Success stories

1. New fine grain paddy variety VGD 1 for Thaladi season in Thiruvarur district for doubling the income

1. Situation analysis/Problem statement:

Mr.G.Karnan is an ardent young agriculturist and he is residing at Vaduvur- Pudukkottai, Needamangalam block of Thiruvarur district. He is involved in the farming activity for the past 5 years. Earlier, he grows a medium duration BPT paddy variety under inorganic cultivation. Pest and disease incidence was higher in this variety which in turn reduced the yield and Soil health was declined. Often severely affected by drought and floodings and crop was damaged due to these incidences. Market price of this variety was also least. So an alternate variety is required with good marketing value. Under these circumstances, he visited and discussed with the scientists from ICAR - KVK, Needamangalam regarding the new varieties developed for cultivating in Thaladi season. Based on the idea received from ICAR - KVK, Needamangalam, he cultivated a new variety, VGD 1 for one acre, which having good market value.

2. Plan, Implement and Support:

He approached the ICAR - KVK, Needamangalam for getting guidance to cultivate the variety, which having high market value. Further, he attended various trainings on eco-friendly technologies for pest and disease management, soil health management, seed production technologies, etc. Consequently, ICAR KVK has supplied various inputs like good quality VGD 1 seeds, biofertilizers and other inputs, and conducted a front line demonstration on "Demonstration of Newly released medium duration fine grain Paddy variety VGD 1 with ICM in Thiruvarur District" in one acres of land at the farm of Mr.Karnan. All technical guidance has been given to the farmer with frequent field visit. As per the technical advice, he adopted all Integrated Crop Management practices like seed treatment, integrated nutrient and water management, integrated pest management, etc.

3. Output:

The farmer harvested the VGD 1 about 130 days of duration, which is earlier compared to BPT (145 days). He opined that the pest and disease incidence also least and hence, the cost of plant protection measures was reduced. Further, this variety performed very well and it withstand under heavy rainy season because of its semi dwarf and non-lodging in nature. He has obtained higher grain yield of 6090 kg/ha for the variety VGD 1. This VGD 1 grain is suitable for cooking of biryani and khushka as Seeragasampa. Therefore, the market value of this variety grain is higher than BPT. Through selling of milled grains he has earned net income of Rs. 2,51, 735/

ha with BCR of 5.19. When he sold BPT grains, he got only Rs. 38270/ha as net income with BCR of 1.85.

4. Outcome

- ❖ The milled grain of variety, VGD 1 was sold at the rate of Rs. 80 per kg, and it made cultivation this variety as more economical rewarding.
- ❖ If other farmers follow the cultivation of VGD 1 he has practised, it will greatly benefit them through the doubling of farm income

5. Impact:

Area under VGD 1 cultivation in this district is 30 ha in 2021-22. Large numbers of farmers of Thiruvarur district are interested to cultivate this variety in the forthcoming season. By this process it is expected to extend from 200 to 300 ha in the forthcoming season.

2. Finger millet ATL 1 variety suitable for Thiruvarur District

INTRODUCTION

Millet crops are reported to be most tolerant to moisture stress but even for short period of moisture stress during critical stages of growth, markedly reduces the yield. Finger millet or *Mandua* or Bird's foot millet commonly known as *Ragi* (*Eleusine coracana* (L.) Gaertn.) is an important small millet crop ranked third in India in area and production and has the pride of place in having the highest productivity among the millets after sorghum and pearlmillet. Finger millet is the third most important millet in India next to sorghum and pearl millet covering an area of 2 million hectares with annual production of 2.15 million tonnes. Finger millet occupy 4.5 per cent of the total cultivated area. Generally Ragi ATL 1 can be recommended for rainfed condition and it is highly suitable for Thiruvarur District. The market preferences of the varieties (Ragi ATL 1) were good. This variety was released by TNAU during 2021. It is suitable for rainfed and irrigated conditions for Thiruvarur District.

Few farmers are cultivating the local variety of ragi and most were forgotten to cultivate ragi in Thiruvarur District. Less yield and pest and disease incidence was higher. In this context, ICAR - KVK, Thiruvarur introduces Ragi ATL 1 variety under FLD programme to the selective villages of in Mannargudi and Thiruthuraipoondi Block. Ragi ATL 1 variety registered higher yield .

Problem identified

- Less area of cultivation without old varieties
- Less yield

KVK interventions

With this background KVK introduced new variety of Ragi ATL 1 in the District under FLD programme during 2021-22 under 10 trails has been conducted in the following villages covering 10 farmers.

Name of the village	Block	No of trails conducted
Mahadevapattinam	Mannargudi	4
Thiruvalansuli	Thiruthuraipoondi	3
Thirukalar	Thiruthuraipoondi	3

Plan, Implement and Support:

Front line demonstrations were conducted with the Ragi ATL 1 variety in Mahadevapattinam, Thiruvalansuli and Thirukalar areas of Tiruvallur District during rabi season in ten farmers field during the year 2021-2022 . Critical inputs were supplied to the farmers *viz*., Ragi ATL 1 seeds variety (TNAU, 2021) @ 5kg/ha for irrigated condition. The technologies demonstrated include Seed treatment with biofertilizers *viz*., *Azospirillum*, *Phosphobacteria* & KRB each @ 600 g/ha of seed &*P. fluorescens* @10 g /kg of seed and soil application of biofertilizers @ 2.0 kg/ha along with MN Mixture for ragi @12.5kg/ha. On campus and off campus trainings were given to farmers as well as extension personnel on various improved crop production technologies and integrated pest management practices. The farmers were also facilitated with technical pamphlets on Integrated nutrient management, Pest and disease management. Demonstrations were made on seed treatment and soil application of biofertilizers and MN mixture. Necessary farm advisory services were given by the Subject Matter Specialists of KVK with varied specialization. Parameters *viz.*, plant height, number of productive tillers, yield (q/ha) and BCR was observed and recorded from the demonstration fields.

Output:

Ragi ATL1 is early maturing variety and good yielder. High tillering capacity and resistant to blast incidence.

Farmer	:	Thiru.Veeramani
Village	:	Mahadevapattinam
Area	:	1ac
Yield	:	30.50 q per hectare
Net Returns (Rs/ha)		Rs. 50,200
BCR		2.32

No. of Farmers	Area (ha)	Yield (q/ha)		% Increase in yield	Economics of demonstration (Rs./ha)			
		Ragi ATL1 Yield in demo	Local Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
10	5	31.50	28.15	12	38000	88200	50200	2.32

Outcome:

- This variety is suitable for both irrigated and rainfed condition. The farmers got good yield with high remuneration.
- Resistant to biotic and biotic stress
- Climate resilient crop and suitable for value addition purpose

3. New TNAU Ridge gourd hybrid COH-1 for Thiruvarur District

Introduction

Earlier the farmers used to cultivate only the local or private Ridge gourd variety or hybrid with low yield potential i.e. 15-20tonnes per hectare and highly susceptible to Downey mildew, fruit fly and viral incidence with short fruits. He has approached ICAR-KVK, Thiruvarur to take advice on improving his farm income through other Cucurbitaceous vegetable varieties / hybrids. To overcome this issue the Front Line Demonstration on TNAU Ridge gourd Hybrid COH-1with a yield potential of 32 t/ha and moderately resistant to fruit fly and downed mildew disease has been proposed to sustain and generate more income from Ridge gourd cultivation for the year 2020-21 and accordingly the programme was approved by the Directorate,ICAR-ATARI, Zone VIII, Bengaluru. Initially ICAR-KVK, Thiruvarur has provided some important critical inputs like TNAU Ridge gourd Hybrid COH-1seeds and bio control agents.

Problem identified

- Less area of cultivation with old varieties
- Low yield
- Highly susceptible to pest and diseases.

KVK interventions

With this background KVK introduced new Hybrid of Ridge gourd COH-1 in the District under FLD programme during 2020-21 under 10 trails has been conducted in the following villages covering 10 farmers.

Name of the village	Block	No of trails conducted
Mahadevapattinam, Moovanallur, Melanagai	Mannargudi	7
Vaduvursathanur	Needamangalam	3

Plan, Implement and Support:

Front line demonstrations were conducted with new Hybrid of Ridge gourd COH-1in Mahadevapattinam, Movanallur and Vaduvur Sathanur areas of Thiruvarur district during rabi season in ten farmers field during the year 2020-2021. Critical inputs were supplied to the farmers*viz*., COH-1 Ridge gourd seeds (TNAU, 2018) @ 1.5kg/ha for irrigated condition. The technologies demonstrated include Seed treatment with biofertilizers*viz*., *Azospirillum*, *Phosphobacteria*& KRB each @ 600 g/ha of seed &*P. fluorescens* @10 g /kg of seed and soil application of biofertilizers @ 2.0 kg/ha. On campus and off campus trainings were given to farmers as well as extension personnel on various improved crop production technologies and integrated pest management practices. The farmers were also facilitated with technical pamphlets on Integrated nutrient management, Pest and disease management. Demonstrations were made on seed treatment and soil application of biofertilizers and MN mixture. Necessary farm advisory services were given by the Subject Matter Specialists of KVK with varied specialization. Parameters *viz.,* Vine length (cm) number of female flowers per vine, no. of fruits per vine, Yield per plant, days taken for first female flower arising, yield (q/ha) and BCR was observed and recorded from the demonstration fields.

Output:

Ridge gourd COH-1 is a high yielding hybrid and tolerance to fruit fly and downey mildew disease with long fruits.

Farmer	**:**	Th. M.Veeramani, S/o Th. Mariappan, Kandiyar street Mahadevapattinam Mannargudi Taluk, Thiruvarur District PIN -614 001 Mobile : 7397742283
Village	:	Mahadevapattinam
Area	:	0.4 Ha
Yield	:	30.10 t/ ha
Net Returns (Rs/ha)		Rs. 102500/-
BCR		3.71

No. of Farmers	Area (ha)	Yield (t/ha)		% Increase in yield	Economics of demonstration (Rs./ha)			
		COH-1 Yield in demo	Local Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
10	5	30.10	19.8	66	27620	102500	74880	3.71

Outcome:

- This variety is suitable irrigated condition with pandal system of cultivation. The farmers got good yield with high remuneration.
- Resistant to biotic and biotic stress
- Climate resilient crop and suitable for long distance market.

4. A woman IFS Entrepreneur in Wet land Eco-system

1. Situation analysis/Problem statement:

Mrs.S.Sundari is a 35 years old farmer residing at Melapoovanure viilage Thiruvarur district. SDhee is involved in the farming activity for the past 10 years. Earlier, she infertile dairy cattle with prolonged inter calving period. She was maintaining cattle without any profit. She is also earning minimum profit from fish culture without much investment. She attended "Dairy cattle management" training at Needamangalam and 2020.

She discussed with the scientists from ICAR - KVK, Needamangalam regarding the new technologies for cattle fertility management. Based on the idea received from ICAR - KVK, Needamangalam she reconstuctedv her cattle shed. KVK needamangalam scientist visited her farm animals and treated for infertility problem.

2. Plan, Implement and Support:

She approached the ICAR - KVK, Needamangalam for getting guidance for the Cattle management. Moreover, she attended the useful training related to modern techniques for fodder production, backyard poultry, dairy production and fish production. She adopted the following recent technologies in Integrated Farming. During field diagnostic visit infertile animals were treated and dairy farming become income generative to her and number of cattle is increased to 10. She was frequently visited by KVK scientists and critical inputs given to her through various OFT and FLDs along with scientific practice packages.

3. Output and Outcome:

- Old cattle shed reconstructed as iron sheet roofed cattle shed
- During field diagnostic visit infertile animals were treated and dairy farming become income generative to her and number of cattle is increased to 10 and milk yield also increased.
- In 2021, attempted forage training and started cultivation of velimasal and COFS 29.
- She received 20 numbers of TANUVAS Aseel chicks in FLDand presently having 100 numbers of laying hens.

- She is also one of the FLD beneficiaries for fish silage in 2020. Presently she is regularly preparing fish silage and feeding country chicken in low cost.
- She is having two acres of fish pond and she is provided with Jayanthi rohu from kvk but she reported lowest yield as compared to the desi rohu. She is a good ambassador for KVK Needamangalam and arranged two number of "Animal Health Campaign" for KVK at her village.
- She attempted IFS training at kvk in 2021 and become entrepreneur for livestock feed production and received 25 lakhs subsidiary loan under the guidance of KVK Thiruvarur.No her feed mill is under construction.
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- She was getting net profit of Rs.8,000 /Cow/Lactation, and from fish pond she is earning 2 lakh/Acre of pond. She is producing 30 eggs /day from TASNUVAS aseel birds and earning 8500/year from back yard poultry. She is not spenting any money for feeding poultry but practicing fish silsge and natural grazing. Her well fed Rohu fishes are reaching 1 kg from average of 7.3 kg weight with in 8 month period of time
- She is getting income and employment throughout the year
- Now she become role model for integrated farming

5. Impact:

- Area under forage cultivation increased
- 5 cattle rose to 10
- IFS practice and recycling of farm waste
- Backyard poultry and fish silage feeding
- Woman entrepreneur, KVK ambassador and Local community leader to others
- Owning a feed mill worth of 40 lakh

5. Promoting the Health mixes for all age groups.

Situation analysis/Problem statement:

The two friends from same locality wanted to start a business. They went acame to KVK finally in 2021 for consultation. Opening all the avenues they was interested to attend trainings

1.S.Kavitha
W/o anthakumar,
South street,
Vaduvoor Thenpathy
Cell: 9943571024
Thiruvarur district

2.A.Sabarimatha
W/oAyyapan
Purana street,
Vaduvor Agraharam
Cell:
9751763399

Plan, Implement and Support:

Finally they was satisfied to produce health mixes . To enhance the benefit cost ratio as per the suggestion of SMS (Food Science) they prepared Ready to use health mix, snack balls using health mix and incorporated banana dry powder health mix and training was provided to them.

Output:

They faced hurdles in processing techniques and slowly improved their method and became expertise in standardizing the right proportion for health mix for different age groups.

Outcome:

They produced health mix from 50 kg /month and sells at a cost of Rs5000 per month The cost of expenditure is Rs 2000.They earn 3000/month. They also prepare products using health mix and sell the beverages as such

Impact:

The two friends was inspired and wants to be successful in their business. They were awarded with certificate and prize in the Womens day celebration .