

**Front Line Demonstration
2020-21**

Achievements**Front Line Demonstration (FLDs)****KVK, Ariyalur- FLD I/5**

Title	Demonstration of ICM in paddy ADT53 with Panipipe technology	
Discipline	Agronomy	1 st Year
Farming situation	Irrigated	
Problem diagnosed with intensity	<ul style="list-style-type: none"> • Low yield with existing variety CO-43 and BPT-5204 (4.5 t./ha.) • Wastage of water by stagnation always • Heavy incidence of bacterial leaf blight (35%), leaf spot (27%) and stem borer (25%) 	
Category, Theme, Crop/Technology	Agricultural Crop / Varietal Introduction & water conservation/ Rice	
Technology demonstrated	<ul style="list-style-type: none"> • Demonstration on Paddy ADT 53 • Demonstration of Pani pipe technology • Alternate Wetting and Drying (AWD) system 	Source : TNAU, 2019
Farmer's practice	<ul style="list-style-type: none"> • Irrigation once in 3 days interval • Maintaining water level at 5 cm height always 	
Year of initiation	2020	Season : Samba
No. of locations	10	Area (ha) : 4
Observations recorded	ADT 53 With Pani pipe Technology	Control
No of irrigation given	16	22
No of Productive tillers/m ²	292.6	268.4
No of Panicle/Plant	15.2	13.1
Incidence of BLB (%)	11	28
To be continued/concluded	Concluded	

Results of FLD (1/5)

Treatments	Yield (q/ha)	% increase over FP	Net returns (Rs./ha)	B:C Ratio	No of Irrigation Saved
Demonstration of ICM in paddy ADT54 with Panipipe technology	54.3	15	74320	2.59	6
FP - Submerged condition	47.4		52160	1.96	

Yield increase 15%

Water saving 38 %

Remarks/Feedback

- The growth and yield of ADT 53 is good and **No lodging** even in high rainfall
- The alternate wet and dry irrigation method leads **more productive tillers**
- **Weed problem** was bit high in AWD method compare to conventional

Intervention



Latitude: 11.10993
 Longitude: 79.25263
 Elevation: 56.18 m
 Accuracy: 13.7 m
 Time: 16-12-2020 16:27
 Photo: FLD on ICM in Paddy

Control



Achievements**Front Line Demonstration (FLDs)****KVK, Ariyalur- FLD 2/5**

Title	Demonstration of mixed cropping of castor with redgram to augment rainfed farm income	
Discipline	Agronomy	1 st Year
Farming situation	Rainfed	
Problem diagnosed with intensity	<ul style="list-style-type: none"> • Low income (<Rs.20,000/ha.) from sole maize crop and non adoption of viable intercropping system for rainfed condition • Low yield from existing varieties due to susceptibility to Redgram pod borer, capsule borer (18%), castor semi looper (22%) and wilt disease occur • Cultivation of long duration varieties for rainfed condition 	
Category, Theme, Crop/Technology	Agricultural Crop / Mixed Cropping/ Castor + Redgram	
Technology demonstrated	Mixed cropping of Castor with redgram	Source :TNAU,2018
Farmer's practice	Maize as Sole crop	
Year of initiation	2020	Season : Rabi
No. of locations	10	Area (ha) :4
Observations recorded	Mixed Cropping	Sole crop
Cropping index	200	100
To be continued / concluded	Concluded	

To find out
Alternate crops
for Maize (FAW)

Results of FLD (2/5)

Treatments	Yield (q/ha)	% increase over FP	Net returns (Rs./ha)	B:C Ratio	Reception for alternate crop
Demonstration of mixed cropping of castor with redgram	22.63	-53	51920	2.35	Good
FP (Maize as sole crop)	48.6		32750	1.62	Moderate

Net income increase 59%

Cropping intensity - 200%

Remarks/Feedback

- This mixed cropping system for dry land mode gave better income than maize cultivation
- Though this system double the income were getting from two different crops and the plant protection aspect cost has reduced than existing maize cultivation
- This mixed cropping system is good for rainfed farming and best alternate cropping system for maize cultivators

Intervention



Control



Achievements**Front Line Demonstration (FLDs)****KVK, Ariyalur- FLD 3/5**

Title	Demonstration of Soil Moisture Indicating tool for scheduling of irrigation in Brinjal	
Discipline	Horticulture	1 st Year
Farming situation	Irrigated	
Problem diagnosed with intensity	<ul style="list-style-type: none"> • Over irrigation/ flooding leads to wastage of water upto 30 % • Shortage of water resources due to ground water depletion • High cost of water (Rs.100-120/hr) 	
Category, Theme, Crop/Technology	Horticultural crop / Resource conservation / Brinjal	
Technology demonstrated	<ul style="list-style-type: none"> • Irrigation scheduling based on the soil moisture status using SMI • Blue – Ample moisture- no need for irrigation • Green – Sufficient Moisture – Immediate irrigation may not be necessary • Orange – Low moisture – Irrigation advisable • Red – Very low moisture- Immediate irrigation necessary 	Source : SBI, 2012
Farmer's practice	Irrigation -Once in 5-7 days interval depending on the soil and weather conditions	
Year of initiation	2020	
No. of locations	5	
Observations recorded	Demo	Check
No. of irrigations	10	15
To be continued/ concluded	Concluded	

Results of FLD (3/5)

Treatments	Yield (q/ha)	% increase over FP	Net returns (Rs./ha)	B:C Ratio	Fruit quality
Technology demonstrated – Soil Moisture indicator	318.4	10	221450	3.29	Good
FP - Frequent irrigations	290.2		197590	3.01	Good

Water saving – 33 %

Yield increase – 10 %

Remarks/Feedback

- The growth and yield of brinjal crop is better in field where Soil Moisture Indicating tool is used for scheduling of irrigation.
- Only 10 irrigations was required instead of 15 irrigation in farmer’s practice of frequent irrigation.
- The weeding cost also reduced.

Intervention



Control



Title	Demonstration on heat box for goat kids	
Discipline	Animal Science	1 st Year
Farming situation	<ul style="list-style-type: none"> • Most of the farmers rear goats in free range system and semi-intensive system. • Lack of proper shed and hygienic conditions especially during rainy season leads to kids' mortality. 	
Problem diagnosed with intensity	<ul style="list-style-type: none"> • Goat kids lack development of thermoregulatory mechanism during initial stages of growth making them prone for due to cold conditions. • Mortality of kids during rainy and winter season • Unhygienic shed conditions leads to diseases like <i>E.coli.</i>, <i>coccidiosis</i> & there by causes mortality in kids up to 10% 	
Category, Theme, Crop/Technology	Animal Science/ Health Management / Goat	
Technology demonstrated	Demonstration on heat box for goat kids (Proper heat and keeping dry prevent many infectious diseases like navel ill and coccidiosis)	Source :TANUVAS, 2018
Farmer's practice	--	
Year of initiation	2020	Season : Rabi
No. of locations	One group (10 farmers & farm women)	Area (ha) :--
Observations recorded	Demo	Check
% of Survival	95 %	70%
To be continued /		

Results of FLD (4/5)

Treatments	Yield (Kids / year from 20 does)	Survivability (%)	Net returns (Rs./ha)	% Increase in Net returns
Technology demonstrated – Heat box	43	95	Rs.4000 x 40kids = 156000*	36
FP – The kids are covered under bamboo baskets	43	70	Rs.4000 x 30 kids = Rs.115000*	---

*after deducting expenditures

Increase in survivability – 36 %

Remarks/Feedback

- The technology is good for medium- large scale goat farmers around 25-50 goats
- Initial cost of the equipment is high

Intervention



Control



Title	Demonstration of Rice expert system as Android based Mobile App	
Discipline	Agricultural Extension	1 st Year
Farming situation	Farmers taking information through Face to Face contact with Scientist	
Problem diagnosed with intensity	Issues in providing farm specific agro advisory services in time	
Category, Theme, Crop/Technology	Agricultural Crop / ICT / Rice	
Technology demonstrated	Rice Expert system through Mobile	Source : TNAU,2015
Farmer's practice	Face to Face contact	
Year of initiation	2020	Season : Samba
No. of locations	10	Area (ha) :4
Observations recorded	Pre test	Post test
Knowledge gain %	20	72
To be continued / concluded	Concluded	

Results of FLD (5/5)

Treatments	Adoption level(%)
Technology demonstrated – Rice Expert System	43

Remarks/Feedback

The Rice Expert system app is very useful during the pandemic situation of COVID 19 without expecting the experts physically

Intervention



Conducted Pre test on Paddy cultivation –
14.10.2020



Method demonstration on use of Rice expert
system at field – 12.12.2020

Control



Advisory service on Paddy cultivation (Face to Face)
– 12.06.2020