Technological options available in agriculture and allied sectors of Ernakulam District

The profitability in agriculture depends on two factors viz. total income and the cultivation cost. The income is a direct function of the yield. The actual yield achieved by farmers is much below the potential yield in many situations. Location specific technologies to address the yield gap are required to be evolved with a holistic approach considering the natural resources as well as socio-economic factors.

Need for agricultural mechanization

Area under agriculture has been reducing in the state as well as in Ernakulam district for the last few decades owing to the labour intensive production practices. Technology interventions for reduction of cost of cultivation are imperative in sustaining the rural population in agriculture. Kerala, a state with the highest wage rates in the country cannot depend on human labour for profitable agriculture. Timeliness in critical agricultural operations with improved resource use efficiency can be achieved through proper application of mechanization technology. Evolution of a proper and effective strategy for mechanization of agriculture in the district was the essential pre-requisite for this.

Quality organic inputs

The wide spread introduction of new high yielding, fertilizer responsive crop varieties has considerably led to significant changes in agricultural scenario and the trend of pets on the important crops like rice, banana, coconut and vegetables in Ernakulam district. The practice followed by the farmers in the district not only increases the cost of production but also have detrimental effects on food quality, water, soil health and environment. A new approach of plant health management, lack of availability of quality agro inputs for organic/safe farming is identified as a major issue.

Nutrient management and improving resource use efficiency

The productivity status of soil in the district has been declined during the past few decades due to less input of organic matter as well as indiscriminate use of chemical fertilizers. Deficiency in micro-nutrient availability has been noticed in all the major crops like rice, banana, coconut and vegetables. Awareness on balanced nutrient application coupled with dissemination of technologies for improved resource use efficiency and resource conservation were warranted in the district.

Requirements of technological interventions in Animal husbandry & Fisheries

The poor dairy farmer is in an embarrassing situation posed by the scarcity as well as hike in price of feed and fodder. There are also long dry periods during which the farmer has no access to supplementary income from other sources such as poultry. The greatest issue in fisheries is lack of availability of quality seeds and qualified technical personal to support implementation of new technologies like cage farming.

Technology providers in Ernakulam district

The Ernakulam district has 82 Grama panchayaths 8 municipalities and one Corporation. All these bodies have one each Agricultural Officer and Veterinary Surgeon. In addition there are 25 Matsyabhavans. There are offices of National Institute of Fisheries Administration & Management (NIFAM), State Fisheries Resource Management Society (FIRMA), Agency for Development of Aquaculture, Kerala (ADAK), Kerala Fishermen's Welfare Fund Board, Society For Assistance to Fisherwomen, Kerala state Co -Operative federation For Fisheries Development (MATSYAFED), Kerala Stata Coastal Area Development Corporation functioning in the district. There are three seed farms of Agriculture department and one seed farm of Coconut Development Board functioning in Ernakulam district. The Animal husbandry department has a Livestock Management Training Centre, Pig breeding farm and Artificial insemination centre in the district. The head quarters of commodity boards *viz.,* Coconut Development Board, Spices Board are located in Ernakulam district. Coconut Development Board Institute of Technology (CIT) is functioning in Ernakulam district. There are regional offices of Rubber boards functioning in the district. The head quarters of Kerala University of Fisheries and Ocean Studies is at Ernakulam district. The district has three regional stations of Kerala Agricultural University *viz.,* Medicinal and Aromatic Plants Research Station, Pineapple Research Station and Rice Research Station. The headquarters of two ICAR Institutes, Central Marine Fisheries Research Institute and Central Institute for Fisheries Technology are located in Ernakulam.