



Entrepreneurial Skill in Farming Yields Striking Results

P.K. Thampan*

In the first year after commencing farming the farmer could harvest good banana bunches weighing on an average 30kg per bunch in robusta and 20kg per bunch in nendran. Similarly, good yields could be obtained from vegetable crops. From 0.06 ha under bitter gourd the average weekly yield from two harvests was 70kg fruits.

Shri. C. Hariharan, 'Chandralayam', Naduvathnagar - P.O., Arookutty Panchayat, Cherthala-688 559 is a 39 year old businessman. After graduation he got himself involved in the management of a printing press established by his father. After gaining experience in the profession he has started two offset presses at different locations. Subsequently, he took a diploma in graphic designing and photography, which was followed by the establishment of one multimedia training centre at Cherthala. Although engaged in business he had an intrinsic interest in farming from his childhood which he could translate in to practice as a profession only during the last four years. Hariharan, the businessman, has now transformed himself into a model farmer experimenting with innovative farming and in the process instilling in the minds of many educated youngsters in his locality the interest in and respect for farming as a viable profession.

Cropping Pattern and Production Technology

Before venturing into farming Hariharan visited model farms and research stations spread over the states of Kerala, Tamil Nadu and Karnataka to understand the modern

trends in crop production. After gaining experience from the field visits and interaction with technical experts he commenced his farming activity by converting his 0.3 ha homestead with 25 coconut palms in to a fruit and vegetable garden. Initially he has leveled the piece of land, got the soil tested, applied lime, cattle manure and green leaf manure, wetted the soil and waited for two weeks before introducing crops. The cropping pattern adopted was banana along the periphery and seven different vegetable crops each in distinct sub-plots marked out for the purpose. Integrated nutrient and pest management practices have been followed by the farmer with maximum reliance on organic sources of nutrients and organic pesticides.

The banana varieties Nendran and Robusta were planted in 0.75m cube pits spaced at 2m after giving a basal application of cattle manure, neem cake and bone meal. He has prepared a nutrient solution in 200 l capacity casks by mixing 25kg cow dung, 15kg glyricidia leaves, 5kg jaggery, 5kg groundnut cake, 50 l cattle urine and 50 l water. The casks are covered and kept for two weeks with stirring once or twice a day.

**President, Peekay Tree Crops Development Foundation, Gandhi Nagar, Kochi-682 020, E-Mail: pkthampan@yahoo.com*



After two weeks the nutrient solution is taken out in small quantities, diluted 8-10 times with water and poured in the basin of banana plants. This practice was continued fortnightly. In addition to this, each plant received 250 g muriate of potash and 100 g urea at monthly intervals. The plants were irrigated once in two days and also mulched in the basins with farm wastes and water weeds. Once in two months 200g neem cake was applied to each plant as a possible protection against common pests.

The farmer has adopted innovative methods for the cultivation of vegetables. To start with, he has mixed one tonne of cattle manure, 200kg neem cake and 15kg *Trichoderma* thoroughly with adequate water sprinkled during the process. The manure mass is then kept in heaps by covering with moist gunny bags for two weeks. After this period the heaps are opened and remixed by sprinkling water and again kept undisturbed for another week to facilitate further

decomposition. This manure was used for basal application prior to seeding or transplanting seedlings. About two weeks after germination of seeds or establishment of seedlings a foliar spray was given with a nutrient solution prepared by mixing 5g urea in one l of water. The usual manuring included weekly application of 200 g of vermicompost and the nutrient solution, mentioned in the previous para, to each plant. The plants received regular irrigation and also a weekly spray of pseudomonas.

For pest control, regular spraying with a decoction of neem oil, garlic and hot chilli at 10ml in one l of water was resorted to. At times of serious pest attack sevin at 5g in one l of water was sprayed after harvesting the available ripe vegetables. Occasionally sulphur fumigation underneath the trellis supporting bitter gourd crop was also practised to ward off some of the common pests. Another method adopted to control pests specific to

bitter gourd was the use of traps by hanging at different locations coconut shells containing mashed banana or tulsi (*Ocimum sanctum*) leaves and furadan granules. Against fungal diseases weekly spraying was given with 5g each of bavistin and ensophyl M-45 in 2 l of water. Mechanical methods on regular basis were also adopted to minimize the incidence of pests and diseases.

Yields Obtained and Marketing

In the first year after commencing farming the farmer could harvest good banana bunches weighing on an average 30kg per bunch in robusta and 20kg per bunch in nendran. Similarly, good yields could be obtained from vegetable crops. From 0.06 ha under bitter gourd the average weekly yield from two harvests was 70kg fruits. From garden peas planted in 0.06 ha the average weekly yield in three harvests was around 100kg. From 0.02 ha under ridge gourd the average weekly harvest was 35kg and from the same extent of area under koval the average weekly harvest was 20kg. Bringal and bhindi recorded an average weekly yield of 30kg from 0.04 ha. The weekly harvest of chilli from 0.012 ha was 25kg. From 0.008ha under tomato the total yield obtained was 160kg. The peak vegetable production lasted for about 45 days and after which it tapered. The farmer did not experience any difficulty in marketing the produce. The surplus production after meeting the household needs was sold to the Community Marketing Stall functioning in the Panchayat under the aegis of 'Arookutty Farmer's Club'. A group of enterprising farmers



Fig. 1. Homestead cropping unit



Fig. 2. The farmer takes pride of his banana bunch

comprising Mr. P.D. Joshy, Mr. M.S. Nasser, Mr. K. Bahuleyan, Mr. K.R. Rajan and Mr. V.A. Mohamed, representing the community, provides leadership to the Marketing Stall as well as the Farmer's Club.

Venturing into Commercial Agriculture

After gaining practical experience from homestead agriculture Hariharan has now ventured into commercial agriculture in association with selected rural youth possessing

skill and knowledge in farming. A group of three farmers led by Hariharan and comprising two other progressive farmers, M.S.Nasser and S. Arun, has arranged a leased land of 1.02 ha in the nearby Pallippuram Panchayat and planted 3,000 banana suckers under drip irrigation. The interspaces have been planted with cucumber, water melon and miscellaneous vegetables.

In the Arookutty Panchayat work has been initiated in consultation with

the Panchayat and Krishi Bhavan to plant 2,000 banana, root and tuber crops and vegetables in one ha of land. Recently an organization named as 'Green Farm' has been formed representing all the five Panchayats of the Thycattussery Block with the intention of dispensing vegetable farms in each Panchayat in an area of one ha. Already one farm has been established in the Chennam Pallippuram Panchayat and work has been commenced on similar lines in the Arookutty Panchayat. One central market outlet will also be established as part of the scheme to facilitate direct marketing of the produce without depending on middlemen traders. The members of Green Farm representing all the five Panchayats attend different training programmes and also visit major farms attached to Agricultural Departments and Universities in Kerala and adjacent States. In all these activities Hariharan and his associates receive technical guidance and support from Ms. Mary Sopna, the local Agricultural Officer.

Protected Cultivation

Hariharan has attended training in protected cultivation and visited



Fig. 3. Tomato crop



Fig. 4. Profusely yielding bitter gourd crop



Fig. 5. Extensive cultivation of banana under drip irrigation

farming units in Bangalore and other places to gain adequate knowledge on the technology. He is now putting up a green house on the extensive terrace of his residential building by using U.V. stabilized polyethylene sheet. Drip irrigation and fertigation are integral components of the cultivation system. The first crop he has selected for cultivation is capsicum and because of the protection from harmful U.V. rays and the feasibility of efficient micro-irrigation and plant protection it is possible to enhance

productivity 4-5 times that from the usual open cultivation. The initiative taken by Hariharan in this direction is attracting many enterprising farmers in the area of whom some have already received training in the technology.

Recognitions Received

The farming methods adopted and the achievements made by the enterprising farmer have received wider recognition. The Village Panchayat and the local Krishi

Bhavan have honoured Hariharan as the 'Best Farmer' of the Panchayat in 2010. The farming methods adopted in his garden and the striking achievements made have received excellent coverage in the major visual media of the State such as Kairali, Asianet, and Amrita. The regular visit to his farm by progressive farmers and departmental officers is itself a major recognition of the farming skills demonstrated by C. Hariharan.



Fig. 6. Venturing in to green house cultivation



Fig. 7. Conferring Best Farmer Award by the Panchayat President