SUCCESS SAGAS OF ENTERPRISING SOUTH INDIAN FARMERS (2022-23)

Compiled by

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Documented by
Officials of Department of Agriculture and allied sectors,
South Indian states and Union territories

FOREWORD

Farmers are the only community in India who serve from farms to the table. Earlier farmers relied completely on better crop production. But now, in this modern age, farmers are upgrading and giving themselves a chance to make their farming a business.

This book encapsulates various success stories of progressive farmers who succeeded by adopting latest agricultural, farm machinery, animal husbandry technologies etc.

These success stories are truly the stories of innovators in farming who are making a difference in industry starting with their own operations. From the success details narrated in this book, I am sure that other farmers get motivated and work towards doubling the farmers income.

Further these success stories would go a long way to encourage enterprising farmers all over India to follow the successful practices and attain higher yields.

I congratulate the EEI, Hyderabad team who made this publication see the light of the day and appeal all readers to spread the word of success in the farming community.

Dr. V. Sudharani
Director of Extension
PJTSAU

PREFACE

Extension Education Institute (EEI), Hyderabad is striving relentlessly to empower and enlighten the farming community of Southern India including Union Territories of Andaman and Nicobar Islands, Puducherry and Lakshadweep by building the capacities of middle level extension officials of departments of agriculture, animal husbandry, horticulture, fisheries, sericulture, dairy development, agriculture engineering, forestry, soil and water conservation etc.

Inspite of many challenges faced in farming, the farmers are accruing the benefit with the application of many technologies in agri and allied activities. These farmers act as ambassadors to share and disseminate the best management technology practices among rest of the farming community. The success stories documented on any innovative activity speaks about the richness of interventions, which facilitates to impress the farmers, who are not in touch with the mainstream advisory system.

The present publication voice the outstanding and inspirational contributions of farmers in the fields of agriculture, horticulture, apiculture, fisheries, agriculture engineering, animal husbandry and sericulture. These success stories definitely inspire and motivate several fellow farmers to become enterprising in their own sector.

Dr. M. Jagan Mohan Reddy
Director, EEI
Hyderabad

INDEX

Farmers reaping Bounty from GULI method of Finger millet cultivation

Documented by
Dr. S. Kiran, Executive Director, VIKASA NGO, Visakhapatnam

Name of the Farmer	:	Tangula Jinnu and another 4000 tribal farmers
Address and contact details	:	Araku Valley and Dumbriguda mandals
Sources of information	:	VIKASA NGO, NABARD, Department of Agriculture, Government of Andhra Pradesh
Inputs	:	200 lt/acre of Jeevamrutam. Wooden plank, Cycle weeder, bullock drawn Danti

Steps followed in implementing the successful event:

Visakhapatnam district is predominantly a tribal area and 49% of its geographic area is under forest cover. Out of the total 43 mandals, 11 mandals are under tribal area (25% of the mandals). The major food crops in the tribal area is finger millet and paddy followed by other minor millets viz Little millet and Foxtail millet.

Almost all the tribal farmers cultivate finger millet and consume it either in the liquid form (*locally called as ambali)* or prepare a sweet dish called *thopa*. Predominantly there are two kinds of varieties found in Finger millet- the long duration type (*peddachodi*) and short duration type (*dasarachodi*). Both Short duration and long duration types are sown with the onset of early monsoons in April /May or June respectively; the short duration type is harvested in August / September and the long duration type is harvested in the month of November / December. The usual productivity of the conventional methods of cultivation is about 4 to 6 quintals per acre.

Critical Issues in Finger millet (Ragi) cultivation

- Low productivity of finger millet (4 to 6 quintals per acre)
- Labour shortage for timely weeding

Generally, the long duration finger millet is either broadcasted or transplanted. Earlier almost equal proportions of both the methods of cultivation were in vogue, but of late with the shortage of labour, most of the farmers are resorting to the transplanting as this they face less weed problem with the transplanted finger millet cultivation. In the broadcast field, they need to take up weeding which requires 10 to 15 persons for a single weeding operation which takes about one or two days.

In order to improve the productivity of the finger millet crop, VIKASA, NGO under the leadership of Dr. S. Kiran, Executive Director and with the financial support from NABARD has introduced improved varieties viz., Sri Chaitanya, Bharati, Hima and VR 900 and popularized among the 4000 tribal farmers in Araku Valley and Dumbriguda mandals. These varieties improved the yields to the extent of 6 to 8 quintals per acre.

As part of Comprehensive Millets Revival Programme, VIKASA has been working on the issues of enhancing the millet production, productivity, consumption and value addition aspects in Dumbriguda Mandal. In order to enhance the productivity through agronomic improvements, VIKASA has organized trainings to tribal farmers on the

Cultivation of Finger millet crop using GULI method of cultivation. GULI is a traditional cultivation practice in vogue in the rainfed Southern Karnataka and is a proven method of cultivation to enhance the productivity of finger millet.

GULI method of cultivation is similar to System of Rice Intensification, but it is completely grown under rainfed conditions. Young seedlings of 10 to 15 days old are planted using a wider interrow spacing of about 1 -1.5 ft. depending on the quality of the soil. Inter-cultivation operation by drawing a wooden plank over the young seedlings is done to give a physiological stress on the plants at the root-shoot junction, resulting in producing large number of tillers by the plant. In order to supplement this large number of tillers, 200 lt of Jeevamrutam is applied per acre of the field. This is applied after drawing the wooden plant and weeding using either Cycle

weeder or a bullock drawn Danti (Danti is a blade harrow) when pulled with a pair of bullocks, the weeds in the inter row space are cut / pulled out and earth is loosen up to aeration to the root zone as well as aid in healthy rooting of the tillers. Drawing wooden plank is practiced once in 15 days from 20 Days after transplanting, and followed by application of Jeevamurtam. These two practices help in deep penetration of the roots, earthing up the land between rows by removing the weeds, and in nutritional supplementation to the tillers to produce healthy panicles.

VIKASA invited experienced GULI farmers Sri Jayappa from Karnataka and Sri Jacob from Chhattisgarh, to organize trainings to farmers as well as the field staff to promote this method of cultivation. 39 farmers came forward to lay the demonstration plots for implementing this new method of cultivation.

In order to reduce the time and address the labour shortage issue taking up timely weeding operations, a bullock drawn DANTI was promoted with the help of Lead Technical Agency WASSAN. Usually farmers resort to hand weeding employing the labour. This is a time consuming and well as expensive process costing not less than ₹3000/- per acre in a season. By using the Danti, a farmer can complete the weeding in one acre of field in half a day, thus saving lot of time, addressing the labour problem. Besides, the timely weeding helps in avoiding the competition for soil nutrients between crop and weeds. Alongside the weeding, soil earthing up is also done to help the main crop to healthy and deeper rooting.

Seeing is believing.....

Based on the field response and suggestions from the resource person Jacob, 10 exposure visits were organized to the prospective farmers who were showing keen interest in following this method of cultivation. The farmers interacted with the Demo farmers and as to ease of doing this new method of cultivation. Around 175 farmers visited the two Demo plots in Badimela and Karabali villages in Dumbriguda Mandal.

Besides farmers, Scientists from ICAR, Agricultural Research Station, Local Agricultural Officer and Local MLA visited the GULI plot in Badimela.

Araku MLA visits GULI plot in Badimela Village

Scientists from ICAR and ARS Vizianagaram visited GULI demo plot in Badimela

Farmers showing the tillers per hill from Guli plot

MAO and MPEOs visiting GULI demo plot in Badimela village

During the season, Mr Jacob, one of the resource persons, visited the crop and offered the following suggestions

- *Minimum three weedings at 10 days interval are required*
- *Application of Jeevamrutham 3 times in the crop period, after each weeding will improve productivity*
- *Wooden log should be drawn over the crop after weeding and before applying Jeevamrutam*
- *Spacing should be based on soil type. A good soil requires one and half feet spacing and average soil requires at least one foot spacing.*
- *Advised to go for 5x5m crop cutting in the presence of scientists from KVK, Departmental staff and farmers*
- *Advised to promote local short duration variety in Korrachodi / Dasara chodi for Rabi season*
- *Advised to conduct cross visits and exposure visits to farmers to create awareness among the farmers about the concept of new method and to propagate the crop in more area*

Untapped Yield Potential from tribal areas of North Coastal Andhra Pradesh

The results obtained from the two crop cutting experiments conducted on 4th and 6th November 2017 in Karabali and Badimela villages were quite encouraging and offer a great potential to promote this method of cultivation in the tribal mandals of Visakhapatnam. The first crop cutting Experiment conducted in Karabali was attended by the Mandal Agricultural Officer. The crop was randomly marked for 5 X 5 square meters of area. From this marked area, the panicles were cut, threshed and arrived at the estimated yield from the acre of plot. The two Crop cutting experiments conducted estimated the average yield as 16 and 25.2 quintals respectively. This is definitely a great leap forward as far as the yield levels of the conventional methods of cultivation.

GULI method of cultivation offers a great potential for scaling-up, to reach large number of farmers for achieving the higher returns from the same piece of land without using any inorganic inputs like fertilizers and pesticides.

By promoting GULI method of cultivation, the yields can be easily doubled in the finger millet cultivation in North coastal Andhra Pradesh. Encouraging farmers to use the bullock drawn DANTI for intercultivation / weeding, labour problem for taking up timely weeding operations be easily addressed. Thus this method of cultivation offers solutions to both the critical issues faced by the farming community in the North coastal Andhra Pradesh.

Five Key interventions in GULI method of cultivation

S no	Intervention	Remarks
1	Transplanting of the 10 to 15 days old seedling in the main field	Young age seedlings quickly recover from the transplanting shock
2	Transplanting is to be done with 1 foot to one and half feet distance between the lines	Wider spacing allows the tillers to grow healthily.
3	Trampling of the seedlings with a bullock drawn wooden plant two to three times (15 Days after transplanting, 30 Days after transplanting and 45 Days after transplanting)	This transplanting induces physiological stress situation and aids in heavy tillering
4	Use of DANTI- a bullock drawn implement to harrow the field and uproot the weeds. Three weedings with Danti are advised	This has drastically reduced the number of person days of work on weeding from 15 to just half a day, with the bullock drawn DANTI. This not only saved money but also reduced the competition from weeds during the crop growth stage
5	Application of Jeevamrutam to main field after each weeding (total 3 times after three weedings)	Heavy tillering requires good nutritional supplementation to produce productive tillers

Comparision between conventional and GULI methods of Cultivation

S no	Parameter	Conventional method of cultivation	Management practices adopted by V Dharma, Karabali village	Management practices adopted by Jinnu, Badimela village
1	Nursery preparation	500 kg FYM applied to nursery field	Applied 100 kg of FYM	Applied 500 Kg of FYM
2	FYM to Main field	Applied depending upon availability	Applied 1000 kg FYM to main field	Applied 1500 kg FYM
3	Variety	Peddachodi	Peddachodi	Peddachodi
4	Sowing	Farmers either broadcast or transplant the seedlings	Transplanted 17 days old age seedlings	Transplanted at the age of 14 days old seedlings
5	Weeding	Done once or twice between 35 days to 70 days after sowing	Total two weedings done with cycle weeder	Two times with cycle weeder and third time with bullock drawn Danti
6	Nutritional supplementation	Not applied. Few farmers apply DAP or Urea 50/acre	Applied Jeevamrutam @ 200lt per acre after the second weeding – only once	Applied 400lt Jeevamrutam two times- after second weeding and after third weeding @ 200lt per acre, each time
7	Pulling the wooden log over standing crop	Not practiced	Two times – 21 days after sowing and 35 days after sowing	Two times
8	Plant height	85 to 95 cm	115 cm	122 cm

S no	Parameter	Conventional method of cultivation	Management practices adopted by V Dharma, Karabali village	Management practices adopted by Jinnu, Badimela village
9	Stem thickness	Lean to medium	Thick	Thick
10	Average no of tillers per hill	5- 7 tillers	16 to 25 tillers per hill	**29 to 47 tillers per hill**
11	Panicle length	4-6 cm	7 cm	**13 cm**
12	No of fingers per panicle	6-7	9	9

Cost Economics

S no	Parameter	Conventional method of cultivation	Management practices adopted by V Dharma, Karabali village	Management practices adopted by Jinnu, Badimela village
1	Yield /acre	4 to 6 quintals	16 quintals	**25.2 quintals**
2	Cost of Cultivation/ acre	₹6,450/-	₹3096/-	**₹4,706/-**
3	Cost of production /kg	₹12.90/-	₹2.45/-	**₹1.90/-**

Voices from the field: (TangulaJinnu, one of the Demo plot owners)

- Previously, I used 4 kg of seed per acre, whereas in Guli method 300 grams seed was sufficient for one acre, saving 3.70 Kg seed worth of Rs.92/-
- Sometimes, I used to apply DAP bag costs Rs. 1300 for one acre of Ragi, now I am able to manage with Jeevamrutham for which I spend Rs. 400. It saved me Rs. 900 per acre
- Normally, for weeding I used to spend Rs. 3000 for 15 persons for one acre. With Danthi, I am able to complete the same task with one person and pair of bullocks in 3 hours which costs Rs.350/- . Saving for one time weeding is Rs. 2650, for 2 times weeding in crop period saves an amount of Rs.5300/-
- I saved an amount of Rs 6292/ per acre even while growing the crop in this method. This is in addition to the extra yield I would get from the crop.

- The yield estimate from my field is 25 quintals / acre crop which is 19 quintals more than normal yield when compared with previous practice. It translates to Rs 38000/ acre if one quintal is sold @ 2000
- I am expecting a net benefit of 44,292/- (savings + additional crop yield) extra this year because of new method of cultivation and new implements thanks to VIKASA for bringing this method to our village.

Dr. R. Vasantha, Professor, EEI, Hyderabad

Millets pave the way towards prosperity

Submitted by
Officials of Department of Agriculture, Karnataka

Farmer name : V Yaradakere

Address : Singatagere Hobli , Kadurtq . Chikkamangalore dist, 200/2P2

Inputs used : Local ragi variety (ML-365) Seeds, Micronutrients, Azadiractin, Carbendazim.

Sources of information : Extension staff of the Department of Agriculture, chikmangalore.

Steps followed in attaining success:

The farmer availed Ragi ML- 365 Seeds, PROM, Azadirachtin, and Carbendazim under NFSM scheme and cultivated local ragi variety in rainfed red soils, earlier he used to cultivate maize in the same soils. He has undergone four stage wise training programs given by the department and visited many ragi fields during training. He followed soil test based fertilizer recommendation, line sowing, use of micro nutrients, pesticides and machine harvesting. This technology helped the farmer to get good yield and profits.

Cost Economics:

S.no	Items of comparision	New method	Check plot
1	Cost of Cultivation	Rs.28000	Rs.25000
2	Yield	24 q	22q
3	Market rate	Rs.3295/q	Rs. 3295/q
4	Gross returns	Rs. 79080	Rs. 72490
5	Net income	Rs. 51080	Rs. 47490

Development stage- 1

Flowering stage

Before harvest/ pod filling stage

Dr A. Sailaja, Professor, EEI, Hyderabad

Protection of Biodiversity in Paddy

Submitted by
Officials of Department of Agriculture, Puducherry

Farmer Name : M. Baskar

Address & Phone no. : 127, kanchipuram kovilpathu, Melakasakudy (Po), Karaikal District, Pincode-609603, Ph. 9443573530

Inputs used : Traditional Paddy varieties, Organic inputs such as Panchakavaya, Amirtha Karaisal, Meen Amilam, 5 Leaves extract etc.

Sources of Information : ATMA & Agricultural Dept., Karaikal, KVK and Pandit Jawaharlal Nehru college of Agriculture and Research Institute (PAJANCOA & RI) Karaikal

Steps followed in attaining Success :

Initially, ATMA wing of Agriculture Department, Karaikal has motivated the farmer towards organic farming. Later the farmer has travelled to places like Thanjavur, Vriddachalam, Puducherry, Cuddalore and Thiruthuraippondi and bought traditional paddy seeds from farmers with the objective to increase the popularity of organically cultivated traditional paddy varieties among Karaikal farmers. Moreover, He has attended many farm fests and rice festivals across Puducherry and Tamil Nadu. In the year 2018, he planted 25 nos. of traditional varieties on his field, then he has cultivated 110 nos. of traditional paddy varieties in an area of five acres in the year 2019 by collecting seeds from Tamil Nadu and other parts of Puducherry with the help of his friends.

Marketing; Farmer directly sells traditional rice and value added products such as Puttu flour, health mixes to friends, shops and people who approach him through whatsapp without intermediaries.

Special efforts made by the farmers for successful implementation of Technology The farmer has created a record by cultivating 110 varieties of traditional varieties on a small land first of its kind in the Karaikal region. Currently he has sown 300 traditional paddy varieties with an interest to have them all conserved. He traveled to many places for collection of indigenous seeds and taken much care to conserve the germplasm.

Cost Economics:

Yield	1440 Kgs/acre
Cost incurred	Rs.20,000
Gross returns	Rs. 1,00,800
Profit	Rs 80,800

Benefits of Technology: Every year farmer is gradually increasing the area under the cultivation of new traditional varieties in organic farming. Each year, the income of the farmer has been increasing gradually. Appreciating his efforts, the Agriculture Department, Karaikal organized a field day programme cum exhibition at his field in the year 2020. Wherein, more than 500 farmers, officials from Puducherry U.T and Tamil Nadu and students from Schools & Colleges of Karaikal District visited his field and Hon'ble Minister for Agriculture, Local MLAs, District collector and Officials of the Department of Agriculture, KVK, Agricultural colleges appreciated the efforts taken by the farmers. The farmer has cultivated diverse and rare collection of traditional paddy varieties in the same field, of which some varieties are under threat of extinction.

Spread of Technology : Farmers from Puducherry and Tamil Nadu who are interested in organic farming and conservation of traditional paddy varieties regularly visit his field. The farmer provides trainings and demonstrations to the agriculture students. The farmer's technology is being broadcasted often by All India Radio, Karaikal.

Farmer message to entrepreneurs He emphasizes that in order to create a disease free society we must preserve the traditional varieties and cultivate in harmony with nature.

Awards/ Recognition Best farmer award in the field day programme conducted by the Department of Agriculture, Karaikal.

Mr. Baskar S/o Muthupillai

Visit by the District Collector- Cum-Chairman, ATMA, Karaikal *(Third from left)* **&** *The Additional Director of Agriculture – Cum- Project Director, ATMA, Karaikal* *(First from left)*

Visit by the students of Agriculture college (PAJANCOA & RI, Karaikal) in the field day programme conducted by ATMA, Karaikal

Dr. R. Vasantha, Professor, EEI, Hyderabad

Success saga of father & son duo in Integrated Farming System

Submitted by
Officials of Department of Agriculture, Puducherry

Farmer name	:	Claudebede, S/o Anthonisamy
Address	:	No. 21, Adaikalapuram, Nallathur, Nedungadu (Po), Karaikal (Dt), Puducherry, Pincode-609603, Ph. 7598841574
Inputs used	:	Seeds, organic inputs (FYM, Vermicompost, and poultry manure)
Sources of information	:	Farmer is in constant touch with the officials of District Agriculture Department, Agricultural Technology Management Agency (ATMA), Karaikal and ICAR-Krishi Vigyan Kendra, Madur for getting guidance from time to time.

Steps followed in attaining success:

To overcome the problems of mono cropping and to maintain sustainability, profitability and to generate income throughout the year, the farmer had started rabbit farming and then gradually he changed the farm in to an integrated farm under the RKVY project "Integrated farming system by availing 50% subsidy.

Mr. Claudebede, 64 year old farmer along with his son Mr. Donald Wilfred, 28 year old who is a B.Tech graduate is looking out the farm. The farmer was cultivating only paddy for long time. He faced lot of challenges and constraints as the irrigation water available for cultivation is a big question due to vagaries of monsoon and non-release of Cauvery water in time. The labour scarcity during the peak agricultural season has an adverse effect on the agricultural operations. Situated in the coastal area, Karaikal is frequently affected by natural calamities. The increasing cost of agricultural inputs such as seeds, fertilizers, pesticides etc. and the non remunerative prices for the agricultural produce are other bottlenecks faced by the farmer.

He possesses 2 acre of land, out of which one acre is under paddy cultivation and one acre is under integrated farming system comprising of 2 dairy animal, 100 no. rabbits, 50 no. poultry, farm pond with composite fish culture in 35 cent area, fodder cultivation in 25 cent and a vermin compost unit.

The farm produce is mostly sold locally in and around the district, Puducherry & Tamil Nadu. He also uses whatsapp as a mode of marketing.

Special efforts made by the farmers for successful implementation of Technology Farmer not only directly markets his farm produce but also provides technical advice to the farmers, which leads to publicity and attracts more number of customers. He rears different poultry breeds such as Aseel, Silkybantams, cochin bantoms, Kairali and their eggs were hatched using incubator. Use of incubator for hatching and brooding techniques contributed for the increased chick production.

Cost Economics:

Component	Unit Size	Type of Yield	Market Price	Expenditure / Year	Income/ Year	Net Income
Farm Pond	35 Cent	Fish	200	20,000	1,40,000	1,20,000
Dairy Unit	2+1 No	Milk	30	66,000	89,100	23,100
Rabbit Unit	100 No	Meat	280	60,000	3,00,000	2,40,000
		Breeding	6000			
Poultry Unit	50 No	Egg	12	30,000	72,000	52,000
		Live bird	200			

Benefits of Technology: The overall farm productivity has increased due to different enterprises and farmer is able to get income throughout the year. The farmer was satisfied with the income and his annual turnover is around Rs.5.00 lakhs from the integrated farming system. Through the establishment of the integrated farm in the village, he created employment opportunities for the local people. The cost of production has been drastically reduced due to reduction in external input as the recycling of most of the available resources was done. Soil fertility has been improved.

Spread of Technology: He provides training /guidance to many farmers & young entrepreneur of Karaikal and nearby districts of Tamil Nadu. Students of Agriculture College also frequently visit the farm to study the farming system. He motivated two Biotech graduates to step in to organic farming.

Farmer message to entrepreneurs He says that patience is the key to agriculture and doing the duty will definitely pay off

Awards/ Recognition: Best Youth Farmer Award by KVK, Madur, Karaikal.

Mr. Claudebede (Father) & Mr. Donald wilfred (Son)

Dr. R. Vasantha, Professor, EEI, Hyderabad

Organic farming - a profitable and sustainable venture

Submitted by
Officials of Department of Agriculture, Tamil Nadu

Farmer Name	:	M. Saravanan
Address & Phone no.	:	38/8, Pajanai Koil Street, Polacheri village, Thiruporur Block, Chengalpattu, Tamil Nadu, 9841471230
Inputs used	:	Panchakavya, Amirthakaraisal, Fish oil, Butter milk extract, Camphor extract, Groundnut cake and Neem cake were prepared in the farm itself and utilized for crop yield enhancement.
Sources of information	:	The farmer is very much enthusiastic in organic farming, so he read books related to organic farming and listened speeches of Nammalvar (Father of Organic farming) online.

Steps followed in attaining success :

He is currently doing agriculture in 2 acres of wetland and 1.5 acres of garden land. In this area, he is cultivating paddy, greens, gingelly, ragi, black gram, chillies, bhendi, moringa, banana, papaya, fodder grass and Azolla. Due to interest in organic practices, he is doing organic cultivation since 3 years, and he is also involved in cattle rearing. At present the farm houses about 10 cattle, 2 bullocks, 10 hens and 4 goats. The straw retained from the crop is being used as cattle feed. The milch animals yield about 30 litres of milk per day. Apart from this, the wastes are used as manures for crops. All the crops were raised in organic way by using cow dung and green manure crops avoiding chemical fertilizers. Apart from this, organic inputs like Panchakavya, Amirthakaraisal, Fish oil, Butter milk extract, Camphor extract, Groundnut cake and Neem cake were prepared in the farm itself and utilized for crop yield enhancement. He is also using Sprinkler for irrigating this crops.

Other salient features:

Achievements: Participated in State Level traditional paddy variety Crop Yield Competition for the year 2021-22. In that competition he displayed a variety called Thooyamalli which has yielded around 9.5 Mt/Ha.

The Farmer's family in cattle rearing shed

Cattle rearing shed

Farmer in his vegetable garden

Farmer and officers in the harvesting yard

Agriculture officers visit to the farmer's field

Farmer actively doing the threshing operation

Agriculture Officers and farmers testing the seed quality

Agriculture Officers and farmers testing the seed quality

Dr A. Sailaja, Professor, EEI, Hyderabad

Organic Paddy Cultivation under SRI

Submitted by
Officials of Department of Agriculture, Odisha

Farmer Name : Somnath Majhi

Address& Phone No : Golamunda, Kalahandi, Odisha, 6371609707.

Inputs used : Kusumkali variety of paddy, Power tiller, Trans-planter and Cono Weeder were used, Organic manures like Jeevamruth, Beejamruth, Handi khat, Neemasthra, Brahmasthra were used.

Sources of Information : Jay Golamunda Organic farmer producer Company (FPO), Workshops on Organic farming.

Steps followed in attaining success:

Initially Farmer succumbed loser due to chemical farming. high cost of cultivation and labour shortage were the major constraints faced by him. His method of Farming changed to Organic after he attended several workshops organized on Organic farming. Then he started cultivating Kusumkali variety by using System of Rice Intensification (SRI) technology. He used Power tiller, Trans-planter, Cono Weeder and Reaper. Farmer himself Prepared and applied Organic Manures such as Jeevamruth, Beejamruth , Handi khat , Neemasthra and Brahmasthra.

Cost Economics:

Parameters	Natural Farming Per ha	Conventional farming per ha
Cost of cultivation (Rs.)	9000	11000
Production(qt)	14	21
Gross returns (Rs.)	42000	39270
Net Returns (Rs.)	33000	28270
BC ratio	3.66	2.57

Salient Features:

1.Farmer indicated reduced cost of cultivation, as the most important feature in Natural Farming.
2. Higher yields in both grain and straw
3.He spread this message to around 6800 farmers.

Dr A. Sailaja, Professor, EEI, Hyderabad

Kailamba Women Farmers' Outstanding Millet cultivation shows the way to prosperity

Submitted by
Officials of Department of Agriculture, Odisha

Address : Kailamba village, Odisha, 9178896410
Input used : Ragi Seeds
Source of information : Director Agragamee, Mission Shakti.

Steps followed in attaining success:

Mahila Mandal, as well as the Agragamee Millet Mission Project staff motivated 23 women members to cultivate Ragi in 20 acres of land.

They together cleared, ploughed, grown the seedlings, and transplanted them on what used to once just a barren piece of land covered with thorny shrubs.

Under the millet mission, exposure visits, and training programmes had been organised for the Committee members of the three SHGs of Kailamba. This had been followed by village visits and meetings.

It took 15 days for the entire village, women and men to prepare the land, later they transplanted and monitored the crop. Most of it, from transplantation to weeding to harvesting the crop was women's work. All members of the SHG worked with complete cooperation and they got the fruit of their labour.

The harvest was beyond all their expectations, at a total of 120 quintals. Inspired by this, the village has pledged to bring more land under millets the next season


Weeding with the help of cycle weeder


Field visit of SHG Women


Ragi field visit of senior advisor

Dr A. Sailaja, Professor, EEI, Hyderabad

Tribal Woman reaping benefit through SMI in Ragi

Submitted by
Officials of Department of Agriculture, Odisha

Farmers name	:	Anumati Kanhar, w/o Sankar
Address	:	Village-Baupanga , Balandapada, Phiringia, District Kandhamal, Odisha, 8926330315
Inputs used	:	Ragi seeds, cycle weeder, manures etc
Source of Information	:	CRP Agragamee of the area Chudunga Nayak motivated her to use New technologies for Ragi cultivation

Steps followed in attaining Success:-

Anumati Kanhar is a small farmer having only 2 acres of cultivable land. She had been cultivating Ragi in 1 acre in traditional method in the kharif season. CRP of that area Chudunga Nayak motivated her to use new technologies like SMI system of cultivation and to do weeding in regular intervals. Agragamee is the implementer of the Millet Mission Project of Odisha in the area of Phiringia with a new vision to create awareness about SMI method and its advantages among the people who are doing Millet cultivation. In Baupanga village there are many farmers who were doing millet cultivation in traditional methods. But Anumati Kanhar followed the SMI method as per recommendation and got 4times more yield which motivated her to continue Ragi in SMI. She also got a support of cycle weeder from Agragamee for weeding in Ragi field. Anumati Kanhar Obtained an yield of 6 quintals of Ragi from her 1 acre of upland now she is also interested to cultivate in Rabi season too.

Anumati Kanhar in her Ragi field

Dr A. Sailaja, Professor, EEI, Hyderabad

Economic empowerment through Safflower Cultivation

Submitted by
Officials of Department of Agriculture, Telangana

Name of the farmer : Narsareddy. K

Address & Phone No : Mamidgi Village, Nyalkal Mandal, Sangareddy Distrcit, Telangana, Pincode - 502249, 9640000221.

Inputs used : ISF-764 Safflower seeds from ICAR, IIOR.

Sources of information : ICAR-IIOR and officials of Department of Agriculture, Telangana.

Steps followed in attaining success:

Farmer cultivated ISF-764 safflower variety duly following the guidance received from scientists and department officials. Due to this he was able to reduce number of pesticide sprays that lowered cultivation costs. He also adopted drip irrigation to overcome water shortage issue.

Cost Economics:

Items	Improved technology	Conventional practice
Productivity per acre	9.2 quintals per acre	4 quintals per acre
Cost of Production per acre	Rs.10,800	Rs.9,000
Gross income	Rs.51,520	Rs.22,400
Net income per acre	Rs.40,720	Rs.13,400

ISF-764 Safflower field

Dr. R. Vasantha, Professor, EEI, Hyderabad

Inspiring incomes through Finger millet cultivation

Submitted by

Officials of Department of Agriculture, Karnataka

Farmer name	:	Channabasappa and Mallikarjunappa Hireballekere
Address & Phone No	:	ChowlahiriyurHobli, KadurTq Chikkamagalore District, Karnataka 7483119190
Inputs used	:	Ragi ML – 365 variety Seeds, Micronutrient liquid, Azadiractin, Carbendazim
Sources of Information	:	4 Stage wise Training given Farmers by extension staff of the Department of Agriculture, field days and field visits.

Steps followed in Attaining Success:

Farmer has sown Ragi ML-365 variety seeds in line sowing in rainfed red soils after seed treatment, he applied fertilizer according to soil test based recommendation, micronutrients and plant protection sprays were given using Azadirachtin and carbendazim. The crop was harvested with machines.

Cost Economics:

Cost of cultivation - (New Method)	Rs.38000
Yield	25q
Market Rate obtained	Rs.3375/-q
Total value of the production	Rs. 84375
Net Income	Rs. 46375
Cost of cultivation - (Traditional method)	Rs. 38000
Yield	18q
Market Rate obtained	Rs. 3375/-q
Total value of the production	Rs. 60750
Net Income	Rs. 22750

Ragi cultivation by Farmer Channabasappa

Ragi crop in flowering stage

Field day in Ragi crop

Dr. R. Vasantha, Professor, EEI, Hyderabad

Biofertilizer brings miracles

Submitted by
Officials of Department of Agriculture, Tamilnadu

Farmer Name	:	Karuppapillai
Address & Phone Number	:	S/O Muniyappapillai, Palayakottai, Vaiyampatty, Tamilnadu, 9047615444
Inputs Used	:	*Azospirillum*-500 ml – Rs.150 full cost and subsidy @Rs. 75/-,Phospho bacteria-500 ml – Rs.150 full cost and subsidy @Rs. 75/-, *Rhizobium, Trichoderma viride,* Phosphobacteria
Sources of Information	:	Local Agriculture office

Steps Followed in Attaining Success :

- From officials of Agriculture Department farmer learnt the importance of application of biofertilizer to the crop. He bought them and used for seed treatment for paddy and groundnut.
- He also mixed bio fertilisers with sand and broadcasted in the field.
- Farmer indicated that application of bio fertilizer to the crop will increase the crop tolerance to the pest and diseases.
- Increase in yield by 10 to 20% was noticed.
- *Azospirillum is* used for paddy and other cereals
- *Rhizobium* used for all pulses.
- *Trichoderma viride* and phosphobacteria are used for controlling of pest and diseases.
- Both liquid and powdered biofertilizer are applied to crops.

Cost Economics:

Impact factors	Without biofertiliser	With biofertiliser
Yield of crop/product/hac(sorghum)	1.5Tonnes	2Tonnes
Sale Value	Rs.130000	Rs.135000
Input Cost	Rs.25000	Rs.25000
Labour Cost	Rs.15000	Rs.15000
Any other Cost	Rs.10000	Rs.8000
Net Saving/Net Profit	Rs.80000	Rs.87000

Distribution of biofertilizer

Dr. R. Vasantha, Professor, EEI, Hyderabad

A Success saga in Sesamum Cultivation

Submitted by
Officials of Department of Agriculture, Telangana

Name of the farmer : Shivaraj

Address & Phone No : Mamidgi Village, Nyalkal Mandal, Sangareddy Distrcit, Telangana, Pincode - 502249, 9603048306.

Inputs used : Shwetha(Sesamum variety), vermicompost, pseudomonas, PSB, Rhizobium, Trichoderma, Neemoil, banana pseudostem spray

Sources of information : Department of Agriculture, Telangana

Steps followed in attaining success :

With the help of guidance received from Department of Agriculture officials, Farmer has taken up sowing of sesamum in wasteland. After thorough ploughing vermicompost and FYM are applied. Farmer has sown shwetha sesamum variety after seed treatment with Rhizobium. As per the need, he applied pseudomonas, PSB, Trichoderma, Neemoil and also used banana pseudo stem extract spray for inducing flowering. Since the Farmer has cultivated in wasteland though same yields were obtained when compared to his regular method, he was hopeful that in coming years higher Yields can be obtained with less cost of cultivation.

Cost Economics:

	New Intervention	Traditional Practice
i) Productivity per acre	4 quintals	4 quintals
ii) Cost of Production per acre	6,000	9,000
iii) Gross income	16000	16,000
iv) Net income per acre	10,000	7,000
v) Price realized (Rs. Per Quintal)	8000	8,000


Farmer treating the seed with Trichoderma and Soil Application of Vermicompost, Pseudomonas and PSB under the guidance of AEO Naveen Kumar.


Spraying of Pseudomonas and Neemoil to the crop under the guidance of MAO Nyalkal, N Lavanya and Aeo Naveen Kumar

Novel Banana Pseudo stem Organic Liquid Distributed to farmer for spraying to increase the Flowering

PRESS CLIPS

పంట మార్పిడితో రైతుకు అనేక లాభాలు : ఎవో

న్యాల్‌కల్, ఏప్రిల్ 1, ప్రభాతవార్త: పంట మార్పిడితో అనేక లాభాలు పొందవచ్చని వ్యవసాయాధికారి లావణ్య పేర్కొన్నారు. గురువారం ఆమె ఎఒ. నవీన్ కుమార్‌తో కలిసి మామిడ్గి గ్రామంలో రైతు శివరాజ్ సాగు చేస్తున్న నువ్వుల పంటను పరిశీలించారు. ఈ సందర్భంగా ఆమె మాట్లాడుతూ గత జనవరిలో రైతు వేదికలో శివరాజ్ నువ్వుల సాగుపై ఆసక్తి చూపడంతో జగిత్యాల వ్యవసాయ పరిశోధన కేంద్రం నుంచి ఖగోళిత అలో అనే నువ్వుల రకాన్ని తెప్పించి ట్రైకోదరమాత్ విత్తన శుద్ధి చేయించి, పొలంలో 100 కిలోల వర్మి కంపోస్ట్, పిఎస్‌బి, కెఎన్‌బి, ట్రైకోదరమా, వేప పిండి సమపాళ్లలో కలిపి ఫిబ్రవరిలో పంట సాగు చేయించామన్నారు. పంటకు చీడపీడల లేకుండా సాగవుతున్నట్లు గుర్తించామన్నారు. పంటను తెగులు నుంచి కాపాడుకునేందుకు నూడోమోనాస్‌ను పిచికారి చేయించామన్నారు. పంట మార్పిడితో అడవి పందుల బెడద కొంత వరకు తగ్గిందని రైతు వివరించారన్నారు. పంట మార్పిడితో భూసారం పెరిగే అవకాశం ఉంటుందన్నారు. ప్రతి రైతు ఆర్థికంగా స్థిరపడేందుకు అధికారుల సూచనలు పాటించాలని, కొద్ది పాటి జాగ్రత్తలు పాటిస్తే పంట దిగుబడి పెరిగి అధిక లాభాలు పొందవచ్చని ఎఒ లావణ్య పేర్కొన్నారు.

పంట మార్పిడి తప్పనిసరి

పంటను పరిశీలిస్తున్న ఏఓ

న్యాల్‌కల్(జహీరాబాద్): రైతులు వేసిన పంటలనే మళ్లీ మళ్లీ వేస్తూ సరైన దిగుబడులు రాక తీవ్రంగా నష్టపోతున్నారని ఏఓ లావణ్య అన్నారు. గురువారం మండల పరిధిలోని మామిడ్గి గ్రామంలో ప్రయోగాత్మకంగా సాగు చేసిన నువ్వుల పంటను ఏఓ పరిశీలించారు. పంట సాగులో తీసుకోవలసిన మెలకువలపై ఆమె అవగాహన కల్పించారు. పంట మార్పిడి వల్ల పంట దిగుబడులు పెరగడంతో పాటు పురుగు నియంత్రణ కూడా ఉంటుందన్నారు. ఇతర ప్రాంతాల నుంచి తెచ్చిన నువ్వుల పంట ఆశాజనకంగా ఉందన్నారు. రసాయనిక ఎరువులు, పురుగు మందుల వాడకాన్ని తగ్గించి సేంద్రియ ఎరువుల వాడకాన్ని పెంచాలని ఆమె రైతులకు సూచించారు. కార్యక్రమంలో ఏఈఓ నవీన్, రైతులు పాల్గొన్నారు.

రైతులకు అవగాహన

నవతెలంగాణ-న్యాల్‌కల్

రైతులు అధికారులు సూచనలు పాటిస్తే అధిక దిగుబడులు వస్తాయని మండల వ్యవసాయ అధికారి లావణ్య అన్నారు. గురువారం వారు మండలంలోని మామిడ్గి గ్రామంలో వ్యవసాయ పంటలు సాగు ఎలా ఉందో రైతులను అడిగి తెలుసుకున్నారు. నువ్వుల పంట పై రైతులకు అవగాహన కల్పిస్తూ పంటల మార్పిడి తోభూసారం పెరిగి అధిక లాభాలు చేకూరు తాయన్నారు. అడవి పందుల బెడద ఎక్కువగా ఉందని రైతులు వాపోయారు. పంట రక్షణ కల్పించాలని కోరారుగ్రామ ఏ ఈ ఓ. నవీన్ కుమార్, గ్రామ రైతు శివరాజ్ ఉన్నారు.

Dr. R. Vasantha, Professor, EEI, Hyderabad

Value addition to Organic Sugarcane

Submitted by
Officials of Department of Agriculture, Tamil Nadu

Farmer name : Erode Uyir Natural Farmers' Society

Address : Erode, Tamil Nadu

Inputs used : Organic inputs for sugarcane cultivation

Steps followed in attaining success:

Organic seems to be yielding rich dividends for Uyir farmers society so much so that its members are raising to go a step further and bring into their fold about 1,000 acres of land in Tamil Nadu for organic sugarcane cultivation. The 64 members of the society have already undertaken organic farming on about 400 acres in the State. The agricultural society has secured group organic certification for most of its members. Most of the value-added products are made by the farmers with the resources available with them. At least 25% of the farmers with Uyir are into sugar cultivation. Explaining about the scope of bringing in such a vast extent of land under organic sugarcane cultivation at a time when large sugarmills in the State are hit by low cane production due to drought over the last four years, Mr. Ravichandran, the president of the society said the number of farmers going organic was on the rise because of better awareness. Further, organic sugarcane jaggery powder has high demand and better returns "earlier farmers are supplying cane to a sugarmill before they switched to organic farming." Further Uyir plans to pay farmers ₹3,600 for a tonne of sugarcane. Society sells about two tonnes of sugarcane jaggery powder at our outlet for about ₹65 a kg. Society members are planning to buy cane from registered farmers and start making sugarcane jaggery powder.

Marketing Society members runs a retail outlet in Erode to sell their organic produce including pulses, vegetables, turmeric, sugarcane jaggery powder and processed food items. Uyir Agriculture Pvt Ltd 42, Buvanam Illam, Periyannan street, Erode-638 001 Mobile : +91 89406 61144

Organically cultivated sugarcane in the field

Dr A. Sailaja, Professor, EEI, Hyderabad

Novel way of Ginger cultivation on Broad beds

Submitted by

Dr. S. Kiran, Executive Director, VIKASA NGO, Andhra Pradesh

Name of the farmer	:	Smt killo Rathnamma W/o Sri Govind
Address and contact details	:	Badimela Village in Arama panchayat of Visakhapatnam District of Andhra Pradesh. 9866118877
Inputs used	:	DAP and Potash, 200Kg of Ghana jeevamrutham, 25 Kg of neem cake
Sources of information	:	VIKASA, NGO and Azimpremji foundation

Steps followed in attaining success: VIKASA selected Smt Rathnamma for demonstration of Ginger crop in natural farming in Arama Cluster as part of the Natural farming programme with the support of Ajim Premji foundation (APF).

Ginger is a very common crop in the project area, farmers grow ginger in the field using Ridge and Furrow methods, using DAP and Potash in particular.

After germination at 45 to 60 days age of plant, farmers go for first harvest of ginger (Irupu Allam/Ginger) and allow the plants to continue to grow till December month to harvest the main crop. Root rot is a very common disease in ginger, sometimes farmers loose entire crop due to cyclones/ heavy rains during the crop period.

Smt Ratnamma has cultivated ginger in three of her plots in located in Badimela village. VIKASA natural farming team interacted with farmer and mobilized her for cultivation of ginger using natural practices in one of her plots. Initially she was reluctant for change in practices. After thorough motivation and discussion on concept of the programme, she accepted to follow natural farming practices in one of the three plots measuring 0.20 acres. Since then, without any second thought she followed guidance of natural farming team treated ginger with beejamrutham prepared at her plot, applied 200 Kg of Ghana jeevamrutham during ploughing before sowing, applied 450 liters of Drava jeevamrutham in 5 spells at 15 days intervals, applied 25 Kg of neem cake supported by the programme.

She is very happy with the crop's performance when compared with other two ginger plots cultivated by applying chemical fertilizers. Gulab cyclone hit the area from 26th to 28th of September, 2021 with continuous rains coupled with heavy winds lead to water logging in majority of the cropping fields. Farmers lost their standing crops, particularly cabbage and ginger. Rathnamma also lost her crop in two plots where she had taken up cultivation using regular ridge and furrow method, whereas the plot grown by adopting the broad bed method of cultivation following natural farming practices performed excellently as there was proper drainage for water, the crops was not subjected to water logging thus ensuring a substantial increase in the yield compared to earlier seasons.

150 farmers from Arama, Gasabha and Siragam clusters and 39 farmers from Kuntharla cluster of LAYA and 8 RYSS and Sri Mohanrao, DPM, Visakhapatnam visited the plot, had discussion about practices, performance and appreciated Smt Rathnamma. 25 of 189 ginger growing farmers who visited this plot as part of exposure visits, declared that they lost the crop due to root rot during Gulab cyclone. 4 of the 11 farmers growing ginger in natural farming in Kuntharla cluster opined that their crop in not as good as Smt Rathnamma's crop.

Cost Economics

During Crop Cutting Experiment (CCE) conducted on 05.01.2022 in the presence of farmers and RySS staff to showcase the success and to send a message that Ginger crop can be cultivated without chemical inputs and broad bed method of cultivation is more suitable for this high rainfall region, recorded 70.45 Kg in 5*5m plot. When it is extrapolated to one acre, the yield is 11.40 tons per acre. CCE conducted in the nearby plot cultivated in farmers practice, recorded 36.87 Kg in 5*5 plot, equals to 5.97 tons per acre.

Thus the Broad bed method of cultivation coupled with the natural farming practices is more suitable to this ecosystem and has an incremental yield potential of almost 2-fold increase compared to farmers practice. Low incidence of root rot, luxurious crop growth, low cost of cultivation, better drainage from field and two fold increase in yields was noticed.

Ginger crop grown on a Broadbed at different stages of its growth




Dr. R. Vasantha, Professor, EEI, Hyderabad

Organic farming – An integrated approach for Sustainable income

Submitted by
Officials of Department of Agriculture, Karnataka

Farmer Name	:	Narasimharaju
Address & Phone No	:	Lakshmidevipura, Tubagere Hobli, Doddaballapura taluk, Karnataka, 9141510381
Inputs used	:	Ghana jeevamritha, Gokrupamrutha and Poultry Manure, Own Seed of vegetables and field crops. Agriculture waste is used for Mulching. Pest control is done by Using Cow urine, Neemoil, Neemastra, Brahmastra and Agniastra.

Sources of Information: ATMA, Agriculture Department. Farmer received Inputs and technology assistance from Agriculture department for Organic farming Plot, assistance for cultivation of Papaya from IIHR and assistance for Poly house construction under NHM through Horticulture Department.

Steps followed in attaining success: Farmer started pure organic farming 4 years ago with one acre land. Now his entire 3 acre of land is completely converted into organic farm. In one acre under Poly house he is growing cucumber, Pole Beans, Broccoli, Cabbage and Cauliflower and in open field conditions he is growing Knol Khol, Guards, Radish, Carrot, Palak, Amaranthus, coriander, Tomato, Beans with different time interval in small strips to obtain the produce throughout the year. Field crops like Ragi, redgram and dolichos are also grown. He is currently running natural cum organic farm in an integrated agriculture approach including agriculture crops in open field , horticulture crops both open and poly house conditions, Forest trees, different varieties of cows (Gir-2 and Hallikar -4), Sheep and goat (6) and Poultry (25 local birds). In his farm, one can observe mixed and border cultivation of fruit crops like Gauva (40), Pomegranate (50), Mango(16), Banana(100), Custard apple(35), Lemon and mandarins (40), Apple (25) along with inter cultivation of vegetables. Home delivery is done for the local residential addresses. He is receiving gross income of 95,000 per month, after all expenses deduction he is getting a net profit of 50,000 to 55,000 per month throughout the year.

Other salient Features:

He received District level Best ATMA Krishi Shesta Prashasti 2021-22, Super Star Raitha – from Vijaya Karnataka and Appreciation certificate from Agriculture department for his efforts in organic farming as Best Progressive Farmer.

Farmer examining Yellow sticky trap erected in Vegetables in poly house

Farmer preparing Organic inputs

Farmer receiving Award

Dr A. Sailaja, Professor, EEI, Hyderabad

Empowering through hybrid vegetable cultivation

Submitted by
Officials of Department of Agriculture, Puducherry

Farmers Name	:	Mr. Uthirapathy S/o Manickam
Address and Phone No	:	28, West street, Kumarakudy, Ambagarathur-Po, Karaikal-Dt, Puducherry, Pin code- 609601, 9894996917
Inputs Used	:	Hybrid seeds of vegetables and fertilizers. No pesticides are applied.
Sources of information	:	ATMA and Horticulture section of the Department of Agriculture and Farmers Welfare, Karaikal.

Steps followed in attaining success:

The farmer, Thiru. M. Uthirapathi is one of the progressive farmers of Kumarakudy village having more than 10 years of experience in the field of Agriculture and Horticulture. He has 9 acres in which he grows vegetables in 1 ½ acres, remaining acres are under Paddy and Sugarcane. Previously, the farmer used to grow only common varieties of vegetables such as Bhendi, Cluster beans & Gourds. From the year 2021 onwards, the farmer has switched over to hybrid vegetable cultivation as the department of Agriculture; Karaikal motivated him for cultivating hybrid vegetables under the innovative activity programme of ATMA on "Promotion of Hybrid vegetable cultivation in Karaikal region".

The farmer was sensitized to adopt best strategies for growing hybrid varieties of vegetables viz. need based pest and disease management, nutritional management, timely harvesting & marketing of their vegetables produce. Under the programme, the farmer cultivated Hybrid Brinjal (SMALL UJALA), which gave good yield. Initially, the farmer used to apply the fertilizers/inputs without following recommendations. Later, the farmer has minimized the farm inputs and also incorporated organic manures at initial stages of the crop. Consequently, the cost of production has been reduced and the farmer received good profit in a small area without using any pesticides.

Reasons for taking up the innovation Previously, the farmer used to grow only local varieties in vegetables such as Bhendi, Cluster beans & Gourds. At present, the farmer has switched over to hybrid vegetable cultivation as it is yielding lucrative income.

Marketing: He harvests the vegetables in regular intervals so that the vegetables can be sold at good price. He faces no problem in selling the produce as traders visit his village regularly to procure his produce. The farmers also sells the vegetables without intermediaries at local market in the same village and also in the urban markets. He also supplies vegetables to public who approach him directly.

Cost Economics:

Yield	10t/33 cent
Cost of Cultivation	Rs. 25,0000
Sale price	Rs. 20/Kg
Total Income obtained	Rs. 2,00,000/-
Profit	Rs. 1,75,000/-

Benefits of Technology: Ecofriendly technology is used. Farmer minimised usage of inputs which reduced cost of cultivation. Income has increased gradually.

Spread of Technology: He spreads technology to the farmers and students who approach him. His cultivation practices being broadcasted often by the All India Radio, Karaikal.

Farmer message to entrepreneurs: Agriculture will be profitable for all farmers if innovative initiatives are taken in farming.

Awards/ Recognition: Farmers and officials appreciated his effort for getting maximum profit by minimizing cost on inputs. Success story was documented by leading television channel.

Farmer interacting with officials during field visit to Hybrid Brinjal (SUPER UJALA) under the innovative activity programme of ATMA on "Promotion of Hybrid vegetable cultivation in Karaikal region".

Dr. R. Vasantha, Professor, EEI, Hyderabad

Value addition in Coconut

Submitted by
Officials of Department of Agriculture, Tamilnadu

Farmer Name	:	Mr. S. Seenichamy, S/o Sangariya Devan
Address	:	Village: Mandapasalai, Aruppukottai block, District: Virudhunagar, State: Tamilnadu, Pincode-626118, Ph. 9790575709
Input used	:	Coconut husk and coconut copra

Steps followed in attaining success :

After harvesting coconut, farmer separates husk and kernels from coconut by using Thresher. He transforms husk into milled dust material and makes coir pith for his farm. He dries Copra for 4-5 days in drying yard. He sells dried copra to agents who collect it for oil production. Through selling of raw coconut and copra, farmer earned approximately, Rs. 15,00,000 and Rs. 23,00,000/- respectively. Farmer is also influencing other farmers towards adopting value addition to coconut.

Drying yard with dried copra

Dr A. Sailaja, Professor, EEI, Hyderabad

Reaping profits with minimal water in vegetables

Submitted by
Officials of Department of Horticulture, Telangana

Name of the Farmer : Sri. Kodaboyina Baburao

Address and Phone No : Permalla village, Lingampet mandal, Kamareddy dist. ,Pincode- 503124, Ph: 8096516717

Inputs used : 1. FYM and vermicompost at initial stages of the crop.

2. Applied 19:19:19, 13-0-45, Agromin max at 30,45,60 days after planting.

3. Neem oil, Imidachlopride and fipronil were applied by the farmer to control the sucking pests.

Sources of information : Dept. of Horticulture and Sericulture.

Steps Followed in attaining Success:

Farmer earlier cultivated paddy crop and suffered from loses due to water shortage. He faced severe problem to perform transplanting and weeding operation due to labor shortage. Hoping to get high yields from vegetable cultivation farmer approached Department of Horticulture for advice. Farmer replaced paddy with water melon and beans and got high returns by following the latest technologies i.e fertigation through drip irrigation systems and Mulching. As he faced lot of marketing problem at the time of corona pandemic, so started marketing on his own with a hired vehicle.

Cost Economics:

Yield	Water melon- 50T and beans- 10T (in half acre)
Cost incurred	Rs. 1.20 lakhs
Gross returns	Rs. 3.50 lakhs
Profit	Rs. 2.30 lakhs.

Spread of Technology : 5 other farmers got inspired by this farmer and diverted from the paddy cultivation to vegetable farming.

Awards/ Recognition: Recognized as a best farmer by the Dept. of horticulture in vegetable cultivation.

Farmer message to entrepreneurs: Farmers must focus on marketing in addition to adoption of modern technologies.

Beans and Water Melon crops with Fertigation through drip irrigation systems and Mulching.

Dr. R. Vasantha, Professor, EEI, Hyderabad

Prosperity through creepers

Submitted by
Officials of Department of Horticulture, Telangana

Farmer Name : Angothu Kalyan

Address and mobile : Bojjanapeta (v), Bheemla Tanda, Narsimhulapet (M), Mahabubabad (D), Pincode-506308, 9989684442.

Inputs Used : Bitter gourd Seed, FYM, fruit fly traps, drip, mulching material etc.

Sources of information : Department of Horticulture & Sericulture, Mahabubabad

Steps followed in attaining success: Before adopting micro irrigation, the farmer suffered from severe water scarcity, with the advice of Department of Horticulture he installed drip irrigation and cultivated creeper vegetables such as ridge and bitter gourds on pandals. Farmer has erected Pandals in his field with the spacing of 15fts in between them. He applied 2 trolleys of FYM per acre in his field. He has arranged fruit fly traps all over the field to control the attack of pest. Farmer got high returns by following the latest technologies i.e. drip irrigation systems and mulching.

Cost Economics:

Yield	9 Tonnes/ Half-Acre
Cost incurred	Rs.68,200
Gross returns	Rs.2,25,000/- (Rs.25/- per kg).
Profit	Rs. 1,56,800/-

Marketing: Self marketing

Benefits of Technology: It is Eco – friendly method

Spread of Technology : Technology was adopted by 13 farmers in 7 acres.

Farmer message to entrepreneurs: For getting higher returns, maximum efforts should be made for sale of produce at farm gate itself.

Creeper vegetables (Ridge Gourd & Bitter Gourd) under Pandals with Drip & Mulching.

Dr. R. Vasantha, Professor, EEI, Hyderabad

Dragon fruit shows path for profit making in Horticulture sector

Submitted by
Officials of Department of Agriculture, Andhra Pradesh

Farmers name : Badam Srinivasareddy s/o Mallareddy

Address & Phone No : Chalivendram, Darsi, Prakasam District,

Mail.Id : reddysrinu960@gmail.com, 8309282862

Inputs used : Organic manures, botanical extracts and decoctions.

Source of information : Department of Horticulture, Social Media, experienced farmers

Steps followed in attain success

Farmer regularly attended training programmes and demonstrations conducted by Department of Horticulture and Youtube videos on dragon fruit cultivation. He travelled extensively to many areas where dragon fruit is being cultivated. Done extensive research on the crop, varieties and cultivation aspects of dragon fruit in organic way. He adopted artificial lighting to induce flowering in winter. Farmer sells the produce at farm gate directly to the consumers for getting good price.

Cost Economics:

	2019-20	2020-21	2021-22
Yield	2000 Kg	5000 kg	8000 kg
Costs incurred (Rs)	5 Lakhs	200000	200000
Gross returns (Rs)	3 Lakhs	750000	1200000
Net returns (Rs)	2 Lakhs	500000	1000000
Others		Cost includes 1.5 lakhs for artificial lighting	Additional 12 lakhs income made from selling the plants to the farmers

Farmer interacting with officials in his Dragon Fruit Farm

Cultivation of Dragon fruit

Artificial lighting to induce flowering in dragon fruit during winter

Dr. P. Vijayalakshmi, Professor, EEI, Hyderabad

Inspiring income from European cucumber

Submitted by
Officials of Department of Agriculture, Andhra Pradesh

Farmer name : Sri. V. Yugender Reddy

Address : Chinthalavaripalli village of Vayalpadu mandal, Chittor district, Andhra Pradesh

Inputs used : Five star hybrid of cucumber, farm yard manure, neem cake and liquid fertilizer, pesticides namely Saff, Fipronyl, Acephate, Imidachloprid, Curzate, Antracol, Oberan and gum

Sources of information : Horticulture department officials

Steps followed in attaining success:

V. Yugender Reddy is an enthusiastic and hard working farmer interested in growing high value vegetables and high value flowers under protected cultivation. He started cultivation of European cucumbers since 2019 under shade net in 4000sq.m. area. He selected and cultivated high yielding disease resistant hybrid variety (five star hybrid), which is a 4 months crop. Farmer stated that besides his passion towards high value vegetables and flowers cultivation, the inputs and support from the officials of horticulture department has significantly contributed to successful cultivation. Guidance by Horticulture department officials during selection of seed variety and regular field visits by these officials for INM and IPM practices has yielded good results.

Marketing: Within a short time, farmer has harvested 35 tonnes of yield of European cucumber and sold the produce at Madanapalli mandi (market).

Special efforts made by the farmers for successful implementation of Technology The farmer stated that using 'netting system' for vine support that yielded very good results.

Spread of Technology: A large number of farmers in his neighbourhood as well as from distant places are visiting his farm and are enquiring about the crop, cultivation process and cost economics of European cucumber, the farmer concludes that he is sharing information about the crop and motivating the farmers who are approaching him.

Cost Economics:

Economics of European Cucumber Cultivation			
Yield Obtained	**Cost incurred**	**Gross returns**	**Profit**
(in tonnes)	(in INR)	(in INR)	(in INR)
35	4,00,000/-	7,00,000/-	3,00,000/-

Farmer Yugender Reddy-Cultivation of European Cucumber

Dr. P. Vijayalakshmi, Professor, EEI, Hyderabad

Enhancing benefits of IFS through Bee Keeping

Submitted by

Officials of Department of Agriculture, Andaman and Nicobar islands

Farmer name	:	Shri Shanti Gain
Address	:	R.K.Pur Village /Little Andaman
Inputs used	:	Vermicompost, vermiwash, seeds, poultry manure,
Sources of Information	:	He takes active participation in all the Training Programmes conducted by Agriculture Department under UTATMA, ClARl and Allied departments to update his knowledge on latest technologies.

Steps followed in attaining success:

Shri Shanti Gain in his ancestral property of 2.02 ha of land, he is cultivating Black Pepper, Cinnamon, Turmeric, Banana and Vegetables as intercrop in Arecanut and Coconut plantation

He is also having a vermicompost unit tank constructed under RKVY project, the vermicompost and vermiwash obtained from the unit is used for his vegetable garden. He is adopting organic cultivation in vegetables like brinjal, cowpea, bhendi, bittergourd, bottle gourd, ash gourd, chilli etc. which he uses for his own consumption and also sells them to the nearby market. He has 04 milch cows and 40 poultry birds which gives him additional financial support. Similarly the On-farm wastes are properly collected and used for organic compost preparation.

After attending the training on "Production techniques on Honey Bees", he developed a passion for Honey Production. His interest increased when he saw his family members getting involved in collection of honey and maintaining of honey boxes. Now he is having 40 honey bee colonies and he also got assistance from High Value Agriculture Development Agency (HVADA) for Promotion of Bee-keeping. With his innovative ideas, he has started bottling of honey which is sold @ Rs 1000 per litre. On an average he is producing 50 kg honey and also gets an additional income by selling the Bee colonies to the interested farmers.

His future plan is to make compost tank for producing compost in large scale and a poultry farm of 100 chicks capacity for a productive and profitable farming. In addition to this he is planning to establish a unit for value addition in Cinnamon and Turmeric.

Shri.Shanti Gain is an active farmer of R.K.Pur village with zeal to guide the inspiring youths towards farming and he is a role model to other farmers of Little Andaman. He is an inspiration to other farmers of Little Andaman who wants to venture into Bee-Keeping and improve their income.

Cost Economics:

Annual income is about Rs.5.0-6.0 Lakhs from Areca nut & Coconut plantation, Rs.25,000 to 30,000 from spices including Turmeric, Rs. 50,000 to 60,000 from Bee-Keeping and Rs.25,000 to 30,000 from Poultry.

Farmer with his product-Honey

Dr. D. Shireesha, Asst. Professor, EEI, Hyderabad

Biofloc systems for sustainable production

Submitted by
Officials of Department of Fisheries, Kerala

Farmer name	:	Robins Mathew
Address & Phone Number	:	Village: Edamulack, Mandal/Block: Punalur, District: Kollam, State: Kerala, 9495293167
Inputs used	:	Water pump, Air Pump, Blower, Generator, Biofloc Cone, CCTV, Weighing Balance
Sources of information	:	The technical Consultancy from RGCA, Cochin University and Kerala university of Fisheries and Ocean Sciences (KUFOS).

Steps followed in attaining success:

Biofloc offers huge potential for fish production from relatively smaller area. In biofloc system, fish can be grown at high density under controlled environmental conditions. It is an innovative fish culture method which is developed to utilize maximum nutrients that is present in water through fish excreta and feed, thereby reducing the requirement of supplementary feed.

- The farmer has made 7 tanks with 5 m diameter and 1.2 m height.
- The roofing has been made with UV transparent sheet.
- Bio -secured the culture tank using proper side fencing.
- The floc inoculum has been prepared using standard protocol and transferred the floc to the tanks after 1 week
- After the formation of suffcient quantity of floc, the seeds of Nile tilapia were stocked @ 1250 numbers in each tank.
- Fishes were fed with floating pellet feed. The optimum amount of floc is maintained by adding sugar source.
- Water quality parameters were monitored regularly. The fishes were attained a size of 250 g in 6 months
- Central/State Govt support, the total cost of the project is Rs.7.5lach, out of which Government of India share is Rs.1.8lakh and the remaining amount of Rs. 1.2 lakh was met by the State Government and Rs.4.5lakh by the beneficiary.

Cost Economics

- The farmer got 275-325kg production per tank and a total of 2200kg,
- The total amount of feed given was 3500kg.
- The harvested fish were marketed in raw as well as cleaned, packed, ready to cook form. Fish was sold at the rate of Rs.250Kg.
- The marketing of the harvested fish is done through live fish sale in tanks arranged in own vehicle

Biofloc tanks and aeration facility

Roofing and Name board

Harvested fish

Cleaned and packed fish

Live fish sale in own vehicle

Dr A. Sailaja, Professor, EEI, Hyderabad

Bountiful earnings by rearing Fish in RAS ecosystem

Submitted by
Officials of Department of Fisheries, Kerala

Farmer Name	:	Suneesh
Address & Phone No	:	Village: Kalluvathukkal, Mandal/Block: Ittikkara, District:Kollam, State: Kerala, 9895473207
Inputs used	:	Biofiltration unit with clarifier, Submersible water pump, Air Pump, Generator, CCTV, Weighing Balance.
Source of information	:	Technical Consultancy from Rajiv Gandhi Centre for Aquaculture (RGCA) Cochin University and Kerala University of Fisheries and Ocean Sciences (KUFOS) supported the farmer as and when required.

Steps Followed in Attaining the Success:

- ✓ In Recirulatory Aquaculture system (RAS) water flows from a fish tank through a treatment process and is then returned to the tank, mechanical and biological filtration and removal of suspended matter and metabolism occurs during treatment process.
- ✓ RAS can reduce the discharge of waste, the need for antibiotics or chemicals used to combat disease. This can be termed as a high tech urban aquaculture practice.
- ✓ Apart from producing quality animal protein, it generates considerable income to the farmer The farmer has made a tank with 10x5x2 meter dimension. The roofing has been made with UV transparent sheet, in addition to roofing, green net is used for bio-fencing.
- ✓ Initially the 8000 tilapia fingerlings provided by the govt. hatchery were stocked in a small 3x3x2 meter tank for acclimatization or about one week with proper aeration facility.
- ✓ After that the fingerlings are being transferred to the main tank of 100 cubic meter. Fishes were fed with floating pellet feed. Water quality parameters were monitored regularly. The fishes attained a size of 250 g in 6 months.
- ✓ Central/State Govt support : The total cost of the project is Rs. 7.5 lakh, out of which Government of India share is Rs. 1.8 lakh and the remaining amount of Rs. 1.2 lakh was met by the State Government and Rs. 4.5 lakh by the beneficiary.

Cost Economics

- The Farmer got a total production of 4 ton in a year.
- Apart from the fishes the farmer had got an additional income through vegetable produced by the vegetable bed system.
- Total amount of feed given was 5500 kg. The harvested fish were marketed in raw as well as cleaned, packed and ready to cook form
- Fish were sold at a rate of Rs. 250/kg. The marketing of the harvested fish is done through online as well as farmer gate sales.
- There is a better consumer demand for live fishes compared with the frozen one.


RAS TANK


VEGETABLE SEEDLING


BIOFILTRATION

TILAPIA MARKETING

INTEGRATED GOAT REARING

Dr A. Sailaja, Professor, EEI, Hyderabad

Reaping Success in Fisheries with better management practices

Submitted by
Officials of Department of Fisheries, Andhrapradesh

Farmer name : K.Baktavasthala Reddy, s/o Hazarath Reddy

Address and phone no : Andhrapradesh, 9701630249, kbrkaliki@gmail.com

Inputs used : L.Vannamei(species of Shrimph) 2.0-3.0 Lakhs/ha

Steps followed in attaining the success:

1. Initially the ponds are being completely dried and soil ph testing was done
2. The ponds are then pumped with treated water from the Reservoir
3. The Bloom Development of the pond water was done by application of Organic fertilizers and probiotics
4. The farm ponds were stocked with PCR Tested seed brought from CAA certified hatcheries
5. Acclimatization of seed was done before stocking in to the ponds
6. Recommended Nursery Management for 30 days was followed for good survival and for better shrimp health management
7. Moderate Stocking density was maintained i.e 20 – 30pcs/m2
8. Regular feed monitoring by check tray observation
9. Regular water check up to monitor Dissolved Oxygen,Ammonia,Hydrogen sulphide levels along with microbial load
10. Flushing out the organic load, faecal matter of the pond bottom through central drain system
11. The water discharged from the ponds is always treated in the Effluent Treatment System

Other salient features

Better Management Practices Adopted: Reservoir, ETS, Crab & Bird fencing, Probiotic Usage

Innovative practices adopted by the farmer: Central Drain, Nursery Management in recommended manner, Regular Animal, Water & Micro Biology Check up




Better Fishery management practices adopted by Farmer

Dr. R. Vasantha, Professor, EEI, Hyderabad

Fishing sector reaps the benefits of Mechanization

Submitted by
Officials of Department of Fisheries, Andhrapradesh

Farmers Names : 1.BarriAppalaswamy, 2. Surada Yellayya, 3. Barripydayya, 4. AkulaAparna, 5. BarriSattayya

Address : Barripeta H/o Pathivada, Vizianagaram, Andhra pradesh

Source of Information : Department of Fisheries

Inputs Used: 1. The FRP Craft was with the following Dimensions : Length X Breadth X Depth =33'*7.5'*3.5' 2.Craft Hull with 7 layers & Bottom with 14 layers of mats 3. Out Board Motor with accessories : Grieves Cotton 10 HP 4. Net : Gill net 7" Knot size with ropes, sinkers & floats

Steps Followed in Attaining The Success:

Before the scheme was sanctioned, these fishermen worked as Crew/Kalasies on another Boat as daily workers. The average income per day per head was about Rs 100/- .

After getting the asset under RKVY, the life of the beneficiaries has changed a lot.

They are going to the sea for fishing to a depth line of 30-40 metres and the fish catch was very profitable &viable .

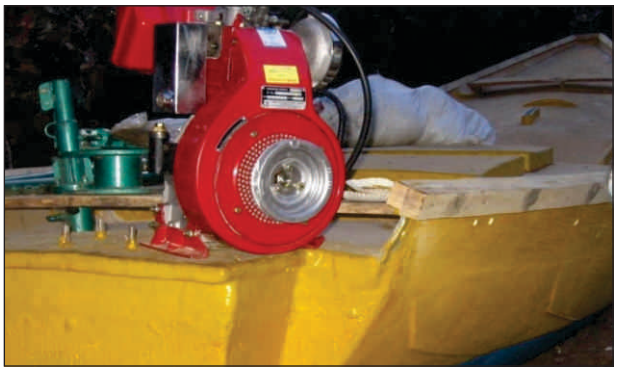
They are catching fishes of Commercial Importance , such as, Seer Fish,Pomfrets, Groupers, Sardines, Mackeral, sail fish etc.,

Other Salient Features :

The beneficiaries expressed that they are now stable financially and self dependent . They are providing good education, clothes, shelter to their children.

The fishermen are involved very actively in Coastal Security Exercises, Cyclone Mitigations, & Rehabilitation programmes.






FRP craft, craft hull, out board motor with accessories used by fishing farmers

Dr. R. Vasantha, Professor, EEI, Hyderabad

Pipeline irrigation - a boon to farmer

Submitted by
Officials of Department of Agriculture, Tamilnadu

Farmer Name	:	P. Illayaraja, S/o A. Pitchai
Address& Phone Number	:	8/33, Anaiyur, Karumagoundan Patty (Post), Manjampatty (Via), manaparai (Tk), Trichy (Dist), Pincode-621307, 9047615444
Inputs Used	:	Irrigation pipelines
Sources of Information	:	Agriculture office and neighbors

Steps Followed in Attaining Success

Farmer visited to Agriculture office and heard information about the NFSM-pulses-pipeline schemes and other government schemes. He got highly inspired by pipelines irrigation scheme (NFSM) and bought pipeline (full cost Rs.36684/-) with Rs. 15000/- Subsidy.

Other Salient Features-

- This method has resulted in efficient management of irrigation water
- The water loss is comparatively lesser than the canal irrigation method. By this method he reduced the water loss by seepage absorption and percolation in the tank.
- Time for irrigation is saved
- The pipeline irrigation methods are economically profitable than the canal irrigation method.
- With increase in efficiency of irrigation methods by 10 to 20% and quality of produce also improved resulting in higher net returns.
- He has spread the Pipeline irrigation techniques to other farmers at Amayapuram village at vaiyampatty block. And help their neighbours for doing profitable farming. He was very helpful to other farmers to avail the benefits of the scheme.

Farmer with pipelines ready to be installed in groundnut field

Dr. R. Vasantha, Professor, EEI, Hyderabad

Farm mechanization benefits Tamil farmer-A success story

Submitted by
Officials of Department of Agriculture, Tamilnadu

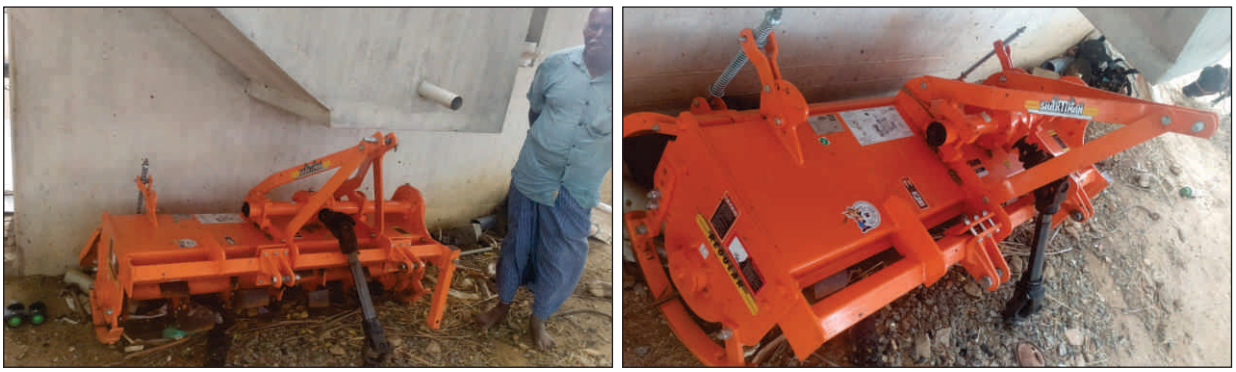
Farmer Name	:	A. Vellaisamy S/o Akkulnayakar
Address & Phone Number	:	Puthumaniyarampatti kalathu veedu ponnaniyardam, Muhavanur(south), Vaiyampatti(vali), Manapparai (T.k), Trichy (D.t),Tamilnadu Pincode- 621315, Ph. 8760125865
Inputs Used	:	Rotavator, seed, Fertiliser, green manure
Sources of Information	:	Department of Agriculture

Steps followed in attaining Success:

- Visited Agriculture office and gained information about the government schemes on farm machinery.
- Rotavator with Rs. 32800/- subsidy amount was bought.
- Use of farm machinery has resulted in efficient management of inputs facilitating increased cropping intensity, plantation and harvest at proper stage, rapid and timely harvest that has provided extra days for land preparation and early planting of the next crop
- Increase in saving of inputs, viz., seed and fertilizer by 20%
- A saving of Rs. 1500/acre is obtained as there was no need to take up ploughing, puddling and leveling operations separately.
- Weeds, stubbles and green manure were effectively mixed in the soil thereby improving the organic content of the soil
- Vellaisamy has spread the Farm mechanization techniques to other farmers at Muhavanur(N) village at vaiyampatty block and helped them in doing profitable farming.

Cost Economics:

Impact factors	Without Rotavator	With Rotavator
Yield of crop/product/hac(paddy)	2 Tonnes	3.2 Tonnes
Sale Value (Rs.)	35000	54400
Input Cost (Rs.)	8000	10000
Labour Cost (Rs._)	15000	15000
Any other Cost (Rs.)	8000	12000
Net Saving/Net Profit (Rs.)	4000	17400



Beneficiary farmer with Rotavator

Dr. R. Vasantha, Professor, EEI, Hyderabad

Solar powered fencing system

Submitted by
Officials of Department of Agricultural Engineering, Coimbatore

Farmer name : Thiru.K.Boopal

Address : 2295, Trichy Road, Ondipudhur ,Village: Vellimalaipattinam, Block: Thondamuthur District: Coimbatore

Inputs used : Solar powered fencing system.

Source of information : Department of Agriculture

Steps followed in attaining success:

The farmer, Thiru. K.Boopal, is having an area of 1.40 Ha, fertile land adjacent to Reserve Forest at Vellimalaipattinam Village in Thondamuthur block of Coimbatore district. During the past, the farmer was raising vegetables and got appreciable remuneration. For the past 5 Years, due to elephant menace, he couldn't save his crop and has abandoned Vegetable cultivation many times.

After installation of Solar powered fencing unit, the elephants and other animals are prevented from entering his field. After observing this, the farmer has started raising vegetable crops once again and is hopeful of getting good yield and income hereafter. The farmer is fully satisfied with Solar powered fencing unit and expressed his gratitude to Agricultural Engineering Department for installing Solar powered fencing system.

Cost Economics:

Total cost of unit: Rs. 2,87,447/-

Farmer's Contribution: Rs. 1,83,624/- . Total Subsidy in Rs : Rs.1,03,823/-

Hanging Type Solar fencing system installed in the farmer's field

Dr. R. Vasantha, Professor, EEI, Hyderabad

Sun lightens vegetable farmer

Submitted by
Officials of Department of Agricultural Engineering, Tamilnadu

Farmer name : Chinnakaruppam

Address : Sampiranipatty, Kidaripatti, Madurai, Tamilnadu, Ph. 9942551669

Inputs used : Solar panels and pump sets that were distributed by engineering department under PM Kusum Scheme.

Sources of information : Engineering Department, Madurai, Tamilnadu.

Ms.K.Mohana, Agricultural Engineering, Madurai, Tamilnadu attended training programme organised by EEI, Hyderabad on "Innovative Training Methods for effective Extension Delivery" from 8th to 12th July, 2019.

Highly inspired by the techniques taught in the programme, Ms.Mohana has implemented few techniques learnt in EEI and convinced farmers of Sambranipati village of Melur block, Madurai district to come forward to take up solar panels and pump sets that were distributed by Engineering department under PM Kusum Scheme.

Steps followed in attaining in success:

Chinna Karpan is one such small farmer who is cultivating 30 cents of rainfed land under only Mango crop in an isolated location. Lamenting at the State of the farmer, Ms.Mohana used innovative ICT tools & experiential learning methods taught at EEI training and convinced the farmer to take up solar panels & pump sets for irrigating his field.

Chinnakaruppan, S/o Chinnakaruppan
Sampiranipatty, Kidaripatti, Sf: 789/1D, 5 hp DC motor,
Total Cost : 242300

Vegetables cultivated by the farmer after solar pump set intervention

The farmer with great contentment is now cultivating additional crops like Vegetables such as Brinjal, Chillies, Tomato, Jasmine, Banana, Snake gourd, along with Mango by brining 1 acre under cultivation. Earlier to the intervention farmer used to get net returns of Rs.24,000/- per year from Mango crop but now he is obtaining net returns of Rs.72,000/- per year.

Few farmers from neighbouring village of Villamkolampatti got inspired and motivated to take up similar Solar pump sets used by Chinna Karpan.

Dr. R. Vasantha, Professor, EEI, Hyderabad

Family Dairy Farming - A Soul Satisfactory Enterprise

Submitted by

Officials of Department of Animal Husbandry and Veterinary sciences, Kerala

Farmer name : Anil Kumar S.R

Address and phone no : Radhavilasam, Paikkad, Vakutaram, Vekkabadm, Kerala, 9497424707

Inputs used : Fodder planting material

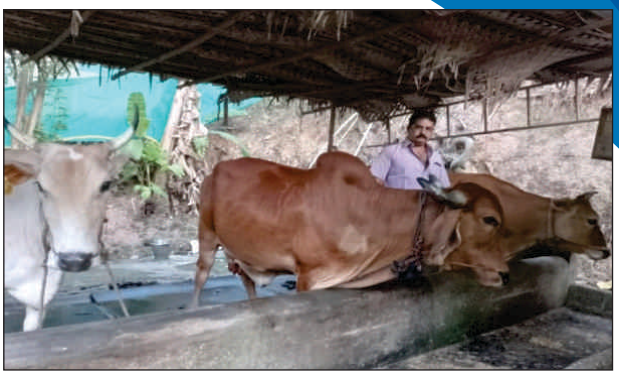
Sources of information : Dairy Development Department, Kerala.

Steps followed in attaining the success:

- The farmers family has 25 years of experience in dairy farming. Mr. Anil Kumar though a graduate by education, shares passion in dairy farming also wanted extra source of income for his family. So the family decided to take assistance from Dairy Development Department.
- With the guidance of department officials, farmer took up cattle rearing on an enterprise mode.
- Started up fodder cultivation to enable continuous availability of fodder to their cattle.
- Taken up scientific rearing of indigenous cows.
- Got timely guidance and motivation from Dairy development and Animal husbandry officials.

Cost Economics

- For being a dairy farmer with 8 animals, Anil Kumar spends on an average Rs.1500 per day and earns an income of Rs.2000 per day, thus making a profit of Rs.500 per day.
- His also earns another Rs.3000/ month through sale of cow dung.
- His family income increased, as a result of earning from dairy farm.
- As the farmer is having 25 years of experience, Anil kumar was elected to the post of President of Dairy Cooperative Society at Vellanad, Kerala.



Dr. M. Preethi, Professor, EEI, Hyderabad

Integrated livestock model uplifting the dairy farmer livelihoods

Submitted by

Officials of Department of Animal Husbandry and Veterinary sciences, Kerala

Farmer name : Jamsheer P C

Address & Phone No : Chalakandiyil House, Kuzhimanna Post, Malappuram, Kerala Pincode- 673641, 963301672

Inputs used : Fodder, poultry seed, fish feeds, paddy seed, fertilizers, cow dairy slurry, Farm compost etc.

Sources of information:

DA&FW or ICAR institutions that supported

- Assistance for implementation of sprinkler from DA&FW.
- Assistance for coconut cultivation under PKVY program of DA&FW.
- Assistance for purchasing of pump set under PKVY program of DA&FW.
- Assistance for banana cultivation from DA&FW.
- Got Fruits plants under "oru kodi phalavriksham".
- Assistance for cultivation of root-crops.
- Best organic plot of KB Kuzhimanna.

State Govt/ UT support :

- Assistance from ATMA for IFS model plot.
- Assistance for cattle shed from Dairy Development Department.
- Assistance for purchasing of heifer under MSDP Scheme from Dairy Development Department.
- Assistance for fodder cultivation from Dairy Development Department.
- Assistance for purchase of milking machine, generator, pressure washer, rubber mat, fogger, slurry pump, solar panel from Dairy Development Department.
- Assistance for the treatment of the animals from the Veterinary Dispensary Kuzhimanna.

Paragraph on best practices: farmer is currently running a farm named "PCM Farm" which is an integrated model with different varieties of cow, buffalo, poultry etc. It was started as a small venture with 2 cows as soon as the farmer completed Diploma in Dairy Science

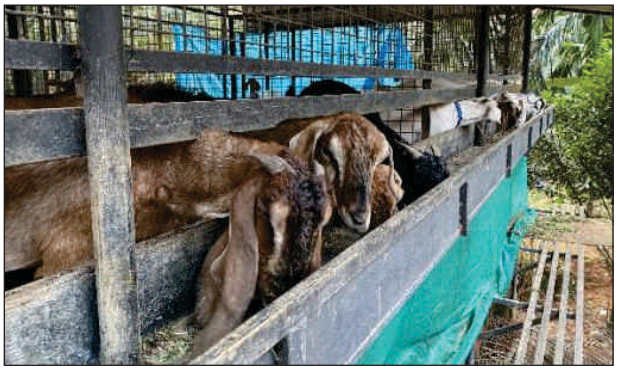
<u>Mechanization of PCM Farm</u>

- Automatic water drinking system
- Mist cooling system
- Ceiling fan
- Rubber mats
- Milking machine
- Songs played throughout the day
- Chaff cutter
- Pressure washer
- Generator
- CCTV
- Sprinkler for irrigation to crops.

Awards and achievements.

- Best young farmer award 2021 in Malappuram District.
- Best dairy farmer and highest milk supplier in APCOS of Area code block.
- A research work was completed on the topic "Effect of Lactobacillus casei Supplementation of Attappady Kids" under the guidance of Dr. Yancy Mary Issac. (Assistant professor, Dairy Husbandry Department, CDST Mannuthy)
- Best Dairy Farmer award 2021 of Kuzhimanna Gramapanchayath.
- Dr. Verghese Kurien Innovative Dairy Farmer award 2021
- Sarojini-Dhamodharan Foundation " Akshayasree 2019" classy organic plot,Malappuram, Kerala
- Completed training in "ISO 22000:2018 (Food Safety Management System)/ HACCP & ISO 9001:2015 (Quality Management System) Internal Auditor" at CDST Mannuthy, Trissure
- Completed training in "Milk & Milk Product-Food Safety Supervisor" held at Human Resource Development Centre, MRCMPU Ltd, Kozhikode, Kerala.


Farmer receiving awards




Various enterprises owned by farmer


Jamsheer, Farmer with different enterprises in his farm.







Dr A. Sailaja, Professor, EEI, Hyderabad

Silk Production Optimises Profit for Sericulture Farmers

Submitted by
Officials of Department of Sericulture, Andhra Pradesh

Farmer Name : Sri Vadde Venugopala Raju

Address & Phone Number : Chinnarajupalem(Village), Banaganapalli Mandal, Kurnool Dist, Andhra Pradesh, 9441500853

Inputs Used : Organic manures, micronutrients, bed disinfectants etc

Sources of Information : Farmer attended regular awareness and training programmes and demonstrations conducted by Department of Sericulture under support of Agricultural Technology Management Agency(ATMA)

Steps Followed in Attaining Success

- Applying required quantity of organic manures
- Following proper pruning techniques
- Correcting micro nutrient deficiencies
- Shoot rearing
- Maintaining required temperature and Relative Humidity in the Rearing House
- Applying bed disinfectants

Though farmer is having secateurs and bed disinfectants and organic manures, he is not aware of correct pruning procedures and application of bed disinfectants and organic manures. With the intervention of Department officials, the farmer learnt the importance of recommended practices and successfully adopted them on his farm, this lead to increase in no. of branches per plant and leaf, use of good quality bed disinfectants reduced the incidence and spread of diseases, thereby increased the production of quality cocoons and price in the market.

Cost Economics:

Before Intervention			After Intervention		
S.No	Yield /100 DFLs	Average price	Yield /100 DFLs	Average price	Extra Benefit In Rupees
1	60-65kg Cocoons	350/ kg Cocoons	70-75	400/-	50

Before Intervention	After Intervention
No. of crops per year 5	No. of crops per year 5
No. of DFLs reared per crop 250	No. of DFLs reared per crop 250
Average Yield per 100 DFLS before Intervention 60-65 kg	Average Yield per 100 DFLS before Intervention 70-75 kg
Average yield per crop 150-160kg	Average yield per crop 175-187kg
Price per kg of cocoons Rs 350	Price per kg of cocoons Rs 400
Total income Rs 52500-56000	Total income Rs 70000-75000
Total income in one year Rs 262500-28000	Total Income in one year Rs 350000-375000

Contributing factors for success of the Enterprise:

- Implementing the correct procedures learnt during training and demonstrations.
- Monitoring of every crop by Department officials.
- Involvement of family labour

Importance for other farmers: In Dry lands famers are left with limited resources, Sri VV Raju learned new technologies and practices and successfully implementing them on his farm leading to substantial increase in income. Taking him as role model, other sericulture farmers also should adopt recommended technologies to improve their economic status.

Dr. P. Vijayalakshmi, Professor, EEI, Hyderabad

Reeling Entrepreneur graced by Sheen of Silk

Submitted by
Officials of Department of Sericulture, Tamil Nadu

Farmer Name : C. Rozario Lasar

Address & Phone Number : V.R. Silks, 12/9, Parai thottam, Kannampalayam, Sulur, Coimbatore, Pincode-641402 , Ph. 98435 25556

Sources of Information : Newspaper Article published in Pattumalar – TN Department of Sericulture's Monthly Magazine and State Department Officials

Steps followed in attaining success :

Having years of experience in cotton spinning business, the sheen silk has grabbed the attention of Mr Lasar who availed the opportunity of establishing a silk reeling unit under the joint – financial aid of 75% subsidy from Central Silk Board and Tamil Nadu Sericulture Department. 25% financed from own funds.

He owns 10 Basins – 100 Ends Multi-end Silk Reeling Unit producing an average of 200 kg raw Silk per month. Initially he gathered relevant knowledge and technical guidance about the market dynamics involved in silk farming and yarn making from experts. Then Channelised funds towards establishment of the reeling unit. Later Built a sturdy inventory and recruited skill labourers and got them trained sufficiently. Finally checked the blanks with every trial and worked on to maintain a positive BC Ratio.

Marketing : Through the regulated market of Government Anna Silk Exchange, Kancheepuram.

Cost Economics:

Year	Silk Cocoons Consumed (in KG)	Quantity of Silk Produced (in KG)	Gross Income (Rs. lakhs)	Net Returns (Rs. lakhs)
2021-22 (upto Oct'21)	8457.000	427.135	19,47,734/-	17,76,880/-

Employment generation: 15 skilled labours are directly employed in reeling process.

Importance for other farmers: Silk has showered its sheen not only in Mr Lasar life, but also on the lives of the families of labours who work in his business and the lives of very many farmer families producing cocoons. With sweat and grit, the sheen will always glow.

Reeling entrepreneur, Thiru Rozario Lasar

Dr. R. Vasantha, Professor, EEI, Hyderabad

Silk success unfolds in the farm of Thiru Rajesh

Submitted by
Officials of Department of Sericulture, Tamil Nadu

Farmer Name	:	Thiru. N. Rajesh, S/o Nagaraj
Address & Phone Number	:	Attur Village, Nandimangalam (PO), Hosur (Tk), Krishnagiri (Dt), Tamilnadu - 635105, Ph: 9629531151, anr6688@gmail.com
Sources of Information	:	Social Media
Inputs used	:	Farm Yard Manures, Vermi Compost and Green Manures

Steps followed in attaining success :

Mr Rajesh is an engineering graduate who worked in a telecommunication company for 6 years and left the job due to work pressure and dissatisfaction. After quitting the job, he wanted to cultivate vegetable.

While cultivating Vegetables he noticed that it required frequent application of pesticides and inorganic fertilizers which made him to switch over to Sericulture which could be done in an environment friendly manner.

Then he undertook hands on training on Mulberry Cultivation and Bivoltine silkworm rearing at Tamil Nadu Sericulture Training Institute, Hosur. Had exposure visits to nearby farmers fields. He adopted mechanization at farm level and reduced the expenses on labour wages. Used own fund and availed the assistance of State Department.

Special efforts:

i) Adopted wider spacing in Mulberry plantation for easy adoption of mechanization.

ii) Cultivation of leguminous crops as inter crops and mulching in the main field to enrich soil fertility.

Marketing : Through the regulated Cocoon Markets of the State Govt.

Cost Economics:

Year	DFs reared	Cocoon Harvested (Kgs)	Gross Income (Rs. lakhs)	Net Returns (Rs. lakhs)
2017-18	3000	2800	8.00	4.98
2018-19	3800	3550	11.72	7.78
2019-20	3800	3674	13.00	9.20
2020-21	3300	3245	9.73	6.23

Spread to other farmers: His story has been widely used in many social media handles to inspire many youths to attract towards sericulture

Awards: Secured 1st Prize at district level in the category of Best Sericulture farmer

Rajesh in cocoon shed

Mulberry grown for raising cocoons

Dr. R. Vasantha, Professor, EEI, Hyderabad