Intercropping in Coconut for Higher Returns

Success story from Thanjavur district of Tamil Nadu

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Coconut plays a pivotal role in the agrarian economy of many states in India and it is predominantly a small and marginal holder's crop. As the availability of land for extending the area under coconut is increasingly difficult, the imperative need to increase the productivity of the garden is evident. Coconut based cropping system enable farmers of small holdings to diversify their crops thereby reducing the risk of crop failure or price fluctuations, to intensify the use of their land to maintain soil fertility, to gain more cash income and meet varied requirements of their family. Tamil Nadu state is one of the largest and leading producers of coconut in India, while Thanjavur wilt disease is a major constraint in the production of coconut. This disease in Tamil Nadu is threatening the coconut industry not only in Tamil Nadu but also in the neighbouring states. The disease is widespread in all parts of Tamil Nadu and also in the adjoining states of Andhra Pradesh, Karnataka and Kerala. Under the All India Co-ordinated Research Project on Palms, the centres at Veppankulam, conducted many cultural, manurial and chemical trials for the past few years with a view to controlling or managing the Thanjavur wilt/ Ganoderma root rot. Technologies have been evolved and more awareness programmes and

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Cocoa and Coconut intercrop field

Vegetable intercropped field

demonstrations are being carried out among the coconut growing farmers to mitigate the problem by wilt disease and give guidance to improve the productivity of the coconut.Diversified cropping system could be one of the solution to realize sustainable productivity and maximum income per unit area of land besides maintaining soil fertility by the recycling of by-products of crops since land being a renewable resource, must be put to maximum use for increased crop production.Better space utilization was understood by the coconut farmers in the coconut based cropping system (CBCS) which not only helps in space utilization but have also known about the complementary effects of intercrops in coconut gardens. It is one of the most appropriate system, which can be easily adopted by the coconut growers. Banana, black pepper, cocoa and vegetables are the suitable intercrops for the East coast region of Tamil Nadu. The farmers grow cocoa as one of the best intercrop in their coconut plantations and generate a profitable income with an average price of Rs. 150 – 200/- per kg of dried cocoa beans. Apart from this, coconut and cocoa crops has a buy-back system and assured market in the country. Here is the success story of a farmer from Thanjavur district who has adopted the cocoa as intercrop in coconut .

Mr.S. Dhanapal, S/o Mr. Somu of Silambavelankadu village, Pattukkottaitaluk, Thanjavur district has set himself as a role model for the cash-strapped farmers in the state, thanks to the synergistic integration of enterprises and optimum resource. However, support from CRS, Veppankulam, helped him to go for coconut based cropping system that enhanced productivity and profitatbility in relation to the farming system. Inspite of the discouragement of neighbouring farmers, he started intercropping of cocoa in his coconut garden during 2004 and at present he is happy with the performance and returns. He could get the information on pruning and training of cocoa through scientists of CPCRI and maintained the crop with recommended package of practice. After 5 to 6 years, gradually he noticed that the soil erosion was arrested and enhancement of soil fertility build up due to higher biomass generation from the system over time. According to him there was also reduced weed growth due to the smothering effects of intercrops and non exposure of soil to sun light. Due to more addition of organic matter into the soil, the microbial load and earth worm population also increased.In later days he observed that the incidence of disease also reduced and the loss of palms by wilt was almost negligible. It is found that cocoa is a remunerative crop as the cost of production is less compared to other crops. Even during the price crash of coconut, it served as insurance for his family. Ten to twelve years of his experience indicated that, the coconut nut yield in the intercropped garden is 135-150 nuts/palm/year compared to110-115nuts/palm/year in monocropping system. The net income obtained by coconut + cocoa intercropping is around Rs. 3 to 3.25 lakhs/ha/year whereas it was Rs1.75 to 2.0 lakhs ha/year in coconut monocrop depending upon the market price (2016-18 basis). Thus there was an additional income of Rs. 1.25 lakhs/ha/year due to intercropping cocoa and improvement in the soil health and reduction in the Ganoderma incidence.In addition to this he is growing bitter gourd and snake gourd in 250 sq. ft area in juvenile coconut garden and earns around Rs. 20,500/- per annum.

Growing of intercrops in coconut grdens produces more food and agricultural products, ensuring food security of the people in rural and urban areas. At the same time, the practice generates employment opportunities and livelihood, enhancing farm income and the purchasing power of people, thus alleviating poverty in farming communities. Moreover, successful farmers serve as inspiration and enterprise leaders in their communities, eventually treating coconut farming in an agribusiness way to create wealth and more capital resources.

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