On Farm Trial
2019-20

Title	**Assessment of Suitable Paddy varieties for high yield during Samba season**		
Discipline	Agronomy		1st Year
Farming situation	Irrigated		
Problem diagnosed with intensity	•Low Yield with existing varieties (4.5t/ha) •Heavy incidence of blast (35%), leaf spot (27%) and stem borer (25%) •Increasing soil salinity (pH upto 8) leads to reduction in yield upto 15-20%.		
Category, Theme, Crop/Technology	Agriculture crop/Varietal Evaluation/ Paddy		
Technology Option 1	Cultivation of Paddy variety NLR 34449		Source : ARS, Nellore, 2010
Technology Option 2	Cultivation of Paddy variety TKM 13		Source : TNAU, 2016
Farmers practice	Cultivation of Paddy variety CO-43		
Year of initiation	2019		Season : Rabi
No. of locations	5		Area (ha) : 2
Observations recorded	**NLR 34449**	**TKM 13**	**CO-43**
No. of plants/sq.m	18	18	24
No. of productive tillers/hill	48	**63**	42
Green horn caterpillar incidence (%)	18	11	**23**
PDI of blast	10	12	**22**
To be continued / concluded	Concluded		

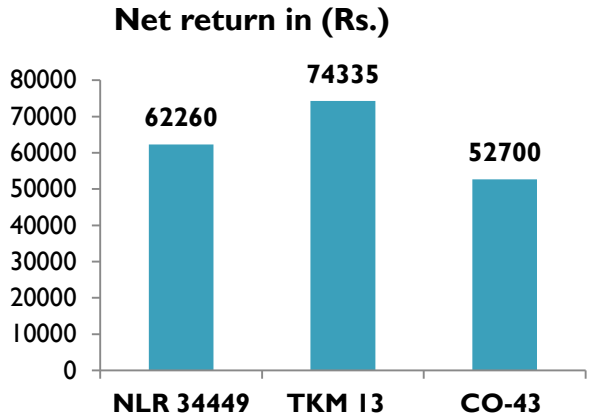
Results of OFT (1/5)

Treatments	Yield (q/ha)	Net returns (Rs./ha)	B:C Ratio	Marketability
TO 1 - Cultivation of Paddy variety NLR 34449	50.4	62,260	2.28	Moderate
TO 2 - Cultivation of Paddy variety **TKM 13**	**52.8**	**74,335**	**2.61**	Good
FP - Cultivation of Paddy variety CO-43	46.3	52,700	2.17	Good

Yield increase 14 %

Remarks/Feedback

- TKM 13 variety and its straw quality is best than other two varieties
- TKM 13 has less pest and disease problems compared to NLR 34449 and CO-43.
- The merchants interested in buying TKM 13 Paddy.
- NLR 34449 has low cooking quality than TKM 13 and not delicious when compared to TKM 13 and CO-43



Intervention

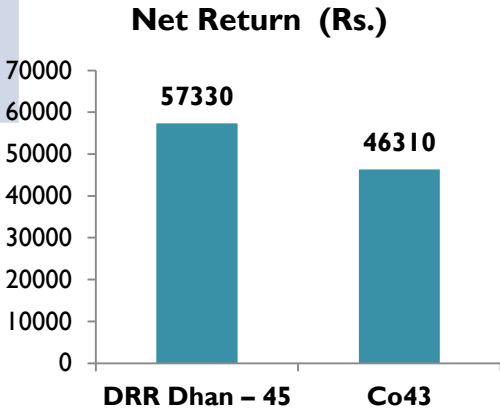
Control

Title	Assessment of Suitable of Bio fortified Paddy varieties for Ariyalur District	
Discipline	Agronomy	1st Year
Farming situation	Irrigated	
Problem diagnosed with intensity	•Low Zinc content (10-13 ppm) in existing Paddy variety •Lack of awareness on bio fortified crop varieties.	
Category, Theme, Crop/Technology	Agricultural crop/Varietal evaluation/Paddy	
Technology Option 1	Cultivation of Paddy variety DRR Dhan – 45	Source : IIRR, 2015
Farmers practice	Cultivation of Paddy variety CO-43	Source : TNAU, 1982
Year of initiation	2019	Season : Rabi
No. of locations	5	Area (ha.) : 2
Observations recorded	**DRR Dhan – 45**	**CO-43**
No. of plants/sq.m	19	26
No. of productive tillers/hill	**55**	46
Onion gall midge incidence (%)	4	**18**
PDI of BLB	8	**16**
PDI of false smut	10	**12**
To be continued / concluded	Concluded	

Results of OFT (2/5)

Treatments	Yield (q/ha)	Net returns (Rs./ha)	B:C Ratio	Marketability
TO 1 - Cultivation of Paddy variety **DRR Dhan – 45**	**46.5**	**57330**	**2.18**	Good
FP - Cultivation of Paddy variety CO-43	45.7	46310	1.83	Good

Zn content in DRR Dhan - 67 ppm



Remarks/Feedback

- DRR Dhan 45 variety and plant health is very good than existing variety Co43.
- Very low incidence of Onion gallmidge than other local variety which causes reduced cost of cultivation in terms of spraying scheduled pesticide.
- Cooking quality is very good (highly tasty) and good keeping quality.

Intervention

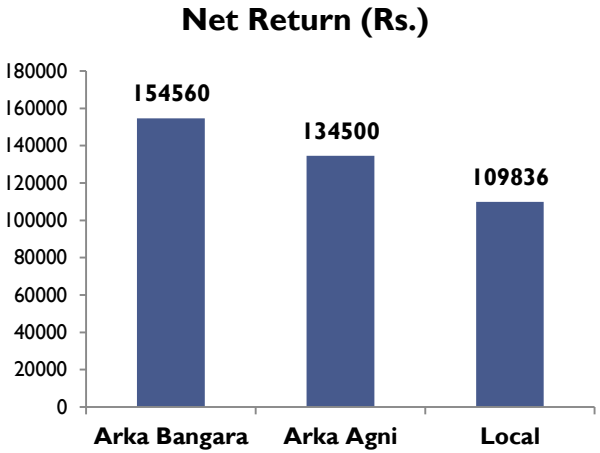
Control

Title	**Assessment of Marigold varieties for higher yield**		
Discipline	Horticulture		1st Year
Farming situation	Irrigated		
Problem diagnosed with intensity	• Low yield in existing variety Victor-2 (20 t/ha). • Short petiole, small flower size and dull yellow colour. • Lack of awareness on newly released public sector varieties.		
Category, Theme, Crop/Technology	Horticultural Crop/Varietal evaluation/Marigold		
Technology Option 1	Cultivation of Arka Bangara - 2		Source : (IIHR, Bangalore)
Technology Option 2	Cultivation of Arka Agni		Source : (IIHR, Bangalore)
Farmers practice	Cultivation of Private Hybrid		
Year of initiation	2019		Season : Rabi
No. of locations	3		Area (ha) : 1
Observations recorded	**Arka Bangara - 2**	**Arka Agni**	**Local Variety**
Flower borer incidence %	**11.5**	15	15
To be continued / concluded	Concluded		

Results of OFT (3/5)

Treatments	Yield (q/ha)	Net returns (Rs./ha)	B:C Ratio	Market -ability
TO 1 - Cultivation of **Arka Bangara - 2**	**251.3**	**1,54,560**	**2.6**	Excellent
TO 2 - Cultivation of Arka Agni	231.20	1,34,500	2.39	Good
FP - Cultivation of Local Variety	201.13	1,09,836	2.2	Good

Yield increase – 25 %



Remarks/Feedback

- Market preference is higher for the yellow colour flower of Arka bangara-2 variety and it was less for yellowish red colour flower variety Arka Agni.
- Planned for mass propogation by terminal cuttings of Arka Bangara - 2.

Intervention

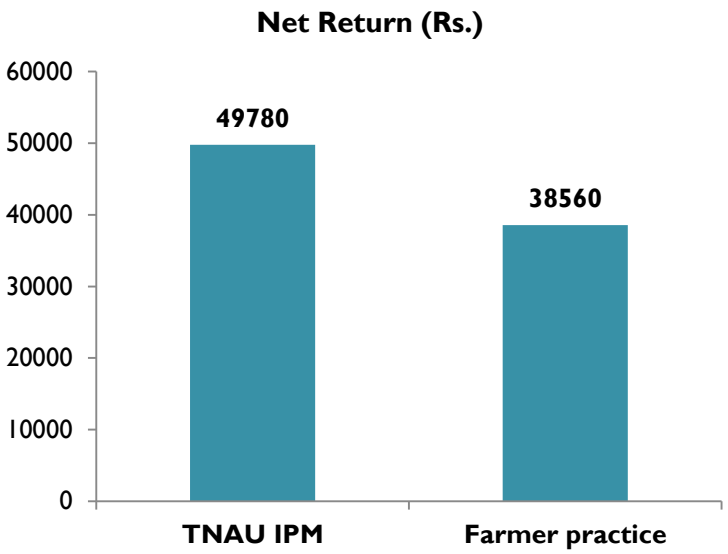
Control

Title	**Assessment of Fall Army Worm management practices in maize**	
Discipline	Plant Protection	1st Year
Farming situation	Irrigated	
Problem diagnosed with intensity	• Indiscriminate use of pesticide led to non control of pest and increased cost of cultivation. • Fall Army Worm incidence resulted in damage of leaves and cobs. • Yield reduction upto 30 %.	
Category, Theme, Crop/Technology	Agricultural Crop / IPM / Maize	
Technology Option 1	TNAU IPM Capsule	Source :TNAU,2018
Farmers practice	Spraying of Chemicals	
Year of initiation	2019	Season : Kharif
No. of locations	5	Area (ha) : 2
Observations recorded	TNAU IPM Capsule	Farmer practice
No. of infested leaves per plant	17	29
No. of larva / plant	**2**	4
To be continued / concluded	Concluded	

Results of OFT (4/5)				
Treatments	Yield (q/ha)	Net returns (Rs./ha)	B:C Ratio	Marketability
TO 1 - **TNAU** IPM Capsule	**51.80**	**49,780**	**2.02**	Excellent
FP - Spraying of Chemicals	48.00	38,560	1.73	Good

Remarks/Feedback

- It is difficult to follow all the practices recommended by TNAU
- There is no assurance to get these inputs at our local pesticide shops



Intervention

Control

Title	**Assessing the Effectiveness of Different Mobile Apps in Terms of Knowledge Gain and Agro Advisory services**	
Discipline	Agricultural Extension	1st Year
Farming situation	---	
Problem diagnosed with intensity	• Lack of awareness on latest technologies and marketing information. • Availability of services and their sources were not known to farmers • Limited access or availability of technological advisories on time.	
Category, Theme, Crop/Technology	Transfer of Technology (ICT)	
Technology Option 1	e-NAM	Source :GOI
Technology Option 2	Uzhavan Mobile App	Source :GOI
Farmers practice	Kisan Suvidha	
Year of initiation	2019	Season : Rabi
No. of locations	3 groups	Area (ha) : ---
To be continued / concluded	Concluded	

Technology option	Knowledge gain (%)	Symbolic adoption (%)	Level of satisfaction	Credibility on source of information	Ease of access to technology
TO 1 - e-NAM	42	27	Medium	Moderate	Moderate
TO 2 - Uzhavan Mobile App	**76**	**62**	High	High	High
Farmer Practice Kisan Suvidha	32	26	Low	Low	High

Multidisciplinary nature of Uzhavan App

Remarks/Feedback

- Uzhavan application provides information specific to their location. It saves their time spent on seeking information.
- e-NAM and Kisan Suvidha provides only few crop and marketing information. Hence it is of less important as it provides information only on Paddy, Groundnut etc. It provides information only related to North Indian crops like wheat, soyabeans etc.
- The information provided in these two apps are only limited on each crop.

Intervention

Control