Demonstration of Profit through LEAN Farming Technologies

Mr.Selvan Jacob of Aladipatti village in Virudhunagar District of Tamilnadu is a traditional farmer since his adolescence. He cultivated a keen interest in farming and started practicing it in the eight acres of land which he inherited from his father. Of these eight acres of land, two acres are irrigated by open well and the rest is rain fed. His wife also accompanies him at times to carry out the farming activities. The main livelihood of the family is farming and they predominantly cultivate maize, chilly, cotton and tomato in the eight acres of land in various combinations during the year.

In the recent years, Selvan Jacob has experienced difficulty in continuing agriculture due to increase in the cost of various agricultural input materials, intrusions of wild animals in the cultivated fields, shortage of agricultural labour force and continuous monsoon failure. According to him, he has given thought about quitting agriculture and shifting to real estate business many a times. In spite of this he has continued to practice agriculture for various compelling reasons.

It was at this juncture that HDFC started implementing the Holistic Rural Development Program through its implementation partner, National Agro Foundation (NAF) in the Thiruculi Block of Virudhunagar District in the year 2021. Aladipatti village is also one of the project villages under the program and the program included a system of interventions to augment the natural resources; soil and water conservation activities; and scheme of activities to increase the profit generated from the dryland agriculture practiced in the villages through improved technologies and value addition.

In order to encourage the farmers to practice scientific, efficient and ecofriendly methods in agriculture, Front Line Demonstrations (FLDs) were conducted as a part of the program. Selvan Jacob also enrolled as a beneficiary under the FLD activity. FLD in his field started with bifurcation of two acres of his irrigated land into Demo Plot (one Acre) and Control Plot (half Acre) and then cultivation of Maize (Variety – NK-6668) in both the plots in the month of September, 2021. Farming in the control plot was carried out as per the conventional practice and the demo plot as per the recommendations. The activities in the demo plot initiated with Soil testing and specification of recommendations based on the test, chisel ploughing, application of enriched farmyard manure for basal application and application of balanced nutrients based on recommendation during various phase of growth of the crop. Line sowing, Bio fertilizer application, prophylactic spray of neem oil; integrated pest management by using solar light trap, sticky trap and pheromone trap; application of Panchakavya solution and micro-nutrients and curative spraying based on the crop pest and diseases were also demonstrated under the activity. In addition, wheel hoe weeder was also distributed for effective removal of weeds in the field with minimum labour.

Selvan Jacob harvested the yield in the month of February, 2022 in both the control and demo plot. The yield and profit from Control plot (Half Acre) were 10 tons and INR 7,505 respectively and the Benefit Cost Ratio (BCR) was around 0.65. Whereas, the yield and profit from Demo plot (One Acre) were 25 tons and INR 24,007 respectively and the Benefit Cost Ratio (BCR) was around 1.02. This evidently showed that farming carried out in the control plot under conventional practices was rather loss making than providing livelihood support for Selvan Jacob. Among the many reasons for the scenario, the major reason that attributed was the effective management of nutrients and wild animal attack on the crops in the demo plot. Selvan Jacob was surprised to see the drastic difference and whole heartedly thanked HDFC and NAF for the exposure given about the scientific and efficient agricultural practices and also committed to carry out farming in eight acres of his land as per the recommendations provided rather than the conventional chemical intensive practices.