

ON-FARM TESTING

2014-15

Title	Assessment of paddy variety Nua Acharamati.
Problem	Low yield due to cultivation of local variety (Sitabhog
Farmers Practices	Cultivation of paddy var. Sitabhog.
Detail of Technology Demonstrated	Cultivation of paddy variety Nua Acharamati with RDF as per soil test value.
Recommendation	Dept. of Plant Breeding,OUAT-2011-12
Characteristic of technology/ variey	The grains are aromatic short and bold.134 duration.It is moderately resistant to blast,sheath blight and insect pest like gall midge, stem borer & BPH



Results	Yield (q/ha)	% change in Yield	EBT/Sqmt	1000Grain weight(gm)	Cost of cultivation	Avg. Gross return(Rs)	Net Income (Rs./ha)	BC Ratio
T1	31.1	24.11	223	21.2	29300	46650	17350	1.59
T2	38.7		261	23.7	30500	58050	27550	1.90

Title	Assessment of paddy variety Heera
Problem	Low yield & low protein content
Farmers Practices	Cultivation of paddy var. Khandagiri
Detail of Technology Demonstrated	Cultivation of paddy variety Heera with RDF as per soil test value.
Recommendation	CRRI-2013
Characteristic of technology/variety	Duration 90 days, Average yield-35q/ha,High protein content.



Results	Yield (q/ha)	% change in Yield	EBT/Sq mt	1000Grain weight(gm)	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	27.3	21.24	220	21.2	25400	35763	10363	1.4
T2	33.1		253	23.3	27100	43361	16261	1.6

Title	Assessment of Brown Manuring in upland paddy
Problem	Low yield and poor soil fertility status
Farmers Practices	No use of Green Manuring.
Detail of Technology Demonstrated	Sowing of Dhanicha +Direct seeded paddy and application of 2,4-D Ethyl easter@1.0kg/ha at 25-30 DAS.
Recommendation	CRRI-2009
Characteristic of technology/variety	Increases O.C in soil and yield respectively



Results	Yield (q/ha)	% change in Yield	Organic carbon %	% change in O.C%	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	39.5	15.44	0.46	11.53	27000	49375	22375	1.82
T2	45.6		0.52		29300	57000	27700	1.94

Title	Assessment of Sulphur & Boron application in Groundnut.
Problem	Low yield due to imbalanced nutrition in Groundnut.
Farmers Practices	No use of S & B with imbalanced dose of fertilizer.
Detail of Technology Demonstrated	Application of Sulphur@30kg/ha & two spraying of Boron @0.2% at flowering & 20 days after flowering stage along with recommended dose of fertilizer as per soil test value.
Recommendation	OUAT-2010
Characteristic of technology/variety	Application of S & B increases oil content, quality of pod & yield of groundnut



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
T1	16.5	29.09	17	35.29	34800	66000	31200	1.92
T2	21.3		23		35500	85200	49700	2.4

Title	Assessment of Herbicide Imizathapyr as post emergence application in Groundnut.
Problem	Low yield due to heavy weed infestation
Farmers Practices	Manual weeding
Detail of Technology Demonstrated	Application of post emergence herbicide Imizathapyr 10% SL@0.075kg/ha 20 DAS of groundnut.
Recommendation	OUAT-2012
Characteristic of technology/variety	Post emergence herbicide Imizathapyr 10%SL@0.075kg/ha 20 DAS control of weed in groundnut..



Results	Yield (q/ha)	% change in Yield	No.of pods per plant	WCE %	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	16.2	24.07	17	84.5	34800	64800	30000	1.86
T2	20.1		22		35500	80400	44900	2.26

Title	Assessment of Nitrogen Management by Leaf Colour Chart method in Paddy
Problem	Farmers has no knowledge of N fertilizer scheduling
Farmers Practices	Farmers scheduled of nitrogen application
Detail of Technology Demonstrated	Need based N application by use of LCC at PI and flowering stage
Recommendation	CRRI-2010
Characteristic of technology/variety	Need based N application will reduce N loss and increase efficiency



Results	Yield (q/ha)	% change in Yield	Parameter N saved kg/ha	% Change in parameter	Cost of cultivation	Avg. Gross return	Net Income (Rs./ha)	BC Ratio
T1	48.5	7.42	0	21.3kg N	38100	60625	22525	1.59

Title	Assessment of onion var. Bhima Super
Problem	Low yield and low return from local multiplier onion
Farmers Practices	Cultivation of local multiplier onion
Detail of Technology Demonstrated	Cultivation of onion variety Bhima Super with recommended package of practices spacing 20cmX15cm NPK 120:60:60 kg/ha
Recommendation	National Research Center of Onion and Garlic, Pune, 2012
Characteristic of technology/variety	Bulb maturity 115-120 days after transplantation in late kharif, it produces single centered bulb, avg. yield 260-280 qtl/ha, suitable for kharif season.



Farmers practice



Harvested onion var. Bhima Super

Results	Yield (q/ha)	% change in Yield	Individual bulb weight	% change in parameter	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	178.6	27.8	4.86	41.3	37,800	89300	51,500	2.36
T2	246.2		82.4		49,200	135410	86,210	2.75

Title	Assessment of marigold var. African double orange
Problem	Low production and low keeping quality of local marigold Kusuma
Farmers Practices	Cultivation of local marigold Kusuma with traditional package of practices
Detail of Technology Demonstrated	African double orange with recommended package of practices 80:80:80 kg NPK/ha, spacing 60cmX60cm
Recommendation	IIHR, 2005
Characteristic of technology/variety	Flower colour –orange, big size flower, potential yield 150q/ha, more no. of branches, flower diameter 10cm



Results	Yield (q/ha)	% change in Yield	Flower weight(gm)	% change in parameter	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	88.2	23.3	5.1	100	35,600	88200	52,600	2.47
T2	108.8		10.2		46,800	130560	83,760	2.78

Title	Assessment of weedicide(Targa super) application in okra
Problem	High cost of cultivation due to manual weeding. Unavailability of sufficient labour
Farmers Practices	Manual weeding
Detail of Technology	Post emergence application of Targa Super @2.5ml/lit of water
Recommendation	OUAT, 2006
Characteristic of technology/variety	Targa Super is a selective, systemic herbicide of Aryloxyphenoxy-propionate. It is used to control narrow leaf weed in broad leaf crop. Weeds are completely killed within 10-15 days



Results	Yield (q/ha)	% change in Yield	No. of weed per m ²	Decrease in weed	Cost of cultivation	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	87.2	12.1	24.6	76.4%	36,600	87200	50,600	2.38
T2	97.8		5.8		34,200	97800	63,600	2.85

Title	Assessment of integrated management practices for control of leaf folder in paddy
Problem	Infestation of leaf folder leads to low yield
Farmers Practices	Application of phorate 10-12 kg/ha & monocrotophos
Detail of Technology Demonstrated	Seedling treatment with carbofuran 3G @1kg, installation of bird perches , Ph traps 20 per ha, release of bio agents (T chilonis-50000) after 30 & 60 DAT and need base application of chemical pesticides
Recommendation	OUAT, 2012
Characteristic of technology	Reduce leaf folder infestation and increase yield



Results	Yield (q/ha)	% disease infestation (Scoring-5-7)	% change in Parameter	Cost of cultivation (Rs./ha)	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	38.1	17	88	29300	47625	18325	1.6

Title	Assessment of integrated management practices for tobacco caterpillar in cabbage
Problem	Heavy infestation of caterpillar leads to low yield
Farmers Practices	Spraying of Triazophos 2ml/lit
Detail of Technology Demonstrated	Application of neem cake @250kg/ha ,spraying of neem based pesticides @2.5lt/ha ,installation of pheromone traps 50 no /ha, spraying of Spinosad 2.5SC @ 1ml/ltrand NSKE 5% twice(10 days interval
Recommendation	Department of Entomology , OUAT, 2010
Characteristic of technology	IPM effectively reduces pest infestation and increase yield



Results	Yield (q/ha)	% disease infestation (Scoring-5-7)	% change in Parameter	Cost of cultivation (Rs./ha)	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	265	22	83	55500	159000	103450	2.9
T2	305	12		58350	183000	124650	3.2

Title	Assessment of integrated disease management practices for control of sheath blight in groundnut
Problem	Low yield due to heavy disease infestation
Farmers Practices	Application of carbendazim @ 2gm/ltr
Detail of Technology Demonstrated	Seed treatment with P. florescence and spraying with tebuconazole 1ml/lit(2 sprays)
Recommendation	OUAT, 2008
Characteristic of technology	Reduce disease incidence and increase yield and improved pod quality



Results	Yield (q/ha)	% disease infestation (Scoring-5-7)	% change in Parameter	Cost of cultivation (Rs./ha)	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	17.2	20	83	34100	68800	68800	2.0
T2	20.5	9		35500	82000	82000	2.3

Title	Assessment of IDM practices for control of root rot disease in cowpea
Problem	Heavy loss due to root rot
Farmers Practices	Application of carbendazim @ 2gm/liter
Detail of Technology Demonstrated	Seed & soil treatment with <i>Trichoderma viridae</i> @5gm /kg + FYM @2ton /ha and need based management practices
Recommendation	OUAT, 2012
Characteristic of technology	Reduce root rot, increase yield



Results	Yield (q/ha)	% disease infestation (Scoring-5-7)	% change in Parameter	Cost of cultivation (Rs./ha)	Avg. Gross return(Rs.)	Net Income (Rs./ha)	BC Ratio
T1	60.3	18	50	48800	90450	41650	1.8
T2	75.5	09		50300	113250	62950	2.2

Title	Assessment of performance of bullock drawn seed cum fertilizer drill for sowing paddy
Problem	Broadcasting of paddy leads to uneven plant population and difficulty in intercultural operation
Farmers Practices	Broadcasting
Detail of Technology Demonstrated	Use of tractor drawn seed cum fertilizer drill for sowing paddy, row to row spacing 25cm.
Recommendation	Commercial , tested at C.A.E.T., O.U.A.T.
Characteristic of technology/ variety	Line sowing of paddy seed along with fertilizer leads to good plant growth & more yield and easy in intercultural operation



Results	Field Capacity (ha/hr)	Seed rate (Kg/ha)	Yield (q/ha)	Cost of cultivation (Rs/ha)	Avg. Gross return(Rs.)	Net return (Rs.)	B :C ratio
T1	0.57	75	37.2	27250	46500	19600	1.7
T2	0.163	37.5	39.6	26900	49500	22600	1.84

Title	Assessment of performance of drip irrigation in cabbage
Problem	Wastage of water is more in flood irrigation
Farmers Practices	Flood irrigation
Detail of Technology Demonstrated	drip in cabbage
Recommendation	PFDC, 2008
Characteristic of technology/ variety	Installation of drip at 4feet between each lateral and 1.5 feet between the plant to plant spacing



Results	Weed count(no/sqm)	Yield (kg/ha)	% change in yield	Cost of cultivation(Rs/ha)	gross return (Rs/ha)	Net return (Rs.)	B :C ratio
T1	42	287	17	48250	172200	123950	3.57
T2	18	338		53750	202800	149050	3.77

Title	Assessment of performance of bullock drawn seed cum fertilizer drill for sowing groundnut
Problem	Dropping groundnut seeds behind the plough is labour intensive work
Farmers Practices	Manual dropping
Detail of Technology Demonstrated	Use of bullock drawn seed cum fertilizer drill for sowing groundnut, row to row spacing 20cm.
Recommendation	Commercial , tested at C.A.E.T., O.U.A.T.,
Characteristic of technology/ variety	Line sowing of groundnut seed along with fertilizer leads to good plant growth & more yield and easy in intercultural operation



Results	Field Capacity (ha/hr)	Seed rate (Kg/ha)	Yield (q/ha)	Cost of sowing seed (Rs/ha)	Cost of cultivation(Rs/ha)	Avg. Gross return(Rs.)	Net return (Rs.)	B :C ratio
T1	0.015	100	22	2500	33450	83600	50150	2.49
T2	0.163	50	23.5	1000	30950	89300	58350	2.88

Title of on farm trial	Assessment of multi-enzyme mixture on growth of scavenging chicken.
Problem diagnose	Suboptimal utilization of scavenged feed leading to slow growth
Farmers practices	Scavenging of chicken without any supplementation.
Details of technology selected	Multi enzyme mixture @ of 0.5% of feed intake along with scavenging
Recommendation	Ouat 2011
Characteristic of technology	Enzyme mixture having enzymes such as phytase, cellulase, amylase, lipase, proteases



Results	Body weight (in Kg at 3months)	Cost of Rearing (Rs/ 10 birds)	Avg. Gross return(Rs)	Net income (Rs/10 birds)	BC ratio
T1	1.6	400	1920/10 bird	1620	4.8
T2	1.9	450	2280/10 bird	1930	5.06

Title of on farm trial	Evaluation of CARI model of duck farming in polythene ponds.
Problem diagnose	Reduced popularization of ducks dues to non-availability of ponds among poor.
Farmers practices	Avoiding Duck rearing due to absence of pond.
Details of technology selected	10 no of Khaki Campbell ducks reared in a 5ft×4Ft×2Ft pit mulched with good quality polythene.
Recommendation	CARI 2013
Characteristic of technology	Low cost Polythene pond is effective to rear the duck in control condition leads to reasonable return



Results	Body weight (in Kg at 6 months)	Survivability (%)	Cost of Rearing (Rs/10 birds)	Avg. Gross return(Rs.)	Net income (Rs/10 birds)	BC ratio
T1	1.3	60	400	1180/10 bird	780	2.95
T2	1.3	76	600	1800/10 bird	1200	3.0

Title	Assessment of feeding supplementation on growth of poultry bird in semi intensive system
Problem	Slow growth of bird leading to low meat production
Farmers Practices	Rearing dual type bird without any feed supplementation
Detail of Technology Demonstrated	Feeding supplementation on growth of poultry bird in semi intensive system
Recommendation	OVC, OUAT, 2010
Characteristic of technology/ variety	Supplementary feeding leading to growth rate faster



Results	Avg. Body weight	Cost of cultivation(Rs.)	Gross return(Rs.)	Net income (Rs/10 birds)	BC ratio
T1	13kg/bird	8300	16200	7600	1.95
T2	20kg/bird	10000	24000	14000	2.4

Title-13	Assessment of grain pro super bag for safe storage of paddy
Problem	Heavy infestation of storage pest in paddy
Farmers Practices	T1- Storage of paddy in gunny bag
Detail of Technology Demonstrated	T2- Storage of grain in grain pro-super bag
Recommendation	CSISA, 2011
Characteristic of technology/ variety	Storage of grain in grain pro-super bag is hermetic and farmers friendly , grain can be safely stored for 6 months



Results	Pest count in %	Grain Wt/1000 grain	Germination%	Periodic observation
T1	15.3	22.7	83	6 months
T2	4.6	22.2	92	6 months

Title	Assessment of solar drier for drying of vegetables		
Crop & Variety	vegetables		
Season & Year	Rabi, 2014-15		
Problem	Low return and delay of drying due to traditional method		
Farmers Practices	T1- Drying under sun		
Detail of Technology	T2- Washing, peeling & slicing of vegetables, blanching & solar drying		
Recommendation	Post Harvest Deptt., CEAT, OUAT, 2008		
Characteristic of technology/ variety	Drying capacity 18kg/batch, drying period- 2 days retention of colour		
Area (ha)	No. of Demo-5	Farming situation	Enterprise



Drying of vegetable



Drying of vegetable in solar drier



Results	Colour retention	Drying period	Before drying	After drying
T1	Optimum colour is not retained	7hrs/day	Chilli & cabbage- 10 kg each	Chilli & cabbage- 4 kg each
T2	Optimum colour retained	4hrs/day	Chilli & cabbage- 10 kg each	Chilli & cabbage- 2 kg each