

Enhancement of income and profitability of the gourd farmers in Kondayankuppam village of Thiruvannamalai district

A. Situation analysis / problem statement

The Kondaiyankuppam village in Vandavasi taluk of Thiruvannamalai district is known for gourds cultivation. The gourds viz., bitter gourd, snake gourd, ridge gourd, bottle gourd etc., are being cultivated in the village throughout the year. Total number of 155 farm families depend on gourds for their livelihood. An area of 205 acres is under gourds cultivation in the village. The major soil types of the village are red sandy loam and sandy clay loam. The farmers depend majorly on open wells for the irrigation. The village comes under the north eastern climatic zone.

However, the income, of the gourd farmers was not that much satisfactory in the village during previous years, due to fluctuation in yield level of gourds and increased cost of cultivation as a result of **problems mentioned here under:**

- Maleness
- Lack of micro nutrition
- Imbalanced nutrition
- Higher incidence of pests (fruit fly & sucking pests) and diseases (Powdery and downy mildew, viral diseases)
- Lack of adoption of improved production practices.
- Repeated use of own seeds of gourds.

B. Plan, implementation of activities and support by KVK

By seeing the intensive agrarian nature of the village, the KVK, Thiruvannamalai taken it as a prime village in implementing various activities for enhancing the income of the farmers especially gourd growers. The details of activities implemented by KVK are detailed hereunder step by step:

1. Formation of Farmers Clubs of Farmers Interest Groups

As an initial step, the gourd farmers are grouped as farmers club comprising lead farmers and Farmers Interest Groups covering almost all the gourd growers. Totally, one farmers club and 5 Farmers Interest Groups existing in the village. This was done in collaboration with NABARD and state department of horticulture in order to make the technology transfer easy for the benefit of farmers.



2. Conduction of training:

The on and off campus training programmes were conducted by KVK on various thematic areas mentioned below for the knowledge updation of gourd growers.

1. Integrated Crop Management
2. Integrated Plant Nutrition System
3. Foliar nutrition & growth regulators application
4. Integrated Pest and Disease Management
5. Post Harvest Management

Total number of eleven trainings programmes covering 201 farmers conducted in the village.

3. Conduction of Front Line Demonstration programmes

With a view to practically demonstrate the technologies in farmers fields it self, Three Front Line Demonstration programmes covering 30 farmers on Integrated Crop Management Technologies in three crops viz., Bitter gourd, snake gourd and ribbed gourd were conducted in the village,

The Important technologies demonstrated are:

- Sex regulation through ethrel application.
- Foliar nutrition with major emphasis on vegetable special (micro nutrient formaulation) application.
- Integrated Plant Nutrition System with major emphasis on fertigation, vermi composting and neem cake application as per the soil fertility status.
- Integrated Pest and Disease Management practices with major emphasis on fligh T pheromone traps usage for the mass trapping of fruitfly, usage of yellow, blue sticky traps pongamia & neem soaps for the control of sucking pests and there by viral diseases.
- Soil application of Trichoderma viride & microbial consortium for the disease control and yield improvement.



4. Organisation of exposure visits

In order to pave the way for direct interaction of gourd farmers with scientists and acquire knowledge, exposure visit were organized to Tamil Nadu Agricultural University, Coimbatore and Indian Institute of Horticultural Research (IIHR), Bengaluru. Total number of 29 farmers directly benefited.

5. Organisation of workshop and exhibitions

With a view to bring all the technology providers at a single point and create linkage with farmers, exhibitions and workshops on improved technologies have been organized on regular basis in which almost all the gourd growers have been taking part and acquiring knowledge.

6. Distribution of technical literatures

The technical literatures on improved technologies of gourds were distributed to farmers for the wide dissemination of technological information.

7. Field visits and Farm Advisory Services

The KVK scientists have made need based visits to Kondaiyankuppam village and the production problems of the farmers mainly the gourd farmers were addressed immediatly which resulted in reduction of unwanted production



expenses and higher crop yield and income.

C. Output

The gourd farmers under the technical support of KVK have adopted various improved technologies in gourds cultivation. As a result, the productivity and income levels have increased to the satisfactory level as detailed here under:

Crop		Yield (Q/ha)	Gross cost (Rs./ha)	Gross return (Rs./ha)	Net return (Rs./ha)	BC Ratio
Bitter gourd	Before Intervention	326.75	339445.00	655582.00	316137.00	1.93
	After Intervention	423.98	328195.00	906917.00	578722.00	2.76
Snake gourd	Before Intervention	339.35	299492.00	373285.00	123793.00	1.5
	After Intervention	417.27	244437.00	500702.00	256265.00	2.05
Ridge gourd	Before Intervention	342.65	166539.00	400871.00	234332.00	2.4
	After Intervention	428.20	162746.00	512467.00	349720.00	3.15

It has been assessed that the level of technological adoption has been 81% as per the surveys and group discussion conducted by the KVK.

D. Outcome

By seeing the economic benefits accrued by the gourd farmers of Kodayankuppam village, other farmers in adjacent villages have also started adopting the technologies disseminated by KVK, as a result, the technologies have spread to a significant extent in the locality and are being adopted by 225 farmers in 240 acres of land at present in the locality. It is one of the significant achievements of KVK.

E. Impact

The area under gourds has been increasing year by year in Vandavasi taluk of Thiruvannamalai district due to very good economic return in short period and close proximity of the location to one of the major markets of south India viz., Koyambedu vegetable market, Chennai. By seeing the interest of the farmers, the State Department of Agriculture and Horticulture have been supporting farmers in terms of supplying machineries viz., tractor, power tillers, weeders, drip irrigation systems under various schemes on subsidized rates. The use of organic inputs viz., vermi compost, neem cake, neem & pongamia soaps, pheromone traps, sticky traps are on increasing trend in the locality. The locality soon will become as a gourds hub of the district and contribute significantly GDP of the district.