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Agricultural Education and Research in Madras State

by

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Agricultural education in Madras State was started as far back as in 1876 when an agricultural school was established at Saidapet. Training facilities in improved agriculture were provided for the students so that they can carry the knowledge acquired in modern methods of farming for the benefit of the farmers in increasing production. The need for a higher type of education was realised soon enough to raise the status of the school to that of a college in the year 1878. The students were trained in (1) a diploma course of three years duration and (2) a certificate course on practical agriculture. Following the decision taken to shift the venue of the college to a more suitable place for a wide-spread educational training, the Agricultural College, Coimbatore came into existence in 1907. At present, the Agricultural College and Research Institute, Coimbatore has expanded to one of the premier institutions in India involving research work on seven major branches of agricultural science comprising of 20 different sections. This embraces research activities of both fundamental and applied aspects on crop production, extension and education.

Subsequent to the shifting of the centre from Saidapet to Coimbatore, the courses of studies in agricultural education were re-organised in the year 1930. A two-year certificate course largely practical in nature and capable of imparting working knowledge in agriculture and allied sciences was introduced. Provision was made for training fifty students at a time for a period of two years and of the successful students, some were selected for higher training for a further period of 20 months leading to Diploma in Agriculture. The next landmark in agricultural education was the affiliation in 1920 of the Agricultural College, Coimbatore to the University of Madras and the introduction of a three year degree course leading to the Bachelor of Science in Agriculture. However, only 20 students were able to be trained in each class and the number was subsequently increased to 48 in 1926. From the year 1930 onwards, the University of Madras granted recognition to the Agricultural College, Coimbatore as a centre for pursuing research under the guidance of supervisors for higher degrees in M. Sc. and Ph. D. Consequent on the outbreak of the second World War and the resulting food shortage, the number of students were raised to 96 in 1944 and again to 108 in 1951 to tackle the post-war reconstruction schemes. The strength of the admission was further increased to 162 from 1956 to meet

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the demand for trained agricultural personnel in connection with the various schemes and projects implemented in the Five Year Plans. The strength of the students is being continued at present and a four year integrated course in Agriculture is maintained covering a number of subjects in different branches of agricultural science.

A further development in agricultural education in Madras State was the establishment of post-graduate courses at the Agricultural College and Research Institute at Coimbatore in the year 1958. Advanced training in Agriculture leading to M. Sc. and Ph. D. degrees is imparted in eight different subjects *viz.*, Agronomy, Plant Physiology, Plant Breeding and Genetics, Horticulture, Soil Science, Plant Pathology, Agricultural Entomology and Agricultural Economics. A total number of 44 post-graduate students are admitted every year for the above course and 50 per cent of the seats are reserved for candidates of other southern States.

The output of agricultural graduates at the Agricultural Colleges, Coimbatore and the Agricultural College attached to Annamalai University was found inadequate to meet the needs of the State during the plan periods as a result of which a Second Government Agricultural College has been now started at Madurai which will be functioning from this academic year 1965–'66 with a total number of 80 students.

Agricultural research in Madras State is responsible for building up sound agriculture evolved through years of intensive research and experimentation. This consideration has prompted the suggestion and led to the development of several research projects that might be undertaken by the various research sections located in the Agricultural College and Research Institute, Coimbatore. Each section is devoted to research in its specialised field in order to focus attention on food production in a meaningful way.

The several well organised breeding stations have been doing pioneering work with the main object of evolving new strains suitable for different tracts. In rice, several outstanding strains such as Co. '25, Co. 29, and Co. 30 for blast resistance, 'ADT. 22, ASD. 4 and Co. 31 for drought resistance, PVR. 1, and SR. 26B for saline resistance, ADT. 27 for high fertility, have wide adaptability throughout the State. The Millet section has so far developed 53 improved varieties, chief among them being Co. 19, Co. 20, Co. 11, Co. 18 and K3 under *Cholam* (apart from the spectacular hybrid cholam CSH. 1 released recently), *Cumbu* X.3 and Co. 7 and K2 under *ragi*. It is estimated that these improved strains have spread over 40 per cent of total area. Similarly problems of improvements in pulses and oilseeds are being studied by the respective sections and several promising selections

have been released. Systematic and scientific research on the improvement of cotton in Madras State has resulted in evolving three superior quality Cambodia irrigated strains and a rainfed K.6 which covers about 90 per cent of the area at present. The activities of the Chemistry Section consist of soil surveys of deltaic or ayacut areas to draw manurial schedules or assess the suitability of the soils for irrigation water; land reclamation experiments, studies on the keeping quality of fertilizers etc. The greatest contribution rendered by the section is in soil testing and technical advise regarding manurial recommendations. Research in the field of Entomology and Mycology involve mainly investigations on the occurrence of crop pests and diseases and suggestion of suitable remedial or control measures. In Horticulture, the main achievements include introduction and isolation of superior kinds of varieties of fruits and also development programme designed for maximum production of horticultural crops. Similarly, the Meteorology section has been dealing with the collection, compilation and interpretation of weather data as affecting crop production and also forecasting the incidence of pests and diseases on crops. Economic enquiries and rural surveys on the socio-economic structures of the different regions are undertaken by the Economics section. Finally, the Extension section has been devoting itself to the task of processing the various research achievements and disseminating the results of research to the farmers.