

FRONT LINE DEMONSTRATION

FLD No. 1		Demonstration on herbicides in transplanted rice		
Season & Year		Kharif, 2019	No. of Demo	10 (Panposi, Basudevpur)
Crop / commodity		Rice	Farming Situation	Upland
Problem diagnosed (one or many)		Low yield due to weed infestation in transplanted rice	Spread and intensity of problem	83,000 ha, High
FP	No herbicide application in transplanted rice			
Demo	Application of Pendimethalin @ 2500 ml/ha + Bispyribac Sodium @ 200 ml/ha		Source: AICRP on Weed management, OUAT, 2015	
Details of the technology		Application of pendimethalin @ 750 g/ha as pre-emergence application i.e 0-3 DAT followed by Bispyribac sodium @ 25 g/ha as post-emergence i.e 25 DAT		
Observation Parameters		No. of weeds/m ²	Performance Indicator	Yield , Net return, B:C ratio
Scientist(s) to be involved		SMS(Agronomy)		

FLD No. 2		Demonstration on Ragi var. Arjun		
Season & Year		Kharif,2019	No. of Demo	10 (Kundhei, Kaberiposi)
Crop / commodity		Ragi	Farming Situation	Rainfed upland
Problem diagnosed (one or many)		Low yield due to use of local variety	Spread and intensity of problem	50 ha.
FP	Local Variety var: Pala			
Demo	Demonstration of Ragi var. Arjun		Source: RRTTS, Semiliguda (2015)	
Details of the technology		Ragi var. Arjun is 110 days and potential yield is 23 – 24 q/ha.		
Observation Parameters		No of tillers/plant	Performance Indicator	Yield , Net return, B:C ratio
Scientist(s) to be involved		SMS(Agronomy)		

FLD No. 3		Demonstration on application of Bio-fertilizers in Toria		
Season & Year		Rabi,2019-20	No. of Demo	10 (Banspal, kundi)
Crop / commodity		Toria	Farming Situation	Irrigated medium land
Problem diagnosed (one or many)		Less yield due imbalanced nutrient application	Spread and intensity of problem	8200 ha
FP	Cultivation of toria without biofertilizer application			
Demo	Seed inoculation with Azotobactor & PSB along with 50-25-25 kg N-P ₂ O ₅ -K ₂ O kg/ha		Source: AICRP on Rapeseed and Mustard, OUAT,2012	
Details of the technology		Seed inoculation with Azotobactor & PSB along with 50-25-25 kg N-P ₂ O ₅ -K ₂ O kg/ha		
Observation Parameters		No of Silique/Plant	Performance Indicator	Yield , Net return and BC ratio
Scientist(s) to be involved		SMS(Agronomy)		

FLD No. 4	Demonstration on nutrient management in Rice-linseed paira cropping systems		
Season & Year	Rabi, 2019	No. of Demo	10 (Maheswarpur, Saharapoda)
Crop / commodity	Linseed	Farming Situation	Rainfed upland
Problem diagnosed	Low system productivity under rice-linseed cropping system	Spread and intensity of problem	2000 ha
FP	No nutrient management of linseed in rice-linseed paira cropping systems		
Demo	Paddy- Linseed Paira cropping systems (30 kg N/ha)	Source : AICRP on Linseed, Keonjhar, 2018	
Details of the technology	Paddy- Linseed Paira cropping systems (30 kg N/ha at the time of sowing of Linseed)		
Observation Parameters	No of Plants/m ²	Performance Indicator	Yield, B:C ratio
Scientist(s) to be involved	SMS(Agronomy)		

FLD No. 5	Demonstration on low cost poly tunnel for seedling raising		
Season & Year	Kharif,2019	No. of Demo	10 (Basudevpur, Maheswarpur, Saharapoda
Crop / commodity	All types of vegetable seedlings	Farming Situation	Upland, Irrigated
Problem diagnosed	Constraint in availability of seedling raising in kharif season	Spread intensity of problem	2,000 ha
FP	Open raising of seedling		
Demo	Preparation of low cost poly tunnel by using 200 micron polyethene and bamboo of size 10'x3'x2'		Source: KVK, Dehradun
Details of the technology	Preparation of low cost poly tunnel by using 200 micron polyethene and bamboo of size 10'x3'x2'		
Observation Parameters	Germination (%), Mortality(%)	Performance indicator	Yield(no. of healthy seedlings/m ²), B:C ratio
Scientist(s) to be involved	Senior Scientist & Head and Farm Manager		

FLD No. 6		Demonstration on Pointed gourd var. Swarna Alaukik		
Season & Year		Late Rabi, 2019-20	No. of Demo	10 (Jodichatar, Sardapur)
Crop / commodity		Pointed gourd	Farming Situation	Upland, Irrigated
Problem diagnosed (one or many)		Low yield due to cultivation of local varieties (Gedi potal)	Spread and intensity of problem	450 ha
FP	Plantation of Local Variety Gedi potol			
Demo	Pointed gourd Variety Swarna Alaukik		Source: ICAR-RCER, Patna, 2006	
Details of the technology		Potential yield 220-250 q/ha, 2-3 fruits per node, fruit long ,slender without any stripes		
Observation Parameters		No. fruits/plant	Performance Indicator	Yield (q/ha), Net income (Rs./ha),B:C ratio
Scientist(s) to be involved		Senior Scientist & Head and Farm Manager		

FLD No. 7		Demonstration on Marigold variety- Pusa Narangi		
Season & Year		Rabi, 2019	No. of Demo	10 (Basudevpur, Sardapur)
Crop / commodity		Marigold	Farming Situation	Upland, Irrigated
Problem diagnosed (one or many)		Low yield due to cultivation of local variety	Spread and intensity of problem	105 ha
FP	Local planting material of marigold			
Demo	Marigold Variety Pusa Narangi		Source: AICRP on Floriculture, ICAR-IARI, New Delhi, 2016-17	
Details of the technology		Marigold Variety Pusa Narangi spacing-45c.m x 35cm, fertilizer Dose- N:P:K (100:200:200)kg/ha		
Observation Parameters		Number of flowers/plant	Performance Indicator	Yield (q/ha), Net income (Rs./ha), B:C ratio
Scientist(s) to be involved		Senior Scientist & Head and Farm Manager		

FLD No. 8		Demonstration on Tuberose variety-Prajwal		
Season & Year		Rabi, 2019	No. of Demo	10 (Basudevpur, Sardapur)
Crop / commodity		Tuberose	Farming Situation	Upland, Irrigated
Problem diagnosed (one or many)		Low yield due to cultivation of local variety	Spread and intensity of problem	32 ha
FP	Local planting material			
Demo	Tuberose of variety Prajwal		Source: ICAR-IIHR, Bengaluru, 2012	
Details of the technology		Tuberose of variety Prajwal , spacing-30c.m x 20c.m fertilizer Dose- Urea (N) - 100kg. SSP (P) - 50kg. MOP (K) - 70kg , FYM-20Tonnes/ha		
Observation Parameters		No. Of flowers/plant, Vase life of Tuberose stalk	Performance Indicator	Yield (q/ha), Net income (Rs./ha), B:C ratio
Scientist(s) to be involved		Senior Scientist & Head and Farm Manager		

FLD No. 9		Demonstration on management of wilt complex in Tomato		
Season & Year		Kharif, 2019	No. of Demo	10 (Basudevpur, Sardapur)
Crop / commodity		Tomato	Farming Situation	Irrigated Medium Land (Rice-Vegetable)
Problem diagnosed (one or many)		Infestation of wilt complex in tomato	Spread and intensity of problem	7500 ha, High
FP	Spraying of Carbendazim @ 2 gm/lt during vegetative stage			
Demo	Soil application of bleaching powder @10 kg/ha during land preparation, soil application of <i>T. viridae</i> @ 3 kg/ha incubated with 1 qtl of FYM , spraying of copper oxychloride (3gm/lt) and streptocycline (1.5 gm/10 lt)		Source: MLT, RRTTS, G. Udayagiri and Dhenkanal, 2018	
Details of the technology		Soil application of bleaching powder @10 kg/ha during land preparation, soil application of <i>T. Viridae</i> @ 3 kg/ha incubated with 1 qtl of FYM , spraying of copper oxychloride (3gm/lt) and streptocycline (1.5 gm/10 lt)		
Observation Parameters		No of wilted plant/m ²	Performance Indicator	Yield (q/ha), Net income (Rs./ha), B:C ratio
Scientist(s) to be involved		P. K. Nanda, Scientist(PP)		

FLD No. 10		Demonstration on management of Cercospora leaf spot in Okra		
Season & Year		Summer, 2019-20	No. of Demo	10 (Maheswarpur, Basudevpur)
Crop / commodity		Okra	Farming Situation	Irrigated Medium Land (Rice-Vegetable)
Problem diagnosed		Low yield due to insect pest and disease attack	Spread and intensity of problem	1750 ha
FP	Spraying of Cabendazim (2ml/lit)			
Demo	Three spraying of Tebuconazole 50% + Trifloxystrobin 25% @ 0.1% or Difenconazole 25 % EC@ 0.1% at 10 days interval after initiation of disease			Source: VIP, Bhubaneswar, 2018
Details of the technology		Three spraying of Tebuconazole 50% + Trifloxystrobin 25% @ 0.1% or Difenconazole 25 % EC@ 0.1% at 10 days interval after initiation of disease		
Observation Parameters		No. of affected leaves/plant, % of disease infestation	Performance Indicator	Yield, B:C ratio
Scientist(s) to be involved		Scientist(PP)		

FLD No. 11		Demonstration of biological control of mango inflorescence hoppers (Idioscopus spp.)		
Season & Year		Rabi, 2019-20	No. of Demo	10 (Balabhadrapur, Suakathi)
Crop / commodity		Mango	Farming Situation	Rainfed upland
Problem diagnosed (one or many)		Low yield due to maximum loss in fruit setting. Lack of knowledge on hopper mgt.	Spread and intensity of problem	80%, 7250 ha
FP	Smokig in mango orchard			
Demo	Application of biopesticides for hopper management			Source:Annual Report-IIHR,2015-16
Details of the technology		Four sprays of Metarhizium anisopliae oil formulation @ 0.5ml/L at weekly interval		
Observation Parameters		No of hoppers/twig	Performance Indicator	Yield (MT/ha), Net income (Rs./ha), B:C ratio
Scientist(s) to be involved		Scientist(PP)		

FLD No. 12		Demonstration on IPM module for management of YMV in Greengram		
Season & Year		Rabi, 2019-20	No. of Demo	10 (Khalana, Dantia)
Crop / commodity		Greengram	Farming Situation	Irrigated upland
Problem diagnosed		Yield loss due to YMV in green gram	Spread and intensity of problem	6700 ha
FP	Spraying of Imidachlopid 17.8 SC @0.4 ml/L at the time of disease severity			
Demo	Management of YMV in combination with botanicals, mechanical and chemical measures			Source: AICRP MULLaRP CPR, Behrampur, 2016
Details of the technology		Seed treatment with Imidachlopid 600 FS @5ml/kg of seed + yellow sticky trap 50 nos/ha + neem oil @ 5ml/L spray on appearance of white fly on YST + spraying of Diafenthurion 50 WP@ 312.5g a.i/ha.		
Observation Parameters		Pest count/leaf/plant, no. of infested leaves/ m ² % of infestation,	Performance Indicator	Additional income over additional investment, Yield and B:C ratio
Scientist(s) to be involved		Scientist(PP)		

FLD No. 13		Demonstration of foliar application of water soluble fertilizer in Kharif Tomato		
Season & Year		Kharif, 2019	No. of Demo	10 (Panposi, Maheswarpur)
Crop / commodity		Tomato	Farming Situation	Rainfed upland
Problem diagnosed (one or many)		Low yield due to poor nutrient management	Spread and intensity of problem	8200 ha,
EP	Use of imbalanced dose of fertilizer (80:60:60 NPK Kg/ha)			
Demo	Soil test based fertilizer NPK @87.5% as basal dose + 1% foliar spray of Water soluble fertilizers (19:19:19) at vegetative stage, flowering and fruiting stage.			Source: AICRP in vegetable crops, BBSR, 2005-06
Details of the Technology	Soil test based fertilizer NPK @87.5% as basal dose +1% foliar spray of Water soluble fertilizers (19:19:19) at vegetative stage, flowering and fruiting stage.			
Observation Parameters	Average fruits/plant	Performance Indicator	Yield (q/ha), Net return (Rs./ha), B:C ratio	
Scientist(s) to be involved	PA (Soil science)			

FLD No. 14		Demonstration of Sulphur and Boron application in groundnut		
Season & Year		Kharif, 2019	No. of Trials & villages	10 (Jodichhatar, Jamunaposi)
Crop / commodity		Groundnut	Farming Situation	Rainfed upland
Problem diagnosed (one or many)		Low yield due poor nutrient management	Spread and intensity of problem	1270ha ,Medium
FP	Application of NPK @ 20:20:20 kg/ha			
Demo	Sulphur @30kg/ha + two foliar spray of Boron 0.2% at flowering and 20 days after flowering stage with STBF.		Source: AICRP on Dryland Agriculture, Phulbani, 2015	
Details of technology		Sulphur @30kg/ha + two foliar spray of Boron 0.2% at flowering and 20 days after flowering stage with STBF.		
Observation Parameters		No. of pod/plant, No. of kernels/pod	Performance Indicator	Yield (q/ha), Net return (Rs./ha), B:C ratio
Scientist(s) to be involved		PA (Soil science)		

FLD No. 15		Demonstration of Khaki Campbell Duck farming		
Season & Year		Round the year,2019-20	No. of Trials & villages	10 (Jodichhatar, Jamunaposi)
Crop / commodity		Duck	Farming Situation	Backyard free ranging
Problem diagnosed (one or many)		Low income from local breeds due to high mortality, morbidity and low body weight gain	Spread and intensity of problem	75%
FP	Local breed Body weight 800-900g/ 20 weeks, annual egg production -100/ annum			
Demo	Khaki Campbell ; Body weight 1.5-1.8kg/ 20 weeks, annual egg production 200 numbers / annum		Source: CARI Annual reports 2017-18	
Details of technology		Khaki Campbell body weight 1.5-1.8 Kg/20 weeks; annual egg production 100/annum		
Observation Parameters		Annual egg production, Body wt. gain, Mortality	Performance Indicator	Net return, B:C ratio Farmers feed back
Scientist(s) to be involved		Scientist (Animal Science)		

FLD No. 16		Demonstration on artificial brooding management in chicks		
Season & Year		Round the year,2019-20	No. of Trials & villages	10 (Kundhei, Denua)
Crop / commodity		Poultry	Farming Situation	Homestead
Problem diagnosed (one or many)		Poor sustainability in backyard poultry rearing with improved breeds due to non availability of brooded chicks due to mortality of chicks during brooding and rearing	Spread and intensity of problem	80%
FP	No brooding practices			
Demo	Artificial brooding of chicks		Source: CPDO Bangalore and OUAT (Distance education programme on poultry, 2014)	
Details of technology		Brooding for 21 days with floor space of 0.3sqft/bird with help of chick guards, artificial heat @ 1-3 watt/chick, feeder and drinker@1/ 50 chicks, vaccination with RD (Lasota) on 7 th , 15 th day. Use of electrolytes, preventive antibiotics during brooding.		
Observation Parameters		Chick mortality rate during brooding period, body weight at 21 days	Performance Indicator	Cost of intervention, additional intervention over additional investment, B:C ratio
Scientist(s) to be involved		Scientist (Animal Science)		

FLD No. 17		Demonstration on low cost silage making for feeding cows during lean period		
Season & Year		Round the year, 2019-20	No. of Trials & villages	10 (Sardhapur, Shirishpal)
Crop / commodity		Dairy	Farming Situation	Homestead
Problem diagnosed (one or many)		Unavailability of quality roughage during lean period Reduction in milk production and quantity during lean period	Spread and intensity of problem	75%
FP	No fodder preservation techniques adopted			
Demo	Silage preparation and feeding			Source: AICRP on UAE, CAET,OUAT, 2015-16
Details of technology		Maize fodder chaffed to approximately 2-3 cm size added with lactobacillus inoculants @1 sporolac sachet/4q of fodder put inside a plastic bag in airtight manner be maintained under anaerobic environment in silo bags for 8 weeks and feed the silage after air drying as a replacement for paddy straw at the level of 25-50%		
Observation Parameters		Feed intake/cow/day, milk yield in litre/ cow/day	Performance Indicator	Cost of intervention additional income over additional investment, B:C ratio
Scientist(s) to be involved		Scientist (Animal Science)		

FLD No. 18		Demonstration on Kadaknath in backyard system		
Season & Year		Round the year, 2019-20	No. of Trials & villages	Basudevpur, Shirishpal
Crop / commodity		Backyard poultry	Farming Situation	Homestead
Problem diagnosed (one or many)		Opportunity for better income	Spread and intensity of problem	65%
FP	Rearing of local bird sold by vendors body weight at 20 weeks: 1000g; Annual egg production: 90-100 numbers			
Demo	Rearing of low input type desi chicken Kadaknath		Source: Jhabua, Madhya Pradesh, supplied by CPDO, Bhubaneswar	
Details of technology		Kadaknath rearing: body weight at 20 weeks: 1170g; Annual egg production: 190, production parameters show tolerance to acute stress condition.		
Observation Parameters		Body weight at 1 month, 2 month, 4 month and at start of laying, egg production/annum	Performance Indicator	Cost of intervention, additional income over additional investment, B:C ratio
Scientist(s) to be involved		Scientist (Animal Science)		

FLD No. 19		Demonstration on bullock drawn puddler for rice cultivation		
Season & Year		Kharif , 2019	No. of Trials & villages	10 (Kalisi, Dhanurjaypur)
Crop / commodity		Rice	Farming Situation	Medium irrigated land
Problem diagnosed (one or many)		Weed infestation, Time consuming	Spread and intensity of problem	75000 ha, high
FP	Puddling by desi plough			
Demo	Bullock drawn puddler operated by a pair of medium size bullock		Source: AICRP on UAE, CAET,OUAT, 2018	
Details of technology		Bullock drawn puddler operated by a pair of medium size bullock, Provision of transport wheel, Sitting arrangement for operator		
Observation Parameters		Depth of puddling, Time of operation	Performance Indicator	Field capacity (ha/h), Puddling index (%), Cost of operation. Rs/ha,
Scientist(s) to be involved		SMS (AGRIL.ENGG.)		

FLD No. 20		Demonstration on CIAE three row seed drill for linseed		
Season & Year		Rabi,2019-20	No. of Trials & villages	10 (Kalisi, Maheswarpur)
Crop / commodity		Linseed	Farming Situation	Medium irrigated land
Problem diagnosed (one or many)		Low yield due to uneven plant population	Spread and intensity of problem	2450 ha, high
FP	Broadcasting			
Demo	Bullock operated three row seed drill		Source: AICRP on UAE, CAET,OUAT, 2018	
Details of technology		Bullock drawn 3 row CIAE seed drill ,Working depth 8-10 cm , row spacing adjustable, Seed feed type mechanism		
Observation Parameters		Seed rate, kg/ha Time of operation, h/ha	Performance Indicator	Field capacity (ha/h), Cost of operation. Rs/ha,
Scientist(s) to be involved		SMS (AGRIL.ENGG.)		

FLD No. 21		Demonstration on Ragi thresher cum pearler		
Season & Year		Kharif,2019	No. of Trials & villages	10 (Kundhei,Kaberiposi)
Crop / commodity		Ragi	Farming Situation	Rainfed Upland
Problem diagnosed (one or many)		Loss of quality on post harvest operation	Spread and intensity of problem	50 ha, high
FP	Manual threshing by beating			
Demo	Threshing by Ragi Thresher cum Pearler		Source: AICRP on UAE CAET,OUAT, 2018	
Details of technology		This machine can be operated by 1.0 hp electric motor as well as by a pair of bullocks in rotary system		
Observation Parameters		Output: kg/h Threshing efficiency: % Cleaning efficiency: % Cost of operation: Rs. /kg	Performance Indicator	Cost of intervention. Additional income over additional investment Yield (q/ha), B:C ratio
Scientist(s) to be involved		SMS (AGRIL.ENGG.)		

FLD No. 22		Demonstration on Value added products from Jackfruit		
Season & Year	Late	No. of Trials & villages	10 (Somagiri,Junga)	
Crop / commodity	Jackfruit	Farming Situation		
Problem diagnosed (one or many)	Lack of knowledge on value added products from jack fruit and distress sale of jack fruit	Spread and intensity of problem	80 ha, high	
FP	Selling raw only			
Demo	Preparation of jack fruit bar in solar dryer dipping the slices in brine solution for 5 min for color retention and keep inside the solar dryer for 12-18 hrs	Source: AICRP on PHT,CAET,OUAT 2016		
Details of technology	Preparation of jack fruit bar in solar dryer dipping the slices in brine solution for 5 min for color retention and keep inside the solar dryer for 12-18 hrs			
Observation Parameters	Color, flavor, taste, self life	Performance Indicator	Yield, Net income(Rs), B:C ratio	
Scientist(s) to be involved	SMS (AGRIL.ENGG.)			

FLD No. 23		Demonstration on effectiveness of short technology videos on technology adoption		
Season & Year		2019-20	No. of Trials & villages	20
Crop / commodity		Mushroom	Farming Situation	
Problem diagnosed (one or many)		Less efficacy of existing dissemination modes i.e. text messages/ verbal advisory	Spread and intensity of problem	High
FP	Farmers are getting text messages and advisories from various organization			
Demo	Preparation of small videos (1.5-2.0 minutes) on different activities of production process of selected commodities and the same will be sent through whatsapp to the identified farmers.			
Details of technology		Production packages will be divided into different segments and short videos will be produced and disseminated through whatsapp		
Observation Parameters		Understanding the method and process depicted in the video -Retention of the message	Performance Indicator	Change in attitude -Change in perception on expected behavioural control -Application of the message
Scientist(s) to be involved		SMS (AGRIL.EXTN.)		