Coconut farming can be remunerative –

'Kera Kesari' K. T. Francis

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'Coconut farming can be remunerative, provided we effectively integrate resource conserving cultivation practices and adopt integrated farming'- says Mr. K.T. Francis of Maruthonkara, Kozhikode District. The 'Kerakesari' award instituted by Department of Agriculture Development and Farmers' Welfare, Government of Kerala, for the best coconut farmer for the year 2018 was bagged by Mr. Francis.

Mr. Francis hails from an agricultural family, with his forefather's having migrated from Pala about 120 years ago to settle in Maruthonkara. He was employed as a physical education teacher in St. Mary's Higher Secondary School, Maruthonkara, Kozhikode, Kerala and after his retirement, he turned into a full time farmer.

Mr. Francis owns three acres of ancestral property in which he is adopting coconut based multiple cropping and integrated farming systems. He maintains about 200 coconut trees of which 150 palms are in bearing stage. Majority of the coconut palms belong to Kuttiyadi tall cultivar. Kerasree (hybrid variety), Malayan Yellow Dwarf and Gangabondam

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are the other varieties in his coconut garden. The farm is located in a sloppy terrain. Besides coconut, he is also cultivating nutmeg, cocoa, arecanut, banana, spices, tuber crops, fruit crops, medicinal plants, fodder grass etc. as intercrops. He has three local breed cows, 20 goats of Malabari breed and a vermicompost unit. A biogas plant is attached to his farm and slurry obtained from it is applied to coconut and other crops. He has a poultry farm wherein he maintains various types of fancy breeds, broiler breed, ducks, quail, layer breed etc. He has a fish tank with breeds of tilapia, gourami and guppies. He is also maintaining 70 honey bee colonies in his farm.

Earlier, one acre of his property was under rubber. But due to price decline in rubber, he has converted his one acre land of rubber plantation in to coconut farm. Coconut seedlings have been planted in pits of dimensions 2m width and 2m depth to which coir pith, along with dried cow dung powder, were applied at the time of planting. As a soil conservation measure, he has placed coconut husk in a concave mode in pits and covered it with soil and mulched with coconut leaves. According to him, this method of moisture conservation helps not only in good root establishment of coconut palms but also aids development of earthworms at the basins. The coconut basins are not opened up. He applies weeds and other farm wastes in coconut basins twice in a year.

Earlier, he used to apply chemical fertilizers in his farm which enhanced the yield of the palm in the initial years. However, he has been gradually reducing the chemical inputs over the years and presently he is mostly applying diverse types of organic inputs viz., poultry manure, coir pith compost, cow dung slurry, goat manure and fish tank sediments. The palms are regularly manured at bi-monthly intervals. Every year, during December, he applies 1 kg salt in coconut basins followed by 500 gm lime after 10-12 days. The basins are then irrigated and cowpea seeds are sown. This reduces the weed growth.

Irrigation is assured from a pond in the farm and sprinkler method of irrigation is followed. He is also maintaining 100 rain water pits and also rock and soil bunds for rainwater harvesting. At each harvest, three green coconut leaves are removed as Mr. Francis is of the opinion that this practice will provide more aeration facilitating mite control, early bearing, increased copra content in nuts etc.

Average yield of coconut palms in the system is 170 nuts per palm per year. He is getting 25000 nuts per year from his farm. Major portion of annual production is sold as seed nuts and seedlings. A small portion of the harvest is utilized for domestic purposes and remaining nuts are sold as ball copra and coconut oil. He has established a coconut nursery exclusively for Kuttiyadi ecotype, which is quite popular. He sells seedlings as polybag seedlings, seed nuts and sprouted nuts @ Rs. 125, Rs. 50 and Rs. 80 respectively. He has constructed a coconut storage house having capacity to store 20000 nuts at a time. The storage house was made using GI pipes and sheets, which facilitates drying of coconuts naturally and quickly. He is getting Rs. 25/- for ball copra.

Pepper is trailed on coconut and arecanut palms. About 125 nutmeg trees have also been planted as an intercrop among coconut palms. In addition, he has a good collection of fruit trees in his farm, comprising of passion fruit, various type of guava, West Indian cherry, mango, jack fruit, miracle fruit, red lady papaya, durian, orange, grapes, gooseberry, pineapple, rose apple etc. Vegetables (cowpea, bitter gourd, amaranthus, ladies finger, chilly, ivy gourd, bird's eye chilli, elephant foot yam, colocasia, tapioca etc.) are cultivated in rain shelter constructed on terrace and manured with cow dung and cow urine. About 15 cents of land is maintained with forest trees and fodder grass (Co3) is cultivated in one acre amongst coconut palms.

As a full time farmer, he is able to use family labour to a great extent. His wife is a retired teacher who helps him in the farm. In his farm, pest and disease incidence is very low in coconut and subsidiary crops





except quick wilt in pepper and mahali disease in arecanut. Against quick wilt of pepper he regularly applies Pseudomonas and spray 1% Bordeaux mixture as prophylactic measure before the onset of monsoon. Similarly areca palms are sprayed with 1% Bordeaux mixture as prophylactic measure against mahali disease.

Integration of various components:

In the three acres farm, Mr. Francis has effectively integrated various crops and subsidiary enterprises like poultry, fish farming, goat farming, vegetable cultivation etc in a systematic manner. Poultry and duck shed have been constructed over the fish tank and the poultry waste provides the feed support to fishes. He maintains quail shed over vermicompost tank and utilizes the area on the terrace of his house by cultivating vegetables in rain shelter. Bush pepper is raised in the bunds which helps in the establishment of pepper roots very quickly.

Returns: Annually, he earns a net income of Rs. 14-15 lakhs from his three acres of integrated farming system. Major source of income is from coconut (Rs. 8-9 lakhs) and the remaining income is generated through other crops and subsidiary enterprises.

Awards and recognition

Besides Kerakesari award for best coconut farmer in Kerala, Mr. Francis has received various awards/ recognition for his achievements in farming.

In 2015, he was selected as the best farmer in Maruthonkara panchayat and was selected by ATMA and has won the award for the best farmer adopting integrated farming system in Kozhikode district for the last three consecutive years. Thomas was awarded by Sarojini Damodhar Foundation, Bangalore as the best organic farmer in Kozhikode district during 2016-17 and as the best farmer of Kunnummal block for adopting integrated farming system. He is actively involved in the implementation of Haritha Keralam Mission project implemented by Kerala Government and is also a member in Regional Advisory Group of NABARD.

The success story of Mr. Francis clearly indicates that farming can be remunerative if we use the resources in an efficient and innovative manner and crop intensification and enterprise diversification is done scientifically.

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