

## Progress of Work in the Northern Division for 1926.

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**T**HE work in this division was aimed at increasing the food supply, increasing the income per head of cultivator and of studying the economic feasibility of replacing shifting by permanent cultivation under the dry land area.

### **A. Increase of Food Supply.**

#### **(1) Encouragement to increase the yield of existing crop.—**

Encouragement was given to the cultivators in regard to application of manure, attention to cultivation and the use of selected seed.

- (a) **Application of Manure.**—In the Jaffna District the importance of manuring is well understood. The growing of sunn-hemp to increase the fertility of the soil is spreading. Farm yard manure, palmyrah leaf and sweepings are applied to the paddy fields. The demand for these manures is greater than the supply and is getting to be increasingly expensive. The Department of Agriculture distributes artificial manures to be tried by representative cultivators who are willing to cooperate in undertaking trial plots. These trial plots have now begun to serve as demonstration plots. The fields are laid out by the Agricultural Instructor and the manures are applied and paddy sown by the cultivator. After the plants grow the Agricultural Instructor calls a meeting of the neighbours and gives talks on the spot on the advisability of using artificial manures.

During 1926, 16 demonstration plots were conducted by the Agricultural Instructor.

From 1925 cultivators have started to order artificial manures from Colombo. During 1926, 12 cwt. of Fish guano, 14 cwt. of bone-meal, 2 cwt. of sulphate of ammonia and 10 cwt. of Nitrate of soda were ordered through the Agricultural Instructor for manuring paddy and fruit trees.

In the Mannar, Mullaitivu and Trincomalie districts agricultural competitions have stimulated the use of organic manures which are available in abundance but were seldom used. In Mantai North and South,

Nanaddan East and West of the Mannar District farm yard manure and green leaves were applied to paddy fields. In Vavuniya cattle manure is now fetching money, at least a nominal sum, and cart hire is paid for transport. In Trincomalie the Asst. Government Agent was impressed with the increased attention paid to manuring, growing leguminous crops to improve soil, and the increased attention for irrigation.

- (b) **Attention to cultivation.**—Five demonstrations were given in the Jaffna district with iron ploughs and cultivators. There was a time when none would think of buying an iron plough. Now ploughing coconut estates is of ordinary occurrence and seven Meston ploughs were bought through the Agricultural Instructor during the year. In Mannar and Trincomalie weeding is now recognised to be necessary in certain parts.
- (c) **Selected Seed.**—The paper submitted by the Economic Botanist deals with pure-line seed selection work carried out by his division for the whole Island. In the Northern Division there are established the following 5 stations for testing, growing and distributing high yielding pure-line strains of seed paddy, viz., Paranthan, Uyilankulam, Kanniyai, Anuradhapura and Vavuniya. A certain amount of seed was already distributed in the Mannar and Trincomalie districts during last year.

The Manager, Jaffna Experiment Station, has multiplied desirable strains of chilli, Kurakkan and Thinai seeds. The chilli strains have proved to be popular. Last year 20,650 seedlings and 17 lb. of seed were sold to the cultivators besides supplying the Central Seed Store with 1,539 lb. of dried chillies. One cultivator who grew Farm Selection No. 12 writes that it yielded as much as 4,000 lb. per acre.

**Kurakkan**—1,342 bundles of seedlings of strain No. 8 were sold to 16 cultivators. The average yield obtained by 3 cultivators near the farm was about 960 measures per acre. Demand for these seeds is increasing in the Jaffna and Trincomalie districts.

II. **Extension of area under cultivation.**—One cannot fail to notice the migration of the people of the thickly populated Jaffna Peninsula to the less thickly populated Wannai areas. But this migration is not of a permanent character yet. Under the Karachchi Scheme lands are leased and purchased principally by the non-cultivator class. Over 1,000 acres were cleared and brought under paddy cultivation during last year.

In the Mullaitivu, Mannar and Trincomalie Districts cultivators migrate during cultivation season and return back to the Peninsula.

Plantain cultivation is extending in the Trincomalie District. The area under vegetable, cereals and oranges in the Vavuniya section of the Mullaitivu district is increasing.

### III. Introduction of new crops.

(a) **In New area.**—Among the food crops sugar-cane varieties are being tested at Allai Sugar trial grounds. This crop appears to have a good future before it. The area of land suitable for sugar-cane is large and Ceylon could materially increase the production of sugar in the Island.

(b) **In Old area.**—Sugar-cane varieties were grown successfully in the Jaffna Experiment Station.

**Pine Apple.**—Pine apple is grown to a fair extent at Chavakachcheri in the Thenmarachchy division, Jaffna. The Department is distributing free suckers of Kew and Mauritius varieties.

### B. Increase of income per head of cultivator:—

(1) Supply of cheap credit through the agency of the co-operative societies. Particulars are as tabulated below:—

Particulars.	1924	1925	1926
Societies	28	38	51
Membership	2,650	3,502	4,683
Paid up capital	Rs. 45,305.52	Rs. 61,075.90	Rs. 86,993.00
Number of loans given	—	1,008	1,399
Amount of loans given	Rs. 103,363.90	Rs. 100,661.97	Rs. 166,007.49
Number of depositors	—	179	382
Amount of deposits	Rs. 19,682.58	Rs. 17,279.28	Rs. 29,877.09
Reserve Fund	Rs. 8,689.70	Rs. 11,999.58	Rs. 14,463.89
Number of Government loans	2	9	13
Amount of Government loan	Rs. 3,000/-	Rs. 14,000/-	Rs. 19,500/-

The rate of interest charged on loans by societies varies between 12 per cent. and 6 per cent.

The rate of interest paid on deposits by societies varies from 6 per cent. and 4 per cent.

(II) **Saving in cost of cultivation.**—Comparative costs of lifting water from Jaffna wells were studied and results were made available to the cultivators. It was found that Persian wheel water lifts for wells under 20 feet in depth, double bucket Mhot for well deeper than 20 feet and oil engines for areas over 5 acres proved efficient and satisfactory. Since then the number of Persian wheels and double Mhots fitted is increasing. These lifts have not only decreased the cost of cultivation but have increased (a) the area cultivated per man and (b) the area cultivated under one well.

The recently introduced Victory plough, Burmese harrow and Planet Junior cultivators are proving very efficient and cheaper in the cost of cultivation.

**(III) Introducing or replacing crops with those of high money value.**

**White Burley Cultivation.**—The progress made in the extension of White Burley cultivation for the past 4 years may be seen from the appended statement.

Year	No. of Villages concerned	No. of cultivators	Total No. of plants	Total quantity of cured leaf
1923	8	27	6,314	801 lbs.
1924	17	66	24,719	3,864 ..
1925	29	268	114,873	14,131 ..
1926	27	219	106,940	18,826 ..

The slight decrease of the extent of progress in the cultivation of White Burley in the District was due to the fact that high prices ruled during the year for the Travancore tobacco. However the outturn of cured leaf was the highest ever produced since the inception of the purchase scheme owing to the favourable weather condition.

Over 40,000 seedlings besides 59½ oz. of seed were sold from the Experiment Station. Six nurseries were established by the cultivators in the villages of Tinnevelly and Urumpiray which are within easy reach of the Experiment Station and where the extension of White Burley cultivation is most advanced. The cultivators as in the previous season delivered the crop on the station as cured produce and a sum of Rs. 14,156.42 was paid for 18,826 lb. The prices were paid according to grades offered at rates varying from 60-80 cents per lb. The crop was consigned in 87 bales of 2 cwt. each to the Crown Agents in London for sale. We have now come to a stage when the price for the tobacco is the deciding factor in regard to the extent of the cultivation of this crop. The cultivators have been trained in curing the crop and they know what price to expect for their crop. They do not however know what price the country tobacco will fetch as the fluctuation in price for that tobacco is great. The market for country tobacco is disturbed by the uncertainty of the crop in Jaffna itself and the import of tobacco into Jaffna of crops grown in Mullaitivu District and the Tammanakadduwa area. These uncertainties and further extension of area under tobacco outside the Peninsula is likely to increase the area under White Burley.

**Sisal.**—Report on sisal cultivation at Anuradhapura Experiment Station was submitted to this board and published. It is interesting to note that although the crop was grown in the North-Central Province Experiment Station the people in the Mannar district are taking to it. There is a great future for this crop in the unirrigated lands in the dry zone. The essential features of sisal culture which should recommend it to the villagers are its peculiar adaptability to conditions prevailing in the various parts of the Wannai districts. These conditions may be summed up as follows:—a long dry season, large tracts of dry and poor soil, scarcity of skilled labour, cheap land, lack of sufficient capital for taking to intensive culture. Sisal will flourish in comparatively poor soils and will withstand long periods of drought; their cultivation is both simple and inexpensive not requiring skilled labour, work animals, or agricultural machinery; and they are not attacked by any serious disease or insect pests. In the Wannai area the principal crop grown is paddy. Paddy cultivation employs labour by seasons. The rest of the time there is practically no work for these people. Sisal cultivation will give work to the people during off season. The establishment of this industry on a satisfactory basis will require the necessity of establishing large plantations or a number of smaller ones in close proximity and the introduction of fibre extracting machinery.

(VI) **Advice in regard to marketing.**—With the exception of the Jaffna Peninsula the area served by this department is Wannai. Under modern conditions the little villages are gradually expanding and getting linked up with Jaffna. In several parts of the interior jungles we have survivals of old village communities which are little republics having nearly everything they can want within themselves and almost independent of "foreign relations." Some villages even when it does not form a regular village community is a self contained, self sufficiency whole. The horizon of these villagers is extremely limited. They are getting more and more of their own familiar travelling traders who come to their doors during definite seasons every year, sell manufactural articles or take away village produce.

Within the last few years the railways are having their effects felt. The motor car and bus have become popular. Travel is becoming frequent. Change has invaded our rural tracts. This has resulted in securing better prices and a market for the surplus produce, viz., paddy and straw, because the market is extended. Prices have been equalized within a certain distance of the line and produce has been cheapened in the Peninsula. This movement was noticed principally during latter part of the year after the new rates on straw and paddy were announced. The Department helped the people by announcing the news and checked the exploitation of the cultivator and the consumer by the middleman.

**C. Studying the Economic feasibility of replacing shifting by permanent cultivation.**—A new Station was opened at Vavuniya with the object of solving the above problem. Large areas of land are cultivated under the system called "Chenas." This is the least exacting form of cultivation that prevails in Ceylon and its merits and demerits have been discussed from time to time.

The principal money crop grown in this station is cotton. Cotton is rotated with other food and fodder crops. It is premature to discuss this work at this conference and shall be taken up at a later date.

### Discussion.

THE DIRECTOR OF AGRICULTURE began his remarks with the observation that a somewhat mixed diet had been laid before the meeting. The Divisional Officers of the Department had endeavoured to place before the Conference facts and figures relating to their work. It would be noted that various activities were taking place in different divisions of the island. It had always been his policy to encourage the Divisional Officers to act on their own initiative, for he did not believe that too great an amount of centralisation was possible in work of this nature. Mr. Harbord had given details relating to cotton cultivation in the South, Mr. Burnett had endeavoured to elaborate the work that was peculiar to the Central Division with particular reference to Paddy and food crops; Mr. Hulugalle had emphasised the co-operative side of Agriculture, and Mr. Cooke had dealt with matters affecting tobacco, sisal and other industries in the North. These were all matters of prime importance to the divisions in which these Officers were working and he thought that the facts which they had placed before the Conference were sufficient to convince it that sound progress was being made by the Officers in their work.

HIS EXCELLENCY THE GOVERNOR said:—"It has interested me enormously to listen to the personal reports which have been given to us this morning by the four gentlemen who are in charge at the divisions concerned and I repeat that I regret very much, indeed, that the audience is not as large to-day as it has been on previous occasions during the Conference. To my mind the deliberations of this morning and the information we received as to the activities of the Department are among the most interesting of the many interesting subjects that we have heard and discussed during the last three days.

"I should like to compliment the four Officers upon the work they are carrying on and upon the spirit in which that work is being conducted. It is impossible to listen to them without realising the very keen personal interest they are taking in the peasantry of their various districts.

"As regards the cotton cultivation, as I said a few days ago, we propose to tide the good people of Hambantota over their immediate necessities which have been occasioned through a sudden drop in the price of cotton and as I have also said in order to keep a nascent industry. Coming as I have recently done from a country where cotton has been grown from time immemorial—I allude to the northern provinces of Nigeria—I take a very keen interest indeed, in the cultivation of cotton in Ceylon because I believe it has behind it quite enormous potentialities. In Nigeria 90 per cent. of the population is at present clothed—when it is clothed at all—entirely in garments that are fashioned locally in their own looms from

cotton grown in the country. We have made a great revolution in cotton growing in Nigeria, which will show you what an Agricultural Department can do. In the space of fifteen years we induced some eight million people to root out their old inferior cotton and to grow cotton with long staple instead of the local short staple cotton which they previously used to grow. To be able to carry out a revolution like that among a conservative population which in the first instance believed that we did not know anything about it—which must be the prevalent creed to most old and conservative agricultural populations—is to my mind a very notable achievement and which must encourage the activities of every Agricultural Department throughout the British Empire. The opposition to our revolution was strong and when I tell you that it came almost entirely from the women you will realise what enormous difficulties the Agricultural Department had to contend with. The women—many of them had told me about it personally—complained that the long staple was for them very difficult to deal with in the traditional methods and we had to some extent to show them easier methods of spinning long staple than those to which they had been used up to that time. When they once became used to it they all started and so helped us in carrying the revolution which has been of enormous importance to the whole country.

“The cotton growers of Nigeria occupy a position which I believe is unique in the whole of the world for a cotton producing country, for they have an alternative market and if the Manchester market falls below a certain level they sell their cotton for export in Nigeria itself. Otherwise the whole of it is packed on donkey back and on camels and large caravans proceed up into the Sahara where they can always dispose of it at a good price. The Nigerian farmer has always the alternative of deciding whether he should sell to the European market or to the caravan drivers of the North and the East and that puts him in a position of financial independence; he knows he can always find a market for his cotton.

“It struck me that this might conceivably interest this audience because cotton growing here is still in its infancy but its potentialities are very great and its encouragement in this country is in my mind a matter of very great moment and importance.

“I took particular interest in hearing Mr. Hulugalle and Mr. Cooke deliver their reports of their various activities because, as I have said, as Colonial Secretary, I was instrumental in the appointment of four gentlemen—Mr. Hulugalle, Mr. Cooke and Mr. Driberg and another whom I hear is no longer with us—to the Agricultural Department at Peradeniya which we were then organising.

“Since then Mr. Hulugalle has earned a scholarship which has taken him to Cambridge, and certainly his sojourn there does not seem to have diminished his enthusiasm for the work which he is carrying out so ably in in his own country. I congratulate him very earnestly on the extraordinarily interesting report and the fine results which are being achieved by the Co-operative Societies which he is watching with real human sympathy and with a complete understanding of the needs of the people.

“Mr. Cooke's report is no less interesting. He also is in a sense one of my official children but instead of going to England his scholarship took him to California. When I was in the Northern province recently I heard nothing but praise of the way in which he was keeping in touch with the cultivators there and I can only hope that gradually he will persuade even the stubborn Jaffna cultivator that the Department of Agriculture has still something to teach him.