Scope of Floriculture in Coconut Garden

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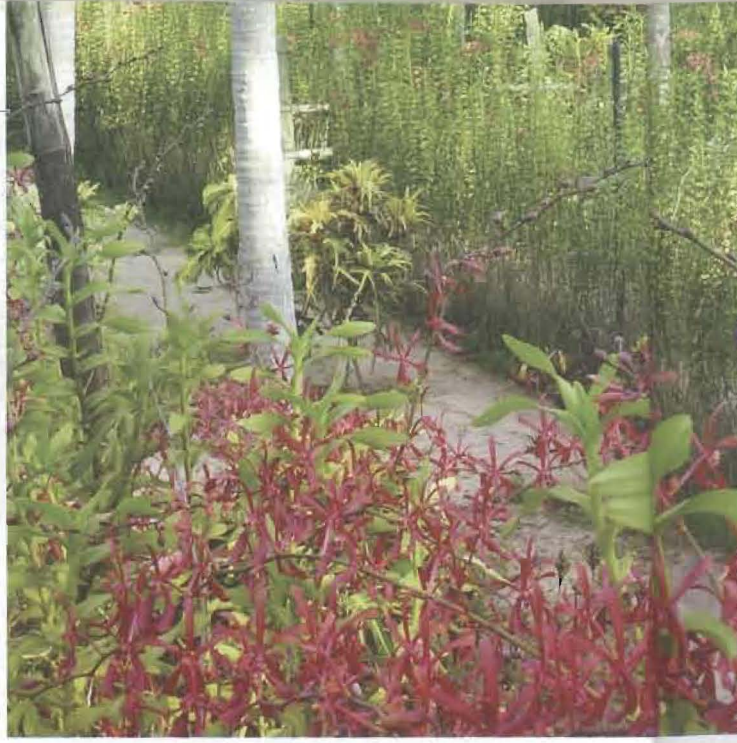
Coconut, the major crop of coastal environment is an ecosystem provider with potential for multiple income generating avenues. Unlike other plantation crops the wider spacing (7.5 m x 7.5 m) adopted during planting coupled with unique canopy and root system, coconut can accommodate a variety of intercrops and enterprises. This possibility is exploited by most of the progressive coconut farmers which resulted in evolvement of successful coconut based cropping system models. The practical innovations adopted by such farmers serve as models for up scaling by farming community. Floriculture is a blooming agribusiness venture which has a steady growth of 20% during the past two decades. The compound annual growth rate of cut flowers in India is 26.66% and our country has a share of only 0.6% in global floriculture. One of the major reasons for lower adoption of floriculture is non availability of land and higher cost of cultivation due to requirement of hi-tech farming. But through adopting wider spacing coconut plantations can become a good niche for many tropical ornamentals.

Kadinamkulam is a coastal panchayath in the outskirts of



Thiruvanthapuram, the capital city of Kerala. The residents of the area depend mainly on fishing and coconut based farming systems for their livelihood and nutritional security. The major soil type of the panchayath is coastal sandy loam which is very low in water holding capacity and organic matter content. Generally, flower crops come up well in organic rich soils with good drainage facility. But the experience and expertise of Mr. Vinoo Karthikeyan,owner of seaside farm of this locaity reveals that through adoption of refined agricultural practices even bare sun scorched sandy tract can be converted to a commercial cropping system enterprise. This farm throws light towards the scope of cultivating ornamentals in open field condition under coconut canopy. The land was a barren tract when it was procured by the veteran agriculturist Mr.Karthikeyan, father of Vinoo, around five decades ago. It was then deeply ploughed and planted with four hundred elite WCT palms at a wider spacing of 10 meters. Along with the planting of coconut seedlings, his passion towards floriculture prompted him to include exotic tropical ornamentals in the interspaces, even though there was little demand for ornamentals in the local market. He was very keen in adopting soil moisture conservation measures and also improved the top soil's health by adding red earth and humus. In two decades time his farm become a novel model for many coconut growers. Mr.Vinoo his youngest son, who is a photographer by profession, had a passion towards floriculture and was always a helping hand to his father. By the year 2000, Vinoo has fully taken over the charge of the farm from his aging father. Vinoo showed interest in extensively studying about the various prospectives of floriculture as an agribusiness venture. His frequent visits to the major floriculture hub of South East Asia helped him in equipping with the latest trends in the business. He also put effort in adopting recent horticultural techniques of these leading countries in his farm for producing quality ornamentals keeping the standards of his brand name; Seaside orchids. For his outstanding contributions he bagged Kerala state government's best horticulturist award in 2013.

Based on the light availability and drainage the entire farm is divided into different portions exclusively for orchids, ornamental zingeberales (heliconias, alpinias and costus), cut foliages etc and coconut palm basins are planted with ornamental ferns. The cost of cultivation is reduced to the maximum through complete recycling of the farm wastes from the coconut plantation.The coconuts from the garden are sold as dehusked nuts and the husks are utilized for planting orchids. According to Vinoo, growing orchids on coconut around its trunk is not ideal for commercial cultivation as there will be more risk in flower damage due to falling of nuts and fronds. In this garden, orchids are planted in four rows of equidistant trenches taken in between two rows of coconut palms leaving an area of two meters from the palm basin. The trenches (45 cm wide and 60 cm deep) are filled with three layers of coconut husks with the upper layer spread out in convex shape and the interspaces of the husk are filled with organic manure. Orchid kiekies (rooted stems) are inserted carefully into the filled trenches at a distance of 15 cm apart. Inflorescence length is the major criteria for fetching higher price in cut flowers. For this, the plants are trailed to a height of 7 to 8 feet (3.5 m) for encouraging production of longer inflorescences. Ornamental foliages such as Massangeana (Dracena massangeana) are planted in between the orchid trench which serves as trailing standards for orchids as well. The leaf of these plants also has good market demand fetching two to four rupees per foliage with an average production of 30 to 35 leaves per plant per year.

The flower from his farm is highly preferred by the dealers for the prescribed quality and fetches reasonable price. He had the previous experience of marketing Annie Black variety orchid for more than thirty years. According to him, Annie Black being an old commercial variety in Indian markets for more than fourty years, its market price has diminished

due to market glut. Anticipating this in 2007, he introduced a new Aranthera variety, Teacher Julian, from Thailand and multiplied the planting material in his own farm. Now he is growing more than five thousand plants in his farm with an average sale of 3000 flowers in a week at a price of Rs.60/- per inflorescence. The whole farm is now slowly shifting to this new variety which has huge market potential in near future.

The major constraint for starting floriculture based commercial farming is the non availability of quality planting materials and seasonal changes in flower demand. Continuous monitoring of the flower business trend in neighbouring countries helps Vinoo in selecting and shifting the plant varieties catering to the market demand. High cost of planting materials is tackled by importing limited number of planting materials following the quarantine rules and multiplying them in his production unit. For this, an import license is aquired for procuring exotic and rare ornamentals based on the anticipated market trend.

The plant selection is another major criterion which determines the success of an agribusiness venture. The novel plants should be tested on a pilot basis for its agro climatic suitability before introducing in a wider area. His advice is to select varieties which produce inflorescences with superior vase life and less susceptibility to pests and diseases.

The capacity to supply ornamentals throughout the year is the key towards victory of floriculture business. For this he has planted different varieties of tropical ornamentals which produce flowers in different seasons of the year. Apart from flowering plants he has given equal importance to exotic cut foliages as well. Harvesting and packing of inflorescences are to be done by experienced hands as damage to single inflorescence will result in the rejection of the whole box of flowers. Vinoo has employed a dozen of highly experienced farm labourers for doing the farm operations under his direct supervision. Orchids are packed in bunches of 10 numbers and ornamental zingeberales are individually packed after stripping off the lower leaves. Heliconias are packed after removing all the foliages where as the flower spike of Alpinias are wrapped with its top most foliages. Packing of these inflorescences requires larger boxes of more than one meter length demanding double freight charges while orchids can be packed in smaller boxes of less than one meter length. The flowers from this farm are marketed mainly to Mumbai and Delhi markets.

Coconut palms in his garden are highly benefitted by his intensive horticulture in the interspaces. Since flower crops are shallow rooted, it demands frequent irrigation and nutrition. In this farm he is not giving any separate manuring or irrigation to his palms. The palm basins are frequently irrigated for the moisture seeking ferns and the interspaces are mulched with coconut husks for planting orchids. Soil moisture conservation has great impact in the yield of coconuts. He is harvesting an average of 5000 nuts fourty five days interval from the palms. The approximate weight of

de-husked nuts from his farm is 750g.

The economy of sale in marketing of flowers and foliage is created through involvement of small group of women farmers interested in floriculture. The area of production is thus widened ensuring the supply of produces throughout the year. The planting materials and other crtical inputs are supplied to these farmers and the produces are taken back by Vinoo. They are paid on monthly basis based on the marketing season of the ornamentals. Many women farmers are approaching him, as this farming can be adopted as a hobby and part-time job fetching good remuneration. Mrs.Mary Elden is one among them cultivating the plants supplied by Vinoo for the past fifteen years. According to her the floriculture farm in her coconut based homestead serves as a horticulture therapy unit for her autistic son. He helps her in irrigating and manuring the plants which made lot of positive changes in her son's attitude and behavior. The systematic and wider spacing of main crop is one of the major reasons behind the success of Vinoo's coconut based cropping system. Scientific planning and passion towards floriculture make his agribusiness a promising endeavor for sustainable income. The long lasting vision, passion and endurance made him a successful floriculturist, weathering all odds and uncertainties. ■

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