

Proceedings of the Eighty first Scientific Workers' Conference

The 81st Scientific Workers' Conference was held on 12.06.2015 at TNAU, Coimbatore. Dr.M.Maheswaran, Director of Research incharge, TNAU welcomed the gathering. The meeting was inaugurated by Thiru. Rakesh Lakhoni, IAS, Agriculture Production Commissioner and Secretary to Government of Tamil Nadu and was presided over by Dr.K.Ramasamy, Vice Chancellor of Tamil Nadu Agricultural University. Officials from ICAR, Chief officials of Department of Agriculture, Horticulture, Agricultural Marketing, Agricultural Engineering, Seed Certification, Sericulture, Forestry, Scientists, Agricultural officers, Extension officials and farmers.

Dr.M.Maheswaran, Director of Research, in his welcome address emphasized the importance of increased the productivity for sustaining agriculture as a profitable venture. The rapport between researchers, extension officials and farmers is very important for delivering need based technologies and crop varieties, he added. The feedback from farmers plays a vital role in determining the areas and objectives of research which in turn results in productive farming. He briefed on the major activities and achievements of TNAU which includes revival of millet production with the help of TN-IAMWARM, mechanization of seed to seed in cotton, new grafting techniques in brinjal and bhendi, drought management in rice with Pink Pigmented Facultative Methylo troph (PPFM) sprays, crop boosters to increase crop production, exploitation of biological control and minimizing the pesticide use, new release of varieties / hybrids, strain in evolving a strain and the successful varieties to be adopted. He highlighted the difficulty in time taken to bring about new varieties, procedure involved in its evaluation, post monitoring and withdrawal of the unsuccessful ones. Seed supply chain is to be maintained to overcome the shortfalls in making the seed available to the farmers. He requested the

Government of Tamil Nadu to allot special grants for research based on the demands and requirements of the farmer as maximum returns can be attained by need based research and extension activities.

Dr. M.Rajendran, IAS, Director of Agriculture, Government of Tamil Nadu in his speech noted that despite decreasing cultivable land, rainfall and average land holding capacity, Tamil Nadu has managed to produce a record quantity of 128 lakh tons of food production. The need of the hour is that more focus should to be given to overcome soil salinity and water management issues. He added that the government of Tamil Nadu has extended its helping hand by reorganizing the seed farms, creation of model seed farms and desilting of 70,000 ponds across the state.

Thiru L. Sitherasenan, IAS, Director of Horticulture and Plantation crops, emphasized the need for producing hybrid and high yielding seeds at TNAU as it would be more cost effective for the farmers rather than importing from other countries. Less investments on the seed cost increases the profit thus regulating the price of agricultural commodities, he added. The shelf life of horticultural produce is less, so more groups can form clusters to find solutions for storage and marketing to increase the profit. Demo plants have already proved its success and more of such plants is the need of the hour, said the Director.

Mr. C. Prabakaran, Director of Agricultural Marketing and Agri. Business, Government of Tamil Nadu elaborated on the facilities provided by the Government to the farmers in forming farm groups to overcome middlemen and in the area of post harvest technology. The Government also facilitates to sell millets, vegetables, fruits through farm producer companies and has also sanctioned Rs. 120 crores to setup cold storage and Food Park at Madurai, Coimbatore and Chennai for horticultural produce under public private partnership mode. He said that value addition of horticultural produce brings about better prospects in food processing and in minimizing post harvest losses.

This sector can be further expanded by infrastructure development and by encouraging e-Trading.

Thiru.Vinod Kumar, IFS, Principal and Chief Conservator of Forests, congratulated TNAU for being selected as the best institute by ICAR. He added that connection between the scientists and department officials is important in disseminating the technology to the farmers and solving the problems at the field level by proper feedback. He requested the officials to pay more attention on research on forest resources and conservation.

Er. K. B. Rama Krishnan, Chief Engineer, Department of Agricultural Engineering, Chennai spoke on the various subsidies given to the farmers for mechanizing agriculture and for managing soil and water. The farmers experience difficulty in handling manual wetland weed removing machine and coconut climber. So, simple and easy to handle machines are to be developed for cutting down the cost on labour and decreasing the fatigue of the farm users, he requested.

Thiru S. Palanidurai, Assistant Director of Sericulture indicated that appreciable progress has been made in the field of sericulture by increasing the yield output to 100 kg/ hectare from 15 kg/hectare before 30 years. The price of the best quality silk yarn is also stable for the past 5 years, he stated.

Dr M. M. Mustaffa, Director of National Research Centre (NRC) for Banana, Trichy acclaimed that India is the number one producer of banana in the world. Thirty million tonnes of 25 varieties of banana are produced from 0.8 million hectares of land. More studies are being taken up in cost effective embryonic cell culture method and rooting plant hormone method to develop new varieties. Standard cultivation techniques are being developed for leading varieties of banana. The need of the hour is to study pre and post harvest methods of reducing wastage and increasing the shelf life by effective storage

methods and structures. More light is thrown on developing bio pesticides and bio control agents to reduce the use of pesticides. Many field level trials are in progress. Farmers are provided with virus detecting kit for early and easy diagnosis, he added.

Dr. A. H. Prakash, Programme Coordinator and Head of CICR, Coimbatore in his address reflected the feel of other fellow scientists with regard to cotton cultivation. Though India ranks first in cotton cultivation, the progress need to be stepped up, he added. Private companies take the stage in releasing new varieties and production. Policy changes with respect to evaluation of varieties, trial period, soil and water are crucial to bring glory to cotton cultivation in government sector, he emphasized.

The Agriculture production Commissioner and Secretary, Government of Tamil Nadu Thiru Rajesh Lakhoni, IAS, addressed the gathering with a brief speech and put forward three mandates for the eminent scientists for overcoming the major hurdles in the present farming scenario. As the first mandate, he asked the researchers, extension officials and farmers to work together to ensure to achieve the motto of "Doubling the productivity and Trebling the Income of farmers" - the slogan of the Government of Tamil Nadu by 2020. He asked the scientists to double the cultivation of paddy and triple the cultivation of millets in the next 5 years. The second issue was that scientists were requested to find out the top 3 diseases of each crop and find suitable measures to combat them and develop disease resistant varieties. The Third one was to develop and propagate crop specific Integrated Pest Management (IPM) practices so that farmers can save on pesticide expenses and thereby increase their income.

Dr. J. Daniel Chellappa, Senior Scientist, Baba Atomic Research Centre (BARC) spoke on the benefits of food irradiation. Food irradiation has benefits in pest management, insect disinfestations, sprout inhibition, hygiene maintenance

in spices and meat, quarantine of fruits etc. He pointed out on the BARC's invention of foldable solar dryer, soil organic carbon detection kit to farmers, Vibro Thermal Disinfector (VTD), fluoride detection kit, dip and drink membrane pouch.

Dr.K.Ramasamy, Vice Chancellor of TNAU felt happy to mention that this is the first Scientific Workers' Conference where dignitaries from all farm sectors have gathered under one roof. Only in agriculture sector, the technology transfer is high of about 34% than other fields such as medical (8%) and engineering (12%). He said that the credit for Tamil Nadu registering a record food production of 128 lakh metric tonnes was due to the joint efforts of the planners, scientists, field level staffs and farmers. While the research stations of the University had made considerable progress in development of new crops, there was lag in pulses development and it would be addressed soon, Vice-Chancellor added.

He thanked the central government for sanctioning Jackfruit Research Station at Tsunami affected Cuddalore area and a Separate Research Station for flowers. He appreciated the farmers for their contribution to research and seed production also. He added that more focus is needed now on processing and marketing of agricultural produce and safe guarding the water reserves for irrigation and requested the Government to allot sufficient funds for taking up these tasks. Lastly, he wanted the students of agriculture and allied subjects to work with the extension officials in imparting technology and guidance to the farmers.

After special address by the dignitaries, the scientists, extension officers and farmers had a discussion session on various agriculture related topics like bio pesticides, micro nutrients, farm machinery, soil salinity and seeds. The queries raised by the farmers and extension officials were clarified by the scientists of TNAU.

In the afternoon session, Dr. A. K. Kohli, Chief Executive, Department of Atomic Energy, BARC delivered a special lecture on "Radiation processing of food products". He has covered the below mentioned aspects

- Advantages of radiation technology on food products
- Applications of food irradiation
- International and national governing bodies
- Irradiation plants in India

He has emphasized the need for the collaborative research programmes of TNAU with BARC on need based areas for the betterment of the farming community.

Dr. V. Ravi, Director of Tamil Nadu Rice Research Institute, Aduthurai delivered the vote of thanks.