



KARNATAKA VETERINARY, ANIMAL AND FISHERIES SCIENCES UNIVERSITY, BIDAR



WORK DONE REPORT

OF

**Navachetana Horticulture Farmer Producer
Company Ltd., Belthangady**



**ICAR- KRISHI VIGYAN KENDRA (D.K.),
MANGALURU – 575002
2019-20**

Navachetana Horticulture Farmer Producer Company Ltd., Belthangady

ICAR-Krishi Vigyan Kendra (KVK), Dakshina Kannada is engaged in dissemination of various extension programmes and innovative training programmes for the benefit of farmers in the district. Since inception, the KVK is organising technological assessments, demonstrations, trainings, exposure visits, workshops and conferences etc in all the seven taluks of Dakshina kannada district. As a part of its action plan for the year 2019-20, the KVK was assigned to undertake different technological dissemination activities with Navachetana Horticulture Farmer Producer Company Ltd., Belthangady Farmers Producer Organisation in Dakshina district during 2019-20.

Preamble

An effort is being made to mobilize the farmers into the groups under various programmes of the Department of Horticulture from 2012-13 onwards. Since then the farmers have been mobilized to work in groups from seed to marketing, adopting Good Management Practices (GMP) from production upto post harvest management.

In the context of 2014 being declared as “**Year of Farmer Producer Organizations (FPOs)**” by the Ministry of Agriculture, Government of India, greater attention was given to these emerging bodies.

The Department of Horticulture, Government of Karnataka under various programmes viz., RKVY, NHM and Sujala III, has initiated formation of FPO during the year 2014-15 with the support of FPO nodal agency Small Farmers Agribusiness Consortium (SFAC), New Delhi by mobilizing the Farmer Clusters already formed by the Department and other farmers into the larger groups of 1000 members to form a Farmer Producer Company under Companies Act 2013.

In this context Department of Horticulture, Dakshina Kannada, Government of Karnataka had provisioned the financial assistance to ICAR-Krishi Vigyan Kendra (KVK), Dakshina Kannada to organise various extension activities with Navachetana Horticulture Farmer Producer Organization.

The FPO was started during the year 2017 and was assigned to involve in implementing and achieving the following objectives.

1. To impart training and handholding assistance to FPOs for their development and evolution into effective enterprises working especially for economic benefit of smallholder members.
2. To become an institution of pre-eminence for research, learning and knowledge dissemination on Producer Enterprises in general and Farmer Producer Organizations in particular
3. To act as an think-tank for guiding policy and developmental interventions aimed at Producer Enterprises in general and Farmer Producer Organizations in particular
4. To demonstrate an effective institutional model that promotes economic sustainability and self-reliance while serving the cause of disadvantaged entities such as Producer Enterprises and small holders.
5. Promote partnerships between the government and civil society inclusive of various stakeholders of horticulture and allied sectors.

Navachetana Horticulture Farmers Producer Company Ltd, had been established during 2017-18 with fifteen members as Board of Director, Sri. Dugappa Gowda is the President.

The programme aims at **“Lowering the cost of production and opening up avenues for direct market linkages for higher returns to the farmers.** The **1000 farmers** within a 20 km radius of Kalleri are the members of Navachetana Horticulture Farmers Producer Company Ltd. Each of these farmers is engaged in areca nut Coconut and Pepper cultivation and have jackfruit trees growing naturally across their plantations. Besides providing the company with the produce, they have also invested Rs. 1,000 each as their share capital in the company.

In addition, also provides agro implements on hire to farmers such as Tractor, Arecanut Climbing Machine (2), Arecanut Peeler, Ladder, Power Cono Weeder, Digger, Power Triller, Power Sprayer with gun, Bush Cutter and tree cutter. The Karnataka

The FPO was assigned to take up Arecanut procurement and other Fruits and Vegetables for marketing linkage. Since from 2017-18 FPO is actively engaged in procurement of Arecanut and other Horticulture Produce for its member farmers.



Meeting with President and Vice President of Navachetana HFPCL at ICAR-KVK, DK on 01-08-2019 to implement the activities



Scientists interacting with President of Ningara HFPCL about the activities of FPO

A). FPO trainings, demonstrations and other activities organised

1. Demonstrations on good practices in plantation crops cultivation

Sl. No.	Crop	Village	Demos
1	ICM in Arecanut	Nayimar, Belthangady	1
2	ICM in Coconut	Mogru, Belthangady	1
3	ICM in Blackpepper	Mogru, Belthangady	1
4.	African Snail management	Uruvalu, Belthangady	1

2. Trainings on good practices in plantation crops cultivation

Sl. No	Title	Date	No. of participants	Place/Village
1	Mushroom Cultivation	19/01/2019	68	Kalleri, Belthangady
2	Scientific cultivation of Arecanut	22-08-2019	33	Kalleri, Belthangady
3	Scientific cultivation of Coconut	25-09-2019	33	Barya, Belthangady
4	Scientific cultivation of Black Pepper	03-10-2019	33	Kaniyoor, Belthangady
5	African Snail Management	14-08-2020	42	Uruvalu, Belthangady
6	African Snail Management	19-08-2020	41	Uruvalu, Belthangady

3. Group discussions and visits organised

Sl. No.	Title	Date	Place/Village	No. of Participants
1	Planning on technology backstopping for Navachetana FPO	01-08-2020	ICAR-KVK, (D.K.)	05
2	Group meeting with Navachetana FPO presidents & CEO about the on going activities of FPO	22-08-2020	Kalleri, Belthangady	09
3	Group meeting with Navachetana FPO presidents & CEO about Interstate tour	12-09-2019	ICAR-KVK, (D.K.)	12
4	Meeting with Navachetana FPO farmers regarding interstate study tour	10-10-2019	Kalleri, Belthangady	38
5	Navachetana FPO farmers regarding implementing demonstrations on ICM in Coconut, Arecanut and Blackpepper	26-05-2020	Kalleri, Belthangady	10



Arecanut cultivation training for Navachetana HFPCL at Kalleri, Belthangady on 22-08-2019



Coconut Cultivation training for Navachetana HFPCL members at Barya village on 25-09-2019



Blackpepper cultivation training for Navachetana HFPCL at Kaniyoor, Belthangady on 03-10-2019



Providing inputs for Navachetana FPO farmers for demonstrations on ICM in Coconut, Arecanut and Blackpepper

4. Exposure Interstate tour

The study tour was organised under the technical guidance of Dr. T. J. Ramesha, Senior Scientist & Head ICAR-KVK, Dakshina Kannada from 14-10-2019 to 19-10-2019 for 43 farmer members of the FPO.

The tour was led by Dr. Rashmi R. Scientist (Horticulture) of ICAR-KVK, Dakshina Kannada. Ms. Yashashree, Assistant, ICAR-KVK, Dakshina Kannada and Mr. Supreeth, Farm Facilitator, Dept. of Horticulture, Belthangady.

As a part of this programme, the team visited Solapur Agro Producer Company Ltd., Malkavathe, South Solapur, National Research Centre (NRC) for Pomegranate, Solapur, KVK at Barmati, Anna Hazare Model Village, Ralegan Siddhi, Sahyadri Farms, Mohadi, MPKV, Rahuri and UHS, Bagalkot to get acquaint with the activities.



Interstate exposure tour for Navachetana HFPCCL farmers from ICAR-KVK, DK, Mangalore to Maharashtra on 14-10-2019

1. ICAR-National Research Centre on Pomegranate, Solapur (Maharashtra)

Visited National Research Centre (NRC) for Pomegranate at Solapur on 15-10-2019. Mr. Dinakar Chowdary Extension officer explained about the activities and briefed about to the experiments carried out in the institute. He explained that the ICAR-National Research Centre on Pomegranate, Solapur (Maharashtra), was established on June 16, 2005 by the Indian Council of Agricultural Research, New Delhi, as a step to strengthen research and development infrastructure for pomegranate crop. Though Universities and institutes all over the world are having research programmes on pomegranate, this is the only institution working primely on pomegranate. The centre was established to fulfill the growing demand for pomegranate both in domestic and export market through tapping the immense production potential prevailing in the country.

He briefed about the importance of Pomegranate crop which is a high value crop. Entire tree of pomegranate is of great economic importance. Apart from its demand for fresh fruits and juice, the processed products like pomegranate wine, pomegranate tea and candy are also gaining importance in world trade. All parts of pomegranate tree have great therapeutic value and have high potentiality for their use in leather and dying industry. Demand in the international market has widened the scope for earning higher dividends from this crop. Profits upto 1.5 lakhs/ha/annum have been demonstrated by some growers.

It is an ideal crop for the sustainability of small holdings, as pomegranate is well suited to the topography and agro-climate of arid and semi-arid regions. In addition, it provides ample opportunity for livelihood security, as it has high potentials to utilize wastelands widely available in the region and an ideal crop for diversification. Moreover, it can make sizeable contribution to GDP with a small area. He also explained about the varieties developed by NRC 'Solapur-Lal' variety in comparison with ruling variety Bhagwa during the 3rd year of planting in *Mrig Bahar* recorded fifteen days early maturity, 3.4 t/ha higher yield over Bhagwa besides better fruit colour with bolder arils. High TSS (17° B), Anthocyanin and Vitamin C. evaluation of pomegranate under different training systems on 5th year of planting fruit set percent was highest under single stem (58.6%). The yield was highest in four stem training system (18.1 kg/plant).



**Visit to ICAR-National Research Centre on Pomegranate, Solapur (Maharashtra)
on 15-10-2019**

2. Krishi Vigyan Kendra (Farmers Science centre), Baramati

Krishi Vigyan Kendra (Farmers Science centre), Baramati was established on 1st August 1992 under the affiliation of ICAR. From 1992 to 2008, the operational area of KVK was entire Pune district, but after the establishment of new KVK in the Pune district, the operational area is reduced to the 7 tehsils of Pune district. Krishi Vigyan Kendra, Baramati is Model, Hi-tech & National Award winning KVK of India working for farming community since 24 years for the development of sustainable agriculture. The team Visited Krishi Vigyan Kendra (Farmers Science center), Baramati on 16-10-2019. Mr. Aslam Techninal Officer briefed about the major activities of institute with an video and field visits.

KVK has 53.9 acre farm land was maintained for various agricultural activities including an Indo-Dutch project on Centre of Excellence for Vegetables. KVK has facilities of a computerized irrigation & fertigation system is installed at the KVK farm. This includes a controller, computer, motor pump, fertigation machine, sand filter & disk filter, automatic back flush technique for cleaning sand filter and automatic valve on the field. This system is used for training & demonstration to the farmers. This system saves water, electricity & manpower.

KVK also had a facility of Bio control laboratory produces & provides different biological products such as bio fertilizers, bio pesticides on no profit & no loss basis. Plant Health Clinic - Farmers comes with pest affected plants & after identification of those affected plants eco- friendly advice is given.

The main purpose of the farm is to demonstrate the latest agricultural practices for farming community. It also acts as a tool to perform applied research on agricultural technologies & undertake trials before transferring to farmers. Farm have the mother plants of horticulture crops such as Mango, Sapota, Guava, Anola, custard apple, pomegranate etc. Agronomical crops like soybean, onion, cotton, rice, sugarcane and wheat etc are grown. In the year 2012, KVK has established Automation & Fertigation unit through which Water & fertilizers are provided to all crops on farm. The main advantages of hydroponics over soil culture are - more efficient nutrition regulation, availability in regions of the world having nonarable land, efficient use of water and fertilizers, ease and low cost of sterilization of the medium, and higher density planting, leading to increased yields per acre.

The KVK Intervention is cultivation and demonstration of vegetables like cabbage, spinach & lettuce, Strawberry and Vertical farming of strawberry. We visited the polyhouse for Gerbera flowers covering over 0.1ha area. Plastic lining six water storage tanks having capacity of 5.75 crore liters of water constructed for protective irrigation through micro irrigation is demonstrated at KVK farm. 5 hp solar power water lifting pump is installed over the pond. Further we visited centre of excellence on vegetables production facility with the use of highly advanced protected cultivation process and real time monitoring of each plant



Visit to KVK , Baramati by Navachetana HFPCL farmers on 16-10-2019



Visit to Krishi Vigyan Kendra (Farmers Science center), Baramati by Navachetana HFPCL farmers on 16-10-2019



Visit to Krishi Vigyan Kendra (Farmers Science center), Baramati by Navachetana HFPCL farmers on 16-10-2019

3. Ralegan Siddhi: A sustainable village model for the country

Ralegan Siddhi is a village in Parner taluka of Ahmednagar District, Maharashtra state in western India. It is located at a distance of 87 kms from Pune. The village has an area of 982.31 ha (1991).

It is considered a model of environmental conservation. The village has carried out programme like tree planting, terracing to reduce soil erosion and digging canals to retain rainwater. For energy, the village uses solar power, biogas (some generated from the community toilet) and a windmill. The project is heralded as a sustainable model of a village republic.

The team visited sustainable development model village Ralegan Siddhi, Ahmednagar on 16-10-2019. Mr. Satkar, Public Relations Officer explained about the people of Ralegan Siddhi who took their turn and maximized their involvement in community projects by investing thousands of hours in developmental activity. Further the ways and means how they are sustainable by adopting programme like tree planting, terracing to reduce soil erosion and digging canals to retain rainwater.

For energy, the village uses solar power, biogas (some generated from the community toilet) and a windmill. Further we met Mr. Annasaheb Hazare who not only transformed the village through his demonstration, but also empowered the villagers to lead the development. He had explained the importance of water conservation and planting of trees, this empowered the villagers to lead the development in agriculture and other activities.

Annasaheb Hazare had explained how he encouraged the villagers to donate their labour to repair the embankment. Once this was fixed, the seven wells below filled with water in the summer for the first time in memory. Now the village has water year round, as well as a grain bank, a milk bank, and a school. There is no longer any poverty.



Visit to Anna Hazare Museum by Navachetana HFPCL farmers at Ralegan Siddhi, Model village on 16-10-2019

4. Sahyadri farms, Mohadi, Nashik

The Team visited Sahyadri Farms, Mohadi, Nashik on 17-10-2019. The Public Relation Officer (PRO) Mr. Suresh explained by showing the movie of Sahyadri Farms activities and how it is helping farmers. Dr. Rashmi R. translated the information easily into Kannada to understand the farmers in more detail. Sahyadri farms one of the leading and capacity of 8000 farmers producers organization in Nashik, Maharashtra, India are a group of farmers that grow fruits & vegetables in on less than 1 Hectare of land.

He explained about the the idea behind the entire movement to buy all the Fruits & Vegetables produce offered by them under the food safety standards. The primary objective is to provide the best of infrastructure and adequate production and processing facilities to the farmers who could not secure a good produce due to frugality of resource and operations. The movement is to develop first of its kinds branded traceable product-mix that would promote sustained growth and that we could cater with the best to the Indian Consumers too, by offering them quality products at fair prices, to do so by achieving economies of scale and costs. This movement is driven on Farmer producer model that would play an ever increasing role in the

rural economy, providing gainful employment to large numbers of farmers and allied. A stakeholders structure, owned by farmers that would, with time, be the farmers “best friend”... and the intention was that the highest levels of consumer confidence would be reposed in the brand called Sahyadri...by ‘Seeding Goodness’.

Later we also visited DDU-GKVK Tata Strive Skill Development Mrs. Riya explained about the activities of the institute that Tata STRIVE is the skill development initiative of the Tata Community Initiatives Trust under the aegis of Tata Trusts, addressing the pressing need of skilling India’s youth for employment, entrepreneurship and community enterprise. It reaches to communities, develops skills of people from financially challenged backgrounds and acclimatizes them with the changing work environment.

The core philosophy of institute is to create courses that would help in creating and supplying trained manpower across the entire industrial spectrum as well as develop entrepreneurial talent.



**Visit to Sahyadri Farms, Mohadi, Nashik by Navachetana HFPCL farmers
on 17-10-2019**



Visit to DDU-GKVY Tata Strive training institute at Sahyadri Farms, Mohadi, Nashik by Navachetana HFPCL farmers on 17-10-2019



Visit to DDU-GKVY Tata Strive training institute at Sahyadri Farms, Mohadi, Nashik by Navachetana HFPCL farmers on 17-10-2019



**Visit to Devanadi Agricultural FPO, Sinnar, Nashik by Navachetana HFPCL farmers
on 17-10-2019**



**Visit to Devanadi Agricultural FPO, Sinnar, Nashik by Navachetana HFPCL farmers
on 17-10-2019**

5. Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri

The team of farmers along with scientists visited Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri, Ahmednagar on 18-10-2019. MPKV, Rahuri was established in the year 1968.

The main objective of university is by innovative research and Lab to Land extension of innovations leading to second Green Revolution. Extension technical officers of the Department made arrangements to accompany to exhibition hall where various products developed by MPKV, Further we visited to university nursery Scientist(Fruit Science) explained about the grafting method in fruit crops such as Pomegranate, Custard Apple, Mango, Lemon, Orange and Sapota.

Further, we all visited demonstration plots of vegetables such as of onion, garlic, brinjal, (Pule Vimukuta, etc) Scientist (Vegetable Science) explained about the varieties developed by Department of Horticulture, MPKV and also visited Crop improvement units, crossing techniques and germplasm collection units.



Visit to ATIC at MPKV, Rahuri by Navachetana HFPCL farmers on 18-10-2019



**Visit to ATIC, Director of Extension, MPKV, Rahuri by Navachetana HFPCL farmers
on 18-10-2019**



**Visit to Fruit Science Dept. at MPKV, Rahuri by Navachetana HFPCL farmers
on 18-10-2019**



Visit to Horticulture Nursery unit at MPKV, Rahuri by Navachetana HFPCL farmers on 18-10-2019

6. University of Horticultural Sciences, Bagalkot

The team visited University of Horticultural Sciences, Bagalkot, Karnataka on 19-10-2019. Dr. Y.K. Kotikal, Director of Extension, explained briefly about the importance of Horticulture crops with special reference to coastal region, the suitability, selection of crops and use of water conservation by using drip irrigation techniques to improve crop yield, further explained the important activities of university and varieties developed by institute in various regions of Karnataka, He also advised farmers to visit Horticulture college, Kolar to know about jackfruit germplasm and various value added products prepared from Jackfruit.



Visit to UHS, Bagalkot by Navachetana HFPCL farmers on 19-10-2019



Visit to Hi-tech Horticulture unit at UAS, Dharwad by Navachetana HFPCL farmers on 19-10-2019

**Lists of Farmers participated in interstate exposure tour
(14-10-2019 to 19-10-2019 for 06 days)**

Sl. No	Name of the farmer	Contact No.	Address	Aadhar No.
1.	P Duggappa Gowda	9880799160	S/o Shivappa gowda, Harikrupa Posandodi	526747311009
2.	Vincent Braggs	8951532116	S/o Valerian Brags, Enmadi House	497866404623
3.	Naveen Braggs	9632656542	S/o Valerian Braggs, Enmadi House	378545468919
4.	Purandara N	9483907157	S/o Lokayya Gowda, Pushpa Nilaya Nayimar	504502075982
5.	Lohith H	9902178472	S/o Honappa Gowda Sonakumar house Bandar.	258548116291
6.	Yogish Noojile	9448445831	S/o Haridas Acharya, Noojile	746514044684
7.	Karthik	9741736107	S/o H.Gopala krishnayya Shri Gurukripa House Putthil	328832358900
8.	Krishnappa Gowda	8762238271	S/o Subraya Bhat, Kailaru House	936663096300
9.	Abbas	9008990634	S/o Ibrahim,Enmadi House	468140161038
10.	Kanthappa Gowda	9535432271	S/o Koragappa gowda, Alekki house	347823967308
11.	Umana Gowda	9900753146	S/o Annu Gowda, Parnda House	362870056789
12.	Suresh H L	9449331781	S/o Lakshmana Naika, Haleji House	941897171119
13.	Nemanna Madivala	8762636748	S/o Mundappa Madivala ,Pelathodi House	428098694319
14.	Vinayachandra	9972762733	S/o Nagappa Gowda, Barungudelu House	335065082745
15.	Krishnappa kumbara	9483352290	S/o Kanthappa Kumbaram, Shri Ramnagara House	292887980502
16.	Purandara Gowda M	9481388146	S/o Medappa gowda, Munkude house	394611955400
17.	Sushruth Bhat G K	9480326278	Varalakshmi nilaya Uruvalu	5048 80497766
18.	Ramanna Gowda	9449268656	S/o Taniyappa gowda, Ermala	980853946291
19.	Naabiraja Jain	9449594877	S/o Bhujabali Hegde, Marama House,	518622033378

1.	Shridhara gowda P	8277430048	S/o Shivappa Gowda, Posandodi House	490792804677
2.	Prabhakara Bhat	9449467876	S/o B Ganapathi Bhat, Cinchana Kudradka House	955552592095
3.	Janardhana Gowda	9972732642	S/o Thaniyappa Gowda, Nakalu House	533045911349
4.	Chandrashekara M	7760641662	S/o Manjappa gowda, Mugeradka house	903457396124
5.	Deekayya Gowda	9901290576	S/o Gummanna Gowda, Kancharottu House	836646792034
6.	Thimmayya Gowda	9980078825	S/o Rukmayya Gowda Padmunja House	823269711803
7.	John Pinto	9902178753	S/o Devid Pinto, Bannengala House	341841927343
8.	Kunya	9611308933	S/o Ammu Nalke, Mithila House	538641594690
9.	Jithesh Jain	9483905474	S/o Yavaraja Aajra, Andenja House	330174093659
10.	Durgoji Rao	9448279976	S/o Maloji rao Nanya house	350370986542
11.	Chandrakantha	9741509609	S/o Narayana Rao, Malengallu House	9942 98374083
12.	Salvadar Fernandis	8496867534	S/o Piyadi Fernadies, Bannengala House	514508770669
13.	Rathnakara Rao	9741055992	S/o K Shrinivas Rao, Haralike House	257666619902
14.	Narayana Gowda	9482283245	S/o Subbanna Gowda,Kumerujava House	871554338985
15.	Dharnappa Gowda	9740546167	S/o Appu Gowda, Andila House	366211081492
16.	Babu Gowda	9449052455	Shri Sampathu Mugeradka house	749100333504
17.	JosepD Souza	9972989556	S/o Mouris D.souza, Enmadi House, Ilanthila	884082660097
18.	Monappa Gowda	9008658604	S/o Koragappa gowda, Nelligeru house	706691712937
19.	Prashanth	9901648620	S/o Poovappa Gowda, Urmbitthimaru house,	734992696634
20.	Mrs. Shaila Yogish	9632656543	W/o Yogish Bhat Noojile House	346376794468
21.	Mrs. Sheelavathi	9741482665	W/o Babu gowda, Sampathu Mugeradka house	217361736063

1.	Mrs. Jajivi	9880799160	W/o Duggappa gowda, Harikrupa house	636701556575
2.	Mrs. Keshavathi	9482096504	W/o Narayana Poojary Paledu House	
Staff				
3.	Dr. Rashmi R.	8088131431	Scientist (Horticulture) ICAR-Krishi Vigyan Kendra Mangalore	279647050493
4.	Ms. Yashashree	8867579641	Assistant ICAR-Krishi Vigyan Kendra Mangalore	779200488363
5.	Mr. Supreeth Kumar	7022436029	Field Assistant Department of Horticulture SADH office Belthangady	660831234868

