE.—This is the most important of all crops, as there is an immense demand for it both for export and for local consumption. Colombian coffee stands very high as regards quality, coming immediately after choice Arabic beans. The trees grow freely enough at altitudes between say 500 and 7,000 ft. above sea-level. They do best under temperatures ranging between 59° and 77° F. On the lower warm slopes, large, rather strong berries are grown, and here the trees require shade trees and a fair amount of attention. Higher up the berries are smaller, milder and more choice, the trees do not require shade, demand little attention, but have a comparatively short life. Most of the Colombian coffee is grown in Cundinamarca, Tolima (the Bogotá and Tolima crops being most highly valued), Antioquia, Caldas, Cauca, on the slopes of the Sierra Nevada and in Santander, Cucuta being a great centre, with its principal outlet through Venezuela. Although coffee is a difficult crop owing to the market fluctuations resulting from the Brazilian Valorization scheme, there appears to be room for considerable development in this direction, the bulk of coffee land on valley slopes being still virgin land. A fair amount of labour, however, is necessary.

CEREALS.—Wheat and maize are the leading cereals of the temperate zone. Maize is grown in most parts of the country, and wheat gives good crops, especially in Cundinamarca, Boyaca, Cauca and Santander, up to about 7,000 ft. Both grains, however, could be more extensively cultivated, as the yields are good. So far local demands are not satisfied.

GROUND NUTS.—These are grown between 5,000 and 6,000 ft. altitude, mainly as a cheap food for the people, though some oil is extracted for local soap works. There is ample room for extension, the yield being excellent.

In the cold zone, there is much fertile plateaux land, which bears some good wheat, choice barley and splendid potatoes. Partly owing to local demand, partly to difficulties of transport, the coastal population import almost all the potatoes that they require. Beans, both *habas* and *frejoles*, are also grown on a large scale in the higher regions as a staple popular food. In the neighbourhoods of towns vegetables and fruits are generally raised in abundance, the quality being good.

CATTLE.—The raising of horned cattle is carried on pretty widely over the country, but the most favourable localities are considered to be the grassy plains of the Magdalena, the flat districts in Bolivar and Atlantico, and the whole valley of the Cauca. It is held that the vast llanos of the Meta territory will one day become a huge cattle-breeding ground, but although there are already some very large ranches in that region, some with upwards of 10,000 head, it is found that the rank grass



Open and Covered Markets, Bogotá

gives poor nourishment. To some extent there is a movement to bring cattle bred on the llanos of San Martin and Casanare to fatten on the more luscious grazing grounds of the Magdalena and its affluents. Fairly good cattle are raised by the Indians of the Goajira Peninsula. For many years past the original strain of Spanish oxen have been improved by crossing with pedigree stock from England, Holland and Normandy. A considerable trade in exporting cattle to Cuba and to Panama existed for some time, but the Cuban sanitary regulations have made it impossible to continue. There is also talk of establishing packing houses on the Atlantic and Pacific coasts. Oxen are still much used for draught purposes over the few roads, over flat country and the more open forest tracks, though on roads they are being displaced by motor vehicles. In a few regions, Bolivar for instance, large flocks of sheep of English breeds are kept. Goats, both in the hot and temperate zones, are numerous, being bred for their flesh and milk, and also for their skins

Colombian horses are usually Andalusians crossed with Arab and English. They are hardy beasts, much appreciated in the adjoining countries. A specially sturdy type is bred by the Indians of Goajira. For local purposes, however, mules are preferred, as they are more sure-footed in the mountains and can carry heavier burdens as pack animals. They are rather small, but admirably suited for the country Some of the largest and best kinds are bred on the llanos of the north of Tolima. Donkeys are also bred to a great extent.

As regards the possibilities of early developments of the cattle trade, Mr. Milne, already cited, states: "In the Department of Bolivar on the Atlantic coast conditions are economically favourable," and adds: "In view of the constant reclamation of grazing areas for agricultural purposes in the United States and other countries, the land suitable for cattle breeding around the Carribbean sea will probably be developed in the next decade." To this area may be safely added considerable tracks along the Atrato and the Cauca.

It must be borne in mind that while old cattle land in the United States is rapidly being brought under the plough, the American meat packers find it necessary to compete with England in the Argentine meat market in order to supply the demand of their own people, which considerably exceeds supply.

LAND SETTLEMENT.—This chapter would not be complete without saying a few words about the opportunities existing for taking up public land for agricultural and grazing purposes. A colonist may select a plot and by cultivating and fencing secure a title to it, as well as to an adjoining plot of equal size, merely for the trouble of surveying it, petitioning the proper authorities and paying certain moderate fees. A large number of Antioquians and Tolimese have become colonists in this way, overflowing into other departments, both near and far. The mulattoes of the Choco also provide a number of good agricultural colonists, especially in the hot regions.

The Law and Decree relating to the taking up of public lands will be found in the Appendices.

NUMBER OF PERSONS ENGAGED IN AGRICULTURE AND CATTLE-BREEDING

	Agriculture.	Cattle-breeding
Antioquia	117,375	2,201
Atlantico	14,915	300
Bolivar	37,278	5,240
Boyocá	84,326	4,006
Caldas	63,733	1,091
Cauca	43,009	213
Cundinamarca . ..	97,777	848
El Valle	23,094	1,263
Huila	23,856	368
Nariño	49,816	406
Norte de Santander ..	31,813	367
Santander	55,002	424
Tolima	47,031	3,754
Choco	26,459	430
Goajira	285	14,563
Meta	1,516	95

No statistics are available for Magdalena.