

Agriculture in the Southern Division

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Physical Features

THE Division comprises the three revenue Districts, Galle, Matara and Hambantota and covers an area of 2,128 square miles. On the North the Bentota Ganga forms a boundary up to about 3 miles above Pitigala. The line of demarcation then takes an undulating curve including Hinidum Pattu and Morawak Korale and such villages as Katuwana, Middeniya, Siyambalagoda and Migahajandura. The line then runs to about a mile South of Tanamalwila from where it hugs that portion of the Kirindi Oya up to Wirawila. It then connects Katara-gama and includes the Yala National Park and the Strict National Reserve. On the Eastern side it is bounded for a short distance by the Kumbukkan Oya at its mouth. The Southern, South-Western and South-Eastern portions are bounded by the sea which forms a coast line of about 162 miles.

The following rivers run through the area—Bentota Ganga, Gin Ganga, Nilwala Ganga, Walawe Ganga, Kirindi Oya, Menik Ganga and Kumbukkan Oya. These carry water during most part of the year.

Galle and Matara Districts are generally hilly, the land rising to about 2,000 feet in Hinidum Pattu and the Deniyaya area. Parts of the Bentota Walallawita Korale, Gangaboda Pattu, Wellaboda Pattu and Talpe Pattu in Galle District and Weligam Korale, Kandaboda Pattu and Wellaboda Pattu

in Matara District are also hilly. Hambantota District with the exception of a small portion of West Giruwa Pattu is generally flat. Hinidum Pattu and Morawak Korale contain rolling *patanas* of the Uva type, but the *patanas* here belong to the wet type.

Soils and Climate

The soils of the Division vary a great deal in texture and composition as a result of the climatic factors. Those in the wet zones are strongly acidic in reaction and very low in bases due to the heavy leaching of the bases and consequent laterization. The nitrogen content is often low and phosphoric acid, even where it is present in fair amounts, is of low availability. These soils would therefore respond to liming and the application of fertilizers. The lime should preferably be of the dolomitic type so as to supply both calcium and magnesium. The highland soils are highly lateritic and the surface layer is often gravelly or rocky as a result of erosion. These soils are therefore suitable only for permanent crops. In the low-lying areas, soil drainage is highly impeded and in several instances the soils are peaty. Paddy is the only crop that can be grown but yields are low because of the impeded drainage.

The soils of the dry zone vary in texture from light to heavy clay loams which are found around Ambalantota and the Walawe area. These soils are generally slightly acidic in reaction and

low in nitrogen. The base status particularly of the clay loams is high. The highland soils are suitable for a variety of crops including fruit trees, provided irrigation facilities are available during periods of drought. The paddy soils often give high yields and respond to applications of nitrogen in particular and to phosphoric acid. Saline or alkaline soils occur in some areas but the high salt content of the former can be reduced by flushing and sub-soil drainage. Once the salt content is reduced an application of gypsum, would get rid of the sodium found in the clay. The alkaline soils are sticky in nature and soapy to the touch and sub-soil drainage is highly impeded. These soils can be improved by application of gypsum.

The average annual rainfall varies from 145 inches to 95 inches in the Galle District, from 147 inches to 76 inches in the Matara District and from 65 inches to 35 inches in the Hambantota District. Hiniduma in the Galle District and Morawaka in the Matara District are the wettest areas with about 145 inches and 147 inches respectively. In the Hambantota District, the greatest precipitation is recorded in the West Giruwa pattu with about 60 inches of rain while the least is in Magam Pattu where the rainfall is usually under 40 inches. Galle and Matara District and West Giruwa Pattu of Hambantota District receive the benefit of both intermonsoonal rains. East Giruwa Pattu and Magam Pattu on the other hand are only benefited by the North-East intermonsoonal rains.

Land use

Of the 1,362,360 acres, 582,131 are cultivable. Tea occupies 43,455 acres, rubber 99,095 acres, coconut 102,921

acres, paddy 136,875 acres, cinnamon 24,795 acres, citronella 30,033 acres, and chena, other cultivations, village gardens, &c., 145,044 acres.

Apart from the bigger estates employing a labour force of over 20, there are 1,382 holdings 20 acres and over in extent employing less than 10 labourer units. The cultivated extent in this group is 57,189 acres. Small holdings, i.e. those under 20 acres and over 1 acre in extent, number 75,061 and embrace a cultivated extent of 172,894 acres. Town and village gardens, i.e., those less than 1 acre in extent, number 112,259 with a cultivated extent of 50,791 acres. The cultivated extent forms 33 per cent. of the total land area in the Division. The District percentages are 46.63 for Galle, 56.13 for Matara and 13.87 for Hambantota. The total land area in each District is as follows:—Galle 413,560 acres, Matara, 308,800 acres and Hambantota 640,800 acres. Of these the total cultivable extents are recorded as 233,599 in Galle, 215,434 in Matara and 133,108 in Hambantota. The figure in respect of Hambantota apparently needs modification because apart from about 30,000 acres occupied by the Strict National Reserve and the National Park and those occupied by village forests, reserve forests, tanks, *kalapuwās* and water courses, the rest of the area can be regarded as cultivable. In any case, since only about 13.87 per cent. of the land area in this District is presently under cultivation, future development schemes must necessarily be concentrated here to relieve the acute land hunger in the other two Districts.

Population

The total population of the Division in the 1953 census was 1,140,014.

The distribution in respect of Districts and land area was as follows :—

District	Total land Area Acres	Cultivable Extent Acres	Total Population
Galle	413,560	233,599	524,382
Matara	308,000	215,424	413,904
Hambantota	640,800	— <i>a</i>	191,728

(a) See remarks under land use

Thus the cultivable extent per person in Galle District is 0.445 acre while in the Matara District it is 0.52 acre. In the Hambantota District, it is probably in the neighbourhood of 2 acres per person. These figures do not give a complete picture of the density of population in relation to land use considering the fact that of the 1,140,000 persons in the Division, 1,012,000 are rural. Besides in the Galle and Matara Districts a fair number of the population is employed in estates. But the figures give an indication of the extent of land available in the Hambantota District for the surplus population in the other two Districts. The water resources of this District are plentiful to warrant its very early development.

Land Tenure

Paddy land in the Galle and Matara Districts is mostly owned by small-holders. The extent of land is usually 1-5 acres. Several own less than 1 acre. Those owing over 20 acres are very few indeed. In the Matara District, cultivation is done on the *ande* system, the landlord's share per season in good fields being $\frac{2}{3}$ and in poor fields $\frac{1}{2}$ the yield after the following are met:—(a) *huwandiram* tax to Government— $\frac{1}{48}$ of the crop, (b) seed paddy to be returned to landlord with 50 per cent. interest, (c) *Paraweni* (land share) share to owner— $\frac{1}{10}$ of the crop, (d)

walahan (i.e., charges for harvesting and threshing— $\frac{1}{7}$ share to the cultivator. In the Galle District, there is no *huwandiram* tax but the share is much on the same lines.

In the Hambantota District a greater portion of the land is owned by absentee landlords. The *gambaraya* system operated here till the Paddy Lands Act was introduced in 1954. The *gambaraya* leased the land from bigger land owners at a fixed rent and thereafter sublet it to tenants recovering from them at time of harvest, seed paddy loans, buffalo hire, cultivation expenses, advances to cultivators, &c., all at about 50 per cent. interest or 150 per cent. per annum. As a result of the introduction of the Paddy Lands Act, the landlord's share is now restricted to $\frac{1}{4}$ the total paddy yield for the year or 10 bushels of paddy per acre per season, whichever is less. The prescribed rent under the Paddy Lands Act is almost the same as that recovered by the *gambaraya* from the *ande* tenant prior to the introduction of the Act except where the maximum rent of 10 bushels per acre operates.

There are many difficulties in working the Act which need not however be gone into here.

Perennial Crops

Tea. The extents under cultivation in the Galle and Matara Districts are 22,153 and 21,302 acres respectively. Of these, small holdings total 8,006 and 9,002 acres respectively. The percentage out-turn of manufactured tea for the two Districts in 1951 was 22.77 (Galle) and 24.04 (Matara) while the average price was Re. 1.80 and Re. 1.83 per lb. respectively. The total quantities of green leaf produced in the two districts in that year were 338,504,000 lb. and 346,064,000 lb.

respectively. There are 309 estates of over 20 acres (73 employing ten or more resident labourers and 236 employing less than this number) in the Galle area and 364 estates over 20 acres (58 employing ten or more resident labourers and 303 less than this number) in the Matara District. The value of tea manufactured in the Galle area was Rs. 138,853,000 and that in the Matara area Rs. 152,364,000. The average yield per acre of green leaf in the Galle District was 2,713 lb. while that in the Matara District was 2,681 lb. In 1953, a Co-operative Tea Factory for processing the green leaf from smallholders was opened at Kotapola in the Matara District. Blister blight (*Exobasidium vexans*) affected 6.60 per cent. of the tea area in the Galle District and 20.92 per cent. of that in the Matara District.

Rubber. The total acreage under the crop inclusive of smallholdings in 1951 was 72,158 in Galle District and 26,937 in Matara District. Of these small holdings, i.e., those under 20 acres in extent totalled 37,921 acres in Galle and 15,264 acres in Matara District. This Division thus contains 15 per cent. of the total rubber area of the Island. Of the estates over 20 acres in extent approximately 19,293 acres in the Galle District and 4,895 acres in the Matara District contain trees which are over 30 years old. In this same group, only 3,001 acres in the Galle District and 3,726 acres in the Matara District contain trees 6-30 years old. In connection with the replanting scheme of Government a total of about 76,000 clonal seedlings of Tj. I raised in the Agriculture Department nurseries have been so far issued to smallholders. Further issues will be made during the coming seasons. Highly-yielding rubber in estates over 20 acres totalled 11,792

acres in the Galle District and 2,881 acres in Matara District. The production of dry rubber in estates over 20 acres in extent in 1951 was 119,368,000 lb. in the Galle District and 34,368,000 lb. in Matara District.

Coconut. The total area under this crop is 102,921 acres. This forms 11.18 per cent. of the total coconut area in the Island. No systematic planting has been done in most of the small holdings with the result the trees are crowded and yields are low. About a third of the extent (33,567 acres) is over 30 years old. Re-planting has to be done. A start has been made in this direction by making available to cultivators at a nominal rate seedlings from selected mother trees. There are at present two such nurseries maintained by the Coconut Research Scheme at Labuduwa and Bedigama. A third nursery is to be opened at Koggala. A scheme of subsidized fertilizers has been recently introduced to rehabilitate the industry. The average yield of nut per acre from estates is 1,145 and from small holdings 686 compared to 1,797 and 997 respectively for the entire Island.

Citronella. The estimated acreage is 30,015 of which 11,470 are in the Matara District and the rest in the Hambantota District. Two varieties of grass are grown, viz., *Mahapangiri* and *Lenabattu*. The latter is the hardier variety and covers about 75 per cent. of the total acreage. The geraniol content of the former is about 70 per cent. and that of the latter about 54 per cent. Harvesting is done about 3-4 times a year.

The price of oil during the period 1948-1951 was very favourable. It averaged Rs. 7.94 per lb. in 1951. The

highest price fetched was Rs. 11.41 per lb. in March 1951. Thereafter there was a sharp drop till 1953 when it fetched about Rs. 1.75 per lb. The current price is Rs. 3.80 per lb. of Estate quality oil and Rs. 3.60 per lb. of F.A.Q. oil.

Distilling is done on a share basis, the usual share being $\frac{1}{6}$ — $\frac{1}{7}$, the quantity of oil extracted. There are about 350 distilleries in the Division. The extraction efficiency of these is poor. The average yield per acre under these conditions can be reckoned at about 50 bottles per acre. It has been found that with a lighter pack in the distilling process a higher percentage of extraction is possible.

A scheme to rehabilitate the industry by the introduction of better strains of grass, by selection of better strains of *Lenabattu* and by improvement of distilling methods is receiving the attention of the Government. Some of the citronella, particularly in the Matara District, is being gradually replaced by more remunerative crops like coconut and rubber.

Cinnamon. Of the 33,000 acres under cinnamon in the Island, 24,704 acres are in the Division and are confined to the Galle (14,885 acres), Matara (9,636 acres) and Hambantota Districts (183 acres). The best quality cinnamon bark, however, is that produced in the Negombo District. In addition to bark, cinnamon leaf oil and cinnamon bark oil are extracted from the plants. The quills are graded into (a) Fine, (b) Barcelonas, and (c) Hamburgs. For present trade purposes, only Fine and Barcelonas are quoted. The bulk of the former comes from the Western Division while that produced in the Southern Division

mostly constitutes the latter grade. Usually two crops are taken a year. Peeling is done mostly on the share basis, the peelers receiving half the value of the quills, chips and featherings. Cultural treatment consists of weeding once in six months and cleaning of bushes once a year. If the crop is good and the bushes healthy, two crops are taken a year by cutting the shoots which are about 6-8 feet long. Usually the leaves are mulched round the plants at the time of harvest. In some cases, however, when the cultivator is in need of ready money, oil is extracted from the leaves. When this is done, there is a fall in the yield of quills in the subsequent season. Harvesting is done in May/June and December. Average yields are 400 lb. quills per acre. Present prices are favourable, quills Fine fetching Rs. 3.75 per lb., quills No. 2 fetching Rs. 3.10 per lb., chips per candy of 560 lb. fetching Rs. 100, cinnamon leaf oil Rs. 9.75 per bottle and cinnamon bark oil Rs. 4.50 per oz.

Other Crops. A distribution of seedlings of coffee of the *Robusta* variety and pepper rooted cuttings during the past few years has resulted in a fair number of village gardens in the Galle and Matara Districts having a few coffee bushes and pepper vines. The latter is also found in West Giruwa Pattu of the Hambantota District particularly in the Middeniya area.

Fruit plants cultivated are jak, mangoes, citrus, mangosteen, durian, rambuttan, pineapples and plantains in the Galle and Matara Districts and jak, citrus, mangoes, plantains and pineapples in the Hambantota District. The Tissamaharama area produces some of

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the best plantains. This crop is grown extensively in this area and in the Middeniya-Weeraketiya section.

Annual Crops

Paddy. Although a total acreage of 136,878 has been reported in the 1946 census of which 38,560 are said to be uncultivated, a survey carried out in 1952 indicated that the extent cultivable, provided favourable weather is present, is 128,847 acres in *maha* of which 40,603 acres are in the Galle District, 49,978 acres in the Matara District and 38,266 acres in the Hambantota District. This survey also revealed that only 80,371 acres are ploughable (17,454 acres in the Galle District, 21,148 acres in the Matara District and 31,769 acres in the Hambantota District) and that as the rest of the area was mostly swampy, transplanting was possible only in 43,657 acres, weeding in 73,212 acres and harrowing of the standing crop in 54,836 acres.

In *yala*, the extent cultivable was 123,529 acres (49,379 acres in the Galle District, 47,857 acres in the Matara District and 26,293 acres in the Hamban-

tota District). Of this 63,707 acres were ploughable, 39,951 acres transplantable, 63,618 acres weedable and 48,862 acres where the growing crop could be harrowed.

Most of the paddy in Galle and Matara is grown under rain-fed conditions. Irrigation facilities, major or minor, are provided for only 1,692 acres in *maha* and 2,747 acres in *yala* in the Galle District and 10,394 acres in *maha* and 9,496 acres in *yala* in the Matara area. In the Hambantota District on the other hand, most of the paddy is irrigated (28,739 acres in *maha* and 23,695 acres in *yala*). The major irrigation works are:—the Walawe Scheme 12,670 acres, the Kirindi Oya Scheme 9,300 acres, the Urubokka Oya Scheme 4,100 acres, the Kirama Oya Scheme 3,600 acres, Hali Ela and Elawala 4,600 acres, Kekandura 1,200 acres, Denagama, Urugamuwa and Dandeniya 1,700 acres.

Paddy cultivation is done in the Matara and Hambantota Districts with the aid of *Vel Vidanes*. In the Galle District, with few exceptions, the post of *Vel Vidane* has been abolished.

Some of the more popular paddy varieties grown are detailed below :

Galle District				
MAHA			YALA	
Variety		Approximate Acreage	Variety	Approximate Acreage
Sulai	..	19,350	Sulai	16,500
Handiran	..	9,700	Kaharamana	11,200
Madael	..	4,500	Handiran	10,900
Kaharamana	..	3,500	Dewareddiri	5,100
Podiwi	..	2,000	Madael	3,300
Balamawi	..	2,000	Gires	2,000

Matara District

MAHA		YALA	
Variety	Approximate Acreage	Variety	Approximate Acreage
Horanamawi ..	20,300	Suduratawi ..	17,400
Balamawi ..	13,300	Arnolia ..	5,500
Mahamawi ..	2,800	Sulai ..	3,600
Sulai ..	1,900	Heendikwi ..	3,500
Podiwi ..	1,060	Kaharamana ..	2,750
Kaharamana ..	1,000	Mahadikwi ..	2,175
		Suduheeneti ..	2,000
		Ratawi ..	1,750
		Kombila ..	1,700
		Sinnanayan ..	1,175

Hambantota District

MAHA		YALA	
Variety	Approximate Acreage	Variety	Approximate Acreage
Sinnanayan 398 ..	8,450	Sinnanayan 398 ..	7,950
Rathkarayal ..	5,080	Suduheeneti ICPY 15 ..	4,620
Suduheeneti ICPY 15 ..	4,570	Rathkarayal ..	4,330
Hondarawalū ..	2,850	Kaluwi ..	1,600
Ratranwi ..	2,800	Mahasuduwi ..	1,430
Godamawi ..	2,560	Pachchaiperumal ..	1,400
Suduheeneti Hf 9 ..	1,350	Suduheeneti Hf 9 ..	1,340
Mahasuduwi ..	1,230		
Karayal ..	1,150		
Balamawi ..	1,080		

Most of the paddy varieties grown in the Galle and Matara Districts are awned and the only pureline selection available for *maha* and *yala* so far is *Sulai*. Recently the selections *Murungakayan* 302, and *Mas. M 24* have been introduced for trial. Selection work on some of the varieties listed earlier is in hand and it is expected that some of these will be available shortly. The extent under purelines in the Galle District is about 7,400 acres in *maha* and 5,500 acres in *yala*. In Matara, the acreages are 3,100 in *maha* and about 2,000 in *yala*. In the Hambantota District, about 16,300 acres in *maha* and 12,050 acres in *yala* are under the selections *Sinnanayan* 398, *Sinnanayan* 2208, *ICPY* 15, *Rathkarayal*, *Pachchaiperumal*, *Pokkali* and *Vellai Illankalayan*.

Considerable attention has been given to the stepping up of yields of paddy by carrying out demonstrations on the several methods of improving yields. But until the problem of drainage which effects about 60 per cent. of the fields in the Galle and Matara Districts is solved, the average yield in these areas will necessarily remain low. Because, whatever increases are effected in the remaining 40 per cent., the low yields consequent on flooding, swampy conditions, &c. in 60 per cent. will bring down the general overall average for the Districts.

A second factor which affects cultivation is the shortage of plough animals in these two Districts. Thus the buffalo population in these Districts is 15, 184

compared to the vast acreage of about 99,000 under paddy. The cultivators with exceptions have still not got accustomed to the habit of using neat cattle for cultivation. This has necessarily resulted in such practices as good preparatory tillage and harrowing of the growing crop being restricted. It should also be noted that although both these Districts receive an annual precipitation of about 100 in. of rain a year, the effective value of this rain to the paddy cultivator is very often low in that adequate rain water is not always available to undertake a good preparatory tillage, to weed their growing paddy and to harrow the standing crop. Very often after the crop is sown and during the growing period there is a long spell of dry weather at the time water is most needed for weeding and harrowing of the standing crop and this results in the young plants being stifled by weeds mostly Kudametta (*Fimristylis miliacea*). Preparatory tillage by light tractors immediately after harvest was introduced in 1953 with a view to overcoming some of the difficulties attendant on an uncertain rainfall but has not made much progress.

In the Hambantota District, the main difficulties are the shortage of manpower to work the fields and the evils of the *gambaraya* system which does not allow much scope for the cultivator to adopt improved methods of cultivation. Mechanical cultivation was introduced about 10 years back to get through the sowing operations in time. This has proved useful and there are now several privately owned tractors in the District. The Paddy Land Act was introduced in 1954 to combat the evils of the *gambaraya* system but in view of several shortcomings in the Act very little headway

has been made. Threshing of paddy in the Galle and Matara Districts is done by foot. In the Hambantota District, buffalo threshing is the common practice but threshing with tractors is becoming popular now.

The following are the approximate acreages under improved methods of cultivation in *yala* 1955 and *maha* 1955-56:—Good preparatory tillage 15,900 acres in *yala* and 20,300 acres in *maha*, fields green manured or which received an application of compost of cattle manured, 9,490 acres in *yala* and 8,900 acres in *maha*; transplanted, 1,200 acres in *yala* and 2,860 acres in *maha*; fields which received a dressing of fertilizers, 28,130 acres in *yala* and 27,210 acres in *maha*; fields where the standing crop was harrowed, 11,900 acres in *yala* and 15,480 acres in *maha*; row sowing with germinated seed, 1½ acres in *yala* and 265 acres in *maha*.

Attention is drawn to the last improved method of cultivation detailed above, viz., **that of row-sowing germinated paddy**. This was first devised in this Division in early 1955 with the advent of the Japanese weeder in 1954 after studying the causes of the failure to make appreciable progress with transplanting of paddy. It should be noted that the maximum so far transplanted out of the vast acreage in the Division was 2,860 acres in *maha* 1955-56. There are several difficulties with regard to the wide adoption of this method. Chief among these are, the high cost, high labour requirement and the availability of water at the time of transplanting. Row sowing of germinated paddy followed by the use of the Japanese weeder is the answer judging by the yields obtained and the eagerness with which the cultivator is taking to this

method. There is a minimum increase of about 10 bushels per acre. It is expected that within the next few seasons the entire non-swampy tracts of the fields in the Division will be cultivated by this method.

Cotton. The crop is grown in *chenas* in East Giruwa Pattu and Magam Pattu of the Hambantota District. The acreage has fallen recently due to the high handling charges levied by the agency purchasing the seed cotton. The estimated acreage in 1955-56 was about 2,500. The variety grown is the selection B. P. 79. Average yields under chena conditions vary from 1½-2½ cwt. per acre. In the Meegahajandura-Gornoruwa area, yields of 4-5 cwt. per acre are common.

Sugar Cane. This is cultivated in about 750 acres in the Nagoda-Baddegama area, each cultivator growing about ¼-½ acre. The area is subject to regular flooding by the Gin. Ganga. The varieties grown are mostly the selections CO 411, CO 281 and CO 349, planting material for which was distributed by the Department of Agriculture during 1947-1951. About 5-6 ratoons are taken. Crushing is done by 5 bullock-worked mills, the cultivator receiving 2/3 the crude sugar manufactured.

Other Annual Crops. The crops grown are chillies about 3,750 acres in *maha* and 1,200 acres in *yala*; kurakkan about 1,500 acres; green gram about 1,650 acres in *maha* and 400 acres in *yala*; meneri about 200-400 acres each season; vegetables about 3,900 acres in *maha* and 2,600 acres in *yala*; sweet potatoes about 4,300 acres in *maha* and 3,300 acres in *yala*; cassava about 7,200 acres in *maha* and 5,700 acres in *yala*

and other root crops about 1,100 acres in *maha* and 1,200 acres in *yala*. Most of the chillies, kurakkan, maize and a fair proportion of the other crops are grown in *chenas*.

Livestock

In the 1946 census, the livestock population was enumerated as 125,125 cattle, 33,268 buffaloes, 14,287 goats, 350 pigs, 66,830 fowls, 1,072 ducks, 456 turkeys, 34 geese and 234 guinea fowls. These numbers have since increased considerably particularly in regard to poultry, goats and pigs. There is still much prejudice among the village population against the systematic rearing of stock. This prejudice is, however, being gradually broken down. Apart from a few well-established dairies in the three Districts, quite a number of the cultivators in the Galle and Matara Districts and some in the Hambantota District maintain a cow or two for milk. In very many instances, no attention is paid to the animals but at calving the milk is utilised. The animals, as a rule, are of the Sinhala breed and produce on an average only about 1-2 pints of milk. In the Hambantota District, the animals are allowed to roam in the jungle and very few cultivators are actually aware of the number they own. The animals are periodically rounded up for sale to the butcher.

Much work has been done by Government during the past few years by the issue of purebred Indian bulls of the Scindi and Sahiwal breeds for the grading of cattle and there are at present several hundreds of cross-bred animals. During the last three years the number of services given by such bulls was well over 2,700. Along with the

issue of stud bulls, castration of unwanted bull calves has been done. Attention has also been paid to the housing and feeding of cattle and in this process several small plots of fodder grasses have been established in village gardens and over 2,000 sheds constructed to house the animals. Artificial insemination has been introduced and there are two centres at present, one in Galle and the other in Matara.

Of the buffalo population of 33,268 in the Division, 18,084 are concentrated in the Hambantota District. The animals are seldom looked after. They are rounded up prior to each cultivation season and driven into the jungle after the preparatory tillage and harrowing-of-the-growing-crop operations are completed. When the paddy is harvested, the temporary fences are opened and both the neat cattle and the buffaloes allowed to graze on the stubble. The she-buffaloes are milked and the milk converted into curd. There is a ready sale for the curd which fetches about Rs. 2.50 per pot. Crossing of the local buffaloes has been undertaken with the Murrah breed and there are a few cross-bred animals at present. The response to making use of the stud buffaloes offered by Government has been poor, due to the fact that the buffaloes are allowed to forage in the jungle and are accordingly not looked after. Consequently the cultivators are unaware of the time the animals come into heat.

Improvement in the grading of the indigenous goats has been effected by the issue of the Bangalore and Jamnapari breeds to breeders. During the last three years about 1,000 services have been given by these animals. Arakan animals have also been

introduced to improve the milk yield. But work in this direction has been handicapped by the non-availability of a sufficient number of stud animals owing to the ban on imports from India. One draw-back with the Indian breeds is that they are susceptible to Goat Paralysis. Two Goat Breeding Societies have been formed in the Hambantota District. In this area there is scope for raising a fair number of the Island's annual requirement of goats. A scheme to alienate land for this purpose in blocks of 50-100 acres each is receiving the attention of Government.

Much work has been done towards grading the poultry in the villages by the sale of cockerels, chicks and eggs. The breeds popular are white Leghorns, Rhode Island Reds and Australorps. Although several of the middle-class have taken to poultry-rearing, religious prejudice still acts as a deterrent towards the peasant readily taking to it. During the past three years about 1,200 cockerels, over 23,600 hatching eggs and 6,625 chicks or pullets have been sold for breeding purposes. There are three Poultry Breeding Societies in the Hambantota District.

Pig-rearing is becoming popular with the planting community in the Galle and Matara. Districts. The number actually engaged in it is however few. The animals are sold as pork for which there is a ready sale.

Pests and Diseases

There have been regular outbreaks of the Pentatomid bug in the Hambantota District. This appears to be confined mainly to the Walawe basin. In this area

the outbreak involved about 3,700 acres in *yala* 1954, about 8,000 acres in *maha* 1954-55, about 4,000, acres in *yala* 1955 and about 2,000 acres in *maha* 1955-56. This pest assumed epidemic proportions for the first time in 1939. Thereafter sporadic outbreaks have taken place till 1953. These were followed by the major outbreaks detailed above. Although isolated outbreaks of this pest have occurred throughout the Island and have been brought under control, such outbreaks have not persisted as in the case of the Walawe area. In this area it is apparent that there is some factor favouring the multiplication of the bug. Free issues of insecticides have been made by Government for the control of the pest since 1954. Arkotine and Dieltrin were used first but were found to be expensive. Besides two or three sprayings had to be given before effective control could be achieved. In the last two outbreaks Folidol E 605 which was found to be more effective and far less expensive was used. It was also found that one spraying with this insecticide was usually sufficient to bring the pest under effective control. Observations carried out in the Division have shown that the infestation is heaviest when the plants are 10-12 days old and that spraying of infested areas should commence at least two weeks from sowing. Egg-laying on wild grasses, in addition to the paddy plants, was observed in 1955.

Sporadic outbreaks of other pests, such as the paddy-swarmer caterpillar, paddy stem borer, paddy fly, thrips on paddy, cotton leaf roller and cotton boll worm occur. *Helminthosporium* and *Piricularia* on paddy present a problem in the Wet Zone areas. Frequent outbreaks of these two diseases take place

causing much damage to crops. Recently outbreaks of *Piricularia* have also been reported in parts of the dry zone.

Of noxious weeds Water Hyacinth (*Eichornia crassipes*) still presents a problem in the Hambantota District. Modern methods of control with 2, 4 —D weedicides are being carried out. The recently introduced *Salvinia auriculata* is widely found along the coastal areas of Galle and Matara Districts. No systematic eradication has been undertaken so far.

Agricultural Education

Three Farm Schools, one of which is for girls, train village boys and girls in modern methods of farming. A Girls' Farm School was opened only in 1952 at Labuduwa, near Galle. Each school can accommodate up to 30 students. So far, 658 boys and 57 girls have completed their courses. Although the intention was that these students should get back to the land, most of them have actually secured employment on estates and as overseers and demonstrators under Government. Agricultural Education is also carried out through the agency of Young Farmers' Clubs of which there are 52 either registered or in the process of registration. The membership of these clubs is 460 boys and 240 girls.

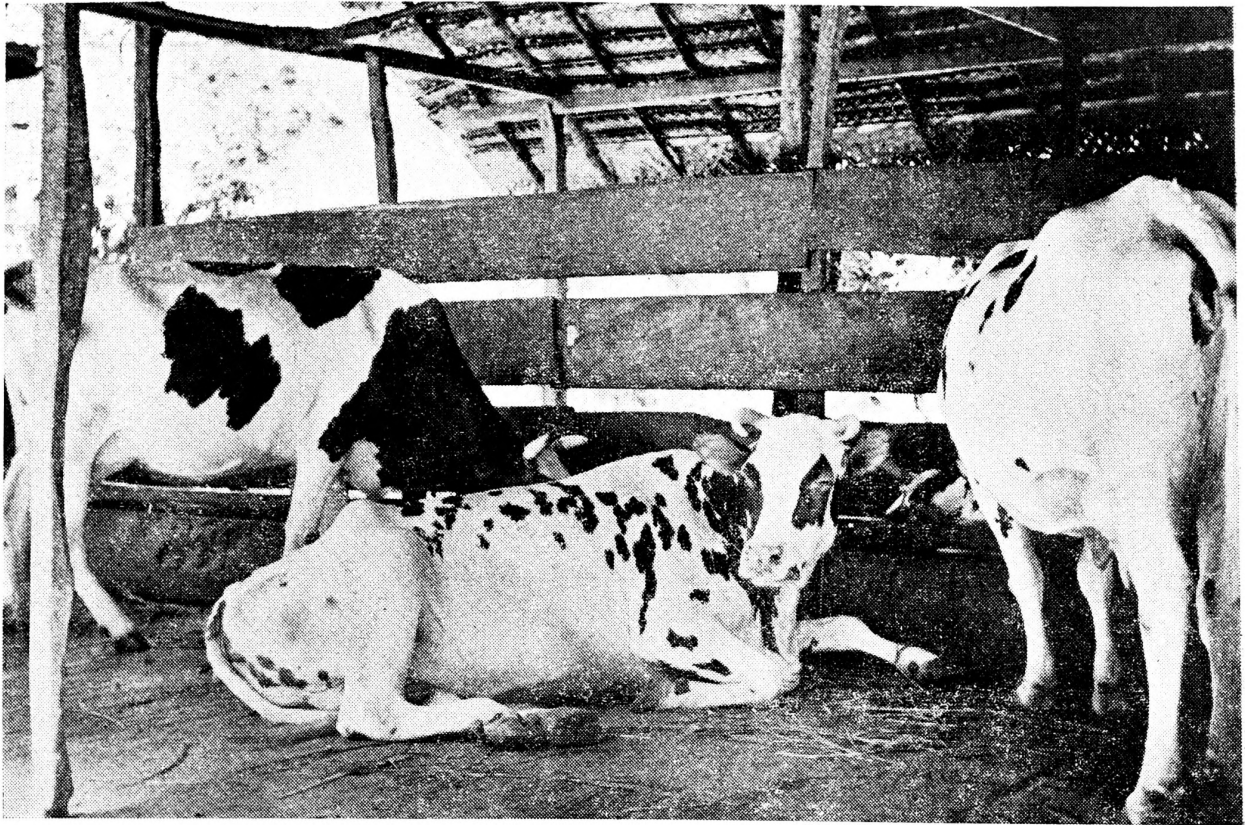
Future Lines of Development

The prosperity of the Ruhunu country lies in the proper utilization of its water resources of which there is an abundance. Schemes receiving consideration at present are bringing in about 40,000 additional acres under the Walawe Ganga and 12,000 additional acres under

Kirindi Oya. These by themselves would not be sufficient. The utilization of all the land under command of the other two rivers Menik Ganga and Kumbukan Oya has to be investigated fully. In this process it may be necessary to consider the question of moving the game sanctuary higher up so that the Hambantota District and some of the land north of it may form one vast fertile plain eventually linking up the Eastern Province by rail and road along the coast. Balanced Resource Development should be the keynote of this scheme. It should provide for stock raising integrated with arable farming, raising of plantation crops, such as, coconuts and the proper exploitation of its sea resources which cover about 162 miles. It should also be possible to harness the rivers for production of cheap energy for domestic and industrial needs.

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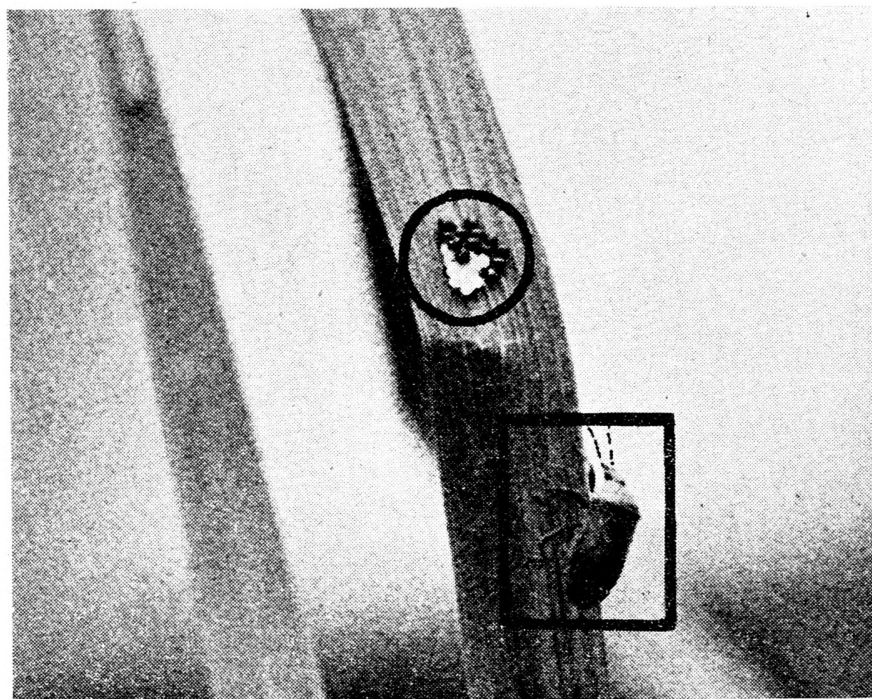
Prize Winning Herd— All-Island Competition, 1955.



Citronella Oil Distillery.



Swampy Paddy Fields characteristic of the Galle and Matara Districts.



Destructive Paddy Pest—The Pentatomid Bug (within rectangle) and egg mass (within circle).