FRONT LINE DEMONSTRATION
2014-15

FLD-1

Title	Demonstration on Sulphur application in Groundnut
Problem	Low yield due to imbalanced nutrition in Groundnut
Farmers Practices	No use of Sulphur with imbalanced dose of fertilizer
Detail of Technology Demonstrated	Application of S @30kg/ha along with RDF as per soil test value
Recommendation	OUAT-2009

Results	Yield (q/ha)	% change in Yield	Noof pods/plant	Change in parameter (%)	cost of cultivation (Rs/ha)	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio**
FP	14.6	25.34	15	40	30100	58400	28300	1.94
RP	18.3		21		31000	73200	42200	2.36

FLD-2

Title	Demonstration maize + cow pea intercropping system
Problem	Soil degradation due to mono cropping
Farmers Practices	Cultivation of one crop
Detail of Technology Demonstrated	Cultivation of maize cow pea (2:1) intercrop system
Recommendation	OUAT-2009

Results	Yield (q/ha)	% change in Yield	Cost of cultivation (Rs./ha)	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio**
T1	42.9	26.52	31000	60060	29060	1.93
T2	54.28		33000	75992	42992	2.30

FLD-3

Title	Demonstration on Groundnut variety Devi with proper management practices
Problem	Low yield due to improper management practices and unidentified variety in groundnut
Farmers Practices	Cultivation of groundnut without proper management practices
Detail of Technology Demonstrated	Groundnut variety Devi, soil emendment with gypsum @2.5 q/ha, seed treatment with rizobium culture @ 20gm of kg of seed along with RDF (N:P:K) 20-40-40 kg /ha
Recommendation	OUAT-2009

Results	Yield (t/ha)	% change in Yield	no. of pod per plant	% change in Parameter	Cost of cultivation	Avg. Gross return	Net Income (Rs./ha)	BC Ratio*
FP	14.1	22.69	16	31.25	30100	56400	26300	1.87
RP	17.3		21		31000	69200	38200	2.23

FLD-4

Title	Demonstration on green gram variety IPM-02-14
Problem	Low yield due to improper management practices and unidentified variety in greengram
Farmers Practices (FP)	Cultivation of greengram without proper management practices
Detail of Technology Demonstrated (RP)	Demonstration of greengram variety IPM-02-14 seed treatment with vitavax @ 2.5gm/kg seed, RDF NPK 20-40-20 kg/ha ,seed inoculation of rizobium culture @ 20gm/kg of seed with need based PP measure
Recommendation	OUAT-2009

Results	Yield (t/ha)	% change in Yield	no.of pods per plant	% change in Parameter	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
FP	6.9	23.18	16	31.25	22100	34500	12400	1.56
RP	8.5		21		23200	42500	19300	1.83

FLD-5

Title	Demonstration on Molybdenum application in cauliflower
Problem	Low yield due to deficiency of molybdenum causes whiptai disease.
Thematic Area	INM
Farmers Practices (FP)	Use of fertilizer without application of molybdenum.
Detail of Technology Demonstrated (RP)	Use Sodium Molybdate@1kg/ha as soil application.
Recommendation	OUAT-2009

Results	Yield (q/ha)	% change in Yield	Curd weight(gm)	% change in Parameter	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
FP	247	15.78	758	20.71	51300	98800	47500	1.92
RP	286		915		62500	143000	80500	2.28

FLD-6

Title	Demonstration on Intigrated nutrient management in cabbage
Problem	Low yield due to imbalanced nutrition
Farmers Practices (FP)	Indiscriminate use of chemical fertilizer
Detail of Technology Demonstrated (RP)	Application of FYM-15t/ha +neem cake@1q/ha+NPK@125:50:75kg/ha +foliar application of borax@2gm/ltr of water & application of calcium nitrate@0.2%.
Recommendation	OUAT-2009

Results	Yield (q/ha)	% change in Yield	Head weight(gm)	% change in Parameter	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
FP	261	17.62	772	29.92	55550	156600	101050	2.81
RP	307		1003		58350	184200	125850	3.15

FLD-7

Title	Demonstration on Groundnut variety Devi
Problem	Low yield due to improper management practices and unidentified variety in groundnut
Farmers Practices	cultivation of groundnut without proper management practices
Detail of Technology Demonstrated	Groundnut variety Devi with gypsum @2.5 q/ha, seed treatment with rizobium culture @ 20gm of kg of seed along with RDF (N:P:K) 20-40-40 kg /ha
Recommendation	OUAT-2009

Results	Yield (q/ha)	% change in Yield	No.of pod per plant	% change in Parameter	Cost of cultivation	Avg. gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
FP	16.3	27.60	17		34800	62200	30400	1.87
RP	20.8		23	35.29	35500	83200	47700	2.34

FLD-8

Title	Demonstration on green gram variety TARM-1
Problem	Low yield due to improper management practices and unidentified variety in greengram
Farmers Practices (FP)	Cultivation of greengram without proper management practices
Detail of Technology Demonstrated (RP)	Demonstration of greengram variety TERM-1,seed treatment with vitavax @ 2.5gm/kg seed, RDF NPK 20-40-20 kg/ha seed inoculation of rizobium culture @ 20gm/kg of seed with need based PP measure
Recommendation	OUAT-2009

Results	Yield (q/ha)	% change in Yield	no.of pods per plant	% change in Parameter	Cost of cultivation	Avg. gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
FP	6.8	33.82	16	43.75	22100	34000	11900	1.53
RP	9.1		23		23200	45500	22300	1.96

FLD-10

Title	Cultivation of capsicum var. California wonder
Problem	Low profit from usual local chilli cultivation, more labour requirement in chilli cultivation
Farmers Practices (FP)	Local chilli cultivation
Detail of Technology Demonstrated (RP)	Capsicum var. California wonder, spacing- 60cmX45cm recommended dose of fertilizer 162:50:75 kg NPK/ha, with need based plant protection measure
Recommendation	IARI, Katnain

Results	Yield (q/ha)	% change in Yield	fruit yield per plant	% change in Parameter	Cost of cultivation	Avg. gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
FP	84.6	26.2	282gm	26	43,400	104160	60,760	2.4
RP	106.8		356gm		48,200	139780	91,580	2.9

FLD-11

Title	Demonstration on integrated nutrient management in Okra
Problem	Low yield due to traditional management practices
Farmers Practices (FP)	Application of imbalanced dose of fertilizer without application of organic manure
Detail of Technology Demonstrated (RP)	Var. Mahyco-10 with recommended package of practices, N-P-K @100-50-50 kg/acre, neem oil cake 1qtl/acre, seed treatment with 25gm Azotobactor/1kg seed
Recommendation	OUAT, 2004

Results	Yield (q/ha)	% change in Yield	no.of fruits per plant	% change in Parameter	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
FP	84.8	43.1	12.1	8	34,600	84800	50,200	2.45
RP	121.4		13.04		42,860	121400	78,540	2.83

FLD-12

Title	Demonstration on integrated pest management of yellow stem borer in paddy
Problem	Heavy pest attack (stem borer) in paddy causes low yield
Farmers Practices (FP)	Application of phorate, and spraying of Monocrotophos
Detail of Technology Demonstrated (RP)	Installation of Pheromone trap @4 nos for pest monitoring, foliar spray of imidaclopride @ 125ml /ha ,Release of parasitoid after 10 days of spraying, Trichogramma Chilonis @ 100.000/ha and need based management.
Recommendation	CRRI, 2011

Installation of Pheromone tr

Results	Yield (q/ha)	% change in Yield	% change in pest infestation	% change in pest infestation	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio **
T1	38.9	16.45	16	56.25	28890	50625	21680	1.7
T2	45.3		7		32560	60125	26330	1.8

FLD-13

Title	Demonstration on management of leaf curling in chilli
Problem	Yield losses due to heavy disease incidence
Farmers Practices (FP)	Spraying of triazophos and malathion
Detail of Technology Demonstrated (RP)	Application of Carbofuran 10G in nursery @ 1.5kg a.i /ha + neem cake@250kg/ha during earthing up at 20 DAT, spraying of Acetampride 125 gm /ha at 10 days interval twice
Recommendation	OUAT, 2012

Results	Yield (q/ha)	% change in Yield	% change in pest infestation	% change in pest infestation	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio**
T1	38.9	16.45	16	56.25	28890	143850	21680	1.7
T2	45.3		7		32560	190800	26330	1.8

FLD-14

Title	Demonstration on management of white fly in okra
Problem	Heavy pest attack on okra causes low yield
Farmers Practices (FP)	Application of Immidaclopride @75ml/ac
Detail of Technology Demonstrated (RP)	Instalation of yellow trap @20/ha, application betacyfluthrin (Betacin)against white fly in okra twice at 10 days interval
Recommendation	OUAT, 2011

Results	Yield (q/ha)	% change in Yield	% pest infestation	% change in Parameter	Cost of cultivation (Rs./ha)	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	105.3	15	18	72	66920	162450	91030	2.4
T2	121.5		5		70130	183750	112120	2.6

FLD-15

Title	Demonstration on integrated disease management practice for control of sheath blight in paddy
Problem	Heavy disease infestation on rice causes low yield
Farmers Practices (FP)	Management of sheath blight by application of carbendazim
Detail of Technology Demonstrated (RP)	Seed treatment and seeding root dip with P.floroscence, soil application of P.floroscence 2.5 kg + 50kg FYM at 30 DAT, Spraying of (tricyclazole + propiconazole) 52.5 S E
Recommendation	OUAT, 2011

Results	Yield (q/ha)	% change in Yield	% disease infestation (Scoring-5-7)	% change in Parameter	Cost of cultivation (Rs./ha)	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	38.0	18.7	17	88	25450		22175	1.9
T2	46.2		09		26150		31600	2.2

FLD-16

Title	Demonstration on use of rotavator
Farmers Practice	tractor drawn nine tyne tiller
Detail of Technology Demonstrated	Drawn by more than 35HP tractor, 4 feet wide
Recommendation	Commercial, tested at CAET, O.U.A.T.

Results	Field capacity (ha/hr)	Puddling index(%)	Cost of operation (Rs/ha)	Yield (Q/ha)	Cost of cultivation (Rs/ha)	Avg. Gross return(Rs.)	Net Return (Rs/ha)	B:C ratio
FP	0.53	41	3250	41.6	29480	52000	52000	1.8
RP	0.53	62	2250	42.4	28480	52950	52950	1.85

FLD-17

Title	Demonstration on use of drum seeder
Problem	Transplanting is labour and cost intensive
Farmers practice	Manual
Detail of Technology Demonstrated	Pre-germinated paddy seeds (24 hrs soaking+ draining and then keeping it for 24 hrs for germination) to be sown by drum seeder
Recommendation	TNAU, 2008

Results	Field capacity (ha/hr)	Labour required (mandays/ha)	Cost of operation (Rs/ha)	Yield(Q/ha)	Av. Cost of cultivation (Rs/ha)	Av. Gross return (Rs/ha)	Av. Net Return (Rs/ha)	B:C ratio
FP	0.001	36	7200	42.8	28850	53500	24650	1.85
RP	0.19	1	200	43.24	21850	54050	32200	2.47

FLD-18

Title	Demonstration on use of vertical conveyor reaper
Problem	Harvesting is labour and cost intensive
Farmers Practice	Harvesting by sickle
Detail of Technology Demonstrated	Paddy harvesting by use of vertical conveyor Reaper, capacity: 0.2ha/h
Recommendation	Commercial, tested at CAET, O.U.A.T., 2009

Results	Field capacity (ha/hr)	Labour Required (mandays/ha)	Cost of operation (Rs/ha)	Av. Cost of cultivation(Rs/ha)	Avg. Gross return?(Rs.)	Net Return (Rs/ha)	B:C ratio
FP	0.001	36	7200	28850	53125	24275	1.84
RP	0.2	1	2500	24150	53125	28975	2.2

FLD-19

Title	Demonstration on use of combine harvestor
Problem	Harvesting and threshing is time consuming work
Farmers Practice	Harvesting by sickle and threshing by power paddy thresher
Detail of Technology Demonstrated	average field capacity 0.4ha/h
Recommendation	Commercial, tested at CAET, OUAT

Results	Field capacity (q/hr)	Labour requirement(mandays/ha)	Cost of operation(Rs/q)	Cost of cultivation(Rs/ha)	Avg. Gross return(Rs.)	Av. Net return (Rs./ha)	B:C ratio
FP	0.2	40	10500	30550	52875	22325	1.73
RP	0.4	1	5000	25050	22350	27825	2.11

FLD-20

Title of technology demonstrated	Rearing of White Pekin ducks for meat production
Problem	Poor growth rate of desi ducks
Farmers practice	Rearing of desi ducks
Details of technology	Rearing of meat type duck , White Pekin
Recommendation	CARI, 2013

Results	Body weight (in Kg at 2 months)	Cost of Rearing (Rs/10 birds)	Avg. Gross return(Rs.)	Net income (Rs/10 birds)	BC ratio
T1	1.0	250	500/10 duck	250	2.0
T2	1.8	690	1800/10 duck	1110	2.6

FLD-21

Title of technology demonstrated	Health management in goats
Problem	Worm infestation and disease outbreak in goats
Farmers practice	No deworming and vaccination
Name of technology	Deworming medicines, vaccines
Recommendation	CIRG 2011

Results	Body weight (in Kg at 3 months)	Cost of Rearing (Rs/Pair of goats)	Avg. Gross return(Rs.)	Net income (Rs/Pair of goats)	BC ratio
T1	4.6	700	2450/ pair of goat	1750	3.5
T2	5.4	750	2700/pair of goats	1950	3.6

FLD-22

Title of technology demonstrated	Demonstration of calcium supplementation during egg laying in backyard chicken farming.
Problem	Calcium deficiency in layers leading to irregular egg production
Farmers practice	No calcium supplementation during egg laying
Details of technology	Mineral supplementation 4 gm of calcium per day per layer (3% of feed intake)
Recommendation	CARI 2013

Results	No. of eggs/month/10 hens	Cost of Rearing (Rs /month/10 hens)	Avg. Gross return(Rs.)	Net income (Rs /month/10 hens)	BC ratio
T1	128	280	640/month/hen	640	228.
T2	168	320	840/month/hen	840	2.62

FLD-23

Title	Demonstration on rearing of Black rock poultry in semi intensive system
Problem	Low yield of both egg & meat in desi bird
Farmers Practices (FP)	Rearing of desi bird
Detail of Technology Demonstrated (RP)	The black rock poultry will produce 180 eggs in the first year and persistently lay good quality eggs through out the year
Recommendation	OVC, OUAT, 2008
Characteristic of technology	Black rock poultry used both as meat and egg production

Results	Body wt. at 3 months	No. of eggs per poultry bird	Cost of input (Rs.)	Net return (Rs.)	BC ratio
T1	9.2 kg/unit of 10 birds	60	750	1680	2.24
T2	23.2 kg/unit of 10 birds	120	1150	4080	3.54

FLD-24

Title	Cultivation of blue mushroom var. Hypsizygous ulmarius
Problem	Low yield oyster mushroom var. P. Sajorcaju during later part of winter due to low temperature
Farmers Practices (FP)	Oyster mushroom P. Sajarcaju
Detail of Technology Demonstrated (RP)	Cutting of straw into 2 inch, soaking for 8-10 hrs and starilization , spawning of mushroom bed in alternate with straw up to 21 inches in 3 layers, use of substrate as wheat
Recommendation	DMR, Solan, 2008
Characteristic of technology	Bluish grey in colour, average fruit weight 31 gm, biological efficiency 103%

Results	Avg. fruit wt. of mushroom (gm)	Avg. Yield/unit(kg)	Saving in (Rs)	Net return (Rs.)	BC ratio
T1	25	20	925	250	
T2	46	28.5		1175	

FLD-25

Title	Demonstration on oyster mushroom pickle species P. Florida
Problem	Low income due to distress sale of mushroom during peak period
Farmers Practices (FP)	Cultivation of oyster mushroom
Detail of Technology Demonstrated (RP)	Blanching, drying, addition of spices, preservatives for preparation of pickle
Recommendation	CTMRT, OUAT, 2008

Results	Yield	Cost of input(Rs.)	Saving in (Rs)	Net return (Rs.)	BC ratio
T1	Mushroom raw 10kg/unit	320	850	650	2.03
T2	12kg pickle/unit	750		1800	2.4

FLD-26

Title	Demonstration on drudgery reduction of farm women by using Sugarcane bud chipper
Problem	Planting of sugarcane is a drudgery prone activity and more seed material is required 30 qtl/ha
Farmers Practices (FP)	Planting of sugarcane sets by cutting with a local cutter
Detail of Technology Demonstrated (RP)	Drudgery reduction of farm women by using sugarcane bud chipper
Recommendation	CIAE, Bhopal, 2010
Characteristic of technology	Reduce the drudgery and less seed material is required

Results	Out put	Energy expenditure (Kj/min)	Working heart rate (beat/min)	% reduction in drudgery	% increase in efficiency
T1	152 sets/hr	9.72 kj/min	116		
T2	284 sets/hr	10.52 kj/min	121	46	86