

A BRIEF HISTORY OF THE CHEMICAL DIVISION AND ITS WORK

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THE establishment of the Chemical Division of the Department of Agriculture may be said to date back to 1900 with the appointment of Mr. M. Kelway Bamber, of the firm of Messrs. Bamber & Bruce, as Consulting Agricultural Chemist to Government. Mr. Bamber acted in this capacity until 1924 and was ably assisted during the greater part of his career by Mr. A. Bruce of the same firm. All the analytical work of the Department during this period was carried out in the firm's private laboratory in Colombo, but the field investigations were undertaken on the experiment stations of the Department. Although Mr. Bamber's main contribution to Ceylon agriculture was in respect of the tea industry, particularly his work on manuring and cultivation—he introduced the system of green manuring in tea—his investigations on the other major tropical crops, viz., rubber, coconut and paddy, were of no less value and importance to the development of these crops in the Island. Mr. Bruce's publications on the forest and paddy soils of Ceylon furnished useful data on these soils, but the advances of soil science since this work was carried out have necessitated their re-investigation in the light of such advances.

The Division, as an integral part of the Department, was only inaugurated in April 1925, when the Chemical Laboratory at Peradeniya was declared opened by H. E. Sir William Manning. It began its activities with the present Chemist in charge and Mr. S. Kandiah as his assistant. A year later a second assistant, Mr. D. G. Pandittesekera, was appointed and until 1935 no further additions were made to the staff.

During the first decade of its new history a comprehensive series of investigations on green manures and green manuring under both high-land and wet-land conditions, and on the absorption of fertilizers by Ceylon soils was undertaken and completed, and results of much practical value to local agriculturists obtained. The latter part of the period also saw the initiation of a series of co-operative laboratory and field studies with the Botanist on the science of paddy cultivation, investigations on the nutritive values of Ceylon foods and their utilization, and of fundamental studies, on modern lines, of Ceylon soils and their manurial requirements for local crops.

In 1935 Dr. D. E. V. Koch (then Mr.) was appointed Research Probationer in Agricultural Chemistry. After a period of two years training in this laboratory, Dr. Koch left for England for further training, and in 1942 sometime after his return to Ceylon, during which he acted as Administrative Secretary, was appointed Assistant Chemist. The next addition

to the staff was in 1941, when Mr. Charavanapavan was appointed Research Assistant in Food Technology to undertake research on the methods of converting local food materials into manufactured products.

During the second decade (1935-1945) of the Division's existence at Peradeniya, the new land policy of Government was introduced and numerous land colonization schemes were proposed for various parts of the Island. It was decided as a matter of policy that before any such scheme be initiated, a soil survey should be carried out of the area in question. Soil survey work thus became an important feature of the Division's activities. No fewer than 96 soil reconnaissance surveys have been carried out since 1935 by officers of the Division. But in view of the desirability for more detailed information on the nature and distribution of the soil types in a number of these colonization areas, a special officer to assist the Chemist in this work was appointed in 1945. Among other major items of research undertaken during the period were the following:—further manurial trials in co-operation with field officers; a systematic genetic study of the major soil types of the Island; investigations from the chemical standpoint of economic products, *e.g.*, cinchona, pyrethrum, papain, citronella oil, jaggery, sugar-cane &c.; and a more comprehensive study of the nutritive values of local vegetable foods and their conversion into edible products, *e.g.*, jams, jellies, fruit juices, breakfast foods, dried products &c. It is interesting to record that the Division has completed the analysis of no fewer than 265 samples of vegetable foods of the Island comprising grains, pulses, roots, vegetables, fruits &c. The study of soil has advanced to the stage when a monograph on the subject can be published, and valuable data has been obtained on the manuring of local crops. Considerable progress has been made in our knowledge of local economic products. The scope of the work on food utilization is shortly to be extended with the establishment of a semi-commercial food products processing laboratory.

The most recent development of the Division's activities is the Model Kitchen. This was started in June 1943, with the object of training village girls particularly, in domestic methods of food preservation. A Lady Demonstrator (the last holder of the post was the late Mrs. J. E. Senaratne) was appointed for the purpose and several courses have been given to groups of girls and women of varying social grades for varying periods. The products of the Kitchen are sold to the public at popular rates and have found a ready sale. The average sales for the past year amount to about Rs. 1,000 per mensem.

During the twenty years of its existence at Peradeniya, the Division has endeavoured, to the fullest degree possible, to contribute its share of knowledge and research towards the progressive advancement of the agriculture of the Island. Apart from its research activities, the Division has always placed at the disposal of agriculturists, when asked for, the knowledge and information it possessed on any subject coming within its sphere of work. Whenever necessary, inspections were made for the purpose of tendering the best advice possible. Information of general value to the agricultural community arising from its research investigations has been communicated

through the usual Departmental channels of publication. The Division has to its credit no fewer than 120 articles in the *Tropical Agriculturist* since 1925. Its officers also take their share in educating the agricultural youth of the Island centered at the School of Agriculture, Peradeniya, in the field of agricultural and food chemistry. Demonstrations on particular aspects of our work, *e.g.*, food preservation, have been given to members of the public whenever demanded. While the Division can lay claim to a record of achievement of which it may justly be proud, it realizes only too well that a good deal more remains to be done. What it has achieved, however, is mainly due to the authorities on the one hand for the facilities afforded and the encouragement given, and to the loyalty, devotion to duty and co-operation of the staff on the other.
