

2.2. Agricultural Research and Education

2.2.1. Agricultural research and education are very essential for agricultural development. There is an imperative need to enhance agricultural and livestock productivity, profitability and sustainability coupled with quality to face the challenges of liberalization. This requires a continuous flow of technology. In this transformation process, the role of research institutions like the Tamil Nadu Agricultural University and the Tamil Nadu Veterinary and Animal Science University is very crucial.

Tamil Nadu Agricultural University

2.2.2. The Tamil Nadu Agricultural University has been constantly orienting its activities of agricultural education, research and extension towards the goal of sustainable increase in agricultural growth in the State through holistic development of vital resources potentials of the State. The plan programmes of the University (TNAU) are summarized as under:

Breeder Seeds

2.2.3. Tamil Nadu Agricultural University is engaged in the production of breeder seeds on scientific basis. The breeder seed production is being taken up in 26 Centres of TNAU, 39 State Seed Farms and also in one Co-operative Farm (TANCOF, Tirunelveli). The Tamil Nadu Agricultural University is committed to supply the breeder seeds of all improved crop varieties and parental seeds of hybrid, which it evolves at its Research Stations and supplies to the State Agriculture / Horticulture department based on their annual indents.

Agricultural Research

2.2.4. The TNAU is taking up research on all major agricultural problems in the State. The University has undertaken 3000 research sub-projects and 507 research projects in its 10 teaching colleges, 33 research stations, 14 transfer of technology centres and 5 plant clinic centres. These research projects are undertaken with the funds provided by the State and Centre Government and Foreign and Private Agencies.

2.2.5. TNAU is reorienting its research programmes during the Eleventh Plan period towards the goal of maintaining the tempo of self sufficiency in food production and exploring the agricultural potential of the state for export of agricultural produce. Multidisciplinary research for addressing the farming community will be taken up. More emphasis is given to development, production and dissemination of hybrids of various crops to break the yield barriers. Research on precision farming is given due weightage in research resources allocation. With a view to have balanced application of fertilizer and manures and to optimize the yield of individual crops, the popularization of Integrated Nutrient Management (INM) will be hastened. Research on dry land agriculture, wasteland and agro-forestry have been intensified. Research on transgenics, QTL mapping of genes for insect resistance are also intensified. Research has to be focused more on society's needs. It has also take note of changes due to globalization, technological development and growing emphasis on value addition.

Education

2.2.6. Ten colleges are located in seven different campuses in Tamil Nadu. Two affiliated colleges at Karaikal, Pondicherry State and Vellore district and three institutions offering Diploma Course in Agriculture in Tamil Nadu are functioning under the control of TNAU. Under-graduate education is given in 8 faculties, besides Master's degree programme in 22 disciplines. Ph.D programme in 20 disciplines are also being offered in the University. Apart from the regular degree programmes, three self supporting Bachelor of Technology programmes in Food Processing Engineering, Horticulture and Agri-Biotechnology are also offered since 2001. During 2004 B.Tech.(Energy and Environmental Engineering) and three post graduates namely M.Sc (Bio Information), M.Sc.(Bio-Chemical Technology) and M.Sc. (Agricultural Meteorology) have been imparted. At Dr.C.Subramaniam, Institute of Agriculture situated in the campus of Oil Seeds Research Station, Tindivanam one Diploma course in Agriculture with an intake of 50 students / year has been functioning since 2004. During the academic year 2006-07, B.Tech (Bio-informatics), P.G.Diploma in

Organic Farming and Capital and Community markets have also been started.

Extension

2.2.7. The Directorate of Extension Education of the TNAU is vested with the responsibility of disseminating the latest technologies emerging from the research programmes to the farming community through Transfer of Technology Centres, Extension personnel of the State Agricultural Department, through its 6 KVKs, 5 Plant Clinic Centres, Communication Centre and Training Division.

Tamil Nadu Veterinary And Animal Sciences University (TANUVAS)

2.2.8. As the mandate of TANUVAS is to impart education in different branches of Veterinary Animal Sciences and Fisheries Sciences, conducted of research and undertake extension service to the rural people. The research includes the species of cattle, buffaloes, sheep, goat, poultry, pet animals and fish to cover the various aspects of management, diagnosis, prevention and control of diseases, development of diagnostic kits and vaccines and development of value added products from livestock and fishes.

2.2.9. This University has 3 constituent colleges, 5 Research Stations 17 Veterinary University Training and Research Centres, 3 Farmers Training Centres, 3 Krishi Vigyan Kendras and one Agricultural Technology Information Centre to carry out outreach programmes and research Service laboratories such as Avian Disease Diagnostic Laboratories, Animal Feed Analytical and Quality Control Laboratory, Central University Laboratory, Leptospira Diagnostic Laboratory, Shrimp Disease Diagnostic Laboratory, Central Animal Feed and Food Residue Laboratory, Viral Vaccine Laboratory and Bacterial Vaccine Laboratory to serve the health needs of the livestock, poultry and fish. Further an Institute of Food and Dairy Technology, Institute of Animal Nutrition caters to the needs of livestock farmers and entrepreneurs.

Agriculture Department

Preparation and distribution of Micronutrient Mixture

2.2.10. Thus to cater the needs of the farmers, the Micro Nutrient Mixtures are produced by the Department at Kudumianmalai in Pudukkottai district and distributed by extension functionaries through 880 Agricultural Extension Centres. Annually 1250 MTs of Micronutrient Mixtures are distributed. During 2006-07, the production target has been enhanced to 1400MT. A sum of Rs.280.08 lakh was spent during 2005-2006 and a sum of Rs.313.20 lakh is expected to be spent during 2006-2007. An amount of Rs.326.83 lakh is proposed for 2007-08.

Production and distribution of Blue Green Algae

2.2.11. The Blue Green Algae is produced in the State Seed Farms for distribution to the ryots. A sum of Rs.15.44 lakh was spent during 2005-2006 and a sum of Rs.17.71 lakh is expected to be spent during 2006-2007. An amount of Rs.19.09 lakh is proposed for 2007-08.

Plan Outlay - Agricultural Research And Education

2.2.12. The agreed outlay for the research and development programmes for the year 2007-08 is Rs.98.75 crore.