REVISED PROFORMA FOR ANNUAL REPORT
(1-10-2006 to 30-09-2007)

1. GENERAL INFORMATION ABOUT THE KVK

1.1 Name and address of KVK with phone, fax and e-mail

KVK	Postal Address with pin code	Telephone			E-mail
		STD	Office	FAX	
Jagatsinghpur	At-Nimakana , Po-Manijanga, via-Tirtol, Dist-Jagatsinghpur, Pin-754160. Orissa	-	-	-	KVK, Jagatsinghpur @ yahoo.com

1.2 Name and address of host organization with phone, fax and e-mail

Host Institute name	Postal Address with pin code	Telephone			E-mail
		STD	Office	Fax	
OUAT Bhubaneswar Orissa	OUAT,Bhubaneswar Pin-751003 Orissa	2392677 – A(PBX-206-A)	(0674) 2392677	(0674) 2391780	-

1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Residence	Mobile	E-mail
Shiba Prasad Sangramsingh	-	9937162016	KVK Jagatsinghpur @ yahoo.com

1.4. Year of sanction: 2005-06

1.5. Staff Position (as on 30th September 2007)

Sl No	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic	Date of joining	Permanent / Temporary	Category (SC/ST /OBC/ Others)
1	Programme Coordinator	S.P.Sangramsingh	I/C Programme Coordinator	Agril.Ext	10000-325-15200 Basic 10975	1.5.2005	Temporary	Others
2	Subject Matter Specialist	Nityananda Das	SMS	Fishery Science	8000-275- 13500 Basic 8550	2.5.2005	Temporary	Others

4	Subject Matter Specialist	Arabinda Dhal	SMS	Plant Protection	8000-275- 13500 Basic 8550	9.1.06	Temporary	Others
3	Subject Matter Specialist	Lilymoony Tripathy	SMS	Horticulture	8000-275- 13500 Basic 8275	30.12.05	Temporary	Others
5	Subject Matter Specialist	Dr. Suchismita Tripathy	SMS	Agronomy	8000-275- 13500 Basic 8275	16.1.06	Temporary	Others
6	Subject Matter Specialist	Dr. Puspita Das	Prog.Asst (Against the post of SMS)	Home.Sc	5900-200-9700 Basic 8500	31.12.05	Temporary	Others
7	Subject Matter Specialist	Vacant			-		Temporary	Others
8	Programme Assistant	Siba Prasad Mishra	Programme Assistant	Agril	5500-175-9000 Basic 5850	1.7.05	Temporary	Others
9	Farm Manager	Dr. Narayan Panda	Farm Manager	Soil science	5500-175-9000 Basic 5675	30.1.06	Temporary	Others
10	Computer Programmer	Md. Sadakat Ali	Programme Assistant	Computer	5500-175-9000 Basic 5675	24.6.06	Temporary	Others
11	Accountant / Superintendent	Dinabandhu Das	SO	Accountant / Office Superintend	5900-200-9700 Basic 7100	1.6.06	Temporary	OBC
12	Stenographer	Kishor Chandra Das (Ex-Stenographer)	Steno grapher	-	4000-100-6000 Basic-4000	9.10.06 to 2.7.07	Temporary	Others
13	Stenographer	Babuli sahoo	Steno grapher	-	4000-100-6000 Basic-4000	2.7.07	Temporary	Others
13	Driver	Manoj Kumar sahoo	Driver / Mechanic	-	3050-75-3950-80-4590 Basic 3050	30.7.07	Temporary	Others
14	Driver	Vacant	-	-	-	-	-	-
15	Supporting staff	Vacant	-	-	-	-	-	-
16	Supporting staff	Vacant	-	-	-	-	-	-

1.6. Total land with KVK (in ha): 13.22

Sl No.	Item	Area (ha)
1	Under Buildings	1.19
2	Under Demonstration Units	-
3	Under Crops	9.53
4	Orchard / Agro-forestry	-
5	Others (Instructional farm, demonstration unit, threshing floor cum shed house, internal road etc)	2.5

1.7. Infrastructual Development:

A) Buildings

Slno	Name of building	Source of funding	Stage					
			Completion Date			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (sq.m)	Status of construction
1	Administrative Building	ICAR	Under construction			2.12.06		
2	Farmers Hostel	ICAR	Under construction					
3	Staff Quarters (6)	Under 11th plan proposal						
4	Demonstration Units (2)	Under 11th plan proposal						
5	Fencing	ICAR	15.10.07			Dec, 2006		
6	Rain water harvesting system	-	-	-	-	-	-	
7	Threshing floor	ICAR	16.10.07					
8	Farm godown	Under 11th Plan Proposal						

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs)	Total kms.Run	Present status
Tractor	2005-06	488364*	-	Good
Bolero*	2005-06		23221	Good
* Expenditure on tractor only. Bolero purchased by DPP OUAT & handed over to KVK Jagatsinghpur.				

C) Equipments & AV aids

Name of equipment	Year of purchase	Cost (Rs)	Present status
Furniture: (Table, almirah, library book shelf), computer accessory & LCD projector	2006-07	149927	Good
Audio visual aid: TV, VCD, Digital camera	2006-07	24400	Good

1.8. A) Details SAC meeting * conducted in the year

Slno	Date	Number of participants	Salient Recommendations	Action taken
1	19.9.2007	36	1. HYV of pulses are to be taken with balance fertilizer doses on demonstration 2. Next to ground nut, emphasis should also be given to sunflower through FLD (oil seed) programmes 3. Demonstration on use of agriculture implements in the firm 4. Training on IPM & INM of horticultural crop should be conducted to refresh inservice personnels 5. Mushroom preservation as method demonstration & marketing 6. Soil testing laboratory to be installed in KVK premises 7. Azolla as supplement in cattle feed 8. Awareness campaign Programme should be made in IDM in Betelvine 9. Curing techniques of Betelvine as training Programme 10. Use of theromone traps in vegetables 11. More emphasis on vocational training & Pisciculture for youth & SHGs 12. Follow of action & impact study should be conducted properly (Date base)	

2. DETAILS OF DISTRICT (2006-07)

2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

SlNo	Farming system/enterprise
1	Paddy- Green gram / Black gram
2	Paddy – Fallow
3	Paddy – Vegetable
4	Paddy – Ground nut
5	Vegetable-vegetables

2.2 Description of Agro-climate Zone & major agro ecological situations (based on soil and topography)

Slno	Agro-climate Zone	Characteristics
1	East & south east coastal plain zone	Hot & humid climate, Latitude – 20- 21^0 North Longitude – 84-87^0 3' East Surrounded by Kendrapada in North east Puri & bay of Bengal in South, Cuttack in west & bay of Bengal in East

Slno	Agro ecological situation	Characteristics
1	Coastal irrigated Alluvium (Found in Jagatsinghpur Biridi, Naugan, Balikuda, Raghunathpur, Tirtol, Ersama, kujang block	-Geographical area: 470000 hac -Soil type: sandy loam to clay loam -Rainfall : 1370 mm -Cropping intensity: 198 -Major crops: Rice, G.gram, vegetable, G.nut, jute, sesame
2	Rainfed Alluvium (Found in Jagatsinghpur Biridi, Naugan, Balikuda, Raghunathpur, Tirtol, Ersama, kujang block	-Geographical area: 375000 hac -Soil type: loamy sand to sandy clay loam -Rainfall : 1343 mm -Cropping intensity: 185 -Major crops: Rice, G.gram, vegetable, G.nut, jute, sesame
3	Coastal Alluvial saline (Found in Balikuda, Ersama, Kujang block)	-Geographical area: 318000 hac -Soil type: sandy loam to clay -Rainfall: 1379 mm -Cropping intensity: 105 -Major crops: Rice, G.gram, vegetable
4	Coastal water logged (Found in Balikuda, Ersama, Kujang block)	-Geographical area: 728000 hac -Soil type: loamy sand to sandy loam -Rainfall: 1362 mm -Cropping intensity: 95 -Major crops: Rice

2.3 Soil type/s

Slno	Soil type	Characteristics
1	Loam	- it is a mixture of sand, silt and clay particles which exhibits approximately equal properties of sand, silt and clay. - It also exhibits light and heavy properties in about equal proportions
2	Sandy Loam	- It is a mixture of sand, silt and clay, but the % of sand particles is high than silt and clay particles. - Good for crop cultivation - Good in water holding capacity & Nutrient transformations
3	Clay Loam	- It is a mixture of sand, silt and clay but the clay content is less in comparison to sand and silt particles. - Less productive in comparism to sandy loam due high retentive capacity of water and nutrients by day particles which is less available to crop plants

2.4 Areas, Production and productivity of major crops cultivated in the district

Slno	Crop	Area(ha)	Production (Qtl)	Productivity (Qtl/ha)
1	Paddy	97242	2686452	27.63
2	Green gram	26909	74269	2.76
3	Black gram	4363	12404	2.84
4	Ground nut	1361	15112	11.1
5	Potato	246	32275	131.2
6	Sugarcane	712	517389	726.67

2.5 Weather data

Month	Rainfall (mm)	Temperature ºC		Relative Humidity (%)
		Maximum	Minimum	
January	3.3	NA	NA	NA
February	5.5	-	-	-
March	0.5	-	-	-
April	65	-	-	-
May	15.6	-	-	-
June	93.8	-	-	-
July	245	-	-	-
August	375	-	-	-
September	142.6	-	-	-
October	256.4	-	-	-
November	-	-	-	-
December	-	-	-	-
TOTAL	**1203.4**			

2.6 Production and productivity of livestock, poultry, Fisheries etc. in the district

Category	Population	Production	Productivity
Cattle		82.84 TMT (milk)	0.0005 TMT
Crossbred	127281	-	-
Indigenous	200562	-	-
Buffalo	13144	-	-
Sheep	-	4119 qtl (Meat)	0.15 qtl
Crossbred	374	-	-
Indigenous	26790	-	-
Goats	142631	16097 qtls (Meat)	0.113 qtls
Pigs			
Crossbred	170	-	-
Indigenous	3177	-	-
Rabbits	395	-	-
Poultry		2393 qtl (Meat) 19.7 million eggs	0.01 qtl (Meat) 0.0002 million eggs
Hens			
Desi	107092	-	-
Improved	121269	-	-
Ducks	98631	-	-
Turkey and others		-	-
Category	Area	Production	Productivity
Fish	-	-	-
Marine	3000 sq km	34165.13 MT	11.39 MT
Inland	14405 hac	8421.40 MT	0.58 MT
Prawn	-	-	-
Scampi	12428 hac	109.73 MT	0.009 MT
Shrimp	791.8 hac	1572.887 MT	1.99 MT

2.6 Details of operational area / Villages (2006-07)

Sl No	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Tirtol	Tirtol	Nimakana	Rice, Pulse, Poultry, Dairy	- Low yield in pulse - Low yield in rice - Low milk yield in diary	- Improved techniques in pulse cultivation - IPM in rice - Goatery, poultry rearing & fish farming
2	Tirtol	Tirtol	Sanimula	Paddy, green gram, fish farming	- Low yield in paddy (Attack of disease & pest) - Low yield in pulse -Low yield in fish farming	- Varietal substitution & IPM in rice - Improved package & practice for pulse

						- Pisciculture for women
3	Kujanga	Kujanga	Teramanpur	Vegetable, rice, Betelvine	-Low yield in vegetables -Low price value in paddy -Low yield in Betelvine	-Introduction of suitable HY varieties of vegetable popularization of scented rice -IDM in Betelvine
4	Tirtol	Tirtol	Kiranti	Rice, pulse, Pisciculture	-Low price value of paddy -Low yield of pulse -Low yield in fish farming	-Value addition in rice - Improved package & practice of pulse - Composite fish farming
5	Biridi	Biridi	Maindipur	Groundnut vegetable rice	-Low yield in Groundnut - Low yield in vegetables -Low yield in rice	-Improved package & practice in Groundnut -Varietal substitution & disease pest management in vegetables - IPM in rice - Use of plastic culture in horticulture
6	Tirtol	Tirtol	Kaudiabari	Rice, pulse, poultry, Dairy	-Low yield in paddy -Low yield in pulse -Less return in poultry & Dairy	-Improved package & practice for paddy & pulse -Entrepreneurship development through poultry, Dairy & Duckery spread of mushroom culture

2.7 Priority thrust areas

Slno	**Thrust area**
1	Management of soil salinity.
2	Use of biopesticide and biofertilizer.
3	Popularization of scented and long slender grain rice.
4	Introduction of suitable high yielding varieties of vegetables
5	Use of plastic in horticulture.
6	Popularization of floriculture.
7	Integrated disease management for Betelvine.
8	Pisciculture for women
9	Marketing strategy for sunflower growers
10	Spread of mushroom culture.
11	Agrobase micro enterprise development for SHG.
12	Entrepreneurship development in the field of honey bee rearing, poultry rearing, seed production, diary, goatory and fingerling production etc.

3.B. Abstract of interventions undertaken

Sl No	Thrust area	Crop/ Enterprise	Identified problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds,planting materials etc.
1	Yield enhancement of cereals	Paddy	Low yield in corps	-Screening suitable variety of medium land paddy -Screening suitable variety of up land paddy - Selection of suitable scented rice variety	-High yielding rice in medium to low land situation - High yielding rice in medium land situation -Introduction of scented rice	1.Use of SRI methods of paddy cultivation 2. Use of gypsum in groundnut 3. Improved package & practice of direct seeded upland paddy 4. Package & practices of scented rice 5. Management practices of hybrid rice	1. Diversified crop planning in Jagatsinghpur dist 2. Integrated rice based farming system 3. Newly released varieties of crop, their introduction & management	-Field days -GD, ID - CD Show	Seed & fertilizer
		Sugarcane				6. Improve package & practices of sugarcane			
		Maize				7. Package & practices of maize cultivation			
		Jute				8. Rating techniques of jute			
2	Organic farming	Field crop	Low yield & soil quality deterioration due to use of chemical fertilizer			1. Vermicomposting 2. Vermiculture & vermicompost production technique	1. Organic farming		
3	Problematic soil management		Low yield			1. Management of saline soil (2 Nos) 2. Different problem soils & their reclamation (2 Nos)	Management technology of saline soil		

4	Weed control	Paddy	Low yield due to weed infestation		Integrated weed control in direct seeded kharif paddy	Integrated weed control in upland paddy		Field day & CD show	Supply of Butachlor
5	Soil testing		Unbalance fertiliser application			Techniques of soil sample collection (2Nos)			
6	Resource conservation technique		Low yield	-	-	Water management in sugarcane			
7	Integrated nutrient management	Paddy	Low yield & nitrogen loss		N-management in lowland paddy	INM in lowland paddy		Field day GD	Nimin & urea
8	Reduce drudgery	Paddy	Labour is costly			Use of improved agricultural implements in paddy cultivation			
9	Enhancement of fruit production	papaya	Low yield due to use of local variety		Introduction of high yield in papaya			Field day GD	Planting material
10	Use of plastic in horticultural crops	Tomato	Low yield due to weed		Plastic LDPE mulching in tomato	HI-tech Horticulture and precision farming		GD.Interactive Demonstration Field day	Mulch material
11	Introduction of suitable high yielding variety	Banana	Low yield due to local variety	Testing of performance of tissue culture banana	Tissue culture banana cultivation	Tissue culture banana cultivation			Planting material Fertiliser

12	Popularization of medicinal plant cultivation	Ghruta kumari	Non-utilization of wasteland. Ignored in cultivation,			1.Cultivation and marketing of Ghruta kumari 2. Establishment of medicinal nursery	Prospects of medicinal plant cultivation in the district		
13	Popularisation of floriculture	Marigold	Less area under floriculture but demand is high		Introduction of marigold cultivation	1. Commercial cultivation of tuberose and marigold .	Commercial floriculture		Planting material, fertiliser .
14	IDM	Brinjal	Wilting in brinjal	Testing of different wilt resistant varieties of Brinjal		Selection of varieties for vegetable cultivation		Field days ,Group meeting publication	
15	Entrepreneurship Development	Tuberose	Unemployment of rural youth			Tuberose cultivation			
		Mango				Propagation of mango			
16	Management of coconut orchard	Coconut	Low yield in coconut			1. care and maintenance of coconut nursery 2. Selection and production of quality planting material in coconut	Management in coconut orchard		
17	Yield enhancement in vegetables	Cole crops	Low yield in Cauliflower	Fertiliser management in cauliflower		1. INM in cole crops 2. Hi- tech cultivation of cabbage and cole crops 3. Package and practices of off season vegetables		-Field visit -ID -GD	
18	Increase in rice productivity	Paddy	Disease and pest Problem		-IPM in Paddy -Pheromone trap use in	1. IPM in Kharif rice 2. Bio pesticides and their use 3. Techniques of seed or	IPM of summer paddy	GD Field day CD	Seed pesticide traps

					rice	seeding root treatment 4. Neem based pesticides for pest control		show	
19	Enhancing vegetable growing and production	potato	Disease incidence		Tuber treatment in potato			Field day Group meeting	Pesticides
20	Reducing pest menance in cash crops	Sugar cane	Borer Problem				IPM in sugar cane		
21		Betel vine	Leaf blight and stem rot		Leaf bilght and stem rot in betel vine	1 IDM in betel vine 2 Biopesticides and their application	IDM in Betel vine	GD	Pesticides
22	Quality nut production in coconut	Coconut	Eryophite mite attack			1. Eryophite mite control in Coconut			
23	Increase in mushroom production	Mushroom	Disease pest contamination	IPDM in mushroom		Disease pest management in edible fungus		GD Field visit	Spawn and pesticide
24	Pond management	Pisciculture	Low yield	-	-	1.pond management before and after stocking of fingerings 2.Liming and fertilization in fish pond	-	GD ID	
25	Fish Farming	Pisciculture	Low yield due to less knowledge in applied techniques	-	1. Composite pisciculture. 2. Poultry cum pisciculture 3. Magur culture	1.Techniques in Composite fish farming 2.Integrated fish farming 3.Technique in magur culture	1. Fish farming for SHGs 2.Aqua culture in integrated intensive farming system	-Field day -GD -ID -CD show -Exposu	Fingerlings of Indian major carps, common carps, Grass

								re visit	carps, Chicks Magur fingerlings Feeds
26	Rearing of Young ones	Pisciculture	Less availability of fish fingerlings	-	-	1. Fish fingerling production techniques 2. Breeding and rearing in ornamental fish.	-	-GD -ID - Exporuse visit	-
27	Nutrient manamgemnet.	Pisciculture	Less growth of fish	Effect of standardize feed on growth of magur culture	-	-	Nutrient management in composite fish farming	-GD -ID	Feed
28	Prawn culture	Pisciculture	Less interent in the continuous Indian majorcarp culture and poor in economical condition.	-	-	Monoculture of fresh water prawn	-	-GD -ID	-
29	Disease management	Pisciculture	Disease problem with less production	Biological control of fish diseases by use of plant products	-	Fish disease and their control	-	-GD -ID	Aquaneem & turmeric powder
30	Post harvest technology	Pisciculture	No use of low price fishes	-	-	Value addition in low price fishes	-	-GD -ID Interactive demonstration	

B. Details of each on Farm Trial to be furnished in the following format

1. Title of on-farm trials: Screening suitable variety for medium to low land condition

*** Problem diagnose :** Low yield of paddy in medium to low land situation

*** Details of technologies selected for assessment/refinement:** Introduction of high yielding of variety T_1- Swarna

T_2- Pratikshya

*** Source of technology:** OUAT, Bhubaneswar

*** Production system and thematic area :** Rice – Pulse

*** Performance of technology with parameter/indicators :** Technical observation, Economic indicator, farmers reaction,farmers feedback

*** Final recommendation for micro level situation:** Suitable to situation

*** Constraints identified and feedback for research :** i) No constraints during OFT

ii) May be a substitute to the ruling variety Swarna

*** Process of farmers participation and their reaction :** Training,GD,ID,Field day,OFT Work

Crop enterpriser	Farming situation	Problem Diagnosed	No of trials *	Technology Assessed	Parameters of assessment
1	2	3	4	5	6
Paddy	Irrigated	Low yield of rice	8	Assessment of new release variety Pratikshya	1)Technical observation 2)Economic indicator 3)Farmers reaction 4)Farmers feedback

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
7	8	9	10	11
Plant Ht= No of Tillers/ pf = Test weight= Disease pest incidence if any	It maintain the multiple resistance Gives slightly higher yield as compared to Swarna Increase in yield = 6% with same cost of cultivation	Farmers are satisfied with the performance of Paddy variety Pratikshya with respect to yield , grain quality and disease pest resistance Highly acceptability in existing farming system	-	-

Technology assessed/refined	*Production per unit	Net return (profit) in Rs/unit	BC Ratio
12	13	14	15
Farmers practice T_1 – var- Swarna	4160 Kg	-	-
Technology assessed T_2 – var- Pratikshya	4400 Kg	1750	1.06
Technology refined	-	-	-

2. Title of on-farm trials: Selection of suitable scented rice Variety

*** Problem diagnose :** Low yield of local variety Basuabhog and less aroma in grains

*** Details of technologies selected for assessment/refinement:** Introduction of scented rice variety

T_1- Basuabhog

T_2- Ketakijuha

*** Source of technology:** CRRI, Cuttack

*** Production system and thematic area :** Rice – Pulse

Product of quality rice

*** Performance of technology with parameter/indicators :** Technical observation, Economic indicator,farmers reaction,farmers feedback

*** Final recommendation for micro level situation:** Suitable to coastal eco situation

*** Constraints identified and feedback for research :** i) problems in purchase of seed

ii) ongoing OFT

***Process of farmers participation and their reaction :** Training,GD,ID,Field day

Crop enterpriser	Farming situation	Problem Diagnosed	No of trials *	Technology Assessed	Parameters of assessment
1	2	3	4	5	6
Paddy	Irrigated	Low yield and less price of rice	8	Introduction of newly release scented rice var-ketakijuha	1)Technical observation 2)Economic indicator 3)Farmers reaction 4)Farmers feedback

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
7	8	9	10	11
-	Ongoing OFT	•Scented rice variety has good tillering ability	-	-

Technology assessed/refined	Production per unit	Net return (profit) in Rs/unit	BC ratio
12	13	14	15
Farmers practice T_1 – var- Swarna	**ON GOING**		
Technology assessed T_2 – var- Pratikshya			

3.Title of on-farm trials: Screening suitable variety for medium land paddy

***Problem diagnose :** Low yield of paddy in medium land condition

***Details of technologies selected for assessment/refinement:**

T_1- Konark & Surendra

T_2- Naveen

***Source of technology:** CRRI, Cuttack

*** Production system and thematic area :** Rice – Pulse crop improvement

*** Performance of technology with parameter/indicators:** Technical observation, Economic indicator, farmers reaction, farmers feedback

*** Final recommendation for micro level situation:** First year Trial

*** Constraints identified and feedback for research:** No constraints, may be suitable to situation, further research

*** Process of farmers participation and their reaction:** Training, GD, Exposure visit and OFT

Crop enterpriser	Farming situation	problem Diagnosed	No of trials *	Technology Assessed	Parameters of assessment
1	2	3	4	5	6
Paddy	Rainfed	Low yield paddy in medium land condition where farmers prefer a 4 month rice	5	Newly release variety Naveen is to be compared with surendra and Konark	1)Technical observation 2)Economic indicator 3)Farmers reaction 4)Farmers feedback

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement	Justification for refinement
7	8	9	10	11
Yield time of maturity grains test weight	Ongoing OFT	The variety has good tillers and foliar growth	-	-

Technology assessed/refined	Production per unit	Net return (profit) in Rs/unit	BC ratio
12	13	14	15
T_1 – Farmers practice var- Surendra and konark	**ON GOING**		
Technology assessed T_2 – var- Naveen			

4. Title of on-farm trials: Performance of tissue culture Banana var- Patakapura

*** Problem diagnose:** Low yield of Banana from traditional suckers

*** Details of technologies selected for assessment/refinement:**

T_1- Patakapura (Local Sucker)

T_2- Saplings of tissue culture Banana (var- Patakapura)

*** Source of technology:** RPRC, Bhubaneswar

*** Production system and thematic area: i)** Orchard Base

ii) Enhance Banana production

*** Performance of technology with parameter/indicators :** Technical observation, Economic indicator, farmers reaction, farmers feedback

*** Final recommendation for micro level situation:** First year Trial

*** Constraints identified and feedback for research :** sometimes availability of saplings

*** Process of farmers participation and their reaction :** i) Training, GD, Exposure visit and Farmer scientist interaction program

ii) Accepted as process of planting and post care is easy

Crop enterpriser	Farming situation	Problem Diagnosed	No of trials *	Technology Assessed	Parameters of assessment
1	2	3	4	5	6
Banana	Irrigated	Low banana production and lack of uniformity in growth as well as disease	10	Saplings of tissue culture banana var-patkapura is introduced	1) Technical observation 2) Economic indicator 3) Farmers reaction 4) Farmers feedback

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinemen	Justification for refinement
7	8	9	10	11
-	Ongoing OFT	Crop growth is good Still there is no disease incidence	-	-

Technology assessed/refined	*Production per unit	Net return (profit) in Rs/unit	BC Ratio
12	13	14	15
Farmers practice T_1 – Traditional patkapura suckers	Ongoing	-	-
Technology assessed T_2 – tissue culture var-Patkapura	Ongoing	-	-
-	-	-	-

5. Title of on-farm trials: Testing of wilting resistant variety of Brinjal

*** Problem diagnose :** Wilting causes heavy loss in brinjal cultivation

*** Details of technologies selected for assessment/refinement:** Introduction of wilt resistant variety BB-45C (Anushree)

T_1-Farmers Variety

T_2-Var-BB45C

***Source of technology:** OUAT, Bhubneswar

*** Production system and thematic area :** vegetable-vegetable

*** Performance of technology with parameter/indicators :** Technical observation, Economic indicator,farmers reaction,farmers feedback

*** Final recommendation for micro level situation:** growing successfully
Showing resistance to wilt complex

*** Constraints identified and feedback for research :** No Constraints
size of fruits are not appealing, further research

*** Process of farmers participation and their reaction : i)** Training,GD,ID, Field day,
ii) accepted the technology for wilt check

Crop enterpriser	Farming situation	problem Diagnosed	No of trials	Technology Assessed	Parameters of assessment
1	2	3	4	5	6
Brinjal	Irrigated	Severe wilt complex in brinjal	6	Wilt resistance, new released variety introduced	1) Technical observation 2) Economic indicator 3) Farmers reaction 4) Farmers feedback

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
7	8	9	10	11
No of fruits/ plant= % plants infested with wilt=	•Gave higher yield than local pendi % Increase in yield 41% Resistant to wilt	•Satisfied with the disease resistance •Small size fruits •Can be taken in both kharif & rabi season	-	-

Technology assessed/refined	Production per unit	Net return (profit) in Rs/unit	BC Ratio
12	13	14	15
Farmers practice T_1 – farmers variety (Pendi)	21000 kg	-	-
Technology assessed T_2 – BB45C(Utkal Anushree)	31800 kg	54500/-	1.51
-	-	-	-

6. Title of on-farm trials: Sustainability of strain of oyster Mushroom during low temperature occurrence

*** Problem diagnose :** Low yield, disease infestation, problem in bud initiation, (p.sajorcaju) during low temperature occurrence

*** Details of technologies selected for assessment/refinement:** if a suitable strain is selected may help in increase production and check contaminates during low temperature occurrence

*** Source of technology:** Technology OMRT, OUAT, and OFTS of KVKs and refined by OFT NO 6

*** Production system and thematic area :** house hold condition mushroom culture

*** Performance of technology with parameter/indicators :** Technical observation, Economic indicator, farmers reaction, farmers feedback

*** Final recommendation for micro level situation:** very much suitable during low temperature occurrence

*** Constraints identified and feedback for research :** No Constraints highly acceptable during low temperature occurrence i.e.day temperature < 24^0 C , night temperature < 15^0 C

*** Process of farmers participation and their reaction:** i) GD,ID, participatory OFT

ii) very good strain

Crop enterpriser	Farming situation	Problem Diagnosed	No of trials *	Technology Assessed	Parameters of
1	2	3	4	5	6
Mushroom	Household	Low yield of ruling strain P. Sojarcaju during low temperature condition	300 beds	-	-

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
7	8	9	10	11
-Bunch type -white in colour -Roundish Petal -Attack of less constraints	T_2 – *PLeurotus Florida Gave higher average yield compared to P.sojarcaju Also resistance to diseases*	-Yield is high -Perishability is higher than *-P.sojarcaju less attack of constraints*	Refinement of technology is selection of strain which is suitable to low temperature for both growth of mycelium and fruiting	*Pleurotus sojarcaju is the ruling strain of our state because of high yield and taste but during low temperature occurrence in mid to last part of winter this variety gave low yield and sometimes problem in bud sprouting. When fruiting is delayed require high temperature for fruiting, beds are opened for long time exposing upto more contaminates*

Technology assessed/refined	Production per unit	Net return (profit) in Rs/unit	BC Ratio
12	13	14	15
Farmers practice T_1 – *Pleurotus*	-	-	-
Technology assessed	-	-	-
Technology refined T_2 –*PLeurotus florida*	1.85 kg/bed	22/-per bed	1.61

7. Title of on-farm trials: Storage of pulses by the use of ITK.

*** Problem diagnose :**Spoilage of pulse grains due to improper method of storing

*** Details of technologies selected for assessment/refinement:** Locally used materials may reduce spoilage of pulse grains during storage without any test and residual toxicity
*** Source of technology:**
*** Production system and thematic area :** house hold condition Safe storage
*** Performance of technology with parameter/indicators :** Technical observation, Economic indicator, farmers reaction, farmers feedback
*** Final recommendation for micro level situation:**Mixing Neem and begunia leaf followed by sun drying and storing is recommended
*** Constraints identified and feedback for research :** No Constraints
other locally available materials for pest control to be validated

- **Process of farmers participation and their reaction : i)** GD,ID, training

Crop enterpriser	Farming situation	problem Diagnosed	No of trials *	Technology Assessed	Parameters of assessment
1	2	3	4	5	6
Pulses	Household storage	Spoilage of pulse grain due to improper method of storing	14	Sun drying followed by mixing of neem leaf + Begunia leave	Technical Observation Economic indicator Farmers reaction Farmers Feedback

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
7	8	9	10	11
T1=Storing without any treatment Loss of weight = 12% T2=Loss of wt =3%	•*Loss of grain wt was found the least I.e. only 3% in case of storing the seeds by mixing neem and begunia leave in compared to storing the pulses without any treatment in which loss was as high as 12%* *• 1 Q seeds reduced to 88 Kg against 97 Kg in treated seed lot*	**pest incidence reduced in adding neem and begunia leaf* ** Available all time all where*	-	-

Technology assessed/refined	production per unit	Net return (profit) in Rs/unit	BC Ratio
12	13	14	15
Farmers practice T^1 = sun drying and storing	Less in storage assessed 12 %	-	-
Technology assessed T2= sun drying and storing with dried neem leaf + begunia leaf	Less in storage assessed 3%	Rs. 300/-	1.1
	-	-	-

8. Title of on-farm trials: evaluation of duck breed.

*** Problem diagnose:** Poor performance of local duck with respect to meat and egg production due to low production potential

*** Details of technologies selected for assessment/refinement:** T_1 = Local duck

T_2 = Khaki Campbell

***Source of technology: CARI, Bhubneswar**

*** Production system and thematic area :** Pond base

Duckery Management

*** Performance of technology with parameter/indicators :** Technical observation, Economic indicator, farmers reaction, farmers feedback

*** Final recommendation for micro level situation:**Suitable to rural pond base situation

*** Constraints identified and feedback for research :** sometimes unavailability of new varieties some other new varieties like khaki campbell are also required

* **Process of farmers participation and their reaction : i)** GD,ID, visit to KVK

Crop enterpriser	Farming situation	problem Diagnosed	No of trials	Technology Assessed	Parameters of assessment
1	2	3	4	5	6
Duckery	Pond Base	Poor performance of local ducks with respect to meat and egg	6	Suitable duck breed may help in increasing household income	Technical Observation Economic indicator Farmers reaction Farmers Feedback

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
7	8	9	10	11
		Khaki campbell is very quick growing compared to local ducks	-	-

Technology assessed/refined	production per unit	Net return (profit) in Rs/unit	BC Ratio
12	13	14	15
Farmers practice T^1 = Local duck	On going trial	-	-
Technology assessed T2= Khaki Campbell	-	-	-
-	-	-	-

9. Title of on-farm trials: control of fish diseases by the use of plant products.

*** Problem diagnose : fish diseases in culturable pond**

*** Details of technologies selected for assessment/refinement:**

T_1 = Local practice (lime application) T_2= Aquaneem + turmeric powder

***Source of technology: CIFRI, Barrackpore**

*** Production system and thematic area :** Pond base, Fish diseases

*** Performance of technology with parameter/indicators:** Technical observation, Economic indicator, farmers reaction, farmers feedback

*** Final recommendation for micro level situation:** use of Aquaneem and turmeric powder suitable to control tail and fin rot diseases

*** Constraints identified and feedback for research :** No constraints

*** Process of farmers participation and their reaction : i)** GD,ID, field visit

Crop enterpriser	Farming situation	problem Diagnosed	No of trials	Technology Assessed	Parameters of assessment
1	2	3	4	5	6
Fishery	Pond Base	Fish diseases in cultuarable pond	9	Use of suitable plant product for fish diseases control Aquaneem + Turmeric Powder	Technical Observation Economic indicator Farmers reaction Farmers Feedback

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refineme
7	8	9	10	11
% of curing diseases	*Among the treatment the pond treated with aquaneem + turmeric powder was found to control the diseases by 96% whereas local practice gave only 12.3% for control of diseases*	**Easy availability of plant products* *•Low cost and effective in controlling the diseases* *•Disease identification at the time of attack is difficult*	-	-

Technology assessed/refined	Production per unit	Net return (profit) in Rs/unit	BC Ratio
12	13	14	15
Farmers practice T_1 = Local practice (lime application)	1200 kg	-	-
Technology assessed T_2= Turmeric Powder + aquaneem	2000 kg	25000/-	1.1:1
	-	-	-

10. Title of on-farm trials:Integrated pest disease management in mushroom.

*** Problem diagnose :pest and disease contaminants in mushroom bed found**

*** Details of technologies selected for assessment/refinement:** T_1 = No treatment/ sometimes hot water Treatment T_2 = Integrated approach for pest diseases control (Cow urine + need base chemicals)

*** Source of technology:NCMRT, solan**

*** Production system and thematic area :** Household situation
integrated pest management

*** Performance of technology with parameter/indicators :** Technical observation, Economic indicator, farmers reaction, farmers feedback

*** Final recommendation for micro level situation:** First year trial

*** Constraints identified and feedback for research :** No constraints
How to complete avoid chemicals

- **Process of farmers participation and their reaction : i)** GD,ID, visit to KVK

Crop enterpriser	Farming situation	problem Diagnosed	No of trials *	Technology Assessed	Parameters of assessment
1	2	3	4	5	6
Mushroom	Household	Severe pest and disease contaminant in mushroom beds	5	Use of cow urine & Chemical	Technical Observation Economic indicator Farmers reaction Farmers Feedback

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
7	8	9	10	11
-colour - Yield Perishibility -Market	*On going*	*On going*	*On going*	On going

Technology assessed/refined	Production per unit	Net return (profit) in Rs/unit	BC Ratio
12	13	14	15
Farmers practice	Result assessment stage	-	-
Technology assessed	-	-	-

11. Title of on-farm trials: Yield performance of paddy straw mushroom under household situation.

*** Problem diagnose :** Low yield of paddy straw mushroom due to improper method of raising bed in summer

*** Details of technologies selected for assessment/refinement:** Suitable method of raising bed during summer season may help in increasing the production of mushroom

T_1 = 2' x 2' size cross bed

T_2 = 10 ‘‘ x 5' size bed

*** Source of technology: NCMRT, Solan**

*** Production system and thematic area :** House hold

Mushroom production

*** Performance of technology with parameter/indicators :** Technical observation, Economic indicator, farmers reaction, farmers feedback

*** Final recommendation for micro level situation:** Trench bed type of cultivation gives higher yield

*** Constraints identified and feedback for research :** No constraints

* **Process of farmers participation and their reaction : i)** GD,ID, visit to KVK, mushroom field day

Crop enterpriser	Farming situation	problem Diagnosed	No of trials *	Technology Assessed	Parameters of assessment
1	2	3	4	5	6
Mushroom	house hold	Low yield of paddy straw mushroom in summer season	5	For summer season to practice the bed size 10 " x 5' in place of 2' x 2‘ bed in other periods	Technical Observation Economic indicator Farmers reaction Farmers Feedback

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
7	8	9	10	11
yield in T_1=1.25 kg/bed T_2=1.60 kg/bed	*Increase in yield compared to previous practice is 28%*	**Yield performance is better* **Easy technology to handle*	-	-

Technology assessed/refined	Production per unit	Net return (profit) in Rs/unit	BC Ratio
12	13	14	15
Farmers practice T_1 = 2' x 2' size cross bed	1.25 kg/bed	-	-
Technology assessed T_2= 10 ‘‘ x 5' size	1.6 kg/bed	21.00	1.28:1
-	-	-	-

3.2 Achievements of Frontline Demonstrations

A. Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous year and popularized during 2006-07 and recommended for large cale adoption in the district.

Slno	Thrmatic Area	Technology demonstrated	Details of popularization methods suggested to the extension system	Horizontal spread of technology		
				No of villages	No of farmers	Area in ha
1	Crop productin	Nitrogen management in low land paddy	Demonstration GD field day		Some FLD completed recently & some are ongoing	
2	Cultivation of fruit	High yielding papaya cultivation	Training exposure visit, literature			
3	IPM	Pheromone trap in paddy	ID, field day, training, exposure visit			
4	Fishery	Composite fish farming	Training, CD Show, field day			
5	Crop production	Ground nut cultivation	GD, field visit, training			

Sl No	Thrmatic Area	Technology demonstrated	Details of popularization methods suggested	Horizontal spread of technology		
				No of villag	No of farmers	Area to ha
6	Cropping	pulse production	Field visit, training,		Some FLD	

B. Details of FLDs implemented during 2006-07 (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pusses, cotton and commercial crops.)

Sl No	Crop	The matic area	Technology Demonstrated	Season and year 2006-07	Are (ha)		No of farmers/demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Rice	Crop production	Nitrogen management in low land paddy	kharif	4	4	2	8	10	
2	Papaya	Cultivation of fruit	High yielding papaya cultivation	kharif	1.5	1.3	3	5	8	**As per Action plan**
3	Rice	IPM	Pheromone trap in paddy	kharif	2	2	-	4	4	
4	Fish farming	Fishery	Composite fish farming	Kharif, Rabi	0.24	0.24	-	3	3	
5	G.nut	Crop production	Ground nut cultivation	Rabi	5	5	2	12	14	
6	Pulse	Cropping system	Pulse production G.gram,B.gram)	Rabi	10	10	4	21	25	
7	Rice	Cropping system	High yielding rice in medium to low land situation	Kharif	8	7	2	18	20	
8	Potato	IPM	Tuber treatment in potato	Rabi	2	2	4	16	20	
9	Tomato	Protective cultivation	Plastic mulching in tomato	Rabi	0.3	.3	-	3	3	
10	Rice	Crop diversification	High yielding scented rice	Kharif	4	4	1	9	10	
11	Drumstick	Vegetable production	Improve drum stick cultivation	Kharif	0.4	.24	1	3	4	
12	Nutritional gardening	Home science	Nutritional gardening	Kharif, Rabi	0.4	.4	2	8	10	
13	HT rose	Ornamental plant	Introduction of HT rose	Kharif	0.2	.14	1	4	5	
14	Fish farming	Fishery	Biological control of aquatic weed in fish pond	Kharif, Rabi	0.2	.2	-	4	4	
15	Mushroom	Mushroom cultivation	Oyster mushroom cultivation	Winter	300 bed	300 bed	2	18	20	

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil (kg/ha)			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No of rainy days
				N	P	K					
Paddy (1)	Kharif	Irrigated	Alluvial				Pulse	5.6.06	20.12.06		
Paddy (11)	Kharif	Rainfed & irrigated	Alluvial				Pulse	26.7.06	28.12.06		
Paddy (111)	Kharif	Rainfed	Alluvial				Pulse	8.8.06	28.12.06		
Tomato	Rabi	Irrigated	Sandy loam				Vegetable	15.11.06	14.02.06		
Potato	Rabi	Irrigated	Clay loam				Rice	14.11.06	-		
G.Nut	Rabi	Irrigated	Alluvial				Rice	8.1.07	10.5.07		
G.gram	Rabi	Irrigated	Alluvial				Rice	19.1.07	5.4.07		
B.gram	Rabi	Irrigated	Alluvial				Rice	23.1.07	11.4.07		

Performance of FLD

Sln	Crop	Technology	Variety	No of	Area (ha)
1	2	3	4	5	6
1	Paddy (1)	High yielding rice in medium to low land	Pooja	06	02
2	Paddy (11)	Nitrogen management in low land paddy	CR-1018	10	04
3	Paddy	Pheromone trap in paddy	Pooja	04	02
4	Tomato	Plastic mulching in	BT-10	03	03
5	Potato	Tuber treatment in potato cultivation	K-22 Sathia	20	02
6	G.Nut	Package demonstration	Smruti	14	05
7	G.gram	Package demonstration	PDM-54	13	05
8	B.gram	Package demonstration	PU-30	12	05
9	Fish farming	Composite pisciculture	IMC (with grass carp)	03	0.24
10	Fish farming	Biological control of aquatic weed in fish pond	IMC	04	0.2
11	Oyster mushroo	Raising oyster mushroom	*P. sajarcaju*	20	360 bed

Crop	Demo. yield qtl/ha			Yield of local check	Increase in yield (%)	Data on parameter in relation to	
	H	L	A			Demo	Local
7	8	9	10	11	12	13	14
Paddy (1)	44.6	31.0	36.1	26.0	39		
Paddy (11)	41.8	36.4	37	27	25		
Paddy(111)	36.2	29.2	33.3	28	19		
Tomato	288	209	275	188	32		
Potato	224	198	210	185	13		
G.Nut	24.8	17.7	21.1	17	26		
G.gram	10.7	6.2	9.0	5.1	77		
B.gram	9.8	5.8	8.8	4.7	87		
Fish	41	27	34	22	54		
Fish	35	21	28	18	34		
Oyster mushroom	2.8	1.6	2.0	1.6	-		

Economic impact (continuation of previous table)

Average Cost of cultivation (Rs./ha)		**Average Gross Return (Rs./ha)**		**Average Net Return (profit) (Rs./ha)**		**Benefit cost Ratio (Gross Return/Gross Cost)**
Demonstration	Local check	Demonstration	Local check	Demonstration	Local check	
14	15	16	17	18	19	20
12,800	12,200	21,600	15,600	8,800	3,400	1.6:1
13,400	12,000	22,200	16,200	8,800	4,200	1.65:1
14,200	13,000	19,980	16,800	5,780	3,800	1.4:1
29,250	28,400	68,750	47,000	39,550	18,600	2.3:1
39,000	38,200	84,000	74,000	45,000	35,800	2.1:1
12,500	10,600	31,560	25,550	19,150	14,950	2:1
6,200	4,700	18,000	10,200	11,800	5,500	2.8:1
6,400	4,800	17,600	9,400	11,200	4,600	2.7:1

Analytical Review of component demonstrations (details of each component for rainfed/irrigated situations to be given separately for each season)

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
		1. Seed/Variety	-	-	-	-
		2. Bio-Fertilizer	-	-	-	-
		3. Fertilizer management	-	-	-	-
		4. Plant Protection	-	-	-	-
		5. Combination of components (Please specify)	-	-	-	-

Technical Feedback on the demonstrated technologies

Technology	Feedback
1. High yielding rice in low land situation	Farmers were satisfied with the yield and quality of grain
2. Nitrogen management in low land paddy	Farmers accepted and were convinced because coated urea fulfilled nitrogen requirement of
3. Pheromone trap in paddy	Farmers were convinced by extension approach of "Seeing in believing " to control the same borer & yield increased by 19%
4. Plastic mulching in tomato	Convinced about cost benefit ratio & also labour saving
5. Tuber treatment in potato	Very effective treatment to minimize disease in potato
6. Ground Nut cultivation	Very much acceptable to farming situation
7. Green gram cultivation	Improvement of technology through
8. Package demonstration in back gram	Very much acceptable to existing farming
9. Composite pisciculture	Farmers are convinced regarding yield & profit also compatible with existing farming system
10. Biological control of aquatic weed in fish pond	IMC with grass carp control the aquatic weed & highly accepted by the farmers due to increase in yield
11. Oyster mushroom cultivation	Satisfied as it was profitable easy practice and compatible

Farmer's reactions on specific technologies

Technology	Feedback
1. High yielding rice in low land situation	Fine grain synchronous flowering & ripening, high yielding
2. Nitrogen management in low land paddy	Prolonged greenness due to neem coated urea
3. Pheromone trap in paddy	Stem borer insects trapped
4. Plastic mulching in tomato	Use of plastic mulching control weed & helped in water conservation
5. Tuber treatment in potato	No wilting in early plant growth & blight in
6. Ground Nut cultivation	Pod formation & quality of the variety is good oil content is more
7. Green gram cultivation	Crop growth is better due to application of balanced fertilizer dose
8. Package demonstration in back gram	Replacement of local variety gave better yield
9. Composite pisciculture	Growth of fish was healthy in all the three
10. Biological control of aquatic weed in fish pond	IMC with grass crap control the aquatic weed and fish growth was optimum
11. Oyster mushroom cultivation	Easy practice 2 to 3 times plucking with higher yield from the first plucking

Extension and Training activities under FLD

Slno	Activity	No of activities organise	Date	Number of participa	Remarks
1	Field days	14	10.9.06, 29.9.06 18.10.06, 28.10.06 13.11.06, 21.11.06 2.12.06, 4.12.06 2.3.07, 4.1.07 23.3.07, 2..4.07 9.5.07, 30.6.07 8.9.07	316	
2	Farmers training	06	6.10.06, 19.10.06 4.11.06, 5.11.06 29.6.07, 18.7.07	68	
3	Media coverage	-		-	Radio Talk News paper
4	Training for extension functionaries	02	8.11.06, 11.7.07,31.8.07 2.9.07,14.9.07	13	

C. Details of FLD on Enterprises

(i) Farm implements

Name of the implement	Crop	No.of farmers	Area (ha)	Performance parameters /indicators	*Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon	Local check		
-	-	-	-	-	-	-	-	-

*** Field efficiency, labour saving etc.**

(ii) Livestock Enterprises

Enterprise	Breed	No.of farmers	No.of animals, poultry birds etc.	Performance parameters/indicators	*Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon	Local check		
-	-	-	-	-	-	-	-	-

***Milk production, meat production, egg production, reduction in disease incidence etc.**

(iii) Other Enterprises

Enterprise	Variety/breed/ species/others	No.of farmers	No.of units	Performance parameters/indicators	Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon	Local check		
Mushroom	Raising oyster mushroom	20	300 beds	-	2 kg	-	43	High acceptability

3.3 Achievements on Training (Including the sponsored and FLD training Programmes):

A) ON Campus

Thematic Area	No.of courses	No.of participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A)Farmers & Farm Women								
I .Crop Production								
Weed Management	01	20	-	20	-	-	-	20
Resource Conservation Technologies								
Cropping Systems								
Crop Diversification								
Integrated Farming								
Water management	1	18	-	18	2	-	2	20
Seed production								
Nursery management								
Integrated crop management	3	56	-	56	4	-	4	60
Fodder production								
Production of organic inputs								
II. Horticulture								
a) Vegetable Crops								
Production of low volume and high value crops								
Off-season vegetables	1	6	-	6	14	-	14	20
Nursery raising								
Exotic vegetables like Broccoli								
Export potential vegetables	1	14	12	26	1	3	4	30
Grading and standardization								
Protective cultivation (Green Houses, shade Net etc.)								
b) Fruits								
Training and pruning								
Training and Management of orchards								
Cultivation of fruit								
Management of young plants/orchards	1	-	11	11	-	4	4	15
Rejuvenation of old orchards								
Export potential fruits								
Micro irrigation systems of orchards								
Plant propagation techniques								
c) Ornamental plants								

Nursery management								
Management of potted plants								
Export potential of ornamental plants								
Propagation techniques of ornamental plants								
d) Plantation crops								
Production and management technology								
Processing and value addition								
e) Tuber crops								
Production and management technology								
Processing and value addition								
f) Spices								
Production and management technology								
Processing and value addition								
g) Medicinal and Aromatic Plants								
Nursery management								
Production and management technology								
Post harvest technology and value addition								
III. Soil Health and Fertility Management								
Soil fertility management	1	8	-	8	2	-	2	10
Soil and water conservation								
Integrated nutrient management	1	18	-	18	2	-	2	20
Production and use of organic inputs								
Management of problematic soils	2	35	3	38	2	-	2	40
Micro nutrient deficiency in crops								
Nutrient use Efficiency								
Soil and water Testing								
IV. Livestock Production and Management								
Dairy management								
Poultry management								
Piggery management								
Rabbit management								

Disease management								
Feed management								
Production of quality animal products								
V. Home Science/Women empowerment								
Household food security by kitchen gardening and nutrition gardening								
Design and development of low/minimum cost diet								
Designing and development for high nutrient efficiency diet								
Minimization of nutrient loss in processing								
Gender mainstreaming through SHGs								
Storage loss minimization techniques								
Value addition								
Income generation activities for empowerment of rural women	2	-	31	31	-	4	4	35
Location specific drudgery reduction technologies								
Rural crafts								
Women and child care								
VI . Agril. Engineering								
Installation and maintenance of micro irrigation systems								
Use of plastics in farming practices								
Production of small tools and implements								
Repair and maintenance of farm machinery and implements								
Small scale processing and value addition								
Post Harvest technology								
VII .Plant Protection								
Integrated pest management	5	60	20	80	18	2	20	100
Integrated Disease management								

Bio-control of pests and diseases	3	28	25	53	2	5	7	60
Production of bio control agents and bio pesticides								
VIII. Fisheries								
Integrated fish farming	1	20	-	20	-	-	-	20
Carp breeding and hatchery management								
Carp fry and fingerling rearing								
Composite fish culture								
Hatchery management and culture of freshwater prawn	3	61	-	61	9	-	9	70
Breeding and culture of ornamental fishes								
Portable plastic carp hatchery								
Pen culture of fish and prawn	2	29	-	29	1	-	1	30
Shrimp farming								
Edible oyster farming								
Pearl culture								
Fish processing and value addition								
IX. Production of inputs at site								
Seed production								
Planting material production								
Bio-agents production								
Bio-pesticides production								
Bio-fertilizer production								
Vermi -compost production								
Organic manures production								
Production of fry and fingerlings								
Production of Bee-colonies and wax sheets								
Small tools and implements								
Production of livestock feed and fodder								
Production of fish feed								
X. Capacity Building and Group Dynamics								
Leadership development								
Group dynamics	1	-	18	18	-	2	2	20
Formation and management of SHGs								
Mobilization of social capital								

Entrepreneurial development of farmers/youths	3	28	17	45	-	5	5	50
WTO and IPR issues								
XI. Agro-Forestry								
Production technologies								
Nursery management								
Integrated farming systems								
XII. Others (Pl. Specify)								
TOTAL								
(B) RURAL YOUTH								
Mushroom production	3	26	13	39	7	2	9	48
Bee-keeping								
Integrated farming								
Seed production								
Production of organic inputs	2	13	-	13	2	-	2	15
Integrated farming								
Planting material production								
Vermi-culture								
Sericulture								
Protected cultivation of vegetable crops								
Commercial fruit production	2	16	3	19	2	-	2	21
Repair and maintenance of farm machinery and implements								
Nursery management of Horticulture crops								
Training and pruning or orchards								
Value addition	3	20	11	31	5	4	9	40
Production of quality animal products								
Dairying								
Sheep and goat rearing								
Quail farming								
Piggery								
Rabbit farming								
Poultry production								
Ornamental fisheries								
Para vets								
Para extension workers								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								
Pearl culture								

Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing	2	42	1	43	7	-	7	50
Small scale processing								
Post Harvest Technology								
Tailoring and stitching								
Rural crafts								
Agro processing unit	1	19	-	19	1	-	1	20
TOTAL								
(C) Extension Personnel								
Productivity enhancement in field crops	3	16	10	26	4	-	4	30
Integrated pest management	3	29	-	29	1	-	1	30
Integrated nutrient management								
Rejuvenation of old orchards								
Protected cultivation technology								
Formation and management of SHGs								
Group Dynamics and farmers organization								
Information networking among farmers	1	10	-	10	-	-	-	10
Capacity building for ICT application								
Care and maintenance of farm machinery and implements								
WTO and IPR issues								
Management in farm animals								
Livestock feed and fodder production								
Household food security								
Women and child care								
Low cost and nutrient efficient diet designing								
Production and use of organic inputs	1	8	-	8	2	-	2	10
Gender mainstreaming through SHGs								
Any other (Pl. Specify)								
Commercial flowericulture								
Prospects of medicinal plant	1	8	-	8	2	-	2	10

cultivation								
IIFS								
Spawn production								
Leadership development	1	-	10	-	-	-	-	10
Income generating	1	-	9	9	-	1	1	10
PRA exercise								
Management of CPR	1	-	8	8	-	2	2	10
TOTAL								

B) OFF Campus

Thematic Area	No.of courses	No.of participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A)Farmers & Farm Women								
I. Crop Production								
Weed Management								
Resource Conservation Technologies	1	16	-	16	4	-	4	20
Cropping Systems								
Crop Diversification	1	19	-	19	1	-	1	20
Integrated Farming								
Water management								
Seed production								
Nursery management								
Integrated crop management	2	19	-	19	11	-	11	30
Fodder production								
Production of organic inputs								
II. Horticulture								
a) Vegetable Crops								
Production of low volume and high value crops								
Off-season vegetables								
Nursery raising								
Exotic vegetables like Broccoli								
Export potential vegetables								
Grading and standardization								
Protective cultivation (Green Houses, shade Net etc.)	2	20	7	27	9	4	13	40
b) Fruits								
Training and pruning								
Training and Management of orchards								

Cultivation of fruit	2	22	9	31	3	1	4	35
Management of young plants/orchards								
Rejuvenation of old orchards								
Export potential fruits								
Micro irrigation systems of orchards								
Plant propagation techniques								
c) Ornamental plants								
Nursery management								
Management of potted plants								
Export potential of ornamental plants								
Propagation techniques of ornamental plants								
d) Plantation crops								
Production and management technology								
Processing and value addition								
e) Tuber crops								
Production and management technology	1	8	3	11	3	1	4	15
Processing and value addition								
f) Spices								
Production and management technology								
Processing and value addition								
g) Medicinal and Aromatic Plants								
Nursery management								
Production and management technology								
Post harvest technology and value addition								
III. Soil Health and Fertility Management								
Soil fertility management								
Soil and water conservation								
Integrated nutrient management								
Production and use of organic								

Inputs								
Management of problematic soils	2	37	2	39	1	-	1	40
Micro nutrient deficiency in crops								
Nutrient use Efficiency								
Soil and water Testing	2	39	-	39	1	-	1	40
IV. Livestock Production and Management								
Dairy management								
Poultry management								
Piggery management								
Rabbit management								
Disease management								
Feed management								
Production of quality animal products								
V. Home Science/Women empowerment								
Household food security by kitchen gardening and nutrition gardening								
Design and development of low/minimum cost diet								
Designing and development for high nutrient efficiency diet								
Minimization of nutrient loss in processing								
Gender mainstreaming through SHGs								
Storage loss minimization techniques	1	-	18	18	-	2	2	20
Value addition								
Income generation activities for empowerment of rural women								
Location specific drudgery reduction technologies								
Rural crafts								
Women and child care								
VI .Agril. Engineering								
Installation and maintenance of micro irrigation systems								
Use of plastics in farming								

practices								
Production of small tools and implements								
Repair and maintenance of farm machinery and implements	1	10	-	10	10	-	10	20
Small scale processing and value addition								
Post Harvest technology								
VII. Plant Protection								
Integrated pest management	4	60	3	63	-	2	2	65
Integrated Disease management	2	30	2	32	4	4	8	40
Bio-control of pests and diseases								
Production of bio control agents and bio pesticides	1	20	-	20	-	-	-	20
VIII. Fisheries								
Integrated fish farming								
Carp breeding and hatchery management								
Carp fry and fingerling rearing								
Composite fish culture	1	18	-	18	2	-	2	20
Hatchery management and culture of freshwater prawn								
Breeding and culture of ornamental fishes	1	16	-	16	4	-	4	20
Portable plastic carp hatchery								
Pen culture of fish and prawn								
Shrimp farming								
Edible oyster farming								
Pearl culture								
Fish processing and value addition								
Magur culture	1	17	3	20	-	-	-	20
Fish diseases	1	8	-	8	2	-	2	10
IX. Production of inputs at site								
Seed production								
Planting material production								
Bio-agents production								
Bio-pesticides production								

Bio-fertilizer production								
Vermi -compost production								
Organic manures production	1	20	-	20	-	-	-	20
Production of fry and fingerlings								
Production of Bee-colonies and wax sheets								
Small tools and implements								
Production of livestock feed and fodder								
Production of fish feed								
X. Capacity Building and Group Dynamics								
Leadership development	1	-	21	21	-	4	4	25
Group dynamics								
Formation and management of SHGs	1	-	20	20	-	-	-	20
Mobilization of social capital	2	22	8	30	-	-	-	30
Entrepreneurial development of farmers/youths								
WTO and IPR issues								
XI. Agro-Forestry								
Production technologies								
Nursery management								
Integrated farming systems								
XII. Others (use of harvester in fruit crop)	1	13	2	15	5	-	5	20
TOTAL								
(B) RURAL YOUTH								
Mushroom production								
Bee-keeping	1	15	-	15	5	-	5	20
Integrated farming								
Seed production								
Production of organic inputs								
Integrated farming								
Planting material production	1	15	-	15	5	-	5	20
Vermi-culture	2	20	-	20	5	-	5	25
Sericulture								
Protected cultivation of vegetable crops								
Commercial fruit production								
Repair and maintenance of farm machinery and implements	1	16	-	16	4	-	4	20

Nursery management of Horticulture crops	2	23	9	32	7	1	8	40
Training and pruning or orchards								
Value addition	2	10	20	30	5	5	10	40
Production of quality animal products	1	-	16	16	-	4	4	20
Dairying								
Sheep and goat rearing								
Quail farming								
Piggery								
Rabbit farming								
Poultry production								
Ornamental fisheries								
Para vets								
Para extension workers								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								
Pearl culture								
Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing								
Small scale processing								
Post Harvest Technology	1	20	-	20	-	-	-	20
Tailoring and stitching								
Rural crafts	1	-	18	18	-	2	2	20
TOTAL								
(C) Extension Personnel								
Productivity enhancement in field crops								
Integrated pest management								
Integrated nutrient management								
Rejuvenation of old orchards	1	10	-	10	-	-	-	10
Protected cultivation technology	1	10	-	10	-	-	-	10
Formation and management of SHGs								
Group Dynamics and farmers organization								
Information networking among farmers								

Capacity building for ICT application								
Care and maintenance of farm machinery and implements								
WTO and IPR issues								
Management in farm animals								
Livestock feed and fodder production								
Household food security								
Women and child care								
Low cost and nutrient efficient diet designing								
Production and use of organic inputs								
Gender mainstreaming through SHGs	1	-	7	7	-	3	3	10
Any other (Pl. Specify)								
Commercial flowericulture	1	10	-	10	-	-	-	10
Prospects of medicinal plant cultivation								
IIFS	1	10	-	10	-	-	-	10
Spawn production	1	3	3	6	-	3	3	9
Leadership development								
Income generating								
PRA exercise	1	-	8	8	-	2	2	10
Management of CPR								
TOTAL								

C) Consolidated table (ON and OFF Campus)

Thematic Area	No. of Courses	No. of Participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management	01	20	-	20	-	-	-	20
Resource Conservation Technologies	01	16	-	16	04	-	04	20
Cropping Systems	-	-	-	-	-	-	-	-
Crop Diversification	01	19	-	19	01	-	01	20
Integrated Farming	-	-	-	-	-	-	-	-
Water management	01	18	-	18	02	-	02	20
Seed production	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-
Integrated Crop Management	05	75	-	75	15	-	15	90
Fodder production	-	-	-	-	-	-	-	-
Production of organic inputs	-	-	-	-	-	-	-	-
II Horticulture								
a) Vegetable Crops								
Production of low volume and high value crops	-	-	-	-	-	-	-	-
Off-season vegetables	01	06	-	06	14	-	14	20
Nursery raising	-	-	-	-	-	-	-	-
Exotic vegetables like Broccoli	-	-	-	-	-	-	-	-
Export potential vegetables	01	14	12	26	01	03	04	30
Grading and standardization								
Protective cultivation (Green Houses, Shade Net etc.)	02	20	07	27	09	04	13	40

b) Fruits								
Training and Pruning	-	-	-	-	-	-	-	-
Layout and Management of Orchards	-	-	-	-	-	-	-	-
Cultivation of Fruit	02	22	09	31	03	01	04	35
Management of young plants/orchards	01	-	11	11	-	04	04	15
Rejuvenation of old orchards								
Export potential fruits								
Micro irrigation systems of orchards								
Plant propagation techniques								
c) Ornamental Plants								
Nursery Management								
Management of potted plants								
Export potential of ornamental plants								
Propagation techniques of Ornamental Plants								
d) Plantation crops								
Production and Management technology								
Processing and value addition								
e) Tuber crops								
Production and Management technology	01	08	03	11	03	01	04	15
Processing and value addition								
f) Spices								

Production and Management technology								
Processing and value addition								
g) Medicinal and Aromatic Plants								
Nursery management								
Production and management technology								
Post harvest technology and value addition								
III Soil Health and Fertility Management								
Soil fertility management	01	08	-	08	02	-	02	10
Soil and Water Conservation	-	-	-	-	-	-	-	-
Integrated Nutrient Management	01	18	-	18	02	-	02	20
Production and use of organic inputs	-	-	-	-	-	-	-	-
Management of Problematic soils	04	72	05	77	03	-	03	80
Micro nutrient deficiency in crops								
Nutrient Use Efficiency								
Soil and Water Testing	02	39	-	39	01	-	01	40
IV Livestock Production and Management								
Dairy Management								
Poultry Management								
Piggery Management								
Rabbit Management								
Disease Management								

Feed management								
Production of quality animal products								
V Home Science/Women empowerment								
Household food security by kitchen gardening and nutrition gardening								
Design and development of low/minimum cost diet								
Designing and development for high nutrient efficiency diet								
Minimization of nutrient loss in processing								
Gender mainstreaming through SHGs								
Storage loss minimization techniques	01	-	18	18	-	02	02	20
Value addition								
Income generation activities for empowerment of rural Women	02	-	31	31	-	04	04	35
Location specific drudgery reduction technologies								
Rural Crafts								
Women and child care								
VI Agril. Engineering								

Installation and maintenance of micro irrigation systems								
Use of Plastics in farming practices								
Production of small tools and implements								
Repair and maintenance of farm machinery and implements	01	10	-	10	10	-	10	20
Small scale processing and value addition								
Post Harvest Technology								
VII Plant Protection								
Integrated Pest Management	09	`120	23	143	18	04	22	165
Integrated Disease Management	02	30	02	32	04	04	08	40
Bio-control of pests and diseases	03	28	25	53	02	05	07	60
Production of bio control agents and bio pesticides	01	20	-	20	-	-	-	20
VIII Fisheries								
Integrated fish farming	01	20	-	20	-	-	-	20
Carp breeding and hatchery management								
Carp fry and fingerling rearing								
Composite fish culture	01	18	-	18	02	-	02	20

Hatchery management and culture of freshwater prawn	03	61	-	61	09	-	09	70
Breeding and culture of ornamental fishes	01	16	-	16	04	-	04	20
Portable plastic carp hatchery								
Pen culture of fish and prawn	02	29	-	29	01	-	01	30
Shrimp farming								
Edible oyster farming								
Pearl culture								
Fish processing and value addition								
Magur culture	01	17	03	20	-	-	-	20
Fish disease	01	08	-	08	02	-	02	10
IX Production of Inputs at site								
Seed Production								
Planting material production								
Bio-agents production								
Bio-pesticides production								
Bio-fertilizer production								
Vermi-compost production								
Organic manures production	01	20	-	20	-	-	-	20
Production of fry and fingerlings								
Production of Bee-colonies and wax sheets								
Small tools and implements								

Production of livestock feed and fodder								
Production of Fish feed								
X Capacity Building and Group Dynamics								
Leadership development	01	-	21	21	-	04	04	25
Group dynamics	01	-	18	18	-	02	02	20
Formation and Management of SHGs	01	-	20	20	-	-	-	20
Mobilization of social capital	02	22	08	30	-	-	-	30
Entrepreneurial development of farmers/youths	03	28	17	45	-	05	05	50
WTO and IPR issues								
XI Agro-forestry								
Production technologies								
Nursery management								
Integrated Farming Systems								
XII Others (Pl. Specify) use of harvester in fruit crop	**01**	**13**	**02**	**15**	**05**	**-**	**05**	**20**
TOTAL	**63**	**815**	**235**	**970**	**117**	**43**	**160**	**1210**
(B) RURAL YOUTH								
Mushroom Production	03	26	13	39	07	02	09	48
Bee-keeping	01	15	-	15	05	-	05	20
Integrated farming								

Seed production								
Production of organic inputs	02	13	-	13	02	-	02	15
Integrated Farming								
Planting material production	01	15	-	15	05	-	05	20
Vermi-culture	02	20	-	20	05	-	05	25
Sericulture								
Protected cultivation of vegetable crops								
Commercial fruit production	02	16	03	19	02	-	02	21
Repair and maintenance of farm machinery and implements	01	16	-	16	04	-	04	20
Nursery Management of Horticulture crops	02	23	09	32	07	01	08	40
Training and pruning of orchards								
Value addition	05	30	31	61	10	09	19	80
Production of quality animal products	01	-	16	16	-	04	04	20
Dairying								
Sheep and goat rearing								
Quail farming								
Piggery								
Rabbit farming								
Poultry production								
Ornamental fisheries								
Para vets								
Para extension workers								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								

Pearl culture								
Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing	02	42	01	43	07	-	07	50
Small scale processing								
Post Harvest Technology (Medicinal Plant)	01	20	-	20	-	-	-	20
Tailoring and Stitching								
Rural Crafts	01	-	18	18	-	02	02	20
Agro processing unit	01	19	-	19	01	-	01	20
TOTAL	**25**	**255**	**91**	**346**	**55**	**18**	**73**	**419**
(C) Extension Personnel								
Productivity enhancement in field crops	03	16	10	26	04	-	04	30
Integrated Pest Management	03	29	-	29	01	-	01	30
Integrated Nutrient management								
Rejuvenation of old orchards	01	10	-	10	-	-	-	10
Protected cultivation technology	01	10	-	10	-	-	-	10
Formation and Management of SHGs								
Group Dynamics and farmers organization								
Information networking among farmers	01	10	-	10	-	-	-	10

Capacity building for ICT application								
Care and maintenance of farm machinery and implements								
WTO and IPR issues								
Management in farm animals								
Livestock feed and fodder production								
Household food security								
Women and Child care								
Low cost and nutrient efficient diet designing								
Production and use of organic inputs	01	08	-	08	02	-	02	10
Gender mainstreaming through SHGs	01	-	07	07	-	03	03	10
Any other (Pl. Specify)								
Commercial flowriculture	01	10	-	10	-	-	-	10
Prospect of medicinal plant cultivation	01	08	-	08	02	-	02	10
IIFS	01	10	-	10	-	-	-	10
Spawn production	01	03	03	06	-	03	03	09
Leadership Development	10	-	10	-	-	-	-	10
Income generating	01	-	09	09	-	01	01	10
PRA Exercise	01	-	08	08	-	02	02	10
Management of CPR	01	-	08	08	-	02	02	10
TOTAL	**19**	**124**	**45**	**169**	**09**	**11**	**20**	**189**

Note: Please furnish the details of training Programmes **as Annexure in the proforma** given below

(Agronomy)

Date	Clientele	Title of the training Programme	Duration in days	Vanue (Off/On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
17.10.06 to 19.10.06	F & FW	Use of SRI methods of paddy cultivation	3	Off	10	-	10	-	-	-
16.11.06	F & FW	Use of gypsum in groundnut	1	On	10	-	10	2	-	2
5.1.07	F & FW	Vermi compost	15	Off	3	2	5	-	-	-
20-21.2.07	F & FW	Management of saline soil	2	On	20	-	20	3	-	3
11-13.4.07	F & FW	Improved package & practice of direct seeded upland paddy	3	On	20	-	20	1	-	1
14.4.07	F & FW	Water management in sugarcane	1	Off	20	-	20	-	-	-
17-18.4.07	F & FW	Improved package and practices of sugarcane	2	On	20	-	20	3	-	3
9-10.5.07	F & FW	Use of improved agricultural implements in paddy cultivation	2	Off	20	-	20	4	-	4
15-17.5.07	F & FW	Package and practice of scented rice	3	On	20	-	20	1	-	1
1-5.6.07	RY	Vermiculture and vermicompost production technique	5	On	20	-	20	2	-	2
6-7.6.07	F & FW	Integrated weed control in upland paddy	2	Off	20	-	20	-	-	-

11-12.6.07	F & FW	Techniques of soil sample collection	2	On	20	-	20	1	-	1
19-20.6.07	F & FW	Package and practice of maize cultivation	2	On	17	3	20	4	-	4
10-11.7.07	F & FW	INM in lowland paddy	2	Off	20	-	20	2	-	2
24-25.7.07	F & FW	Management practices of hybrid rice	2	On	20	-	20	1	-	1
9-10.8.07	F & FW	Different problem soils and their reclamation	2	Off	20	-	20	-	-	-
21-22.8.07	F & FW	Different problem soils and their reclamation	2	On	20	-	20	-	-	-
4-5.9.07	F & FW	Management of saline soil	2	On	15	5	20	-	-	-
17-18.9.07	F & FW	Technique of soil sample collection	1	On	20	-	20	-	-	-
21-22.9.07	F & FW	Retting techniques of jute in service extension personnel	1	Off	20	-	-	-	-	-
10.6.07	IS	Management technology of saline soil	2	Off	10	-	10	2	-	2
12.6.07	IS	Organic farming	2	Off	10	-	10	1	-	1
31.0.07 to 1.2.07	IS	Diversified crop planning in Jagatsinghpur dist	2	Off	9	1	10	2	-	2
18-20.6.07	IS	Integrated rice based farming system	3	Off	9	1	10	2	-	2
25-27.9.07	IS	Newly released varieties of crop their introduction and management	2	Off	-	10	10	-	-	-

Horticulture

Date	Clientele	Title of the training Programme	Duration in days	Vanue (Off/On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
23.10.06 to 1.11.06	RY	Commercial cultivation of tuberose of marigold	8	On	6	-	6	1	-	1
27-28.12.06	F & FW	Cultivation of elephant foot yam	2	On	11	4	15	3	1	4
23-24.2.07	F & FW	Selection of varieties for vegetable cultivation	2	Off	15	15	30	1	3	4
26.2.07 to 1.3.07	F & FW	Hi tech horticulture and precision farming	4	Off	20	-	20	4	-	4
17-18.4.07	F & FW	Package of practices for season vegetable cultivation	2	Off	20	-	20	3	-	3
9-10.5.07	RY	Development of entrepreneurship through nursery	2	On	10	10	20	6	-	6
22-26.5.07	RY	Developing mango and jackfruit orchard	5	Off	12	3	15	-	-	-
4-7.6.07	RY	Selection and production of quality planting material in coconut	4	Off	20	-	20	4	-	4
3-4.7.07	F & FW	Tissue culture Banana cultivation	2	On	2	13	15	-	-	-
11-12.7.07	RY	Cultivation of Ghrotakumari	2	Off	20	-	20	-	-	-
2.8.07	F & FW	Tissue culture Banana cultivation	1	On	20	-	20	3	-	3
6-7.8.07	F & FW	Care and maintenance of coconut nursery	2	Off	-	15	15	-	1	10

21-22.8.07	F & FW	Hi tech cultivation of cauliflower and cabbage	2	On	9	11	20	3	3	
4.9.07	F & FW	Use of machinery and equipments as harvester in fruit crop	1	Off	18	2	20	5	5	
6-10.9.07	RY	Commercial cultivation of tuber crops	4	Off	20	-	20	5	5	
21-23.9.07	RY	Establishment of medicinal plant nursery	3	On	20	-	20	-	-	
13-14.9.06	IS	Low cost green house	2	On	10	-	10	-	-	
7-9.11.07	IS	Commercial floriculture	3	Off	10	-	10	-	-	
28-29.6.07	IS	Prospects of cultivation of medicinal plants in the district	2	Off	10	-	10	-	-	
27-31.8.07	IS	Management of coconut orchard	5	Off	10	-	10	-	-	

Fishery

Date	Clientele	Title of the training Programme	Duration in days	Vanue (Off/On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
7-8.1006		Monoculture of freshwater prawn	2	On	15	-	15	-	-	-
4.6.07		Pond management before and after stocking of fingerlings	1	On	19	-	19	1	-	1
5-6.7.07		Techniques in composite fish farming	2	On	19	-	19	1	-	1
11-12.7.07		Integrated fish farming	2	On	19	-	19	1	-	1
2.8.07		Liming and fertilization in fish pond	1	On	28	-	28	2	-	2
3-4.8.07		Technique in magur culture	2	On	18	-	18	2	-	2
7-8.8.07		Breeding and rearing in ornamental fish	2	On	16	-	16	4	-	4
25-26.9.07		Monoculture of prawn water prawn	2	On	18	-	18	2	-	2

Date	Clientele	Title of the training Programme	Duration in days	Vanue (Off/On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
15-17.11.06	Farmers	IPM in kharif rice	3	On	10	-	10	1	-	1
4 -5.1.07	Farmers	Techniques of safe grain storage	2	Off	10	5	15	3	2	-
13.2.07	Farmers	Application of ITK in agriculture and allied field for pest control	1	Off	6	14	20	4	4	8
5-6.4.07	Farmers	Disease and pest management in edible fungus	2	On	10	10	20	2	2	4
3.5.07	Farmers	Borer management in sugarcane	1	Off	17	3	20	2	-	2
19-20.6.07	Farmers	Biopesticides and their use	2	On	14	6	20	-	-	-
4-6.7.07	Farmers	IPM in kharif rice	3	On	20	-	20	1	-	1
18.7.07	Farmers	Rechniques of seeds and seedling root treatment	1	On	16	4	20	3	-	3
25.7.07	Farmers	E-mite control in coconut	1	Off	18	2	20	3	-	3
Aug	Farmers	Wilt management in solanaceous vegetables	1	On	16	4	20	2	2	4
Aug	Farmers	IPM in kharif rice	2	On	20	-	20	1	-	1
5-6.9.07	Farmers	Use of neem base pesticide for pest control	2	On	10	10	20	2	1	3
Sep	Farmers	IDM in betelvine	2	Off	18	2	20	2	2	4
Sep	Farmers	Control of fruit shoot borer in brinjal	1	Off	18	2	20	2	-	2
15-17.5.07		Construction of honey bee rearing box	3	On	20	-	20	5	-	5

12-13.6.07		Lare, maintenance of plant protection equipments	2	On	20	-	20	4	-	4
Aug		Neem and karanja oil extraction techniques, preparid of neembase pestices	2	On	20	-	20	-	-	-
8-13.1.07		IPM in summer paddy	6	On	10	-	10	-	-	-
May		Integrated disease pest managemtn in sugarcane	2	On	10	-	10	-	-	-
July		Pest disease management in betlevine	2	On	10	-	10	1	-	1
Sept		Biopesticides and their application	2	Off	10	-	10	2	-	2

Home science

Date	Clientele	Title of the training Programme	Duration in days	Vanue (Off/On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
3-5.1.07	RY	Prepare value added product from seasonal fruits	3	ON	-	9	9	-	1	10
27.10.07	F	Tipson maintenance of sprayer and techno spraying	1	OFF	-	9	9		6	15
21.2.07	F	Storage of pulse by use of ITK	1	ON	-	18	18		2	20
11-6.3.07	RY	Appliqué work	5	OFF	-	16	16		4	20
20-21.3.07	RY	Training to value addition to tamarind	2	ON	-	17	17		3	20
16-17.4.07	F	Management of available resource by SHGs	2	OFF	-	17	17		3	20
20-21.4.07	RY	Prescribe of seasonal fruits	2	ON	-	25	25		5	30
18-19.6.07	RY	Prepare milk product	2	ON	-	19	19		1	20
20.6.07	F	Record maintenance to SHGs members	1	OFF	-	15	15		5	20
21.6.07	F	Raising management	1	ON	-	18	18		2	20
7.7.07	F	Leadership development in SHGs	1	OFF	-	25	25		-	25
17-18.7.07	F	Plan layout of nutritional garden	2	ON	-	17	17		3	20
23-25.10.07	IS	Training for SHG office farmer for raising seedlings	3	OFF	-	10	10		-	10
1-5.5.07	IS	Training on PRA for EF	5	ON	-	10	10		-	10
20-21.9.07	IS	Effective manage of CPR by women SHGs for environment protection of office behavior.	2	OFF	-	10	10		-	10

(D) Vocational training Programmes for Rural Youth

Vocation	No. of Courses	No.of participants = 16					
					SC/ST		
		Male	Female	Total	Male	Female	Total
Composite fish farming	01	07	-	07			
Mushroom cultivation	01	06	03	09			

(E) Sponsored training Programmes

Area	No. of Courses	No.of participants = 138					
					SC/ST		
		Male	Female	Total	Male	Female	Total
IPM in betel vine	01	31	-	31	04	-	35
IPM in veg	01	39	04	43	06	01	50
Mushroom culture	01	-	07	07	-	03	10
Organic farming	02	41	01	42	01	-	43
Pisciculture	02	91	-	91	9	-	100
TOTAL		**202**	**12**	**214**	**20**	**4**	**24**

Date	Title	Duration	M	F	T	M	F	T	Total	
01.05.07 to 05.05.07	Recycling spent mushroom substrate for sustainable agriculture	5	14	04	18	01	01	02	20	June
04.08.07 to 08.08.07	Motivation techniques for establishment of SHG in rural sector	3	-	15	15	-	05	05	20	February
05.09.07 to 11.09.07	Modern techniques of cultivating PSM in commercial scale (2 no.)	5	16	16	32	03	05	08	40	August/ September
01.07.07 to 10.07.07	Training or utilization of home and agricultural waste	10	14	-	14	01	-	01	15	July
29.08.07 to 04.09.07	Mushroom spawn production technique	07	8	2	10	-	-	-	10	August
22.05.07 to 25.05.07	Entrepreneurship development through Agro Processing Units (APUs) in production catchment	04	17	-	17	03	-	03	20	May
01.01.07 to 12.01.07	Self employment through IFS model by adoption of micro enterprises	12	07	02	09	01	-	01	10	
27.12.06 to 31.12.06	Mushroom spawn production techniques	5	07	-	07	03	-	03	10	

INSURANCE

Date	Title	Duration	M	F	T	M	F	T	Total	
07.05.07 to 08.05.07	Improved spawn and mushroom culture techniques	3	10	-	10	-	-	-	10	June
02.08.07 to 03.08.07	Feed back mechanism in training programme	2	08	-	08	02	-	02	10	August
02.12.06 to 03.12.07	Leadership & Entrepreneurship development	2	10	-	10	-	-	-	10	

3.4 Extension Activities (Including activities of FLD Programmes)Extension activities

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	17	324	56	380	30	02	32	354	58	412
Kisan Mela	06	367	281	648	56	21	77	423	302	725
Kisan Ghosthi										
Exhibition										
Film Show	28	583	233	816	09	06	15	592	239	831
Method Demonstrations	26	**Not recorded**								
Farmers Seminar	-	-	-	-	-	-	-	-	-	-
Workshop	01	23	02	25	06	01	07	29	03	32
Group meetings	13	186	33	213	03	03	06	189	36	225
Lectures delivered as resource persons	As and when needed									
Newspaper coverage	10	**MASS MEDIA**								
Radio talks	14	**MASS MEDIA**								
TV talks	01	**MASS MEDIA**								
Popular articles										
Extension Literature	06	**Not recorded**								
Advisory Services		**Routine process (not recorded)**								
Scientific visit to farmers field	185	366	21	387	-	-	-	366	21	387
Farmers visit to KVK	-	479	19	498	27	09	36	506	28	534
Diagnostic visits		**Not recorded**								
Exposure visits	03	26	08	34	-	-	-	26	08	34
Ex-trainees Sammelan	03	109	-	109	-	-	-	109	-	109
Soil health Camp	-	-	-	-	-	-	-	-	-	-
Animal Health Camp	-	-	-	-	-	-	-	-	-	-
Agri mobile clinic	-	-	-	-	-	-	-	-	-	-
Soil test campaigns	03	**Not recorded**								
Farm Science Club Conveners meet	04	48	02	50	-	-	-	48	02	50
Self Help Group Conveners meetings	07	**Not recorded**								
Mahila Mandals Conveners meetings	-	-	-	-	-	-	-	-	-	-
Celebration of important days (specify)	08	218	63	281	28	02	30	246	65	311
Interface with farmers scientist	09	245	22	267	06	-	06	251	22	273
Publication of Magazine (Krishiree)	02	**2500 Numbers i.e. Two issues**								
Total	**344**	**2974**	**740**	**3714**	**165**	**44**	**209**	**3139**	**784**	**3923**

3.5 production and supply of Technological products

SEED MATERIALS

Sl. No.	Crop	Variety	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
CEREALS	Paddy	Swarna, CR-1018,Pooja, Khandagiri	148.6	1,63,460	OSSC ltd, Govt. Organisation & also provided to farmers
OILSEEDS	-	-	-	-	-
PULSES	-	-	-	-	-
VEGETABLES	Brinjal, Papaya, Tomato, Poi, Gourds	-	0.42	400	NA

NA- Not available (Public sale)

SUMMARY

Slno	Crop	Quantity (qtl)	Value (Rs)	Provided to No.of Farmers
1	CEREALS	148.06	163460	Distributed by OSSC ltd KVK& line dept
2	OILSEEDS	-	-	-
3	PULSES	-	-	-
4.	VEGETABLES	0.42	400	-
5.	FLOWER CROPS	-	-	-
6.	OTHERS	-	-	-
	TOTAL	**148.48**	**163860**	**-**

PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
FRUITS	Papaya,	Co -1, FS-1	900	2700	226
	Drum stick	PKM-1			
VEGETABLES	Chilli	Utkal Ava,	7490	1498	NA
	Tomato	BT-10			
	Brinjal,	BB-45-C			
FOREST SPECIES	A. Manjium	A. Mangium	1000	3000	11
ORNAMENTAL CROPS	Rose, seasonal	-	450	400	NA
PLANTATION CROPS	-	-	-	-	-
MEDICINAL PLANT	Aloevera,Brahmi	-	90	240	08
Others (specify)					

SUMMARY

Slno	Crop	Quantity (Nos)	Value (Rs)	Provided to No.of Farmers
1	FRUITS	900	2700	226
2	VEGETABLES	7490	1498	NA
3	SPICES	-	-	-
4	FOREST SPECIES	1000	3000	-
5	ORNAMENTAL CROPS	-	450	NA
6	PLANTATION CROPS	-	-	-
7	OTHERS	90	240	08
	TOTAL	**9480**	**7888**	**-**

BIO PRODUCTS

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	(kg)		
BIOAGENTS	-	-	-	-	-	-
1						
BIOFERTILIZERS	Vermicompost					
1				120	720	06
BIO PESTICIDES	-	-	-	-	-	
1						

SUMMARY

Slno	Product Name	Species	Quantity		Value (Rs)	Provided to No. of Farmers
			No	(Kg)		
1	BIOAGENTS	-	-	-	-	-
2	BIO FERTILIZER	-	-	120	720	06
3	BIO PESTICIDE	-	-	-	720	06
TOTAL						

LIVESTOCK

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			(Nos	Kgs		
Cattle	-	-	-	-	-	-
SHEEP AND GOAT	-	-	-	-	-	-
POULTRY	Colour Bird	Banaraja	100	-	1900	17
FISHERIES	Ornamental	Molly& Guppy	60	-	120	04
HONEY BEE COLONEY	Honey bee	A. indica	02		400	02

SUMMARY

Slno	Type	Breed	Quantity		Value (Rs)	Provided to No of farmers
			Nos	Kgs		
1	CATTLE	-	-	-	-	-
2	SHEEP & GOAT	-	-	-	-	-
3	POULTRY	Banaraja	100	-	1900	17
4	FISHERIES	Molly & guppy	60	-	120	04
5	OTHERS	A.indica	02	-	400	02
	TOTAL		**162**	**-**	**2420**	**22**

3.6 Literature Developed/Published (with full title, author & reference)
(A) KVK News Letter (Date of start, Periodicity, number of copies distributed etc)

i. Pratikhya: A promising medium to low land paddy variety
ii. Hon.ble DDG (Extension Education), ICAR:Visit to KVK, Jagatsinghpur

(B) Literature developed/published

Item	Title	Authors name	Number	Budget head*from its
Research papers	1) Pratikshya –A promising Paddy variety in coastal region 2) Some observations on ETL of pest complex in paddy & Varietal performance 3) Constraints faced by mushroom growers	KVK Source		Published in Indian Farming (special issue july 07) Journal of extension education OUAT
Technical reports	Annual report (2006-07), Action Plan 2007-08 , EFC for XI plan proposal 2007, Scientific Audit Report 2007, PRA Study report 2007, Seasonal oilseed pulse report 2007	-	-	Contingency
News letters	Pratikshya found promising Hon'ble DDG visit to KVK	KVK Source		Dean Extension Education OUAT
Technical				
Popular articles	1. Mushroom cultivation 2. Care of coconut orchard 3. Summer green gram 4. Self held group	KVK Scientists		KVK Contingency

Extension literature	1. Paddy straw mushroom cultivation 2. Agro environment – keep safe 3. Scope & potential of growing cash crop in coastal orissa 4. Scientific ways of growing arecanut 5. Crop strategy after flood 6. Care of day old chicks of poultries	KVK Scientists		
Others (Pl.Specify)	How to get more from mushroom Agri base magazine Krishishree	KVK Scientists		Revolving fund
TOTAL	**23**			

(C) Details of Electronic Media Produced

Slno	Type of media (CD/VCD/DVD/ Audio-Cassette)	Title of the Programme	Number
1	CD/DVD	Mushroom cultivation	01
2	-do-	Value addition in siffon saree	01
3	-do-	SAC Proceeding	01
4	-do-	Kissan fair	01
5	cd	Magur culture	01

3.7. Success stories/Case studies, if any (two or three pages write-up on each case with suitable action photographs)

PRATIKSHYA: A PROMISING MID LOW LAND PADDY VARIETY- A CASE STUDY

Background:

Out of total cultivated area of 1,05,700 ha in the district of Jagatsinghpur, 91,000 ha is being taken exclusively as paddy area. From this total paddy area a sizable area of 46,027 ha is under low land where people usually prefer to grow their traditional varieties.

Most of the farmers prefer to raise high yielding varieties of medium duration in medium to low land condition which is confined to more than 40,000 ha. Farmers of the district are in practice to cultivate “Swarna” and CR-1018 in the said ecological conditions. But susceptibility of Swarna to sheath blight and sheath rot & coarse grain of CR-1018 is a matter of concern for the growers and they are in a thought to replace with a suitable variety with higher productivity. Keeping this in view through a study KVK has made an attempt to substitute some of the medium duration varieties in the mid-low lands of adopted areas with a suitable variety during Kharif 05.

Details of technology:

Introduction of variety Pratikshya (ORS 201-5, IET15191) as a substitute of Swarna is suitable for irrigated and rainfed medium lands. It is a semi dwarf (105 cm) variety with stout stem. It posseses longer panicle length, intermediate panicle number high grain number (156

fertile grains/panicle), slender grains with light golden hull and white kernel. It matures within 142 days with an average yield level of 48.48 q/ha and potential yield of 72.42 q/ha. It is resistant to lodging, shattering with easy threshability. It is suitable for mid-low lands and late sown conditions with good cooking and eating quality. It is resistant to brown spot disease and pests like GM-1, leaf folder and stem borer. It is moderately resistant to blast, sheath rot, sheath blight, BPH and WBPH. This variety exhibited wide adaptibility and found promising in supplementing swarna and surendra in rainfed and irrigated medium lands. It has been recommended for release in Orissa and West Bengal by virtue of its high yield, greater stability, multiple resistance to pest and diseases and superior grain quality.

Extension approach:

Various approaches made by the scientists of KVK for introduction of this newly released variety are as follows :

1. Training
2. On farm testing
3. Frontline demonstration
4. Advisory services to farmers
5. Exposure visit to KVK instructional farm
6. Leaflet ad bulletins
7. Radio talk & TV programme

Technology transferred:

For varietal substitution, different extension approaches were made and farmers interested group were identified for taking on farm testing as well as field demonstration of the variety during 2005-06 to 2006-07. Farmers who felt it risky to raise Swarna for its disease susceptibility in spite of getting a good yield adopt the variety "Pratikshya" within a short period by KVK mandatory activities. Another speciality of "Pratikshya" that attracted the growers that it could be taken in late sown conditions in both rainfed and irrigated medium lands.

Out of contact farmers of KVK adoptive villages, randomly five farmers were selected for the study & their adoption level is mentioned below:

Adoption technology:

Farmers name & address	Cultivation of Pratikshya in mid-low land			Farmers reaction
	Total area (hac)	Area under Pratikshya (hac)	Substitution (%)	
Adwaita Rout Mahamadpur Tirtol (F1)	2.2	1.8	81	It gives higher yield than any other variety. It has resistance to disease and pest.
Ashok Kumar Behera	3.2	1.5	47	It does well in mid-low land

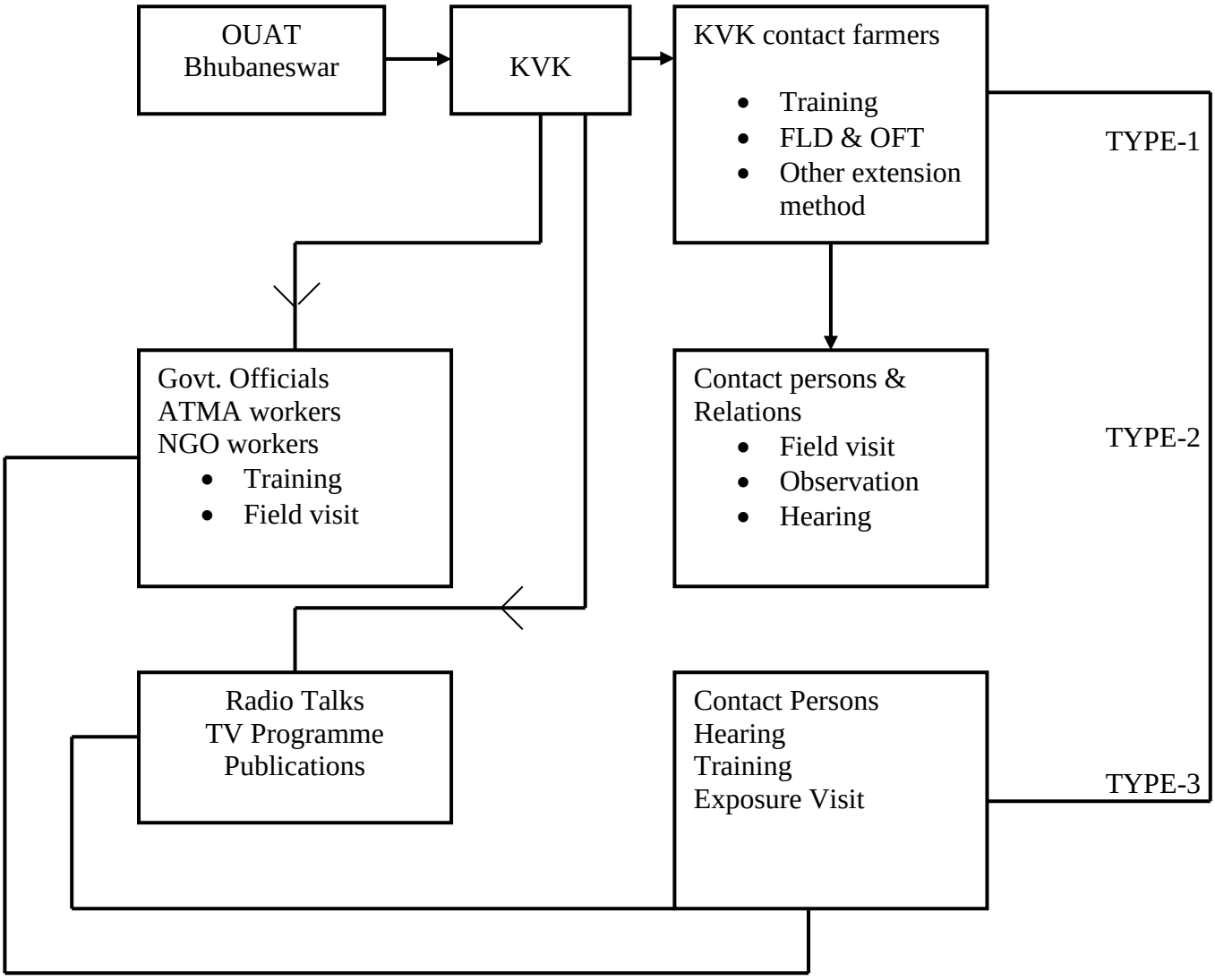
Nimakana Tirtol (F2)				even in late sown condition.
Bijoy Kumar Sahoo Sannimula Tirtol (F3)	2.4	1.9	79	It has good cooking and eating quality.
Jhadeswar Jena Sannimula Tirtol (F4)	0.8	0.8	100	It is resistant to shattering and lodging.
Rabi Swain Sannimula Tirtol (F5)	1.2	0.9	75	It is a good yielder. It has easy thressability.

Technological Intervention:

User	Before		After	
	Variety	Yield (q/ha)	Variety	Yield (q/ha)
F1	SWARNA	40.3	PRATIKSHYA	44.8
F2		41.2		44.0
F3		38.6		40.2
F4		40.3		42.7
F5		39.1		42.9

Pathways of technology dissemination:

Since 2004-05 when the variety is introduced through different extension approaches, it disseminated from contact to noncontact farmers in a short period of time. The model pathway of this technological dissemination is mentioned through a flow chart below.



During the study Mr. Adwaita Rout of Mahamadpur is found very progressive in adoption of the variety substituting 30% of his paddy area. He grew the variety in 1.8 ha of area and got the highest yield with a productivity of 44.8 q/ha. Mr. Rout for his innovativeness in growing the newly released variety and harvesting a good crop is awarded in “Krishak Sampark Mela” in the district.

Success Story

INNOVATIVENESS MADE HIM PROGRESSIVE

Success story of Sri Nrusingha Charan Behera, growing Vegetable: A profit making enterprise.

---

1) **Name of the enterprise/crop/practice:**

   Growing vegetables particularly Brinjal, bitter gourd, cowpea and cole crops

2) **Name of the farmer with address:**

   Name-Sri Nrusinga Charan Behera

   Village- Teramanpur, Kotasahi

   Gp-Sailo

   Po-Rahama

   PS-Tirtol

   Block-Kujanga

   Dist-Jagatsinghpur

3) **Initial Status:**

   Jagatsinghpur district has 94445 Hectare of cultivable land. The main crops grown are rice, green gram, black gram, sugarcane, groundnut, vegetables etc. Vegetables are grown in 20440 hectare of land. The main vegetables grown in the district are cole crops, cucurbits, beans, peas, solanaceous crops etc.

   Teramanpur a village of Kujang block is about 35 km from the district head-quarter, Jagatsinghpur .It is a small village with a population of 30 families, mostly marginal to small farmers. The village is situated on the banks of river Mahanadi. There is always a threat for floods in these areas during the rainy season. About 10 hectare of land in the area is under vegetable cultivation

   Mr.N.C.Behera village- Teramanpur was a very sporadic vegetable grower two years back. He had 3 acres of fertile land, suitable for growing vegetables. He was growing only tomato and brinjal in these areas using locally available planting material and traditional methods of cultivation. He was not getting much return due to severe problem of fruit shoot borer in brinjal and bacterial wilting in both the crops. He was depending on a million well (bamphi) for the purpose of irrigation.

4) KVK Intervention:

Since 2005, Mr. Behera came in touch with the KVK scientist through one Farmer-Scientist interaction programme. Keeping in tune to his interest for growing Cole crops , Brinjal,Bittergourd & cowpea, he was intervened with one FLD for testing wilt resistant varieties of brinjal . He was also made aware on different aspect of vegetable cultivation by imparting both on and off campus training programme on topics like : 1. selecting varieties for cultivation of vegetable crops. 2. Cropping pattern in vegetable cultivation. 3. Application of micronutrients in vegetable crops. 4. IPM in vegetable crops.

5) Innovative Extension Approach:

Krishi Vigyan Kendra, Jagatsinghpur has exposed the farmers to extension approaches like Personal contact, interactive lecturate, interactive demonstration, CD show and field days. Necessary leaflets on the concern matter were provided to the farmers. Linkage was facilitated with NGO's and grass root extension workers for immediate help.

6) Details of the technology:

I. LAND PRERATATION

Summer ploughing was done to expose the land to sun to destroy all the pathogen in the field.

II. MANURING & FERTILISER APPLICATION

Basal dose of fertiliser for different crops was applied in the field.

III. SELECTION OF VARIETIES

Varieties were selected taking into consideration different aspect for cultivation like marketability, disease pest infestation and yield.

The varieties selected for different crops are:

Cauliflower-contessa , white cashmere

Cabbage-Konark

Cowpea-Navratna

Bittergourd-Coimbatore-long

Brinjal-Hazari,BB45-C,local black purple

Okra-BO-2,Mahyco Hybrids

IV. PLANTING WEEDING AND INTERCULTURE

These operations was carried out as per routine schedule

V. SPRAYING OF MICRONUTRIENTS

Tracel-1 was sprayed @5 g per liter for flower retention and fruiting. For cauliflower and cabbage Tracel-2 was sprayed to avoid boron and molybdenum deficiency.

VI. DISEASE PROPHYLAXIS

A prophylactic spray of Monocrotophos and Endosulphan was given separately at 15 days interval to control pest infestation. Bavistin was also sprayed to check any fungal attack.

7) Adoption of technology and benefit to the farmer:

He picked up the idea of the scientists for growing F-1 hybrids of different vegetables. IPM measures in vegetable crops as well as micronutrient application were two major additions to his knowledge and practice of farming. Mr.Nrusinga Charan Behera became very sound in his socio economic status after getting remarkable return from his farm produce. Some physical achievements he has within these three years of time are as follows.

	2004	**2007**
Vegetable area	3.0 acre	5.5 acres
Irrigation source		
Million well	1 no	2 nos
LI Point with		
Pump house.	Nil	2 nos
Sprinkler irrigation set	Nil	1 Set

He has also achieved as regards to his financial status by getting very alluring price for his produce as the choice of crops, grown by him are very remunerative. His expenditure and gross annual return is placed as follows.

Expenditure and out come strategy of Sri N.Behera in the year 2006

Total area under vegetables = 5.5 acres

Slno	Crop	Area taken	Expenditure made during the year	Gross return
1	Cauliflower & Cabbage	1.5	25,000	85,000
2	Bitter gourd	0.5	5,000	17,500
3	Brinjal	1.0	12,000	50,000
4	Cowpea	1.0	10,000	26,000
5	Okra	1.5	18,000	56,000
Total		**5.5**	**70,000**	**2,34,500**

Sri Behera got gross return of Rs 2,34,000/- out of his cost of cultivation of Rs 70,000/- ultimately giving him a net profit of Rs 1,64,500/- per year.

8) Farmers reaction and feedback:

a) Assured irrigation through his 2 nos of L1 points could make it possible to grow vegetable extensively in his field.
b) Regular growing tomato in same field reduces yield.
c) Brinjal variety BB45C has no market demand. This variety is susceptible to powdery mildew which is not found in Hazari and local black purple variety.
d) White Kasmere variety of cauliflower gives better yield.
e) Cauliflower gives higher return then any other vegetable.
f) Little leaf and leaf blight creates problem for cultivation of bittergourd and reduces yield.
g) Bacterial wilt and fruitshoot borer is the major problem in growing brinjals.
h) Okra variety BO-2 is tolerant to YMV than Mahyco varieties.
i) IPM measures reduces pest and disease load in vegetables

10) Extent of diffusion effect of the newly adopted technology:

i) One field day programme organized by KVK at Teramanpur, with a gathering of the vegetable growers of kotasahi and Baliapada of Sailo panchayat was a turning point in the

process of diffusion. Sri N.Behera also tried motivating in his personal level to the growers of near by villages to raise FI hybrids on commercial basis which will be helpful in easy marketing. The newly adopted technologies which are in the process of diffusion are like.

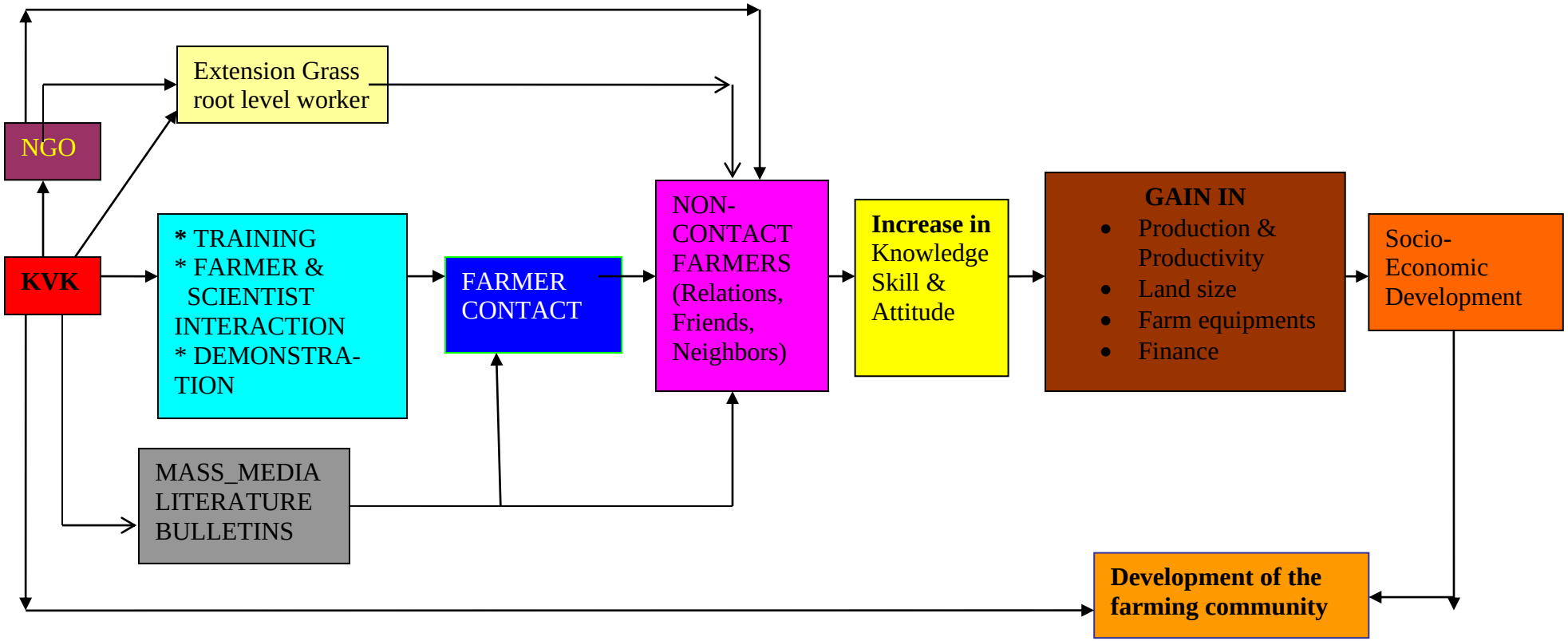
1) Use of F1 hybrids of cauliflower and cabbage and C-long variety of bitter gourd.
2) IPM measures in vegetables.
3) Soil application of neem oil cake in brinjal against fruit shoot borer.
4) Sprinkler system of irrigation.

Micronutrient application to cauliflower & cabbage

11) Follow up action:

1) Scientists of KVK now taking steps for varietal replacement and imposing the growers to go for university released varieties of vegetables for both yield and disease pest resistance.
2) Crop rotation with legumes as well as change of plots for solanaceous vegetables from season to season.
3) IPM measures particularly use of pheromone traps, neem-cake and neem oil spray are being emphasized.
4) Group approach in growing vegetables for smooth commercialization.
5) Reducing chemical fertilisers and addition of sufficient organic manures, biofertilisers as well as use of micronutrients are taken care of for the succeeding seasons.

MODELS OF TECHNOLOGY DISSEMINATION:



Success Story

Name of the enterprise/practice/technology: Fish Farming
Name and address of the farmer: Name-Sri Rajesh Swain
Po-Tradapada
Via-Jagatsinghpur
Gp-Taradapada
Bloci-Jagatsinghpur

Status of technology adoption:

Rajesh swain is a young fish farmer who had started his work in the form of fingerlings production by only rearing. He was not only financially weak but also lacking in technical knowledge to enrich his enterprise. All at once he came in contact with the scientists of KVK in one farmers-scientists interaction Programme where he could expose himself as one interested fish farmer. He was found as very much progressive and innovative in adopting modern technology in fish seed production and fish farming. Keeping his interest in the above subject he was advised to do some activities like brood stock management, fish seed production, seed raising technology integrated fish farming and ornamental fish farming. To develop these activities he was also advised to take the financial help from state bank of India through district fishery office, jagatsinghpur

Physical achievement during 2005-06:

He had only 0.1 Ac of seed raising pond.

Achievement during 2005-06:

Slno	Name of the activi	Expenditure Rs	Income	Profit
1	Seed raising	3000	8000	5000
2	Paddy cultivation	30000	48000	18000
			Total	**23000**

KVK intervention from 2006 jan. onwards:

A. Training

Slno	Title
1	Techniques in composite fish farming
2	Seed production and raising techniques
3	Integrated fish farming
4	Ornamental fish farming
5	Magur culture technology

B. Extension activities:

i. Exposure visit to CIFA, Kausalyaganga CRRI, cuttack, fish farm, krishranandapur
ii. Field days
iii. CD show
iv. Literatures

C. Interactive demonstration
Knowledge and skill gained from KVK intervention

i. Improved skill on fingerlings production
ii. Skill on beg feeding
iii. Knowledge on selection of proper brood stock
iv. Skill on feed preparation
v. Skill on ornamental fish breeding and rearing of young ones
vi. Knowledge on integrated fish farming
vii. Knowledge on desi magur culture techniques

His reaction and feed back:

a. Selection of brooder is quite necessary to get more production of young ones .
b. Feed formulation and preparation is essential to get healthy and more production of fish and also cost benefit
c. By the introduction of bag feeding all layers of fish got right amount of feed for their growth
d. Necessary aeration is available by the use of basket aerator
e. Hormone treatment is every effective for rearing of fish
f. Paddy cum Pisciculture is more profitable
g. Techniques in rearing and feeding helped to get more production of young ones of ornamental fish
h. Desimagur culture is more profitable
i. Composite fish farming multiplies the production

Conclusion

Rajesh swain is a progressive farmer selected by KVK, Jagatsinghpur and DFO, Jagatsinghpur. He progressed very much in one year in fish farming and OUAT, Bhubaneswar honored this person in farmers day celebration this year.

3.8. Give details of innovative methodology or innovative technology of transfer of technology developed and used during the year.

1. Transfer of technology through progressive farmers in a particular vegetable as a trainer among other vegetable grower.
   Purpose:
   a. Increase motivation ability
   b. Exchange idea among farmers
   c. Collect information regarding inputs and techno
   d. Confidence built- up.

2. Published magazine “Krishishree”-a half yearly magazine in a simple and lucid language with up to date information purpose-easy to read and accept.
3. Acted role play with one youth club in agriculture and allied sector during Hon’ble DDG’s visit to KVK Jagatsinghpur.
   Purpose- Create awareness and collect information.
4. Conducted PRA, GD, individual contact and other meetings during off time lean period of farmers. Purpose- More participatory/involvement.
5. Development photo gallery in KVK.
   Purpose- Clear concept about KVK mandatory activities built up confidence among them regarding feasibility of technology in his/her farming situation.

3.9. Give details of indigenous technology practiced by the farmers in the KVK operational area, which can be considered for technology development (in detail with suitable photographs)

1. Preparation of Panchagabya and spraying in pointed gourd for promoting growth, flowering and reducing disease incidence.
2. Preparation of garlic & dry chilli paste solution for spraying in cereals & vegetables for controlling borer paste.

3.10. Indicate the specific training need analysis tools / methodology followed for

- Identification of courses for farmers/farm women- On the basis of PRA
- Rural youth - On the basis of PRA
- Inservice personnel - On the basis of need assessment & PRA

3.11. Field activities

i. Number of village adopted - 05
ii. No of farm families selected -386
iii. No of survey/PRA conducted –PRA conducted & report submitted.

3.12. Activities of Soil and water Testing Laboratory

Status of establishment of Lab : **NOT YET ESTABLISHED**

4.0 IMPACT

4.1. Impact of KVK activities (Not to be restricted for reporting period)

Name of specific technology/skill transferred	No of participants	% Of adopti	Change in income (Rs)	
			Before (Rs./Unit)	After (Rs./Unit)
IWC in upland paddy	40	80	12000	15500
Balance fertilizer in green gram	25	76	6000	9500
Gypsum application in G.Nut	26	100	43000	45200
Introduction of PU 30 variety in Black gram	12	83.33	7500	8900
Tuber treatment in potato	20	95	92500	105000
Composite fish farming	28	50	-	-
Mushroom cultivation	50	70	40 / beg	55 / bed
Application of Bordeaux mixture in bevel vine	20	90	304000	320000
Entrepreneurship development throug nursery	20	40	-	4000
Appliqué work for women	20	60	1500	4500
Use of hand operated straw cutter	10	100	-	Drudgery reduction & labour saving
Rearing of bonaraja, Poultry in backyard	6	100	-	5000
Propagation in mango	10	70	-	Earn rupees 6000 per year as a skill person horticulture & private nursery sector

4.2. Cases of large-scale adoption
(Please furnish detailed information for each case)

A) Adoption & spread of paddy variety – Pratikshya

Pratikshya a newly released OUAT paddy variety of 142 days duration was taken in On Farm Testing Programme at KVK, Jagatsinghpur during 2005. Profuse tillering, multiple resistance to disease and pest and good yield in medium to low land condition not only attracted the farmers but also drew the attention of agricultural line department and extension workers, as a result of which the variety was taken in demonstration under farmers field school Programme in 8 blocks of the district under ATMA Programme in 2006-07. the variety was also grown in the instructional farm of KVK as well as OFT programmes by KVK. During kharif 2006, the seeds were supplied to Jajpur, Kendrapara, Banki,

Athagarh and Cuttack and was successfully demonstrated which proved it potentiality of dissemination. This year i.e. during kharif 2007, the variety is grown in more than 80 hac of area particularly in Tirtol, Ershama, Kujanga and Raghunathpur blocks of the district. Besides farmers of KVK adopted villages also have grown the variety in its FLD Programme.

B) Popularization of mushroom cultivation

During 2005-06, the year of inception of KVK, scientists of KVK, Jagatsinghpur identified only one mushroom grower namely Kabita Das of Kantia, in Ershama block of the district who has been growing mushroom commercially since 2003. Fifty numbers of interested youth and farmers from four blocks viz. Ershama, Tirtol, Jagatsinghpur & Kujanga were trained by the KVK for growing both paddy straw and oyster mushroom. Group discussion, exposure visit, interface with scientists, supply of necessary literatures and interactive demonstrations were the extension methods imparted to the trainees by September,2007 with an assured information on technical support and availability of inputs, out of this fifty , 11 youth and SGHs have taken up the enterprise on commercial basis within 2 years. More than 90 farmers are growing mushroom for their home consumption with technical advice of KVK and from dissemination of the said technology.

Side by side, two spawn production units are developed in Tirtol block due to the farmers demand on spawn, one of which is developed by the technical support of the KVK scientists Sanra, Tirtol.

KVK, Jagatsinghpur also has submitted a proposal for construction of a spawn cum mushroom demonstration unit during the 11th plan.

4.3. Details of impact analysis of KVK activities carried out during the reporting period

Technology / skill transferred	No of participants	% of adoption
1. INM in low land paddy	20	80
2. Improved package & practice of upland paddy	20	70
3. Cultivation of scented rice	20	40
4. Gypsum application in G.Nut	13	100
5. Maintenance of coconut orchard	20	70
6. Use of biopesticide	20	40
7. IDM in betelvine	20	80
8. Control of stemborer in rice	20	100

9. Paddy straw mushroom cultivation	20	50
10. Composite fish farming	20	40
11. Nutritional gardening	20	70
12. Vermicompost	20	30
13. Seed treatment in vegetable	20	70
14. Rhizobium inoculation in blackgram	12	80
15. Storage of grain by use of ITK	20	80

5.0 LINKAGES

5.1. Functional linkage with different organizations

SLNO	Name of the organization	Linkage for	Activities conducted
1	State Govt Departments (Agril, Hort, soil conservation, Forestry, pisciculture & Animal Husbandry	❖ Sponsored training programme. ❖ Training of extension functionaries. ❖ Farmers – Scientists interaction. ❖ Inputs sale of procurement.	❖ Training on Isopom, Farmers field school, seed village programme, etc. ❖ Training on pisciculture, preservation of fruits & vegetables, orchard development, management of soil, entrepreneurship development. ❖ FLD on crop science, horticulture & pisciculture. ❖ Other activities like farmer's fair, exhibition, group discussion, action plan formulation, diagnostic visit, field day, farmers- Scientists interaction.
2	DDA, Cuttack	❖ Training programme. ❖ Procurement of	❖ Training on seed production technology. ❖ Preparation of programmes for kharif

		seeds	& rabi. ❖ Procurement of seeds
3	ATMA (Agricultural Technology Management Agency Jagatsinghpur)	❖ Preparation of SREP ❖ Other extension activities	❖ Conducted & training programme of crop Sci, horticulture, Plant Protection, Extension, Fishery Sci ❖ Capacity building etc. ❖ Interactive demonstration on paddy, mushroom & vermicompost. ❖ Conducted OFT on Magur culture ❖ Conducted PRA exercise ❖ Conducted & participated other activities like exhibition, farmers fair, field day, workshop. ❖ Participated preparation of programme planning
4	RPRC, (Regional Plant Resource Centre), Bhubaneswar	❖ Training	❖ Attained different training programmes & procured seedling & saplings
5	CIFA, Bhubaneswar	❖ HRD ❖ Inputs procurement	❖ Collected information & innovative technology ❖ Purchase fingerlings.
6	CRRI, Cuttack	❖ Training, workshop ❖ Inputs procurement	❖ Attend training programme, workshop conducted by CRRI, Cuttack ❖ Collected information

			& purchased paddy seeds.
7	DRDA, Jagatsinghpur	❖ Training	❖ Conducted different training programmes & prepared projects like spawn production centre, vermicompost.
8	All India Radio (AIR), Cuttack	❖ Distribution of information and technologies ❖ Member of SAC	❖ Broadcasted different agricultural & allied technologies.
9	Mahila Mandal (SHGs)	❖ Training ❖ Demonstration	❖ Conducted training ❖ Interactive demonstration group discussion & awareness camp
10	Farmers youth clubs	❖ Training and demonstrations.	❖ Development group dynamics. ❖ Developed entrepreneurship through training & FLD.
11	NGOs viz, MANAV, NOW,	❖ HRD ❖ Inputs supply	❖ Conducted HRD for NGO functionaries.
12	Media of news papers	❖ Publication	❖ Published latest technologies.
13	Seed certification office (SCO), cuttack.	❖ Training ❖ Certification of seeds	❖ Participatory approached in training & seed production programmes.
14	NABARD, Jagatsinghpur	❖ Training ❖ Awareness camp	❖ Jointly conducted training programmes collaborative awareness

5.2. List special Programmes undertaken by the KVK, which have been financed by state Govt/Other Agencies

Name of the scheme	Date/month of initiation	Funding agency	Amount (Rs)
Development of magur culture	February	ATMA, Jagatsinghpur	20000
Demonstration on organic farming	January	RCOF, Bhubaneswar	27000

5.3. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

Slno	Programme	Nature of linkage	Remarks
1	Development of technological Package in Desi magur culture	-Implementation of the project -Technical guidance -Conducting training Programme	Communicated the techniques almost all farmers of Jagatsinghpur district and outsiders.

5.5. Nature of linkage with National Fisheries Development Board

Slno	Programme	Nature of linkage	Remarks
1	Training, workshop	-Implementation of the Project -Technical guidance for Forward activities	The project has been submitted to Hon'ble DDG fisheries for sanction of amount necessary for conducting the training Programme.

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1 Performance of demonstration units (other than instructional farm)

Slno	Demo Unit	Year of Estt	Area	Details of production			Amount (Rs)		Remarks
				Variety	Produce	Qty	Cost of Inputs	Gross Income	
-	-	-	-	-	-	-	-	-	-

6.2. Performance of instructional farm (Crops) including seed production

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs)		Remarks
				Variety	Type of Produce	Qty	Cost of Inputs	Gross income	
Cereals									
Paddy	07.08.06	19.12.06	1.0	Pooja	FS	40.2	65,000	1,48,000	Sale proceed
	21.07.06	09.12.06	1.0	Swarna	FS	40.0		+ Stock	+ stock in hand
	22.07.06	24.12.06	1.0	CR-1018	FS	36.9		in hand	
	08.08.06	07.11.06	0.5	Khandagiri	FS	12.0			
	04.08.06	22.12.06	0.3	Pratiskhya	TL	10.0			
	06.08.06	04.12.06	0.2	Naveen	CS	07.5			

6.3. Performance of production Units (bio-agents/bio pesticides/bio fertilizers etc.,)

Slno	Name of the product	Qty	Amount (Rs)		Remarks
			Cost of inputs	Gross income	
1	Vermicompost	120 qtl	100	720	-

6.4. Performance of instructional farm (livestock and fisheries production)

Slno	Name of the animal/bird/aquatics	Details of production			Amount (Rs)		Remarks
		Breed	Type of Produce	Qty	Cost of Inputs	Gross Income	
1	Colour bird (Poultry)	Banaraja	Egg or Meat	100 qtl	2500	4400	-
2	Ornamental fish	Guppymolly	Fish	60 qtl	-	120	-
3	Honey bee	A.indica	Colony	2	-	400	-

6.5. Utilization of hostel facilities

Accommodation available (No of beds): **UNDER FINISHING STAGE**

7. FINANCIAL PERFORMANCE

7.1. Details of KVK Bank account

Bank account	Name of the bank	Location	Account Number
With host Institute	SBI, OUAT	Bhubaneswar	-
With KVK	SBI,Jagatsinghpur	Jagatsinghpur	11297400655

7.2 Utilization of funds under FLD on Oilseed (Rs in Lakhs)

Item	Released by ICA		Expenditure		Unspent balance as on 1st April 2007
	Kharif 2006	Rabi 2006-07	Kharif 2006	Rabi 2006-07	
Inputs	-	12250	-	12250	-
Extension activities	-	1750	-	1050	-
TA/DA/POL etc	-	1750	-	1750	105
TOTAL	**-**	**15750**	**-**	**15050**	**150**
				Rs.15050 released by OUAT, Bhubaneswar	

7.3 Utilization of funds under FLD on Pulses (Rs.in Lakhs)

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2007
	Kharif 2006	Rabi 2006-07	Kharif 2006	Rabi * 2006-07	
Inputs	-	-	-	18380	Nil
Extension activities	-	-	-	2630	
TA/DA/POL etc	-	-	-	3930	
TOTAL				24940	

*** Expenditure made from contingency as per office order of ICAR.**

7.4 Utilization of funds under FLD on cotton (Rs in Lakhs) NOT SANCTIONED

7.5 Utilization of KVK funds during the year 2006-07 and 2007-08 (up to Sep.2007) (year wise separately) (current year and previous year)

Slno	Particulars	Sanctioned	Released (2006-07)	Expenditure
A. Recurring Contingencies				
1	**Pay & allowances**	**17,00,000**	**16,46,846**	**16,46,846**
2	**Traveling allowances**	**50,000**	**50,000**	**50,000**
3	**Contingencies**	**3,00,000**	**2,90,000**	**2,90,000**
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News paper & Magazines)			35,062
B	POL, repair of vehicles, tractor and Equipment s			29,938
C	Meals/refreshment for trainees (ceiling up to Rs.4 day/trainee by maintained)			68,600
D	Training material (posters, charts, demonstration material including chemicals etc required for conducting the training)			35,333
E	Frontline demonstration except oilseeds and pulse (minimum of 30 demonstration in a year)			64,903
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			16,464
G	Training of extension functionaries			13,600
H	Maintenance of buildings			-
I	Establishment of soil, plant & water testing laboratory			-
J	Library			1,360
TOTAL (A)		**20,50,000**	**19,86,846**	**19,868,46**

B. Non-Recurring Contingencies				
1	Works	46,50,000	45,37,594	45,37,594
2	Equipments including **SWTL & Furniture**	1,50,000	1,49,927	1,49,927
3	Vehicle (four wheeler/Two wheeler, please specify)	-	-	-
4	Library (purchase of assets like books & Journals)	10,000	10,000	10,000
TOTAL (B)		48,10,000	46,97,521	46,97,521
C.REVOLVING FUND		-	-	-
GRAND TOTAL (A+B+C)		68,60,000	66,84,367	66,84,367

7.5 Utilization of KVK funds during the year 2006-07 and 2007-08 (up to Sep.2007) (year wise separately) (current year and previous year)

Slno	Particulars	Sanctioned	Released (2007-08)	Expenditure
A. Recurring Contingencies				
1	**Pay & allowances**	**22,00000**	**Pay through Comptroller OUAT**	**11,22,851**
2	**Traveling allowances**	**93,000**	**46,000**	**46,000**
3	**Contingencies**	**5,60,000**	**2,74,300**	**2,74,3000**
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News paper & Magazines)			
B	POL, repair of vehicles, tractor and Equipment s			
C	Meals/refreshment for trainees (ceiling up to Rs.40/ day/trainee by maintained)		2,74,300	2,74,300
D	Training material (posters, charts, demonstration material including chemicals etc required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of soil, plant & water testing laboratory			
J	Library			
TOTAL (A)		**28,53,000**	**3,20,300**	**3,20,300**

B. Non-Recurring Contingencies				
1	Works	29,00,000	Expenditure made through DPP, OUAT, Bhubaneswar	
2	Equipments including **SWTL & Furniture**	-		
3	Vehicle (four wheeler/Two wheeler, Please specify)	-	-	-
4	Library (purchase of assets like books & Journals)	-	-	-
TOTAL (B)		29,00,000	-	-
C.REVOLVING FUND		-		
GRAND TOTAL (A+B+C)		**57,53,000**	**3,20,300**	-

7.5 Status of revolving fund parenthesis(Rs in lakhs) for the three years

Year	Opening balance as on 1st April	Income during The year	Expenditure during the year	Net balanced in hand as on 1st April of each year *
April 2004 to March 2005	-	-	-	-
April 2005 to March 2006	-	-	1,05,632	43,400
April 2006 to March 2007	72,401	1,60,000	65,000	95,000

*** Including stock in hand and credit bill**

8.0 Please include information which has not been reflected above (write in detail)

8.1 Constraints

a) Administrative:

- Construction of demonstration unit
- Causes of requirement of technical staffs like field man, VAWs etc for smooth mandatory works should be put forth in ICAR policy and Govt policy.

b) Financial:

-Additional funds may be sanctioned for purchase of paddy reaper, power operated thresher and publication of magazine KVK news letter

c) Technical:

-Proposal for- i) Installation of soil testing laboratory
ii) Purchase of Motorcycle for smooth and easy conduct of field visit, fieldwork and other tours related to our extension activities

(Signature of Programme Coordinator)


BARSADHAN
K.V.K., JAGATSINGHPUR
PROMISING DEEP WATER
PADDY - BARSADHAN


EMPLOYMENT & EMPOWERMENT
THROUGH MUSHROOM CULTIVATION


ORNAMENTAL FISH REARING


ORGANIC APPROACH IN
BRINJAL CULTIVATION


UTILIZATION OF LEAN PERIOD


BACK YARD POULTRY REARING


UTKAL GAURAV
YMV RESISTANT OUAT OKRA:
UTKAL GOURAV


NEEM COATED UREA ENHANCE N_2
UPTAKE IN LOWLAND


A NEW INTRODUCTION-
TURREY BIRD REARING


HIGH YIELDING GREENGRAM IN
NON IRRIGATED SITUATION


PRODUCTION OF N-BASE ORGANIC
FERTILISER


BAG FEEDING IN INTEGRATED FISH FARM

NAVJOT : A RULING VARIETY IN COASTAL REGION

A PROMISING NEW PADDY : PRATIKSHYA

BARSADHAN WITH CR-1018 : A LOW LAND COMPARISON

TRICHOGAMA RELEASE IN FARMERS FIELD

BETELVINE GROWERS PREPARING
BORDEUX MIXTURE FOR DISEASE CONTROL

DUCK LUM PISCICULTURE

HONEY BEE REARING SKILL
TRANSFERRED TO RURAL YOUTH