

ANNUAL REPORT

(2007-08)



भाक् अनुप.
ICAR

KRISHI VIGYAN KENDRA, ANGUL



Orissa University of Agriculture & Technology

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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	
Angul	Panchamahala, Angul	-	-	-	angulkvk@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	
Orissa University of Agriculture & Technlogy	OUAT, Bhubaneswar- 751003,	06764	2397780	2397780	root@ouat.ori.nic.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. A.P.Kanungo	-----	9861354477	apkanungo12@yahoo.com

1.4. Year of sanction: 1995

1.5. Staff Position (as on 31st March 2008)

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	Dr. A.P.Kanungo	Programme Coordinator	Agronomy	12000-18300	30.07.2001	-	General
2	Subject Matter Specialist	Smt. Anjali Ray	SMS	Home Science	10000-15200	13.01.2003	-	General
3	Subject Matter Specialist	Er. Bimalendu Mohanty	SMS	Agril. Engg.	8000-13500	14.03.2005	-	General
4	Subject Matter Specialist	Mrs. Bineeta Satpathy	SMS	Agril. Extn.	8000-13500	12.01.2006	-	General
5	Subject Matter Specialist	Mr. Debasis Behera	SMS	Hort.	8000-13500	20.03.2006	-	General
6	Subject Matter Specialist	Mr. Debabrata Panigrahi	SMS	P.P.	8000-13500	03.07.2006	-	General
7	Subject Matter Specialist	Vacant	-	-	-	-	-	-
8	Programme Assistant	Mrs. Dharitri Choudhury	PA	Fishery	5500 - 9000	11.10.2006	-	General
9	Computer Programmer	Mr. Rabi Narayan Satapathy	PA	Computer	5500 - 9000	22.08.2005	-	General
10	Farm Manager	Vacant	-	-	-	-	-	-
11	Accountant / Superintendent	Sri. Baidhar Sahoo	S.O.	-	5900 - 9700	21.12.2005	-	General
12	Sr. Typist	Vacant	-	-	-	-	-	-
13	Driver	Sri Srinath Rout	Driver	-	3200 - 4900	30.09.2001	-	OBC
14	Driver	Sri Sanjay Panda	Driver	-	3200-4900	01.08.2007	-	General
15	Supporting staff	Sri Nava Kumar Manik	Peon	-	2550 - 3200	18.10.2001	-	General
16	Supporting staff	Vacant	-	-	-	-	-	-

1.6. Total land with KVK (in ha):

S. No.	Item	Area (ha)
1	Under Buildings	0.5
2.	Under Demonstration Units	Nil
3	Under Crops	1.0
4.	Orchard/Agro-forestry	2.0
5.	Others	12.5
TOTAL		16.0

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Admin. Building	ICAR 3032000	-	5534.75	3018021	26.02.05	-	Completed except EI
2.	Farmers Hostel	ICAR 2273000	-	304.71	1280002	26.12.06	-	Work in progress
3.	Staff Quarters (6)	-	-	-	-	-	-	-
4.	Demo. Units (2)	-	-	-	-	-	-	-
5	Fencing	ICAR 700000	28.03.06	15175 MT	699968	16.02.06	-	Completed
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	ICAR 170000	16.02.07	185.80	154762	17.01.07	-	Completed
8	Farm godown	-	-	-	-	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tata sumo	2003	4,87,570	71065	Running
Tractor	2003	2,95,251	36 hs(Limited to work at Our centre)	Running
Bajaj Kawasaki 4S Champion	1996	31,282	36,867	Running
Bajaj boxer CT-K-Tech	2002	34,990	33,804	Running

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Camera Pentax 50 mm	30.03.96	17,780.00	Out of order
Flash Pentax	31.03.99	2,700.00	
Desk top computer	20.02.01	40,000.00	
Desk top computer	30.03.06	37,500.00	
Air cooler	20.03.99	7,740.00	
Air cooler	31.03.07	3,400.00	
Over head projector (Photophone)	13.03.99	14,980.00	Out of order
Dot matrix printer	30.03.06	10,690.00	
Inkjet printer	27.03.02	4,990.00	
Multifunctional laser jet	25.03.06	25,272.00	
Photo copier	25.03.06	48,900.00	
Stabilizer (4 KVA)	31.03.06	3,600.00	
Stabilizer (5 KvA)	31.03.07	9,256.00	
U.P.S	31.03.06	3,500.00	
Pen tablet	31.03.06	4,326.95	
Pen drive	31.03.07	1,250.00	
Web camera	31.03.06	865.40	
L.C.D Projector	30.03.06	49,899.99	
D.V.D player	30.03.06	2,989.00	
Type writer	26.03.96	10,262.00	Out of order
Counter balance (10 kg cap)	05.10.00	780.00	
Spring balance (100 kg cap)	08.10.00	570.00	
Diesel pump 3.5 HP	09.03.99	19,500.00	Out of order
Maruti sprayer (12 lit cap)	27.03.99	4,874.00	
Maruti sprayer (9 lit cap)	27.03.99	3,99.00	
Sprayer Brass	30.03.02	690.00	
Sprayer 5 lit cap	25.02.06	600.00	
Knapsak sprayer 16 lit cap.	27.03.99	2,610.00	
Jubilee duster	27.03.99	2,300.00	
Tulu pump 1` HP	19.01.07	4,650.88	
Emergency light (larteen)	14.04.99	1,150.00	Out of order
Emergency light (larteen)	28.03.03	1,275.00	
P.A casettee amplifire	29.03.04	3,390.00	
Microphone	30.03.0	580.00	
Microphone stand	30.03.04	330.00	
Sound box	30.03.04	1,875.00	
Water purifier	31.03.04	4,950.00	Out of order
Sewing machine	31.03.04	2,980.00	
Mixture grinder	28.03.04	2,990.00	
Refrigerator	31.03.07	9,000.00	
Colour T.V	31.03.07	11,200.00	
Automatic soil augur	31.03.07	40,420.00	
Microprocessor based pH meter	31.03.07	19,463.00	
Lap top	31.03.07	48,900.00	
Hot air oven	31.03.07	7,650.00	
Digital analytical balance	28.03.07	1,14,750.00	
Hot plate	28.03.07	2,475.00	
Micro controlled based conductivity meter with cells & Temp. probe. & compressor & Inst. manual	31.03.07	11,090.00	
Micro controlled based conductivity meter with cells & temp. probe & compressor & Inst. manual	31.03.07	32,976.00	
Centre fuge	26.03.07	10,688.00	
Seive size 30 mesh	31.03.07	450.00	
Seive size 60 mesh	31.03.07	450.00	
All purpose stirrer REMI make	31.03.07	4,580.00	
Water bath	23.03.07	10,688.00	
Digital spring balance	23.03.07	563.00	
Binocular micro scope	28.03.07	21,769.00	
Tripple distillation set	23.03.07	24,750.00	

A). Details SAC meeting* conducted in the year

The Scientific Advisory Committee (SAC) meeting for 2007-08 was held on 3rd October-2007 in the conference hall of AUCC Bank, Angul. The necessary details of SAC meeting are presented herewith.

Dr. A.P.Kanungo, Programme Coordinator, KVK, Angul presented the back ground, mandates, basic information, and detailed achievements for the years 2005-06 and 06-07 along with action plan for 2007-08.

Total no. of participants – 55

Salient recommendations of the meeting:

Sl. No	Designation/Name	Recommendation
1	Dr. Sarat Mishra, Dean, Extension Education, OUAT, Bhubaneswar	<i>Requested the line depts. to explain the problems regarding Arhar, citrus and groundnut. He also suggested that the problem will be solved by the recent introduction of seed village scheme in which the farmer will produce his own seeds and distribute among farmers only with the dissemination of the technology by the scientist of KVK He assured to start soil & water testing laboratory within a short time after discussion with higher authority and also requested DDH to supply true to the type mango seedlings.</i>
2	Mr. Biswa Bhusan Panda PD, DRDA	<i>Emphasized that technology transfer is the key component for overall agriculture development.</i>
3	Dr.S.Panda AGM, NABARD	<i>Explained about the various income generating projects implemented by NABARD and financial assistance provided by various Banks. He suggested that any one of the scientist from KVK, Angul should participate in the monthly meeting of farmers' club federation of Angul district. Also he suggested establishing women cooperative society to undertake homogenous economic activities. They can also run Mini Banks in their area. Also he suggested to go for miniature medicinal gardens in addition to their nutritional gardens for first aid purpose of various women SHGs</i>
4	Dr. M. Misra DDH, Dhenkanal	<i>He informed regarding production of ginger seed materials in Saptasajya farm, Dhenkanal and Nakchi farm, Angul. Also Hon'ble DEE, suggested to bring ginger seed material from HARS, pattangi, Koraput for management of ginger rot. He further explained about the programmes of Horticulture Mission and suggested the farmers that they should first be aware of the real cause of various problems and then should seek appropriate solutions there of.</i>
5	District Agriculture Officer, Angul	<i>The representative of DAO, Angul explained about the various programmes of kharif -2007 and rabi-2008 for awareness of all the members of the house.</i>

Sl. No	Designation/Name	Recommendation
6	Asst. Agricultural Engineer, Dhenkanal	<i>Agricultural Engineer of the office of DDH, Dhenkanal explained in detail regarding drip irrigation in fruit crops.</i>
7	District Social Welfare Officer, Angul	<i>Prog. Officer, ICDS emphasized about gender mainstreaming. She suggested that the trainings should be women centered and the SHG leaders should be empowered to act as trainers at the village level and also emphasized on mushroom cultivation and preservations technologies.</i>
8	Sri Biranchi Narayan Samanta, President, Farmers' Federation, Angul	<i>Narrated about his arhar crop which has attained substantial vegetative growth without fruiting and also the damage of citrus fruits after harvest due to lack of knowledge on preservation technique. Again Mr. Samanta reiterated about establishment of soil & water testing lab. & abnormal growth of mango plants.</i>
9	D.F.O., Angul (Representative- ACF)	<i>Mr. S. Panda, ACF told about the elephant menace in korada village-suggested for crop substitution</i>
10	Hemanta Ku.Behera	<i>Lead farmer, Hemanta Behera suggested about preservation technology for the unique taste of the gur in their area and establishment of juice extraction machine. Also he wanted proper seed material for ginger</i>

At last, Hon'ble DEE, OUAT, Bhubaneswar in his concluding remarks advised:

- *To conduct FLD, OFT & Training on potato, onion, garlic, lemon, yam, spine gourd & parwal.*
- *The Home scientist & fishery scientist should be involved in animal husbandry programmes under unavailability of Veterinary Scientist*
- *Advised the farmers to collect planting materials from appropriate agency by discussion with the scientist of KVK and line department officers.*
- *Also suggested to be cautious of the fertilizers dealers associated with unscrupulous marketing of low quality fertilizers.*

2. DETAILS OF DISTRICT (2007-08)

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

Sl. No.	Farming system/enterprise
1.	Commercial cultivation of Mango, Litchi and Banana
2.	Nursery raising
3.	Commercial cultivation of vegetables i.e. Tomato, Brinjal, Cauliflower & Onion
4.	Mushroom cultivation
5.	Pisciculture
6.	Poultry
7.	Bee keeping
8.	Cash crop like sugarcane, Groundnut

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

Sl. No	Agro-climatic Zone	Characteristics
1	Mid Central Table land zone	<ul style="list-style-type: none"> • Spreads over 13642.19 sq.km. and accounts for 8.77% of the total geographical area of the state of Orissa • It lies between 20⁰-3' and 21⁰-6' North latitudes and 84⁰-3' and 86⁰-6' East longitude • 21 revenue blocks and 4019 villages • Flat with undulating topography • Major rivers, Brahmani and Mahanadi • soil groups of the zone are alluvial(entisol), Black(vertisol), red-laterite(alfisol) & lateritic (oxisol) • mean annual rainfall is 1421 mm • The minimum being 511.4 mm in Talcher and maximum 2843 mm in Sukinda block • About 18.80% of the cultivated area is irrigated • Rice is the principal crop 35.82% of total crop • Other important crops are greengram, arhar, groundnut, sesamum, mustard, ragi, wheat, millets, sugarcane and vegetables • The total population of the zone is 2.981.495 according to 1991 census

Sl. No.	Agro ecological situation	Characteristics
1	River valley alluvial	Rain fed Soil is light texture, low in water holding capacity, usually acidic,
2	Red loam soil	Rain fed Soil is strongly acidic, lighter in texture, poor in organic matter and poor retentive capacity
3	Medium texture red loam	Rain fed Soil is strongly acidic, lighter in texture, poor in organic matter and poor retentive capacity
4	Black soil	Rain fed Soil is heavier in texture, severe soil erosion, neutral to slightly alkaline rich in Ca but phosphate and potash are low

2.3 Soil types

S. No	Soil type	Characteristics	Area in ha
1	Red Laterite	Soils in the upland are strongly acidic where as valley bottoms and low lands are mildly acidic, lighter in texture and poor in organic matter, poor retentive capacity, deficient in micronutrients like B and Mo.	2,25,678
2	Black (vertisol)	Heavier in texture, slippery when wet, deep wide cracks are observed in summer, severe soil erosion, neutral to slightly alkaline rich in Ca but phosphate and potash are low	1,98,312
3	Lateritic (Oxisol)	The soil are poor in organic matter, nitrogen and available P but potash level is medium, rich in hydrated oxides of iron and aluminium with small amount of manganese, titanium and quartz, surface crusting is a problem in upland laterites hindering post germination establishment	1,65,380
4	Alluvial	Coarse sand to clay, poor to highly fertile, light texture, low in water holding capacity, usually acidic, drainage is poor due to low permeability, deficient in N, P, S and medium in K.	72,153

2.4. Area, Production and Productivity of major crops cultivated in the district

Sl. No	Crop	Area (ha)	Production (MT)	Productivity (Qtl /ha)
1	Hy Paddy	83883	115864	37.83
2	Gram	1706	884	5.18
3	Mung	30403	6900	4.32
4	Biri	33805	7040	4.55
5	Kulthy	15734	5759	3.66
6	Fieldpea	924	550	5.95
7	O. Pulses	4978	2287	4.59
8	Ground nut	2122	3796	15.09
9	Til	47820	14413	6.36
10	Mustard	5782	1568	2.71
11	Niger	263	135	5.13
12	Potato	1541	10836	70.31
13	Vegetable	30483	318535	207.2
14	Onion	4730	43764	92.52
15	Chilli	4136	3327	13.98
16	Garlic	2009	7244	36.05
17	Coriander	2461	1238	5.03
18	Mango	2340	23410	1.1
19	Banana	335.70	7, 62,100 bunches	2326
20	K.Lime	360	31500	95
21	Papaya	320	293800	98
22	Litchi	70	7000	92

2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April	37.1	35.8	24.2	42
May	59.8	32.8	25.4	37.9
June	225.8	32.6	24.8	34.3
July	240.3	33.5	25.3	35.8

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
August	225.3	40.1	26.3	38.8
Sept.	390.7	35.3	29.1	45
Oct.	31.6	38.8	33.2	52
Nov.	7.1	41.1	34.1	85
Dec.	0	43.1	32.8	84
Jan	53.7	39.2	31.2	87
Feb	4.0	32.2	30	87.6
Mar	-	36.7	32.5	65.3

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

Category	Population	Production	Productivity	
Cattle				
<i>Crossbred</i>	30058	Total meat production : 1.08 TMT Total milk production: 47.63 TMT Total egg production: 13.83 millions	Data not available	
<i>Indigenous</i>	455872			
	35837			
Buffalo				
Sheep				
<i>Crossbred</i>	5202			
<i>Indigenous</i>	53567			
	226234			
Goats				
Pigs				
<i>Crossbred</i>	89			
<i>Indigenous</i>	2198			
	49			
Rabbits				
Poultry				
Hens	74631			
<i>Desi</i>	81391			
<i>Improved</i>	24878			
Ducks	953			
Turkey	7			
Other poultry	1173			
Fish				
<i>Marine</i>	-	-	-	
<i>Inland</i>	-	5416.23 MT	2.6 MT/ha	
Prawn	-	6.76 MT	-	
Scampi	-	0.61 MT	32.6 Kg/ha	
Shrimp	-	-	-	

2.7 Details of Operational area / Villages (2007-08)

Sl. No	Taluk (GP)	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Chendipada	Chhendipada	Handiguda	Paddy, Banana, Sesamum, Greengram, Blackgram & Seasonal vegetables, mango, papaya	<ul style="list-style-type: none"> ➤ Lack of knowledge about crop planning for rainfed upland ➤ Disease and pest management in sesamum and groundnut ➤ Planting and manuring technology of mango cultivation ➤ Lack of knowledge about significance of drip irrigation system and its economics for fruit crops ➤ Management of rural youth clubs ➤ Pest and disease control in kitchen gardening ➤ Poor knowledge of farmers in construction and management of new fish culture ponds 	<ul style="list-style-type: none"> ➤ Disease and pest management ➤ Crop planning ➤ Management practice of mango cultivation ➤ Management of rural youth club
2	Angul	Angul	Kulei	Paddy, Groundnut Lathyrus, Cauliflower, Brinjal & Tomato	<ul style="list-style-type: none"> ➤ Use of biofertilizer in rice cultivation ➤ IPM in kharif rice Balanced fertilizer application in kharif vegetables ➤ No knowledge about advantages of plastic mulch in horticultural crops Training gap in capacity building measures for community development Kitchen gardening ➤ Poor idea of entrepreneurship development in ornamental fish culture. 	<ul style="list-style-type: none"> ➤ Use of Bio-fertilizer ➤ IPM In Kharif Rice ➤ Plastic mulch in horticultural crops ➤ Kitchen garden development
3	Angul	Angul	Shyamsundarpur	Paddy, Groundnut, Arhar, Greengram, Cabbage, Tomato, Brinjal.	<ul style="list-style-type: none"> ➤ Lack of knowledge about organic farming for sustainable yield ➤ Lack of knowledge about appropriate spraying technique Lack of idea in management of kharif tomato and brinjal Lack of knowledge about significance of drip irrigation system and its economics for fruit crops Lack of knowledge and skill on ➤ Tools & technique of organizing self help group & farmers group ➤ Lack of knowledge about quality seed production technique Lack of knowledge about different disease in fish 	<ul style="list-style-type: none"> ➤ Organic farming ➤ Management of Kharif tomato and brinjal. ➤ SHG management ➤ Quality seed production technique

4	Angul	Banarpal	Jamunali	Paddy, Blackgram, vegetables like Cabbage, Tomato, Potato, Brinjal, Chilli, Cauliflower etc.	<ul style="list-style-type: none"> ➤ Lack of knowledge about crop selection and management practices in upland situation No idea about technological practices for management of honey bee utilization for commercial purpose Lack of understanding regarding management practices of mango orchard for high quality production Poor skill in monitoring SHGs for better coordination among the group member Training on raising of vegetables seedling in nursery bed Training on composite fish farming is needed 	<ul style="list-style-type: none"> ➤ Crop selection in upland situation ➤ Bee-Keeping ➤ Mango orchard management ➤ SHG management. ➤ Nursery raising
5	Chendipada	Chhendipada	Karoda	Paddy, Vegetables, Sugarcane, Ragi, Papaya, Wood apple, mango	<ul style="list-style-type: none"> ➤ Farmers having poor knowledge about integrated disease and pest management in kharif rice Farmers not aware about commercial cultivation of flower in local demand Poor knowledge about use of low cost agricultural implements for harvesting of major crops Meagre knowledge in concept, development and significance of leadership in villages Poor knowledge about mushroom cultivation as an emerging enterprise Training on technique of preparing fish feeds from locally available ingredient 	<ul style="list-style-type: none"> ➤ IPDM In Kharif Rice ➤ Floriculture. ➤ Popularization of low cost agricultural implements. ➤ Mushroom cultivation ➤ Fish feed preparation

2.8 Priority thrust areas

Sl. No	Thrust area
1.	Stabilization and maximization of rice yield through balanced nutrient management and disease pest management
2.	Formulation of proper disease and pest management strategies in vegetables
3.	Cultivation of high value crop and high yielding varieties
4.	Commercial cultivation of flowers
5.	Seed production technology
6.	Cultivation practices of fruit crops
7.	Popularization of Bio-pesticides
8.	Pest and disease management in Orchard crops.
9.	Improved cultivation practices of sugarcane.
10.	Enhancement of yield of oil seed crops through integrated nutrient management.
11.	Enhancement of yield of pulses through proper seed replacement, nutrient management and pest and disease management.
12.	Farm mechanization through improved farm machineries.
13.	Enhancement of income through diversified farming systems like pisciculture
14.	Women Empowerment i.e. economic independency
15.	Management of SHGs through maintenance of finance and community based economic activities
16.	Entrepreneurship development.
17.	Improvement of Extension strategies for transfer of technology.
18.	Increasing production and productivity by using micro-irrigation systems in horticulture
19.	Commercial cultivation under controlled environment for sustaining year round production
20.	Storage, processing and value addition of agricultural produce for fetching better market and price
21.	Increasing production with reduced labour cost and dependence by using improved agricultural machineries
22.	Drought proofing by adopting suitable soil & water conservation measures

3. TECHNICAL ACHIEVEMENTS

3.1. A. Abstract of interventions undertaken

S. 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.
CROP PRODUCTION									
1	Stabilization and maximization of rice yield through balanced nutrient management	Rice	Imbalanced & inadequate use of fertilizer	-	INM in rice	INM in paddy for sustainable crop production	-	-	Fertilizer & bio fertilizer
2	Improved cultivation practices of sugarcane.	Sugarcane	Imbalanced & inadequate use of fertilizer	-	INM in sugarcane	INM in sugarcane	-	-	RDF, Azosprillum & PSB
3	Enhancement of yield of oil seed crops & Pulses through INM	Oilseeds	Imbalanced & inadequate use of fertilizer	1- Sulphur application in mustard 2-Response of chickpea to P & PSB	-	Advanced crop production practices for rabi pulses	-	-	Aquasulf

PLANT PROTECTION									
4	IPM of various crops like Rice, Arhar, groundnut, sesamum, brinjal, okra, banana and sugarcane is economically viable and environment friendly Honeybee rearing, mushroom cultivation	Rice, Arhar, greengram, blackgram, chickpea, sesamum, mustard, brinjal, okra, bittergourd, chilli beans & banana Honeybee, mushroom cultivation	Heavy Pest incidence & Indiscriminate use of pesticide is costly and leading to environmental pollution Low income of the farm family	1.Bio logical control of aphid attacking mustard crop. 2.Bio logical control of pod borer in chickpea	1. Control of bacterial wilt in banana 2. Biological control of pod borer in chickpea 3.Bio-intensive management of early shoot borer in sugarcane 4. Paddy straw mushroom cultivation technique	IPM in kharif rice, arhar, greengram, groundnut, sesamum, brinjal, okra, beans & banana	Biological control of crop pests	---	---
HORTICULTURE									
5	Cultivation of high value crop and high yielding varieties	Cultivation of high value vegetable crop and tuberous crop	Poor cultivation practice	1.Assessment of performance of wilt tolerant variety of Chilly	1.FLD on Crop substitution through capsicum cultivation 2.FLD on Introduction of high yielding varieties of papaya 1.FLD on Introduction of Elephant foot yam	1. Technology for off season vegetable cultivation 2.Importance of hybrid vegetables seeds for higher production	---	---	1.Corm supplied from CTCRI, Bhubaneswar Var-Gajendra 2. Seedlings of Capsicum, Chili and Papaya supplied, produced by KVK Nursery.

6	Commercial cultivation of flowers	Cultivation of Marigold, gladioli and rose	Lack of knowledge about the cultivation practices and marketing linkages	---	---	Commercial cultivation of flowers	---	---	---
7	Seed production technology	Tomato, Brinjal, Chilli and Okra	Poor knowledge about seed production techniques	---	---	Seed production techniques in vegetable crops such as tomato, brinjal, chillies & okra for self employment	---	---	---
8	Cultivation practices of fruit crops	Mango, Litchi and Banana	Poor knowledge about Orchard management practices	Testing of different Tissue culture Banana varieties	---	---	Rejuvenation of old declining orchard	---	Plantlets supplied from RPRC, Bhubaneswar

AGRICULTURE ENGENIRING									
9	Increasing production and productivity by using micro-irrigation systems in horticulture.	NA	Non use of micro irrigation leading to less yield	--	--	1. Operation, maintenance & economics of drip irrigation system for fruit crops (2 phases) 2. Use of sprinkler irrigation system for vegetable & field crops.	1. Use of micro-irrigation system for increasing irrigation efficiency and production	Publication of technical bulletin on use of micro-irrigation system in horticultural crops, Radio talk delivered on the topic	--
10	Commercial cultivation under controlled environment for sustaining year round production.	NA	Lack of knowledge about protected cultivation leading to less profit	--	--	--	Low cost poly house-its construction, use and importance in modern horticulture	--	--
11	Storage, processing and value addition of agricultural produce for fetching better market and price.	NA	Lack of awareness about storing of agril. produce leading to distress selling	--	--	Construction of low-cost onion storage structure (2 phases)	--	Radio talk delivered on the topic	--

12	Increasing production with reduced labour cost and dependence by using improved agricultural machineries.	NA	Non awareness and use of improved agril. Machineries leading to more cost of operation and less production and profit	--	1. Use of pedal operated paddy thresher 2. Use of ground nut decorticator 3. Use of power operated paddy thresher	1. Use of seeding / planting implements in agriculture 2. Use of improved agricultural implements for intercultural operations 3. Use of improved agricultural implements for harvesting of major crops & their processing 4. Custom hiring of modern agricultural implements for income generation (2 phases)	--	Radio talk delivered on the topic, Participation in local krishak melas	-
13	Drought proofing by adopting suitable soil & water conservation measures.	NA	Rain-fed farming-insecure against drought	--	--	--	In-situ rain water conservation and harvesting	Imparted training to dist. Level officers, WDT members & watershed committee members with support from DRDA, Angul, Radio talk delivered	--
14	Use of plastic in agriculture	NA	Less yield & profit	--	--	Use of plastic mulch in horticultural crops		Imparted training to dist. Level officers, WDT members & watershed committee members with support from DRDA, Angul, Radio talk delivered	--

AGRICULTURAL EXTENSION									
14	Management of SHGs through maintenance of finance and community based economic activities	--	<ol style="list-style-type: none"> 1. No income generating activities by SHGs 2. Lack of community organization 3. Lack of entrepreneurship 4. lack of leadership 			<ol style="list-style-type: none"> 1. Team building and capacity building measures of SHGs 2. Tools and techniques of organizing rural youth club 3. Tools and techniques of formation and organization of Self Help Groups 4. Group mobilization 5. Team building and capacity building measures and community organization 6. Leadership development in villages 7. Micro credit structures for farmers & farm women. 8. Linkage of SHGs to Banks and other financial institutions. 	<ol style="list-style-type: none"> 1. Training Need Assessment 2. Tools and Techniques of conducting effective demonstration 3. Group conflict management 	<ol style="list-style-type: none"> 1. Field visit 2. Aided in group sponsored exposure visit 3. follow up action in 2 sick income generating units 4. Group discussion and face to face interaction 5. CD show 	--

HOME SCIENCE									
15	Women Empowerment i.e. economic independency	--	1.lack of income generating activities 2. Lack of knowledge and skill on preservation and proper nutrition	--	--	1.Preservation of vegetables and fruits 2. Mushroom cultivation 3.Nutritional garden development 4.Food preparation for vulnerable groups to overcome vitamin and minerals deficiency	--	1.Group discussion 2. Field visit 3. CD show	--
FISHERIES									
16	Enhancement of income through diversified farming systems like pisciculture	Pisciculture	1. Traditional practice such as mono culture of Rohu, Catla or Mrigal 2.Improper fertilization of pond 3. Lack of knowledge about feed management 4. Unutilisation of community tanks	Feed management in composite fish culture	1. Composite fish culture 2. Integrated fish farming	1. Composite fish culture 2. Construction of new fish culture ponds and their management 3.Supplementary feeding and its importance in fish culture ponds 4. Freshwater scampi (Machrobrachium rosenbergi) culture 5. Nutritional requirement of freshwater prawn and its feed management in farming system 6. Integrated fish farming 8. Freshwater ornamental fish culture	Management of aquatic weeds, insects & predatory fishes	1.Field visit 2. Diagnostic survey 3. CD show	IMC fingerlings Formulated feed Papaya seedlings Rice bran GNOC Agrimin Fort (vitamin mineral mixture)

3.1. B. Details of each On Farm Trial OFT-I (Crop Production)

1	Title of on-farm trials	Performance of scented rice variety
2	Problem diagnose	Low yield of local scented rice variety
3	Details of technologies selected for assessment/refinement	Cultivation of suitable high yielding scented rice varieties Geetanjali & Tulsiphool
4	Source of technology	CRRI
5	Thematic area	Varietal replacement
6	Performance of the Technology with performance indicators	Technical-No of hills/m ² , no of panicle/ hill 1000 grain weight
		Economic : Additional benefit , BC ratio
		Farmer s reaction: Good
		Feed back : Replication & spread of technology
7	Final recommendation for micro level situation	Both the varieties are high yielder over the local varieties
8	Constraints identified and feedback for research	Constraints : Lack of reliability and ignorance about appropriate varieties. Feed back : The experiment is in progress
9	Process of farmers participation and their reaction	Direct participation and probability of technology replication through farmers club present in the village.

OFT-II (Crop Production)

1	Title of on-farm trials	Assessment of INM in chickpea
2	Problem diagnose	Low yield of chickpea due to improper or no use of phosphatic fertilizer
3	Details of technologies selected for assessment/refinement	Application of phosphatic fertilizer and phosphorus solubilising micro-organism.
4	Source of technology	OUAT
5	Thematic area	INM
6	Performance of the Technology with performance indicators	Technical-Growth & yield
		Economic : Additional benefit, BC ratio
		Farmer s reaction: Satisfactory
		Feed back : The technology should spread to larger area
7	Final recommendation for micro level situation	INM for higher yield, sustainability and profitability
8	Constraints identified and feedback for research	Constraints : NIL Feed back : Technology is accepted
9	Process of farmers participation and their reaction	Training, Group discussion & field diagnosis Replication of Technology

OFT-I (Plant Protection)

1	Title of on-farm trials	Bio-logical control of <i>aphid lipaphis erysimi</i> linn attacking mustard crop
2	Problem diagnose	Low yield of mustard due to severe aphid incidence during flowering and siliqua formation stage reduces the yield(75%) and chemical application is costly
3	Details of technologies selected for assessment/refinement	Use of neem pesticides (multi neem 3ml/ltr) and use of bio control agents <i>Chrysoperla cornea</i> 40,000/acre after flower bud formation stage at 7 days interval 3 times may reduce aphid infestation in economic manner and increase the yield
4	Source of technology	OUAT
5	Thematic area	Bio-control of pests and diseases
6	Performance of the Technology with performance indicators	Technical : population of aphid and natural enemies
		Economic : Additional benefit , BC ratio
		Farmer s reaction :Farmers preferred bio-agent for control of aphid because it is environment friendly and cost effective.
		Feed back : The trial need to be replicated in the near by villages and blocks
7	Final recommendation for micro level situation	Use of multi-neem@ 3ml/ltr at pre flower bud formation stage 2times+ <i>Chrysoperla cornea</i> @1lakh/ha will be tried next year
8	Constraints identified and feedback for research	Constraints : Presence of other insects Feed back : The experiment has not yet started
9	Process of farmers participation and their reaction	Direct participation and promotion of technology through farmers club

OFT-II (Plant Protection)

1	Title of on-farm trials	Bio-logical control of <i>pod borer in chickpea</i>
2	Problem diagnose	Low yield of gramdue to severe podborer incidence incidence during pod formation stage
3	Details of technologies selected for assessment/refinement	Use of HNPV (Helimar) @ 1 ml/ltr and 1.5 ml/ltr + biodart @2 gms/ltr and 2.5 gm/ltr at 15 days interval.
4	Source of technology	OUAT
5	Thematic area	Bio-control of pests and diseases
6	Performance of the Technology with performance indicators	Technical : population of pod borer
		Economic : Additional benefit , BC ratio
		Farmer s reaction: Farmers preferred bio-agent for control of pod borer because it is environment friendly and cost effective.
		Feed back : The trial need to be replicated in the near by villages and blocks
7	Final recommendation for micro level situation	Use of HNPV (Helimar) @ 1 ml/ltr and 1.5 ml/ltr + biodart @2 gms/ltr and 2.5 gm/ltr at 15 days interval.
8	Constraints identified and feedback for research	Constraints : Presence of other insects Feed back : The experiment has not yet started
9	Process of farmers participation and their reaction	Direct participation and promotion of technology through farmers club

OFT-I(Horticulture)

1	Title of on-farm trials	Testing of different Tissue culture Banana varieties
2	Problem diagnose	Traditional method of banana propagation through suckers do not give uniform yield, spread disease and creates hindrance for large scale cultivation
3	Details of technologies selected for assessment/refinement	Tissue cultured banana are true to type, uniform and disease free. Hence commercial cultivation may prove to be profitable
4	Source of technology	RPRC,Bhubanesewar(1997)
5	Thematic area	Commercial cultivation of cash crop
6	Performance of the Technology with performance indicators	Yield , Susceptibility to diseases Economics
7	Final recommendation for micro level situation	Yield- Bantala -675q/ha, prove to be more disease resistant with higher yield
8	Constraints identified and feedback for research	Cost of sucker increasing production cost Non availability of sucker in Orissa abundantly
9	Process of farmers participation and their reaction	Direct participation of farmer and dissemination through existing farmers club Easily accepted and good response

OFT-II(HORTICULTURE)

1	Title of on-farm trials	Assessment of performance of wilt tolerant variety of Chilly
2	Problem diagnose	Local variety more susceptible to wilting Total area-4136ha Yield loss- 30%
3	Details of technologies selected for assessment/refinement	Growing wilt tolerant variety of Chilly –Utkal Ava
4	Source of technology	UTKAL AVA ,OUAT (2003)
5	Thematic area	Varietal replacement
6	Performance of the Technology with performance indicators	Yield- Utkal Ava-105 q/ha . Local check- 85 q/ha
7	Final recommendation for micro level situation	Wilt tolerant variety of Chilly will be a profitable enterprises due to high production and resistance to wilting
8	Constraints identified and feedback for research	Non availability of good quality seed in local market
9	Process of farmers participation and their reaction	Direct participation of farmer and dissemination through existing farmers club Easily accepted and good response

OFT-I (AGRIL. ENGG.)

1	Title of on-farm trials	Assessment of performance of multi-crop thresher
2	Problem diagnose	Labour scarcity, high cost of threshing and drudgery of men and animals involved in threshing of paddy and ground nut
3	Details of technologies selected for assessment/refinement	Threshing of paddy & ground nut with the help of multi-crop thresher
4	Source of technology	OUAT (2001)
5	Thematic area	Use of improved agril. implements
6	Performance of the Technology with performance indicators	1. Capacity (Kg./hr.) 2. Dependence on labour (man.hr./kg.) 3. Cost of threshing (Rs./Kg.)
7	Final recommendation for micro level situation	To be concluded next year
8	Constraints identified and feedback for research	1. Dispersion of grains during threshing of paddy 2. Grains hitting the person engaged in feeding paddy bunches
9	Process of farmers participation and their reaction	Direct participation of farmer and dissemination through existing farmers club Easily accepted and good response

OFT –I (FISHERIES)

1	Title of on-farm trials	Feed management in composite fish culture
2	Problem diagnose	Traditional method of fish culture with out feed management/ feeding with rice bran only with cowdung leading to less production
3	Details of technologies selected for assessment/refinement	Supplementary feeding with rice bran and groundnut oil cake (GNOC) along with vitamin-mineral mixture may prove to be profitable for fish farmens
4	Source of technology	CIFA, Kausalyagang, BBSR
5	Thematic area	Composite Fish Culture
6	Performance of the Technology with performance indicators	Technical : FCR, Total yield Economic : BC ratio Farmers reaction: farmers show keen interest in this process Feed back: The trial need to be replicated in other near by village tanks
7	Final recommendation for micro level situation	-
8	Constraints identified and feedback for research	Since the feed given is in powder form, wastage is more during application leading to more nutrient leaching
9	Process of farmers participation and their reaction	As the feed ingredients are locally available they are showing keen involvement in the process

3.1.C. Results of On Farm Trials

Results of On Farm Trials (Crop Production-OFT-I)

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Rice	Rainfed	Low yield of local scented rice variety	Performance of scented rice variety	05	T ₁ - Tulasiphool (local) T ₂ - Geetanjali	Technical : No. of hills ssss/ m ² No. of panicles/ hill 1000 grain weight Yield

* *No. of farmers*

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
8	9	10	11	12
No. of hills / m ² : 52 No. of panicles/ hill : 11 Yield : 2.6 t/ha	A good performer and high yielder over the local	A good variety which needs to be spread to larger area	No	NA

Technology Assessed / Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16
Geetanjali is a good performer & high yielder under rainfed situation in Kharif season	2.4 t/ha	Rs. 11,500/ ha	1:1.22

Results of On Farm Trials (Crop Production-OFT-II)

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Chickpea	Rainfed	Low yield of chickpea due to improper or no use of phosphatic fertilizer	Assessment of INM in chickpea	5	40 KG P ₂ O ₅ /ha + PSB 5 kg/ha	Yield

• *No. of farmers*

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
8	9	10	11	12
1.3 t/ha	Yield : T ₁ – 1.1 t/ha T ₂ - 1.3 t/ha 18% increase in yield	Replication of Technology	No	NA

Technology Assessed / Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16
Recommended P along with PSB increases yield to the tune of 18% over no P+PSB	T ₂ = 1.3 t/ha	22000/ha	1:1.7

Results of On Farm Trials (Plant Protection-OFT-I)

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Mustard	Irrigated	Low yield of mustard due to severe aphid incidence after flowering	Bio-logical control of <i>aphid lipaphis erysimi</i> linn attacking mustard crop	05	Use of bioagent C. cornea(3 times)	Technical : population of aphid & natural enemies Economic : Yield & BC ratio

* No. of farmers

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
8	9	10	11	12
Predator population increases by 20% to 40% which reduces aphid population to half	20 days after release of predator population increases two times which ultimately manage the pest	Farmers preferred bio-agent for control of aphid because it is environment friendly and cost effective.	This year additional refinement use of neem pesticide (Multi neem 3 ml/ltr.) before release of bio-agent	Use of neem pesticide (Multi neem 3 ml/ltr.) before release of bio-agent has repellent effect on the other insect.

Technology Assessed / Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16
Technology assessed : use of bio control agents <i>Chrysoperla cornea</i> 40,000/acre at 7 days interval 3 times Technology refined : Use of neem pesticides (multi neem 3ml/ltr) followed by use of bio control agents <i>Chrysoperla cornea</i> 40,000/acre after flower bud formation stage at 7 days interval 3 times	T ₁ =Farmer practice : 5.2 q/ha T ₂ = Technology assessed = 8.3 q/ha	T1=4150 T2=10,850	1.6 2.8

Results of On Farm Trials (Plant Protection-OFT-II)

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Chick pea	Rain fed	Low yield of gram due to severe pod borer incidence at pod formation stage	Bio-logical control of <i>pod borer Heliothis armigera</i> attacking gram	05	Use of HNPV (Helimar) @ 1 ml/ltr and 1.5 ml/ltr + biodart @2 gms/ltr and 2.5 gm/ltr at 15 days interval.	Technical : population of pod borer Economic : Yield & BC ratio

* No. of farmers

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
8	9	10	11	12
Application of Helimar after 3 rd instar stage reduces the population up to 75%. Application of Biodart at later larval instars fully manage the pest.	Application of Helimar after 3 rd instar stage reduces the population up to 75%. Application of Biodart at later larval instars fully manage the pest.	Farmers preferred bio-agent for control of pod borer because it is environment friendly and cost effective.	No refinement	NA

Technology Assessed / Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16
Technology assessed : Use of HNPV (Helimar) @ 1 ml/ltr and 1.5 ml/ltr + biodart @2 gms/ltr and 2.5 grm/ltr at 15 days interval. Technology refined : NA	T ₁ =Farmer practice : 7.1 q/ha T ₂ = Technology assessed = 13.1 q/ha	T ₁ =16,300/- T ₂ =31,800/-	4.26:1 5.24:1

Results of On Farm Trials (Horticulture-OFT-1)

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Tissue culture Banana varieties	Irrigated	Traditional method of banana propagation through suckers do not give uniform yield, spread disease and creates hindrance for large scale cultivation	Testing of different Tissue culture Banana varieties	10	T ₁ -Farmers practice T ₂ -Bantala (Tissue Culture)	Yield and economics

* No. of farmers

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
8	9	10	11	12
Yield T ₁ -Farmers practice -400 qtl./ha T ₂ - Bantala(Tissue Culture)- 675 qtl./ha	68 % Increase in yield of T ₂ over local check-T ₁	Tissue culture variety prove to be more tolerant from diseases	Variety assessed and recommended	

Technology Assessed / Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16
Farmer's practice** -Bantala (Propagated through sucker)	400 qtl./ha	85,000/-	2.13:1
Technology assessed** Bantala (Tissue Culture)	675 qtl./ha	1,70,000/-	2.7:1
Technology refined**	Variety assessed and recommended		

Results of On Farm Trials (Horticulture-OFT-II)

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
HORTICULTURE-2						
Chili wilt resistant variety	Rain fed	Local variety more susceptible to wilting Total area- 4136ha Yield loss- 30%	Assessment of performance of wilt tolerant variety of Chilly	10	T ₁ -Local Check	Yield and wilt resistance
					T ₂ -Utkal Ava	

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
8	9	10	11	12
T-1- 85 q/h T-2- 105q/h	The variety T ₂ produced the maximum yield of 105 q/ha where Farmers practice gives the yield of (T ₁) 85q/ha.14% increase in yield as well as crop loss due to wilting was recorded higher in local check(50%)	Wilt resistance Varieties prove to be more profitable	Variety assessed and recommended	

Technology Assessed / Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16
Farmer's practice**	8500 kg/ha	52,500 / ha	1.7:1
Technology assessed** Utkal Ava	10500 kg/ha	82,500 / ha	2.1:1
Technology refined** HYV	Variety assessed and recommended		

Results of On Farm Trials (Agril. Engg.-OFT-1)

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Paddy & Ground nut	N.A.	Labour scarcity, high cost of threshing and drudgery of men and animals involved in threshing of paddy and ground nut	Assessment of performance of multi-crop thresher	5	T ₁ - Framer's practice (hand beating in case of paddy and manual picking of pods in case of ground nut) T ₂ - Use of multi-crop thresher	Capacity (Kg./hr.) Dependence on labour (man.hr./kg.) Cost of threshing (Rs./Kg.)

Data on the parameter	Results of assessment		Feedback from the farmer	Any refinement done	Justification for refinement
8	9		10	11	12
Capacity (Kg./hr.) Dependence on labour (man.hr./qtl) Cost of threshing (Rs./qtl.)	150 Kg./hr. 1.4 man.hr./qtl Rs. 12.25/qtl.	120 Kg/hr. 1.7 man.hr./qtl Rs. 14.90/qtl.	Procurement of multi-crop thresher becoming difficult for poor farmers due to high cost, can only be possible if someone keeps it and farmers can hire it as per need.	No. Refinement to be done in 2008-09	To control dispersing of paddy during threshing

Technology Assessed / Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16
Farmer's practice**	15 Kg./hr., 10 man.hr./qtl, Rs. 87.50/qtl.	N.A	N.A
Technology assessed**	150 Kg./hr., 1.4 man.hr./qtl, Rs. 12.25/qtl.	N.A.	N.A
Technology refined**	Refinement to be done in 2008-09		

Results of On Farm Trials (Fishery-OFT-I)

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
COMPOSITE FISH CULTURE	Rain fed	Traditional method of fish culture with out feed management/ feeding with rice bran only with cowdung leading to less production	Feed management in composite fish culture	2	T ₁ - farmers practice(rice bran , cow dung)	<ul style="list-style-type: none"> • FCR • Total yield
					T ₂ - Supplementary feed(rice bran + GNOC + Vitamin mineral mixture) as recommended practice	

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
8	9	10	11	12
FCR= 1.4 Total yield= 400 kg	FCR= 1.4 Total yield= 400 kg	Since the feed ingredients are locally available and cheap, the farmers show keen interest in the process	NA	NA

Technology Assessed / Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16
Farmer's practice** -Rice bran + cow dung	300 kg/ Acre	Rs.8,000/ Acre	2.1
Technology assessed** supplementary feeding (Rice bran + GNOC + vit min mixture)	800 kg/ Acre	Rs 25,000/ Acre	2.6
Technology refined**			

**Field crops – kg/ha, * for horticultural crops -= kg or t / ha, * milk and meat – litres or kg/animal, * for mushroom and vermi compost kg/unit area.*

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 2007-08 and recommended for large scale adoption in the district

Sl · No	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
				No. of villag es	No. of farme rs	Area in ha
1.	Integrated crop management	Soil application of azospirillum, PSB and recommended chemical fertilizer	Field day, Training programmes, diagnostic field visit. Demonstration visit by farmers	11	76	21
2.	Integrated crop management	FYM+Bio-fertilizer +RDF	Field day, Training programmes, diagnostic field visit. Demonstration visit by farmers	8	45	12
4.	IDM in groundnut	Use of tolerant variety and soil application of bioagent T.Viridae	Training programmes, diagnostic field visit. Demonstration visit by farmers	5	37	14
5.	IDM in banana	Pit treatment of neem cake followed by application of bactericide	Field day, Training programmes, diagnostic field visit. Demonstration visit by farmers	12	97	23
6.	Biological control of pod borer	Application of neem pesticide and bioagent (NPV)	Field day, Training programmes, diagnostic field visit. Demonstration visit by farmers	7	48	27
7	IPM in sugarcane	Release of bioagent trichogramma chilonis (3 times) 1 month after planting followed by two times application of multi neem	Field day, Training programmes, diagnostic field visit. Demonstration visit by farmers	1 st year FLD		
8	IDM in banana	Pit treatment of neem cake followed by application of bactericide	Field day, Training programmes, diagnostic field visit. Demonstration visit by farmers	12	97	23 ha
9	Mushroom production	Use of quality spawn, polythene & gram powder	Training programmes, diagnostic field visit. Demonstration visit by farmers	1 st year FLD		

b. FLD-3-Details of FLDs implemented during 2007-08 (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

CROP PRODUCTION-FLD-I

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Rice	Integrated crop management	Soil application of azospirillum, PSB, recommended chemical fertilizer	Kharif / 3 rd year	2 ha	2 ha	-	10	10	No shortfall

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Rice	Kharif	Rainfed	Clay loam	M	M	H	Lathyrus	4 th week of July	1 st week of December	1310	53

Performance of FLD

Sl. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl/ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Rice	Soil application of azospirillum, PSB & recommended chemical fertilizer	Sarala	10	2	40	38	39	29	31	Hills/m ² : 54 Panicle / m ² : 380	Hills/m ² : 42 Panicle / m ² : 297

NB: Attach few good action photographs with title at the back with pencil

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
13000.00	9285.00	21450.00	15950.00	8450.00	6665.00	1.65

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
Rice	Kharif	BGA 10 kg/ha PSB @ 4 kg/ha each RDF : 80:40:40	Rainfed	39	29	31

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Popularization of technology
2	Exposure visit of farmers

Farmers' reactions on specific technologies

S. No	Feed Back
1	Satisfactory performance
2	Easy acceptance & remunerative

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	----	----	----	----
2	Farmers Training	----	----	----	----
3	Media coverage	----	----	----	----
4	Training for extension functionaries	1	28.09.2007 & 29.09.2007	25	Tech. dissemination

CROP PRODUCTION-FLD-II

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Oth	Tot	
1	Sugarcane	Integrated crop management	FYM+Biofertilizer +RDF	Annual/ 3 rd year	1 ha	1 ha	1	9	10	-

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
sugarcane	Annual	Irrigated	Sandyloam	M	M	H	NA	3 rd week of March	Crop standing	1390	85

Performance of FLD

Sl. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated		
						H	L	A			Demo	Local	
1	2	3	4	5	6	7	8	9	10	11	12	13	
1	Sugarcane	FYM+Bio-fertilizer +RDF	87044	10	1	Standing crop							

NB: Attach few good action photographs with title at the back with pencil

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
STANDING CROP						

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
Sugarcane	Annual	Co84077	Irrigated	CROP STANDING		
		Azospirillum & PSB @ 4kg/ha & RDF(200 : 60 : 100 kg/ha)				

Technical Feedback on the demonstrated technologies :

Sl. No	Feed Back
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Farmers' reactions on specific technologies

S. No	Feed Back
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Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	----	----	----	----
2	Farmers Training	1	14.12.2007 & 15.12.2007	25	-
3	Media coverage	----	----	----	----
4	Training for extension functionaries	----	----	----	----

CROP PRODUCTION-FLD-III

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
3	Vermi-composting	Production of organic inputs	Pit making & use of vermin, cowdung, cow urine & farm waste.	1 st year	10 units	10 units	-	-	10	No short fall

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Vermi-composting	Round the year	-	-	-	-	-	-	2 nd week of July	Bi-monthly	-	-

Performance of FLD

Sl. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl/ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
3	Vermi-composting	Pit making & use of vermin, cowdung, cow uring & farm waste.	Eiselia foetida	10	10 units	20	17	18.5	-	-	Length & weight of earthworms, Production/ pit	-

NB: Attach few good action photographs with title at the back with pencil

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
2000.00	-	5400.00	-	3400.00	-	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
Vermi-composting	Round the year	Pit size : 2 X 1 X 0.75 m Vermin : Eisenia foetida	-	18.5	-	-

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Popularization of technology
2	Exposure visit of farmers

Farmers' reactions on specific technologies

S. No	Feed Back
1	Satisfactory performance
2	Easy acceptance & remunerative

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	----	----	----	----
2	Farmers Training	1	12.11.07 & 13.11.07	25	--
3	Media coverage	----	----	----	----
4	Training for extension functionaries	----	----	----	----

PLANT PROTECTION-FLD-I

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Sugarcane	IPM	Release of bioagent trichogramma chilonis (3 times) 1 month after planting followed by two times application of multi neem	Annual crop / 1 st year	1	1	1	9	10	No short fall

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Sugarcane	Annual	Irrigated	Sandy loam	L	M	H	-	3 rd Week of March	2 nd Week of February	1390	85

Performance of FLD

Sl. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl/ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Sugarcane	Release of bioagent trichogramma chilonis (3 times) 1 month after planting followed by two times application of multi neem	87044	10	1	122.5	107.5	113.4	72	57.5	% dead heart : 4	% dead heart : 21

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
64,000/-	47,500/-	1,13,400/-	72,000/-	49,400/-	24,500/-	1.77:1

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
Sugarcane	Annual	Bioagent & multi neem	Irrigated	113.4	72	57.5

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Unavailability of bio agent at right time compels farmers to use costly pesticide.
2	Farmers are ignorant about the damage symptom of insects

Farmers' reactions on specific technologies

S. No	Feed Back
1	Easy acceptance of technology because it is environment friendly and cost effective.
2	Satisfied with the yield and quality of the produce.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	28.10.06	----	----
2	Farmers Training	1	----	60	----
3	Media coverage	1	----	----	----
4	Training for extension functionaries	1	20.11.06	15	----

PLANT PROTECTION-FLD-II

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
Banana	IDM	Pit treatment of neem cake followed by application of bactericide	Annual/ 3rd year	0.4	0.4	0.4	-	10	10	No shortfall

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Banana	Annual	Irrigated	Sandy loam	L	M	M	-	3rd week of June	Yet to harvest	1390	85

Performance of FLD

Sl. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
	Banana	Pit treatment of neem cake followed by application of bactericide	DC	10	0.4	Yet to harvest					--	--

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
YET TO HARVEST						

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
Banana	Annual	Plant Protection	Irrigated	YET TO HARVEST		

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	YET TO HARVEST

Farmers' reactions on specific technologies

S. No	Feed Back
1	YET TO HARVEST

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	----	----	----	----
2	Farmers Training	----	----	----	----
3	Media coverage	----	----	----	----
4	Training for extension functionaries	----	----	----	----

PLANT PROTECTION-FLD-III

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Paddy straw Mushroom	Mushroom production	Use of quality spawn, polythene & gram powder	Kharif/ 1st year	120 beds	120 beds	-	10	10	No shortfall

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Paddy straw Mushroom	Kharif	House hold	NA	L	M	M	-	3rd week of Aug	1st week of Sept	--	---

Performance of FLD

Sl. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
	Paddy straw Mushroom	Use of quality spawn, polythene & gram powder	-	10	120 beds	1.9 kg	1.3 kg	1.5 kg	1.3 kg	46	Yield/bed	Yield/bed

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
20 /BED	15/BED	76/BED	52/BED	56/BED	37/BED	3.8:1

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
		Quality spawn, polythene, gram powder	NA	1.6	1.3	46

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Low cost technology
2	Easy adoption
3.	Remunerative

Farmers' reactions on specific technologies

S. No	Feed Back
1	Profitable
2	Non availability of quality spawn and polythene

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	----	----	----	----
2	Farmers Training	----	----	----	----
3	Media coverage	----	----	----	----
4	Training for extension functionaries	----	----	----	----

PLANT PROTECTION-FLD-IV

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Brinjal	IPM	Use of neem cake, pheromone trap, lure and neem pesticide	Rabi 2007/1st year	1 ha	1ha	-	10	10	No shortfall

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Brinjal	Rabi/summer	Irrigated	Sandy loamy	162	26	192	Cauliflower	Jan 2 nd week	Yet to harvest	53.7	4

Performance of FLD

Sl. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
	Brinjal	Use of neem cake, pheromone trap, lure and neem pesticide	Greenstar long	10	1 ha	Yet to harvest			-	-	-	-

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	
-	-	-	-	-	-	-

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
Brinjal	Rabi/summer	Use of neem cake, pheromone trap, lure and neem pesticide	irrigated	-	-	-

Farmers' reactions on specific technologies

S. No	Feed Back
1	NA
2	NA

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	----	----	----	----
2	Farmers Training	----	----	----	----
3	Media coverage	----	----	----	----
4	Training for extension functionaries	----	----	----	----

HORTICULTURE-FLD-I

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Capsicum	crop substitution for higher return	Crop substitution through high yielding varieties of capsicum	Kharif 2007	0.05	0.05	-	10	10	No shortfall

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Capsicum	Rabi	Irrigated	Red loam	L	M	H	Brinjal	29.09.07	18.01.08	108	10

Performance of FLD

Sl. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
1	CAPSICUM	Crop substitution through high yielding varieties of capsicum	BBS-400	5	0.05 ha	485	411	436	----	----	Yield & Economics	Yield & Economics

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
200000/-	-----	1000000/-	----	800000/-	----	5:1

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
Capsicum	Rabi	1. Seed/Variety	Irrigated	436	Non availability of local varieties	----

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Poor knowledge, skill and awareness amongst farmers
2	Poor marketing information of farmers

Farmers' reactions on specific technologies

S. No	Feed Back
1	Requires high investments-may not be affordable to many farmers
2	Needs more skill, hence is suitable for experienced vegetable growers

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	----	----	----	----
2	Farmers Training	1	28/11/07 TO 29/11/07	25	----
3	Media coverage	----	----	----	----
4	Training for extension functionaries	----	----	----	----

HORTICULTURE--FLD-II

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Papaya	Cultivation of export potential fruit crops	Crop substitution through high value fruit crop like Red lady	2007 Kharif	0.2	0.2	-	10	10	No shortfall

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Papaya	Kharif	Irrigated	Sandy loam	L	M	M	Tomato	20.08.07	Yet to harvest	108	10

Performance of FLD

Sl. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
1	PAPAYA	Crop introduction through high value & export potential fruit crop, papaya var.Red lady	HYV	10	0.2	Yet to harvest			-----	-----	Yield & Economics	Yield & Economics

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
Yet to harvest						

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
Papaya	Kharif 2007	1. Seedlings	Irrigated	Yet to harvest		

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Poor knowledge, skill and awareness amongst farmers
2	Poor marketing information of farmers

Farmers' reactions on specific technologies

S. No	Feed Back
1	Requires high investments-may not be affordable to many farmers
2	Needs more skill, hence is suitable for experienced vegetable growers

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	----	----	----	----
2	Farmers Training	----	----	----	----
3	Media coverage	----	----	----	----
4	Training for extension functionaries	----	----	----	----

HORTICULTURE-FLD-III

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Elephant foot yam	Introduction of qualitative varieties	Introduction of Gajendra variety of Elephant foot yam which is acidity free	Kharif 2007	0.15	0.15	-	10	10	No shortfall

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Elephant footyam	Annual	Rainfed	Sandy loam	M	L	H	-----	03.06.07	19.1.08	1390	85

Performance of FLD

Sl. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Elephant footyam	Introduction of Gajendra variety of Elephant foot yam which is acidity free	Gajendra	10	0.15 ha	188	105	148	-----	-----	Yield & Economics	Yield and Economics

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
45,000	-----	1,18,400	-----	73,400	-----	2.63:1

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
Elephant footyam	Kharif 2007	1. Corm-var.Gajendra	Rainfed	148	-----	-----

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Less prone to diseases

Farmers' reactions on specific technologies

S. No	Feed Back
1	Appreciable growth.
2	Better market price.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	----	----	----	----
2	Farmers Training	1	28/12/07 to 29/12/07	----	----
3	Media coverage	----	----	----	----
4	Training for extension functionaries	----	----	----	----

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		
Pedal operated paddy thresher	Paddy	10	2	Threshing Capacity	35 kg./hr	15 Kg./hr.,	133 (+)	Low cost & effective implement
				Cost of threshing	Rs.18/q	Rs. 58.60/q	69 (-)	
				Labour requirement	2.85 man.hr/q	6.7 man.hr./q	57 (-)	
Power operated paddy thresher	Paddy	10	2	Threshing Capacity	150 kg./hr	15 Kg./hr.,	900 (+)	Low cost & effective implement
				Cost of threshing	Rs.12.25/q	Rs. 58.60/q	79(-)	
				Labour requirement	1.4 man.hr/q	6.7 man.hr./q	79(-)	
Groundnut decorticator	Groundnut	10	2	Capacity	30 kg./hr	1 kg./hr	900(+)	Low cost & effective implement
				Operational cost	Rs.42/q	Rs.625/q	93(-)	
				Labour requirement	6.7 man.hr/q	100man.hr/q	93(-)	

* *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		
NOT CONDUCTED								

* **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	Paddy straw	10	120	Yield/bed	1.9/bed	1.3/bed	46	Remunerative
Apiary	-	-	-	-	-	-	-	-
Sericulture	-	-	-	-	-	-	-	-
Vermi compost	Eiselia foetida	10	10	Yield & Economics	20	-	-	Low cost technology & easy adoption
Composite Fish Culture	Indian Major Carps	6	2	Total yield	700 kg/ Acre	400 kg/ Acre	55	Remunerative
Integrated fish farming	Indian Major Carps	2	2	Total yield	750 kg/ Acre	500 kg/ Acre	50	Remunerative and additional income from poultry and papaya

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

A) ON Campus—

Thematic Area	No. of Courses	Duration (days)	No. of Participants						
			Others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
Extension Personnel									
Participatory Rural Appraisal	1	2	23	0	23	2	0	2	25
Importance of nutrition in composite fish culture	1	2	23	0	23	2	0	2	25

OFF Campus

Thematic Area	No. of Courses	Duration (days)	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	-	-	-	-	-	-	-	-	-
Cropping Systems	5	10	97	15	112	9	4	13	125
Crop Diversification	1	2	12	13	25	-	-	-	25
Integrated Farming	-	-	-	-	-	-	-	-	-
Water management	-	-	-	-	-	-	-	-	-
Seed production	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-
Integrated Crop Management	1	2	19	-	19	6	-	6	25
Fodder production	1	2	20	-	20	5	-	5	25
Production of organic inputs	1	2	25	-	25	-	-	-	25
II Horticulture									
a) Vegetable Crops									
Production of low volume and high value crops	1	2	25	-	25	-	-	-	25
Off-season vegetables	1	2	25	0	25	0	0	0	25
Nursery raising	-	-	-	-	-	-	-	-	-
Exotic vegetables like Broccoli	-	-	-	-	-	-	-	-	-
Export potential vegetables	-	-	-	-	-	-	-	-	-
Grading and standardization	-	-	-	-	-	-	-	-	-
Protective cultivation (Green Houses, Shade Net etc.)	-	-	-	-	-	-	-	-	-
Importance of Hybrid	-	2	25	0	25	0	0	0	25

Thematic Area	No. of Courses	Duration (days)	No. of Participants						Grand Total
			Others			SC/ST			
			Male	Female	Total	Male	Female	Total	
vegetable seeds for higher production	1								
b) Fruits									
Training and Pruning	-	-	-	-	-	-	-	-	-
Layout and Management of Orchards	2	4	36	14	50	-	-	-	50
Cultivation of Fruit	-	-	-	-	-	-	-	-	-
Management of young plants/orchards	-	-	-	-	-	-	-	-	-
Rejuvenation of old orchards	-	-	-	-	-	-	-	-	-
Export potential fruits	-	-	-	-	-	-	-	-	-
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-
Improve technology of Banana cultivation	1	2	6	18	24	0	1	1	25
c) Ornamental Plants									
Nursery Management	-	-	-	-	-	-	-	-	-
Management of potted plants	-	-	-	-	-	-	-	-	-
Export potential of ornamental plants	1	2	25	0	25	0	0	0	25
Propagation techniques of Ornamental Plants	-	-	-	-	-	-	-	-	-
d) Plantation crops									
Production and Management technology	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-
e) Tuber crops									
Production and Management technology	1	2	7	17	24	0	1	1	25
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	1	2	19	6	25	0	0	0	25
Post harvest technology and value addition	-	-	-	-	-	-	-	-	-
III Home Science/Women empowerment									
Household food security by kitchen gardening and nutrition gardening	1	2	0	25	25	0	0	0	25

Thematic Area	No. of Courses	Duration (days)	No. of Participants						Grand Total
			Others			SC/ST			
			Male	Female	Total	Male	Female	Total	
Design and development of low/minimum cost diet	1	2	0	25	25	0	0	0	25
Designing and development for high nutrient efficiency diet	1	2	0	25	25	0	0	0	25
Minimization of nutrient loss in processing	-	-	-	-	-	-	-	-	-
Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-
Storage loss minimization techniques	-	-	-	-	-	-	-	-	-
Value addition	1	2	0	25	25	0	0	0	25
Income generation activities for empowerment of rural Women	2	4	0	50	50	0	0	0	50
Location specific drudgery reduction technologies	1	2	0	25	25	0	0	0	25
Rural Crafts	1	2	0	25	25	0	0	0	25
Women and child care	1	2	0	25	25	0	0	0	25
IV Agril. Engineering									
Installation and maintenance of micro irrigation systems	3	6	71	0	71	4	0	4	75
Use of Plastics in farming practices	1	2	25	0	25	0	0	0	25
Production of small tools and implements	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	3	6	42	29	71	1	3	4	75
Small scale processing and value addition	2	4	27	18	45	5	0	5	50
Post Harvest Technology	-	-	-	-	-	-	-	-	-
V Plant Protection									
Integrated Pest Management	8	16	171	11	182	15	3	18	200
Integrated Disease Management	-	-	-	-	-	-	-	-	-
Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-
Others (Milk Mushroom production)	1	2	9	16	25	-	-	-	25
Others (Use of Biopesticides in managing different crop pests)	1	2	21	-	21	4	-	4	25

Thematic Area	No. of Courses	Duration (days)	No. of Participants						Grand Total
			Others			SC/ST			
			Male	Female	Total	Male	Female	Total	
VI Fisheries									
Integrated fish farming	1	2	14	7	21	1	3	4	25
Carp breeding and hatchery management	1	2	23	-	23	2	-	2	25
Carp fry and fingerling rearing	-	-	-	-	-	-	-	-	-
Composite fish culture	5	10	87	25	112	12	1	13	125
Hatchery management and culture of freshwater prawn	2	4	31	18	49	1	-	1	50
Breeding and culture of ornamental fishes	1	2	19	-	19	6	-	6	25
Portable plastic carp hatchery	-	-	-	-	-	-	-	-	-
Pen culture of fish and prawn	-	-	-	-	-	-	-	-	-
Shrimp farming	-	-	-	-	-	-	-	-	-
Edible oyster farming	-	-	-	-	-	-	-	-	-
Pearl culture	-	-	-	-	-	-	-	-	-
Fish processing and value addition	-	-	-	-	-	-	-	-	-
Others (Culture techniques in magur culture)	1	2	12	5	17	2	6	8	25
VII Capacity Building and Group Dynamics									
Leadership development	1	2	8	17	25	0	0	0	25
Group dynamics	2	4	29	21	25	0	0	0	50
Formation and Management of SHGs	1	2	-	25	25	-	-	-	25
Mobilization of social capital	1	2	0	24	24	0	1	1	25
Entrepreneurial development of farmers/youths	1	2	22	0	22	3	0	3	25
WTO and IPR issues	-	-	-	-	-	-	-	-	-
Accessibility to various information and extension services	1	2	6	19	25	0	0	0	25
Reduction of drudgery among farmers & farm women	1	2	0	20	20	0	5	5	25
Production & Marketing constraints	3	6	41	30	74	0	1	1	75
TOTAL	68	136	999	593	1592	83	25	108	1700
(B) RURAL YOUTH									
Mushroom Production	-	-	-	-	-	-	-	-	-
Bee-keeping	1	3	25	-	25	-	-	-	25
Integrated farming	-	-	-	-	-	-	-	-	-
Seed production (Hort+CP)	1	2	25	0	25	0	-	0	25
Production of organic inputs	-	-	-	-	-	-	-	-	-

Thematic Area	No. of Courses	Duration (days)	No. of Participants						Grand Total
			Others			SC/ST			
			Male	Female	Total	Male	Female	Total	
Integrated Farming	1	2	25	0	25	0	0	0	25
Planting material production	-	-	-	-	-	-	-	-	-
Vermi-culture	1	2	25	-	25	-	-	-	25
Sericulture	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-
Commercial fruit production	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	2	4	48	0	48	2	0	2	50
Nursery Management of Horticulture crops	1	2	25	0	25	0	0	0	25
Training and pruning of orchards	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-
Production of quality animal products	-	-	-	-	-	-	-	-	-
Dairying	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-
Quail farming	-	-	-	-	-	-	-	-	-
Piggery	-	-	-	-	-	-	-	-	-
Rabbit farming	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-
Ornamental fisheries	1	2	19	0	19	6	-	6	25
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	1	2	23	-	23	2	-	2	25
Small scale processing	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-
Tailoring and Stitching	-	-	-	-	-	-	-	-	-
Rural Crafts	-	-	-	-	-	-	-	-	-
Information technology in Agriculture	1	2	25	0	25	0	0	1	25
Capacity building measures & Community organization(Agril.Extn.)	1	2	24	0	24	1	0	1	25
Farmers club formation (Agril.Extn.)	1	2	23	0	23	2	0	2	25
Leadership development of Club officials (Agril.Extn.)	1	2	25	0	25	0	0	0	25
TOTAL	13	27	312	0	312	13	0	13	325

Thematic Area	No. of Courses	Duration (days)	No. of Participants						Grand Total
			Others			SC/ST			
			Male	Female	Total	Male	Female	Total	
(C) Extension Personnel									
Productivity enhancement in field crops	-	-	-	-	-	-	-	-	-
Integrated Pest Management	1	2	8	17	25	0	0	0	25
Integrated Nutrient management	2	3	12	33	45	-	-	-	45
Rejuvenation of old orchards	1	2	25	0	25	0	0	0	25
Protected cultivation technology	-	-	-	-	-	-	-	-	-
Formation and Management of SHGs(Agril. Extn.)	2	4	0	42	42	0	8	8	50
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	1	2	0	25	25	0	0	0	25
Women and Child care	-	-	-	-	-	-	-	-	-
Low cost and nutrient efficient diet designing	-	-	-	-	-	-	-	-	-
Production and use of organic inputs	-	-	-	-	-	-	-	-	-
Gender mainstreaming through SHGs(Agril.Extn.)	1	2	11	4	15	4	6	10	25
Training need Assessment (Agril.Extn.)	1	2	22	0	22	2	1	3	25
Farming system approach to augment productivity of farm (crop production)	1	2	25	-	25	-	-	-	25
Bio-control of pests and diseases),(PP)	1	2	22	-	22	2	1	3	25
Importance of nutrition in composite fish culture (F)	1	1	9	5	14	3	3	6	20

Thematic Area	No. of Courses	Duration (days)	No. of Participants						Grand Total
			Others			SC/ST			
			Male	Female	Total	Male	Female	Total	
Use of micro-irrigation system for increasing irrigation efficiency and production (Agril. Engg.)	1	2	19	0	19	6	0	6	25
Low cost poly houses-its construction, use and importance in modern horticulture (Agril. Engg.)	1	2	18	0	18	7	0	7	25
In-situ rain water conservation & harvesting (Agril. Engg.)	1	2	24	1	25	0	0	0	25
First Aid(Women in Agriculture)	1	2	0	25	0	0	0	0	25
Use of Bio pesticides in IPM of major crops grown in the district(PP)	1	2	8	17	25	-	-	-	25
TOTAL	17	33	203	169	372	24	19	43	415

• **Details of training programmes**

Date	Clientele	Title of the training programme	Duration in days	Venue (Off /On Campus)	Number of participants			Number of SC/ST		
					Male	Female	Total	Male	Female	Total
Crop Production										
18/06/07 & 19/06/07	Farmer's/ Farm women	Crop diversification in upland	2	off	12	13	25	-	-	-
10/07/07 & 11/07/07	Farmer's/ Farm women	Integrated nutrient management in paddy for sustainable crop production	2	off	19	-	19	6	-	6
12/07/07 & 13/07/07	Rural youth	Seed production techniques in kharif paddy	2	off	22	-	22	3	-	3
25/07/07 & 26/07/07	Farmer's/ Farm women	Advanced crop production practices for paddy pulse cropping system	2	off	22	-	22	3	-	3
27/08/07 & 28/08/07	Farmer's/ Farm women	Improved production technology for paddy groundnut cropping system	2	off	22	-	22	3	-	3
13/09/07 & 14/09/07	Farmer's/ Farm women	Inter cropping system for un-banded upland	2	off	8	13	21	3	1	4
28/09/07 & 29/09/07	Extension Functionaries	Integrated nutrient management in rice and rice based cropping system	2	off	-	25	25	-	-	-
26/10/07 & 27/10/07	Farmers & Farm women	INM in paddy- mustard cropping system	2	Off	21	4	25	-	-	-
12.11.07 & 13.11.07	Rural youth	Techniques of vermin compost preparation and its use in crop production	2	off	25	-	25	-	-	-
04/12/07 & 05/12/07	Farmers & farm women	Agronomic practices for year round fodder production	2	off	25	-	25	5	-	5
14/12/07 & 15/12/07	Farmers & Farm Women	Agronomic packages for sugarcane cultivation	2	off	25	-	25	-	-	-
07/01/08 & 08/01/08	Farmers & Farm Women	Production practices of BGA, Azolla & VAM	2	off	25	-	25	-	-	-
17/03/08 & 18/03/08	Extension functionaries	Farming system approach to augment productivity of farm	2	off	25	-	25	-	-	-
Plant Protection										
4/06/07 & 5/06/07	Farmer's/ Farm women	Integrated pest management in kharif rice	2	off	22	-	22	3	-	3

12/07/07 & 13/07/07	Farmer's/ Farm women	Integrated management of disease and pest in banana	2	off	24	-	24	1	-	1
25/07/07 & 26/07/07	Farmer's/ Farm women	Pest and diseases management in kharif vegetables	2	off	21	-	21	4		4
06/08/07 & 07/08/07	Farmer's/ Farm women	Milk mushroom cultivation	2	off	10	15	25	-	-	-
30/08/07 & 31/08/07	Farmer's/ Farm women	Integrated pest management in pulses like Arhar, ground nut and black gram	2	off	19	5	24	1	-	1
13/09/07 & 14/09/07	Farmer's/ Farm women	Pest and disease management in winter vegetables	2	off	9	10	19	3	3	6
28/09/07 & 29/09/07	Extension Functionaries	Use of biopesticides in IPM of measure crops grown in the district	2	off	8	17	25	-	-	-
26.10.07 & 27.10.07	Farmer's/ Farm women	Integrated management of Disease & Pest in Mango	2	off	25	-	25	-	-	-
12.11.07 & 13.11.07	Farmer's/ Farm women	Integrated disease and pest management in marigold & rose	2	off	25	-	25	-	-	-
4.12.07 & 5.12.07	Farmer's/ Farm women	Use of Bio-pesticides in managing different crop pests	2	off	25	-	25	4	-	-
28.1.08 & 29.1.08	Farmer's/ Farm women	IPM in oilseed crops like groundnut, sesamum & mustard	2	off	25	-	25	-	-	-
14.2.08, 15.2.08 & 16.2.08	Rural youth	Honey bee keeping	3	off	25	-	25	-	-	-
22.2.08 & 23.2.08	Extension Functionaries	Biological control of crop pests	2	off	22	3	25	2	1	3
HORTICULTURE										
01/06/07 to 02/06/07	Rural Youth	Nursery management of fruit crops	2	Off	25	-	25	-	-	-
04/07/07 to 05/07/07	Farmer's/ Farm women	Technology for Off season vegetable cultivation	2	Off	25	-	25	-	-	-
27/07/07 to 28/07/07	Farmer's/ Farm women	Improve cultivation practice of Medicinal and aromatic plants	2	Off	19	06	25	-	-	-
30/08/07 to 31/08/07	Farmer's/ Farm women	Improved technology of Banana cultivastion		Off	06	19	25	-	1	1

17/09/07 To 18/09/07	Farmer's/ Farm women	Management of Litchi orchard	2	Off	11	14	25	-	-	-
04/10/07 To 05/10/07	Farmer's/ Farm women	Management of Mango orchard	2	Off	25	0	25	-	-	-
28/11/07 To 29/11/07	Farmer's/ Farm women	Cultivation of non conventional vegetables	2	Off	25	0	25	-	-	-
12/12/07 To 13/12/07	Farmer's/ Farm women	Commercial cultivation of Gladioli & Marigold	2	Off	25	0	25	-	-	-
28/12/07 To 29/12/07	Farmer's/ Farm women	Package and practices for tuber crops	2	Off	7	17	24	-	1	1
14/01/08 To 15/01/08	Farmer's/ Farm women	Importance of hybrid vegetable seeds for higher production	2	Off	25	0	25	-	-	-
17/01/08 To18/01/08	Rural Youth	Seed production techniques in vegetable crops such as tomato, brinjal, chillies & okra for self employment.	2	Off	25	0	25	-	-	-
19/03/08 TO 20/03/08	Extension functionaries	Rejuvenation of old declining orchard	2	Off	25	0	25	-	-	-
AGRIL. ENGG.										
06/06/07 to 07/06/07	Farmers/ Farm women	Use of seeding / planting implements in agriculture	2	Off	17	8	25	-	-	-
28/06/07 to 29/06/07	Rural Youth	Custom hiring of modern agricultural implements for income generation (1 st phase)	2	Off	25	-	25	-	-	-
30/07/07 to 31/07/07	Extension Functionaries	In-situ rain water conservation and harvesting	2	Off	24	1	25	-	-	-
27/08/07 to 28/08/07	Rural Youth	Custom hiring of modern agricultural implements for income generation (2 nd phase)	2	Off	25	-	25	2	-	2
17/09/07 to 18/09/07	Farmers/ Farm women	Use of improved agricultural implements for intercultural operations	2	Off	13	12	25	-	1	1
08/10/07 to 09/10/07	Farmers/ Farm women	Use of improved agricultural implements for harvesting of major crops & their processing	2	Off	13	12	25	1	2	3

22/10/07 to 23/10/07	Extension Functionaries	Use of micro-irrigation system for increasing irrigation efficiency & production	2	Off	25	-	25	6	-	6
07/11/07 to 08/11/07	Farmers/ Farm women	Use of plastic mulch in horticultural crops	2	Off	25	-	25	-	-	-
28/11/07 to 29/11/07	Farmers/ Farm women	Operation, maintenance & economics of drip irrigation system for fruit crops (1 st phase)	2	Off	25	-	25	-	-	-
28/12/07 to 29/12/07	Farmers/ Farm women	Use of sprinkler irrigation system for vegetable and field crops	2	Off	25	-	25	-	-	-
14/01/08 to 15/01/08	Farmers/ Farm women	Construction of low-cost onion storage structure (1 st phase)	2	Off	25	-	25	-	-	-
14/02/08 to 15/02/08	Farmers/ Farm women	Operation, maintenance & economics of drip irrigation system for fruit crops (2 nd phase)	2	Off	25	-	25	4	-	4
20/02/08 to 21/02/08	Extension Functionaries	Low cost poly house-its construction, use and importance in modern horticulture	2	Off	25	-	25	7	-	7
12/03/08 to 13/03/08	Farmers/ Farm women	Construction of low-cost onion storage structure (2 nd phase)	2	Off	7	18	25	5	-	5
Agril. Extn.										
13/06/07 & 14/06/07	Farmers & farmwomen	Reduction of drudgery among farmers and farmwomen	2	off	-	25	25	-	5	5
6/07/07 & 7/07/07	Farmers & farmwomen	Tools and techniques of formation and organization of Self Help Groups	2	off	-	25	25	-	-	-
23/07/07 & 24/07/07	Farmers & farmwomen	Analysis of marketing constraints	2	off	19	6	25	-	1	1
30/07/07 & 31/07/07	Extension personnel	Gender concerns in Agriculture	2	off	15	10	25	-	1	1
6/08/07 & 7/08/07	Rural youth	Application of information technology and mass media for commercial cultivation	2	off	25	-	25	-	-	-
16/08/07 & 17/08/07	Farmers & farmwomen	Group mobilisation	2	off	-	25	25	-	-	-
30/08/07 & 31/08/07	Rural youth	Team building and capacity building measures and community organization	2	off	25	-	25	-	-	-

21/09/07 & 22/09/07	Farmers & farmwomen	Accessibility of farmers to various sources of information and extension services	2	off	6	19	25	-	-	-
26/ 9/07 & 27/09/07	Farmers & farmwomen	Analysis of production constraints	2	off	-	25	25	-	-	-
28/09/07 & 29/09/07	Farmers & farmwomen	Leadership development in villages	2	off	6	19	25	-	4	4
11.10.07 & 12.10.07	Farmers & farmwomen	Preparation for farming system research	2	off	13	12	25	2	3	5
16.10.07 & 17.10.07	Farmers & farmwomen	Micro credit structures for farmers & farm women	2	off	15	10	25	-	-	-
16.11.07 & 17.11.07	Extension personnel	Group Conflict Management	2	off	-	25	25	-	5	5
22.11.07 & 23.11.07	Farmers & farmwomen	Linkages of SHGs to banks & other financial institutions	2	off	15	10	25	-	-	-
26.11.07 & 27.11.07	Farmers & farmwomen	Market oriented production system	2	off	25	-	25	3	-	3
26.12.07 & 27.12.07	Rural Youth	Formation of farmers club	2	off	25	-	25	2	-	2
28.12.07 & 29.12.07	Rural Youth	Leadership Development of SHG Leaders and Club officials	2	off	25	-	25	-	-	-
5.02.08 & 6.02.08	Extension personnel	Identification & Prioritization of problems through PRA	2	On	25	-	25	2	-	2
14.02.08 & 15.02.08	Extension personnel	Training Need Assessment	2	Off	24	1	25	2	1	3
17.03.08 & 18.03.08	Extension personnel	Tools & Techniques of conducting effective Demonstration	2	Off	3	22	25	-	3	3
Home Science										
10/07/07 & 11/07/07	Farmers & farmwomen	Preservation of vegetables by drying methods	2	off	-	25	25	-	-	-
17/07/07 & 18/07/07	Farmers & farmwomen	Nutritional garden development practice in the unutilized backyard	2	off	-	25	25	--	-	-
16/08/07 & 17/08/07	Farmers & farmwomen	Paddy straw mushroom cultivation	2	off	-	25	25	-	-	-

28/09/07 & 29/09/07	Farmers & farmwomen	Printing of cloths in tie and dye	2	off	-	25	25	-	-	-
16.10.07 & 17.10.07	Farmers & farmwomen	Mushroom cultivation	2	off	-	25	25	-	-	-
6.12.07 & 7.12.07	Farmers & farmwomen	Supplementary diet preparation	2	Off	-	25	25	--	-	-
21.01.08 & 22.01.08	Farmers & farmwomen	Mushroom preservation	2	off	-	25	25	-	-	-
7.02.08 & 8.02.08	Extension Functionaries	First aid	2	off	-	25	25	-	-	-
7.03.08 & 10.03.08	Farm women	Drudgery reduction	2	off	-	25	25	-	-	-
19.03.08 & 20.03.08	Extension Functionaries	Poultry keeping	2	off	-	25	25	-	-	-
Fishery										
11/06/07 & 12/06/07	Farmers & farmwomen	Construction of new fish culture ponds and their management	2	Off	25	-	25	5	-	5
6/7/07 & 7/7/07	Farmers & farmwomen	Composite fish culture	2	off	25	-	25	-	-	-
19/07/07 & 20/07/07	Farmers & farmwomen	Supplementary feeding and its importance in fish culture ponds	2	Off	19	6	25	5	1	6
23/07/07 & 24/07/07	Farmers & farmwomen	Freshwater scampi(Machrobrachium rosenbergi)culture	2	off	20	5	25	1	-	1
2/08/07 & 3/08/07	Farmers & farmwomen	Nutritional requirement of freshwater prawn and its feed management in farming system	2	Off	12	13	25	-	-	-
27/08/07 & 28/08/07	Farmers & farmwomen	Integrated fish farming	2	Off	15	10	25	1	3	4
28/09/07 & 29/09/07	Farmers & farmwomen	Seed production and culture techniques in Magur culture	2	Off	14	11	25	2	6	8
22/11/07 & 23/11/07	Rural youth	Production of fish fingerlings	2	Off	25	-	25	2	-	2

17/12/07 & 18/12/07	Farmers & farm women	Common fish diseases and their control	2	Off	5	20	25	-	-	-
07/02/08 & 08/02/08	Extension Functionaries	Importance of nutrition in composite fish culture	2	On	25	-	25	2	-	2
25/02/08 & 26/02/08	Rural youth	Fresh water ornamental fish culture	2	Off	25	-	25	6	-	6

(D) Vocational training programme for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants			Self employed after training			Number of persons employed else where
				Male	Female	Total	Type of units	Number of units	Number of persons employed	
CROP PRODUCTION										
Seed production	Seed production technology	Seed production techniques in kharif paddy	2	25	-	25	-	-	-	3
Vermi compost	Available of organic resources & lack of entrepreneurship	Techniques of vermin compost preparation and its use in crop production	2	25	-	25	Vermin pit	2	2	5
PLANT PROTECTION										
Bee keeping	Lack of Technical know how	Honey bee keeping	3	25	-	25	Bee units	3	6	2
HORTICULTURE										
Seed Production	Seed production technology	Seed production technology in vegetable crops such as Tomato, Brinjal, Chillies, Okra for self employment.	2	25	-	25			5	11
Nursery management	Nursery raising	Nursery management of fruit crops	2	25	-	25	-	-	10	15

AGRIL. ENGG.										
Agril. Implements	Increasing production with reduced labour cost and dependence by using improved agricultural machineries	Custom hiring of modern agricultural implements for income generation (1 st phase)	2	25	-	25	-	-	-	
Agril. Implements		Custom hiring of modern agricultural implements for income generation (2 nd phase)	2	25	-	25	-	-	-	
Agril. Extension										
	Improper management of SHGs & Clubs due to lack of leadership	Leadership Development of SHG leaders & Club officials	2	25	-	25	-	-	5 SHGs became more capable in managing groups	6
	Unorganized community clubs	Formation of farmers group & farmers club	2	25	-	25	-	-	4 new clubs are formed with awareness & guidance	5
	Ignorance of accessibility and applicability of communication in agriculture	Application of information technology and mass media for commercial cultivation	2	25	-	25	-	-	-	4
	Improper management of SHGs	Team building and capacity building measures and community organization	2	25	-	25	-	-	-	8

Fisheries										
Pisciculture	Seed production technology	Production of fish fingerlings	2	25	-	25	-	-	-	2
Ornamental fish	Income generation through diversified activities like pisciculture	Freshwater ornamental fish culture	2	25	-	25	-	-	-	4
Plant Protection										
Bee keeping	Lack of Technical know how	Honey bee keeping	3	25	-	25	Bee units	3	6	2

(E) Sponsored Training Programmes

Sl.No	Title	Thematic area	Month	Duration (days)	Client PF/ RY/ EF	No. of courses	No. of Participants							Sponsoring Agency
							Male		Female		Total			
							Others	SC/ST	Others	SC/ST	Others	SC/ST	Total	
1	Acid Soil Management	Acid Soil management	Feb-March-08	1	PF, RY	4	150	75	106	59	256	144	400	Dept.of Soil & Agril. Chemistry. O.U.A.T.
2	Plasticulture and precision farming	Use of plastic in agriculture	October-07	2	PF, RY	1	28	-	-	-	28	-	28	P.F.D.C., OUAT

3.4. Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	4	78	-	78	-	-	-	78	-	78
Kisan Mela	-	-	-	-	-	-	-	-	-	-
Kisan Ghosthi	-	-	-	-	-	-	-	-	-	-
Exhibition	2	200	100	300	-	-	-	200	100	300
Film Show	20	300	150	450	50	-	50	350	150	500
Method Demonstrations	7 7	75	100	175	-	-	-	75	100	175
Farmers Seminar	-	-	-	-	--	-	-	-	-	-
Workshop	1	5	2	7	27	1	28	32	3	35
Group meetings	33	300	400	700	20	15	35	320	415	735
Lectures delivered as resource persons	30	-	-	-	-	-	-	-	-	-
Newspaper coverage	10	-	-	-	-	-	-	-	-	Mass
Radio talks	8	-	-	-	-	-	-	-	-	Mass
TV talks	3	-	-	-	-	-	-	-	-	Mass
Popular articles	11	-	-	-	-	-	-	-	-	Mass
Extension Literature	8	-	-	-	-	-	-	-	-	-
Advisory Services	30	115	78	193	9	2	11	124	80	204
Scientific visit to farmers field	548	-	-	-	-	-	-	-	-	-
Farmers visit to KVK	621	495	146	621	-	-	-	495	146	621
Diagnostic visits	-	-	-	-	-	-	-	-	-	-
Exposure visits	2	-	-	-	-	-	-	-	-	-
Ex-trainees Sammelan	-	-	-	--	-	-	-	-	-	--
Soil health Camp	-	-	-	--	-	-	-	-	-	--
Animal Health Camp	-	-	-	--	-	-	-	-	-	--
Agri mobile clinic	-	-	-	--	-	-	-	-	-	--
Soil test campaigns	-	-	-	--	-	-	-	-	-	--
Farm Science Club Conveners meet	-	-	-	--	-	-	-	-	-	--
Self Help Group Conveners meetings	23	-	-	-	-	-	-	-	-	-

Mahila Mandals Conveners meetings	-	-	-	-	-	-	-	-	-	-
Celebration of important days (specify)	4	75	25	100	3	1	4	78	26	104
Any Other (Specify)	-	-	-	-	-	-	-	-	-	-

3.5 Production and supply of Technological products

PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos./Kg.)	Value (Rs.)	Provided to No. of Farmers
FRUITS					
1.	Papaya	Madhuri Imp.	2005 Nos.	8020	182
2.	Papaya	Red Lady	1060 Nos.	10600	115
VEGETABLES					
1.	Drum stick	PKM-1	1138 Nos.	4552	258
2.	Tomato	BT-10	3900 Nos.	975	73
3.	Capsicum	Aiswarya	2500 Nos.	5000	10
4.	Chilli	Utkal Abha	20000 Nos.	5000	10
5.	Brinjal	Blue star	4100 Nos.	1025	82
6.	Elephant foot yam	Gajendra	50 Kg.	750	2

SUMMARY

Sl. No.	Crop	Quantity (Nos./Kg.)	Value (Rs.)	Provided to No. of Farmers
1	FRUITS	3065 Nos.	18620	297
2	VEGETABLES	31638 Nos. & 50 Kg.	17302	435
3	SPICES	0	0	0
4	FOREST SPECIES	0	0	0
5	ORNAMENTAL CROPS	0	0	0
6	PLANTATION CROPS	0	0	0
7	OTHERS (Crops- non seed)	300 Kg.	7800	0
	TOTAL	34703 Nos. & 350 Kg.	43722	732

3.6. Literature Developed/Published (with full title, author & reference)

(A) KVK News Letter (Date of start, Periodicity, number of copies distributed etc.)

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers	SHG's & Bank Linkages in Orissa	A.Ray, SMS, Women in Agriculture	1
Technical reports	<ul style="list-style-type: none"> ➤ Progress Report ➤ Annual Report ➤ Action Plan ➤ EFC Report ➤ Technical Audit performance Report ➤ SAC Report ➤ FLD Oilseed, Pulses Report 	Programme Coordinator, KVK	7
News letters	KVK Newsletter	Programme Coordinator, KVK	-
Technical bulletins	-	-	-
Popular articles	<p>Nadia chasa re roga O tara niyantrana Kharif chinabadam fasalara amala badhiba kipari Dhipa jami ru dhana amala badhaiebe kipari Kadali phasalare roga o tara niyantrana Saita sasya ra pradhan satru: Musa China badam phsala ra roga o tara niyantrarana Maka fasala ra poka o tara niyantrana Khadya Suraksha Pain Bazar Bhattika Krushi</p>	<p>D.Panigrahi, SMS, P.P</p> <p>Mrs. B. Satpathy, SMS (Agril. Extn.)</p>	8
Extension literature(Leaflet)	<ol style="list-style-type: none"> 1. Commercial Pisciculture 2. Drudgery reducing implements for Farm Women. 3. Commercial Floriculture 4. Improved agril. implements 5. Important pest & diseases of vegetable crop & their control 6. Group approach for a better tomorrow 7. Some important tips for boosting production 	Scientists of K.V.K.	-
Book chapter in "Communication development in rural sector"	Diffusion of technology in rural Orissa & its Effect	Mrs. B. Satpathy, SMS (Agril. Extn.)	-

(C) Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number
NIL			

3.7.Success stories/Case studies

VERMICOMPOST

Name of the Enterprise/ Practice / Technology: Vermi Composting

Name and address of the farmer: Sri Santosh kumar Khatua
Village-Shyamsunderpur
G.P-Baluakata
Block-Angul
District: Angul

INITIAL STATUS:

Out of 2, 16,403 hectare cultivable area in Angul district, 40475 hectare of area is sown with paddy and is traditionally grown, 30,000 hectare lies fallow. Though the farmers do not experience any remarkable increase in production and productivity still they go for rice and pulse cultivation with traditional approach viz. improper manuring practices and no pest & disease management with poor knowledge about marketing linkages.

Shyamsundarpur, a village in Angul Block of the district is situated at a distance of 15 km from the KVK headquarter with 208.5 acre cultivable area and 140 farm families in the village mostly small and resource poor. Though there is an extensive consumption of chemical fertilizers by the farmers i.e. to an extent of 100q / year, farmers hardly experience any remarkable increase in production. Village survey revealed that there are 20 educated rural youths who are unemployed and at the same time are keen to start any new low cost enterprise. Survey revealed that village has 320 tonnes of organic waste per year contributed from 150 tonnes of animal waste (120 tonnes cow dung + 30 tonnes goat litter), 110 tonnes of farm waste (Residues from crops like paddy, Arhar, pulses and ground-nut) and 60 tonnes of household wastes. The yearly demand for farmyard manure has been estimated to 1600 tonnes and the yearly production (Cow dung) is a meager amount of 320 tonnes. So to bridge this gap which attributes to low yield of crops, vermi compost production can be a better option which can not only solve the problem of unemployment but increase in yield due to rise in nutrient status of farm fields. This is an environment friendly technology utilizing organic waste which also would decrease load on consumption of chemical fertilizers, is considered to be relevant in case of an industrial area like Angul.

KVK INTERVENTION:

Considering the possibilities of harnessing the potentialities of youth group and appropriate utilization of organic wastes by converting to vermi compost, it was proposed to promote entrepreneurial abilities through motivation to take up vermi compost as an enterprise. Awareness programme was conducted in the village to develop a favourable attitude towards it. Two vocational trainings were conducted in the village on “vermi culture and organic farming” with special focus on integrated nutrient management and integrated disease and pest management. Their entrepreneurial attitude and skill was taken to great heights through team building games and exercises. The farmer was persuaded to go for vermi compost production keeping in view of his unutilized land of 0.05 acre and utilization of farm byproduct of 25 tonnes. This would also serve as an additional source of income resulting increase in production and productivity.

INNOVATIVE EXTENSION APPROACH:

Krishi Vigyan Kendra, Angul exposed the rural youth of the village to successful demonstration units in village Kulei (adopted village which was declared bio village for two consecutive years). Necessary technical bulletins collected from various sources was provided to the farmers. Linkage for selling of worms was established with a NGO named "SAARC" operating in the district and another NGO "FES" of national repute was also contacted for selling vermi compost both of which are basically working on environmental security. The NGO, "FES" also provided financial assistance for construction of vermi compost pits. During our normal course of interaction with other villages, farmers were informed about his venture for taking this endeavor a way forward.

Details of the technology:

PIT/TANK PREPARATION

Three numbers of brick walled tank of 8 ft x 4.5 ft x 4.5 ft dimension was prepared under a thatched shed for protecting the unit from hot sun and rain.

COMPOSTING STEPS

- a) Shredding : The pit ingredients (half decomposed cow dung, dry leaves, degradable farm wastes, kitchen wastes etc.) were cut into 3 cm size to increase the surface area.
- b) Blending : Other raw materials like soil, cow dung slurry, press mud and wood ash were blended together for improving moisture content, nutrients and microbial population and make compost more balanced.
- c) Maintenance of C/N ratio : Addition of green manure (Dhanicha, sunhemp etc.) for maintaining C/N ratio was ensured.
- d) Lime : Lime was added to increase microbial activities.
- e) Earthworm varieties: - *Eisinia foetida*, *Eudillus eugini*, *Perionix excavatas*.

FILLING OF PITS

Tank of said dimension was filled up with 10 layers as follows. Lowest layer was filled with grounded brick and stone then sand followed by half rotten residues. Neem cake then again half rotten residue with neem cake was added followed by organic residues/wastes again. Then above layer was filled with sand, 80% of the tank is filled up by now. Then the selected varieties of earthworm @ 2000 worms (1kg)/pit were released. The entire layer was covered with gunny bag. Time to time mixture of cow dung and cow urine was sprinkled to maintain the moisture content of the pit. Water was sprayed at the time of need to maintain moisture status at recommended level.

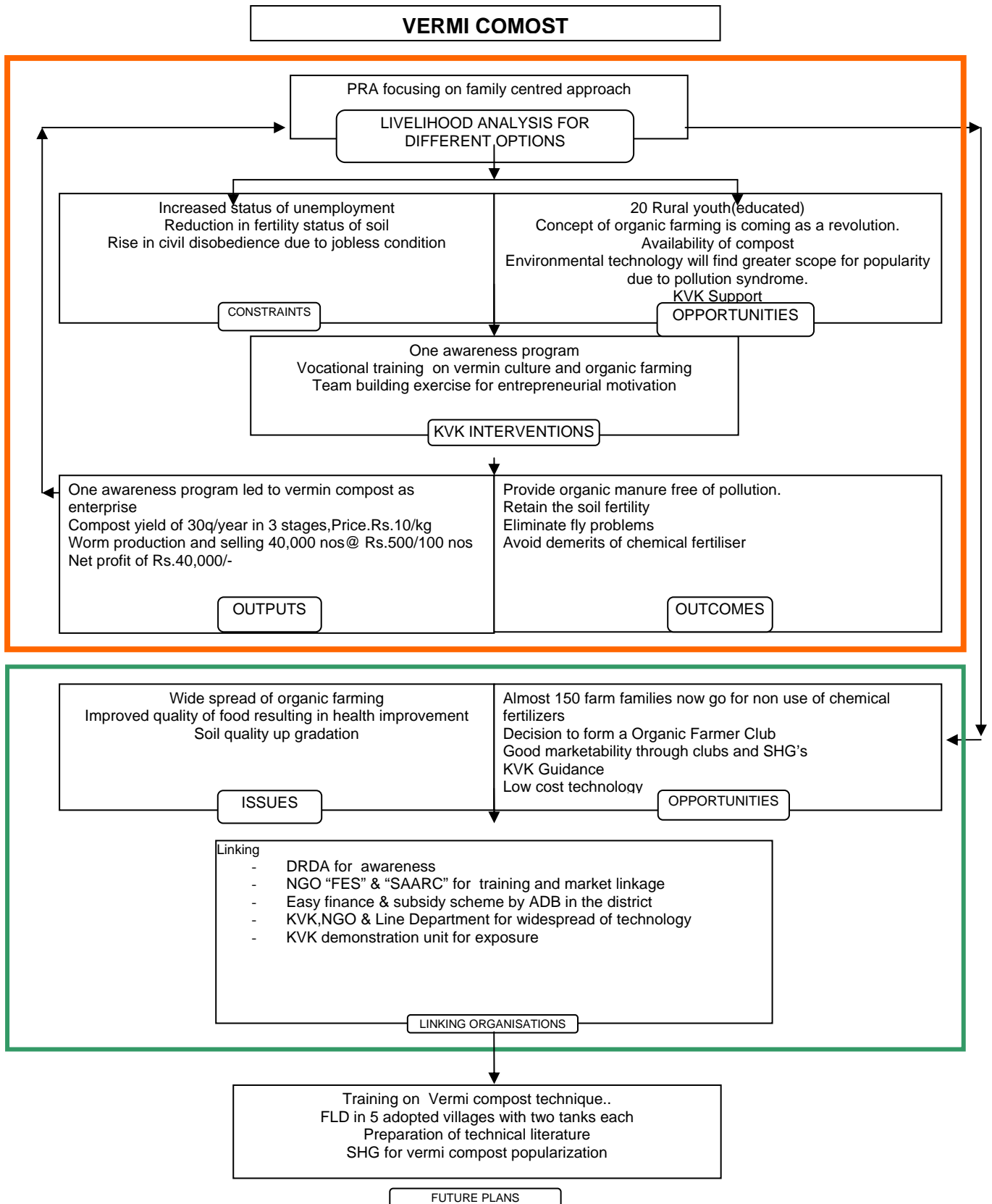
HARVEST OF COMPOST

90% feed material in the form of vermin compost after 2 months were removed from the bed and then again the bed was filled with partially decomposed organic waste.

ADOPTION OF THE TECHNOLOGY & BENEFIT TO THE FARMER:

After being exposed to extension interventions made by KVK, the farmers of village Shyamsunderpur started adopting the scientific techniques of vermi composting, its use and commercialization. Even some farmers went for low cost composting in small concrete rings. Sri. Khatua established three pits in the first year at a cost of Rs.12500/- which includes cost for preparation of pit, purchase of worms and packaging the compost thus produced. He produced 30 quintals of compost in three stages during the year out of which he used 10 quintals of vermi compost for his own farming operations (rice, pulses and vegetables). He sold rest 20 quintals of the produce @ Rs.10/kg earning Rs.20000/-. There was 40% recovery of the organic residues. He has sold around 40000 worms for replicating the technology through the NGOs and received a return of Rs.20000/-. From all these sources Sri. Khatua earned a net profit of Rs.40,000/-.

Models of technology dissemination:



FARMER'S REACTION & FEEDBACK:

The farmers of the village Shyamsunderpur were surprised to see the extraordinary success in vermi-composting as a source of income generation and sustainable livelihood. They appreciated the net profit gained through low cost vermi-composting practice with nominal initial investment. Most of the farmers who were having small backyard space took interest in the technology. At present these farmers produce vermi compost mainly for meeting their own consumption. Though commercialization of the technology is yet to be established (due to absence of marketing network and creation of demand amongst other farmers), vermi composting for meeting own consumption has been a tested success.

EXTENT OF DIFFUSION EFFECT OF THE NEWLY ADOPTED TECHNOLOGY:

Being inspired by the success of the enterprise, 15 youth and farmers in the village and near by villages have started vermi composting as an additional source of income. Sri Khatua has also planned to make bigger unit for more production of vermi compost as well as earth worms. Now, Sri Khatua has become a successful farmer as well as a farmer promoter in disseminating the low cost vermi composting practice. He has also strengthened enterprises like livestock and poultry, rice and high value vegetable cultivation to produce enough of raw materials for feeding the vermi-unit. The success in vermi composting achieved in village Shyamsunderpur has inspired other farmers in other areas of the district. Farmer groups have been inspired to take up activities like input supply, vermi-composting and its marketing. The concept of vermi composting has also popularized the advantages thus wide spreading organic farming.

FOLLOW UP ACTION:

KVK, Angul has documented the success and has developed plan to promote the technology through further trainings and demonstration. Krishi Vigyan Kendra has oriented the field level extension officers of the line departments for promotion of this technology. As Mr. Khatua is the chief volunteer of the Farmers' Club organized in village Shyamsundarpur and is the Secretary of the Farmers' Club Federation of Angul district under the umbrella of which 26 other Farmers' Clubs have been organized, KVK, Angul is utilizing him for spreading the enterprise in other Farmers' Club with an objective to spread the activity in the entire district. This year Sri Khatua has been felicitated by O.U.A.T on University foundation Day (24th August) which has empowered him socially as well.

LESSON LEARNT:

Vermi compost as a large scale enterprise is the need of modern agriculture.

ACTION PHOTOGRAPH



INTEGRATED HORTICULTURE

NAME OF THE ENTERPRISE/ PRACTICE / TECHNOLOGY:

Tissue Culture Banana Cultivation & Commercial cultivation of Mango..

NAME & ADDRESS OF THE FARMER: Sri Trilochan Sahu

Village: Handiguda

Block: Chhendipada

District : Angul

INITIAL STATUS:

In Angul district there is about 216000 hectare of cultivable area out of which 96228 hectare of area is under Mango and 16350 hectares of area for Banana cultivation. Traditional practice of fruit cultivation attributed from improper manuring practices, poor knowledge about disease and pest management and lean marketing linkages. There is an extensive demand for fruits in this district but, production status fails to meet the demand.

Handiguda a village in Chhendipada block of the district is situated at a distance of 50 km from the KVK headquarter. Out of 300 farm families in the village, 150 families are involved in fruit cultivation. Though there is lot of favorable conditions for commercial cultivation of fruit, flowers and vegetable, farmers hardly experience any interest due to lack of proper skill, knowledge and poor accessibility to various information sources. In the village the farmers do not experience any remarkable increase in production and productivity still they go for mango and banana cultivation as an age old practice without any commercial outlook. Apart from this, migration of agricultural labours due to industrialization was the biggest huddles in development of agri-horti based entrepreneurship in the district in general and in the village in particular.

KVK INTERVENTION :

Considering the potentialities of youth and farmers of the villages and favorable conditions, it was proposed to promote commercial horticulture through motivation and equipping the farmers to various technological resources. Training programme was organized in the village on “Agro-consultancy to develop entrepreneurial attitude among Rural youth, “Improved technology of Banana cultivation”, “Technology of off season vegetable cultivation”, “Disease and pest management in Banana”, “Precaution during spraying and preparation of spray solution” . Their entrepreneur attitude and skill was taken to great heights through team building games, exercises and exposure to RPRC and CHES, Bhubaneswar. Frontline demonstration on “Control of Bacterial wilt in Banana, “Introduction of Elephant foot yam”, “Cultivation of high yielding variety of papaya was conducted in the said village. On farm trials were conducted on “Introduction of Tissue culture banana varieties” for technology refinement. The farmer was persuaded to go for commercial cultivation of fruits specially Tissue Culture Banana, Mango and vegetables keeping in view as a sustainable source of income.

INNOVATIVE EXTENSION APPROACH:

Krishi Vigyan Kendra, Angul exposed the rural youth and potential farmers to successful demonstration units of the State like Regional Plant Research Centre, CHES and CTCRI. Necessary technical support were provided to the farmers in kind of technical bulletin, CD shows and inputs provided in form of seeds, saplings etc. Linkage for selling of fruits and vegetables was established to all the regulated markets of the district and catering to the Cuttack market as well.

DETAILS OF THE TECHNOLOGY:

Cultivation of Tissue culture Banana varieties:-

Site selection:-

Proper adequate measures were taken during selection of site before cultivation like drainage, quality of soil, communication etc.

Land Preparation:-

The land was deeply ploughed and leveled properly. Pit were prepared in 2mtx2mt distance with a depth, length and width of 60 cm each and filled with 10kg of compost, 250 gms organic manure and 250 gms super.

Varieties:- Robusta & Grand nane

Planting:-Saplings were planted in the respective pits in a depth of 20cm.

Area:- 1 ac

Irrigation:-Irrigation was provided in regular interval during summer.

Fertiliser Application:-

2 months interval-10 kg of Compost,100gms Potash

3 month interval-10kg of Compost, 50gm Urea, 100gm Potash

4 month interval-10 kg of compost, 50gm Urea, 100gm Potash.

Disease Management-

Timely protection measures were taken up to prevent the crop from diseases & pest.

Interculture:- Weeding was done every year.

Yield: - 800 bunches from 1 acre of land

Market Linkage:- Cuttack,Bhubaneswar,Sambalpur and Chhatisgarh.

Economics:-

Total Income:- Rs.80000/-

Total Expenditure:- Rs.20000/-

Net Return:-Rs.60000/-

Management of Mango Orchard:-

Site selection:-

Proper adequate measures were taken during selection of site before cultivation like quality of soil, availability of irrigation source, communication etc.

Land Preparation:-

The land was deeply ploughed and leveled properly. Pit were prepared in 10mtx10mt distance with a depth, length and width of 1mt each and filled with 30kg of compost, 2 kg organic manure.

Area: - 1 ac

Varieties:- Amrapalli & Gulabkhas

Fertiliser Application:-

Full grown Plants doses/year-50 kg of Compost, NPK-750:500:750100gms per plant applied.

Use of Growth regulators- Planofix was sprayed for flowering and its retention

Pruning- Every year training was practiced to regulate the growth, flowering and fruiting.

Disease Management-

Timely protection measures were taken up to prevent the crop from diseases & pest.

Yield:-Average 500 fruits / plant.

Grading & storage:-

Half ripen fruits were plucked and after grading supplied to the Cuttack, Bhubaneswar, Sambalpur, Angul and Nalco market every year.

Economics:-

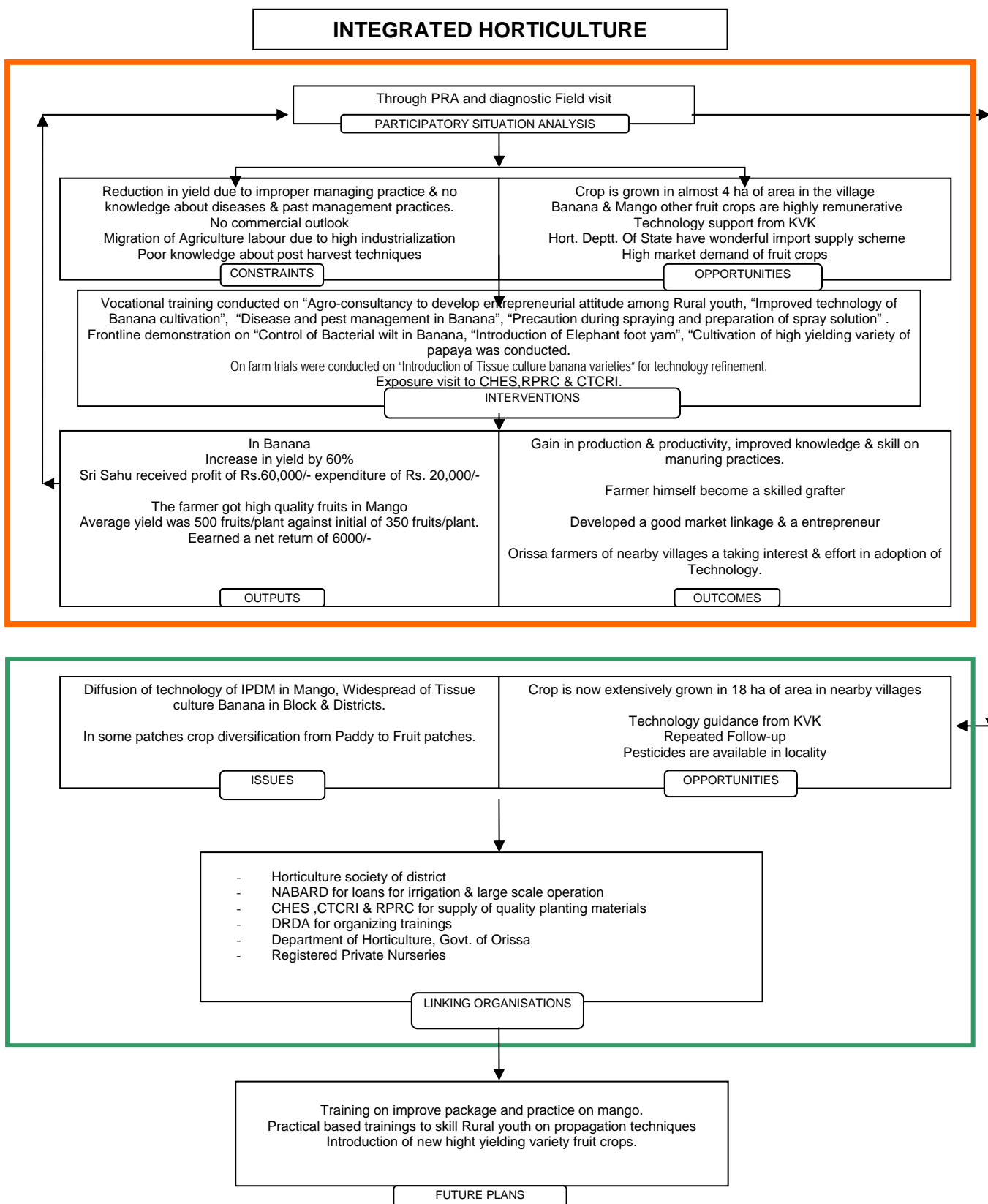
Total Income:- Rs.8000/-

Total Expenditure:- Rs.2000/-

Net Return: - Rs.6000/-

ADOPTION OF THE TECHNOLOGY & BENEFIT TO THE FARMER: After being exposed to extension interventions made by KVK, a visible change was noticed in the village and a result of which each and every family of the village having a kitchen garden in their backyard and small orchard adopted banana cultivation on a commercial basis .Vendors from outside states frequently comes to the village for procurement. Sri. Sahu earns a net return of Rs.80000/- per year from his existing orchard, vegetable cultivation and other field crops. Major return received from Banana is to the tune of Rs.60000/- and Mango-Rs.6000/-.

MODELS OF TECHNOLOGY DISSEMINATION:



FARMER'S REACTION & FEEDBACK:

The farmers of the village Handiguda were surprised to see the extraordinary success in adopting cultivation of fruits and vegetables for sustainable income generation. Most of the farmers who were having small backyard space took interest in the technology.

EXTENT OF DIFFUSION EFFECT OF THE NEWLY ADOPTED TECHNOLOGY:

Being inspired by the success of the enterprise, youth and farmers in the village and near by villages have started cultivation of Mango, banana, papaya, citrus and high value vegetables in commercial basis. Now, Sri Sahu has become a successful farmer as well as a farmer leader. He has also strengthened other enterprises like, rice and high value vegetable cultivation and owned pesticide shop in the village. The success of vegetable and fruit cultivation achieved in Handiguda has inspired other farmers in other areas of the district. Farmer groups have been inspired to take up activities like small nursery, cropping of high value vegetable and fruit crops. KVK has also planned trainings and demonstration to be conducted and orient rural youth more to go for small scale nurseries. Sri Sahu last year has been felicitated by O.U.A.T on University foundation Day which has empowered him socially along with economic upliftment.

FOLLOW UP ACTION:

Frequent visit of scientist to the adopting village is going on to encourage farmers and rural youth for integrated horticulture. Apart from this KVK, Angul has documented the success and has developed plan to promote the technology through further trainings and demonstration. A project proposal was prepared and submitted to the ZC unit, M.P. for horticultural development in the district under Horticulture Mission. Krishi Vigyan Kendra has oriented the field level extension officers of the line departments for promotion of technology.

LESSON LEARNED:-

“Motivating farmers for horticulture based small scale enterprise proving a step towards sustainable source of income generation for rural youth and farmers”.

ACTION PHOTOGRAPHS



OFT on Tissue culture Banana



FLD on Broccoli cultivation



Sri. Trilochan Sahu being felicitated at OUAT



Sri. Sahu in his Banana Orchard



Sri.Sahu in his Tissue culture Banana field



Sri.Sahu in his vegetable field



Scientist interacting with Sri.Sahu

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

- Transfer of improved agril. technology through Farmers' Clubs organised in the district.
- Involving farmer leaders of the district for transfer of technology – Farmer to farmer extension system.
- Facilitating monthly meeting of the Angul District Farmers' Club Federation on 18th of every month at K.V.K. which gives a platform for analysing the problems of the farming community and finding solution to that effect.
- Imparting skill oriented training to the farmers / farm women / rural youth through establishment of Farm Science Club.
- Making training programme more effective through exposure visit of the farmers.
- Linkage with leading NGOs of the district for better outreach of KVK.
- Participation in watershed programme sponsored by DRDA, Angul and facilitation in micro plan preparation.
- Collaboration with NCUI, Angul and AUCC bank, Angul for synergistic effect in terms techno-managerial and credit support.

3.9 Indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

Sl. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Ahar, greengram and blackgram	Grains dried under hot sun for 2-3 days and mixed with mustard oil @100 ml/kg of seeds and then preserved.	The seeds are protected from stored grain pests like pod borer and pulse beetle etc.
2	Pumpkin	Incorporation of a small quantity of opium in the main stem of pumpkin	Enhances the size of pumpkin and helps in control of flower dropping
3	Banana	If urea is tied up at the tip of the main stalk of bunch after the removal of floral bud	Size is increased
4	brinjal	seeds should be collected from the middle one-third portion of the matured fruit	The plants from those seeds will be resistant to viral diseases
5	Papaya	seeds have to be collected from the lower portion of the matured fruit	The plant developed from those seeds will be free from male sterility.
6	Fish	Treatment with the pond water and ash powder made out of burning banana leaves	“Epizoatic Ulcerative Syndrome” (EUS) disease in fish during its outbreak can be controlled
7	blackgram and greengram	Use of sand and ‘begunia’ leaf powder in layers at the base of bamboo storage bins	reduce pulse beetle infestation on stored grains

8	Paddy	Use of 'Karada' leaves and twigs in late transplanted paddy	Reduces the menace of leaf folder
		Use of rotten snails	Reduces gundhibug attack
		fire torch on field bunds at night	Reduces both gundhibug and leaf hopper attack in paddy.
9	Brinjal	Use of raw turmeric at the base of brinjal plants	reduces wilt during <i>kharif</i> .
10	tomato and brinjal	Use of hing (asphoitida) at the base of the plant	Reduces wilt

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

Farmers and rural youth Field visit, group discussion, farmers-scientists interaction, survey work using PRA techniques, use of questionnaires, collection of feedback etc.

In-service personnel Job analysis and review of work in bi-weekly meetings of VAWs, JAOs conference, group discussions with departmental officials, strategy committee meetings and interaction with NGO personnel etc.

3.11 Field activities

- i. Number of villages adopted: 03
- ii. No. of farm families selected: 100
- iii. No. of survey/PRA conducted: 05

3.12. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab :

1. **Year of establishment** : 2007
2. **List of equipments purchased with amount** :

Sl. No	Name of the Equipment	Qty.	Cost(Rs.0)
1	Kel plus Automatic nitrogen or protein estimation system	1	14,11,460
2	Conductivity meter	1	11,090
3	Flame Photometer	1	32,976
4.	Automatic soil auger and bit	1	40,420
5.	Micro processor based pH meter	1	19,463
6.	Electrical stirrer	1	5,152
7.	Sieve with Brass Frame	1	1,012
8.	Refrigerator	1	9,000
9.	Digital analytical balance	1	1,14,750
10.	Hot Plate	1	2,475
11.	Hot Air Oven	1	7,650
12.	Servo Stabiliser	1	9,256
13.	Triple distillation set	1	24,750
14.	Binocular microscope	1	21,769
15.	Digital Spring Balance	1	563
16.	Water Bath	1	10,688
17.	Centrifuge	1	10,688
18.	Spectrophotometer	1	26,448
Total		18	17,59,610

3.Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	NOT YET STARTED			
Water Samples				
Total				

4.0 IMPACT

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

Sl. No	Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
				Before (Rs./Unit)	After (Rs./Unit)
CROP PRODUCTION					
1	Improved package of practices of groundnut cultivation	40	82	12q/ha, Rs 18000/ha	14q/ha, Rs 23800/ha
2	Cultivation practices of oilseeds & pulses under residual moisture	40	62	Oilseeds(ground nut)- 11q/ha, Rs 16500/ha Pulses(mung, biri,gram)- Mung- 6 q/ha Biri- 7 q/ha Gram- 9 q/ha	Oilseeds(ground nut)- 18q/ha, Rs 27000/ha Pulses(mung, biri,gram)- Mung- 8 q/ha Biri- 9 q/ha Gram- 12 q/ha
3	Use of Gypsum in groundnut	20	55	12q/ha, Rs 18000/ha	15q/ha, Rs 22500/ha
4	Technique of bio-fertilizer use in paddy to improve soil fertility and crop productivity	20	25	30 q/ha, Rs 12000/ha	45q/ha, Rs 18000/ha
5	Water Management in <i>kharif</i> rice	20	20	30 q/ha, Rs 12000/ha	40q/ha, Rs 16000/ha
6	Seed production technology in <i>kharif</i> paddy	20	30	30 q/ha, Rs 12000/ha	45q/ha, Rs 31500/ha
7	Package of practices of growing kulthi and mung under residual moisture condition	20	50	Pulses(mung, biri,kulthi)- Mung- 6 q/ha Biri- 7 q/ha Kulthi- 4 q/ha	Pulses(mung, biri,kulthi)- Mung- 8 q/ha Biri- 9 q/ha Kulthi- 6 q/ha
8	Improved production technology of <i>kharif</i> oilseed crops like groundnut and sesamum	20	50	Groundnut-8 q/ha Sesamum-6 q/ha	Groundnut-11q/ha Sesamum-8 q/ha
9	Technology of biofertiliser use in paddy for sustainable crop production	20	10	Paddy –45 q/ha	Paddy –48 q/ha

10	Production technology of wheat crop	20	20	Wheat-22q/ha	Wheat-25q/ha
11	Advance crop production practices for <i>rabi</i> pulses like green gram, black gram, etc.	20	40	Green gram-6q/ha Black gram-7q/ha Gram-10q/ha	Green gram-8q/ha Black gram-9q/ha Gram-11q/ha
12	Crop Diversification in upland with non-paddy crops	20	25	Sole rice	Rice+Arhar Rice+Groundnut Rice+Black gram
13	Advanced agronomic packages for sugarcane cultivation	20	60	Sugarcane-80ton/ha	Sugarcane-10 ton/ha
14	Agronomic practices for higher production of grasses and leguminous fodder crops	20	10		Started cultivation of Hybrid Napier, Dinanath grass, berseem etc
HORTICULTURE					
15	Nursery raising of winter vegetables	20	30	Rs. 5000/0.1 ha	Rs 8000/.01 ha
16	Improved cultivation practices of onion and garlic	20	45	Rs 25000/acre	Rs 35000/acre
17	Seed production technique of tomato, brinjal, chilli and okra	20	25	Rs 4000/.01 ha	Rs 7000/.01 ha
18	Improved techniques of banana cultivation	20	35	Rs 60000/ acre	Rs 1,00,000/acre
19	Nursery raising in vegetable crops	20	40	Rs 4500/.01 ha	Rs 7000/0.1 ha
PLANT PROTECTION					
20	Technique of seed treatment with fungicides	20	60	Cauliflower – 130q/ha Brinjal- 135 q/ha Tomato-130 q/ha	Cauliflower -145q/ha Brinjal- 152 q/ha Tomato-146 q/ha
21	IPM in sugarcane	20	40	80 ton/ha	100 ton/ha
22	IPM in <i>kharif</i> vegetables	20	50	Cauliflower – 130q/ha Brinjal- 135 q/ha Tomato-130 q/ha Okra-38 q/ha	Cauliflower –142q/ha Brinjal- 148 q/ha Tomato-145 q/ha Okra-45 q/ha
23	IPM in paddy	20	30	3.5 tons/ha	4.5 ton/ha
24	IPM in pulse crops	20	30	4.5q/ha	6q/ha
25	IPM in oilseed crops	20	35	Mustard – 6q/ha Groundnut-8q/ha Sesamum-3q/ha	Mustard – 7q/ha Groundnut-10q/ha Sesamum-4.5q/ha
26	IPM in orchard crop	20	50	Mango-15kg/plant Kagzi lime-400no/ plant Banana-300q/ha	Mango-20kg/plant Kagzi lime-500 no/plant Banana-400q/ha

27	Technique of seed treatment with fungicides	20	60	Cauliflower – 130q/ha Brinjal- 135 q/ha Tomato-130 q/ha	Cauliflower -145q/ha Brinjal- 155 q/ha Tomato-148 q/ha
28	IPM in sugarcane	20	40	80 ton/ha	100 ton/ha
29	IPM in <i>kharif</i> vegetables	20	50	Cauliflower – 130q/ha Brinjal- 135 q/ha Tomato-130 q/ha Okra-38 q/ha	Cauliflower –145q/ha Brinjal- 152 q/ha Tomato-148 q/ha Okra-48 q/ha
30	IPM in <i>kharif</i> paddy	20	30	3.5 tons/ha	4.55 ton/ha
31	IPM in pulse crops	20	30	4.5q/ha	6q/ha
32	IPM in oilseed crops	20	35	Mustard – 6q/ha Groundnut-8q/ha Sesamum-3q/ha	Mustard – 7.5q/ha Groundnut-10q/ha Sesamum-4.5q/ha
33	IPM in orchard crop	20	50	Mango-15kg/plant Kagzi lime-400no/ plant Banana-300q/ha	Mango-20kg/plant Kagzi lime-500 no/plant Banana-400q/ha
34	Techniques of safe grain storage	20	40	Paddy loss 30%	Paddy loss 10%
35	Technique of seed treatment with fungicides	20	60	Cauliflower – 130q/ha Brinjal- 135 q/ha Tomato-130 q/ha	Cauliflower -145q/ha Brinjal- 155 q/ha Tomato-148 q/ha
36	IPM in sugarcane	20	40	80 ton/ha	100 ton/ha
37	IPM in <i>kharif</i> vegetables	20	50	Cauliflower – 130q/ha Brinjal- 135 q/ha Tomato-130 q/ha Okra-38 q/ha	Cauliflower –145q/ha Brinjal- 152 q/ha Tomato-148 q/ha Okra-48 q/ha
38	IPM in <i>kharif</i> paddy	20	30	3.5 tons/ha	4.55 ton/ha
39	IPM in pulse crops	20	30	4.5q/ha	6q/ha
40	IPM in oilseed crops	20	35	Mustard – 6q/ha Groundnut-8q/ha Sesamum-3q/ha	Mustard – 7.5q/ha Groundnut-10q/ha Sesamum-4.5q/ha
41	IPM in orchard crop	20	50	Mango-15kg/plant Kagzi lime-400no/ plant Banana-300q/ha	Mango-20kg/plant Kagzi lime-500 no/plant Banana-400q/ha
42	Techniques of safe grain storage	20	40	Paddy loss 30%	Paddy loss 10%
Women In Agriculture					
43	Mushroom Cultivation	40	80	New introduction	Rs.60/bed
44	Preservation of Citrus fruits	40	65	New introduction	Rs.500/family

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

4.2. Cases of large scale adoption

Sl. No.	Enterprise / Technology	Intervention	Area under intervention	Horizontal spread
1	Mushroom cultivation	Vocational training 6 nos	Kulei, Majhika, Shyamsunderpur, Handiguda, Jarasingha	Kumursingha, Tubey, Sankerjung, Badkerjung, Badkera, Baluakata, Dhipasahi, Sabalbhanga, Benagadia
2	INM in Rice	Trainings & FLDs	Majhika, Kulei, Jarasingha	Majhika, Kulei, Jarasingha, Dheepasahi, Badkera, Sankerjang, Badkerjang, Ugi
3	Phosphetic fertiliser & PSB application in pulses	Trainings & FLDs	Tukuda, Kulei	Ugi, Tubey, Jarpada, Naupada, Handiguda, Shyamsundarpur
4	Improved package and practices of groundnut cultivation	Trainings, FLDs,	Handiguda & Naupada	Golabandha, Kantapala, Takua, Khinda, Handiguda, Kukurpeta, Sankerjang, Badkerjang, Ugi
5	IDM in groundnut	Training programmes, diagnostic field visit. Demonstration visit by farmers	Shyamsundarpur, Kumursingha, Sabalabhanga, Baluakata,	Jamunali, Naupada, Ugi, Tukuda, Koroda, Handiguda, Badkerjang, Sankerjang, Tubey
6	IDM in banana	Field day, Training programmes, diagnostic field visit. Demonstration visit by farmers	Handiguda, Dubanali, Naupada, Chhendipada, Kosala, Balipata	Jamunali, Naupada, Ugi, Tukuda, Koroda, Handiguda, Badkerjang, Sankerjang, Tubey, Dubanali, Kasola, Balipata, Chhendipada
7	Biological control of pod borer	Field day, Training programmes, diagnostic field visit. Demonstration visit by farmers	Tukuda, Handiguda, Korada, Naupada, Ugi, Kulei, Shyamsundarpur	Jamunali, Naupada, Ugi, Tukuda, Koroda, Handiguda, Badkerjang, Sankerjang, Tubey, Dubanali, Kasola, Balipata, Chhendipada

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

Sl.No.	Impact of activities to be analyzed	Criteria for analysis
1	INM in Rice	<ul style="list-style-type: none"> • Yield and economics
2	Arhar,groundnut,paddy intercropping	<ul style="list-style-type: none"> • LER,Yield and economics
3	IPM in Kharif rice	<ul style="list-style-type: none"> • Percentage loss • Yield
4	Integrated management of Bacterial wilt in Banana	<ul style="list-style-type: none"> • Number of affected plants • Yield
5	Biological control of aphid in mustard	<ul style="list-style-type: none"> • Yield • Number of insect/natural enemies
6	Cultivation of Tissue culture banana varieties	<ul style="list-style-type: none"> • Yield and economics
7	Introduction of high yielding variety of papaya var. Red lady	<ul style="list-style-type: none"> • Yield and economics
8	Introduction of Elephant foot yam.Var. Gajendra	<ul style="list-style-type: none"> • Yield and economics
9	Design and development of low/minimum cost diet	<ul style="list-style-type: none"> • Improved health status • utilization of local available food materials
10	Impact of SHG – KVK linkage programme	<ul style="list-style-type: none"> • Increase in group based activities • Increase in assets • Decline in consumption loan • Increase in self esteem and confidence
11	Use of improved agricultural machineries	<ul style="list-style-type: none"> • Capacity • Operational cost • Drudgery • Timeliness of operation • Conservation of time,energy and money
12	Use of micro-irrigation system	<ul style="list-style-type: none"> • Efficiency • Economics

5.0 LINKAGES

5.1 Functional linkage with different organizations

Sl. No.	Name of organization	Nature of linkage
I	Regional Research and Technology Transfer Station, Dhenkanal	Preparation of different agricultural and allied strategies for development, besides technology transfer and seed procurement.
II	State Agril. Deptt.	Organizing training, demonstration and on farm testing and seed disposal, conducting training for field functionaries
III	D.R.D.A., Angul	Organizing training for watershed management, rural youth and agro entrepreneurs.
IV	State Horticultural Deptt.	Capacity building of in service personnel, resource person in the training programmes conducted by the deptt.
V	Fisheries Deptt.	Resource persons in their annual training programmes
VI	Forest Rangers' Training College, Angul	Resource person in their short term refresher courses

VII	Horticulture Division, NALCO, Angul	Demonstration and awareness programmes.
VIII	The Orissa State Cooperative Marketing Federation Ltd., Angul.	Purchase of agricultural inputs.
IX	State Soil Conservation Deptt.	Imparting training to the watershed committee members, WDT members, consultancy in programme planning etc.
X	State Veterinary Deptt.	Conducting training programme.
XI	National Horticultural Research and development Foundation	Resource person in the training programmes organized by them
X	National Co-operative Union of India	Collaboration in formation of Farmers' Clubs, SHGs and their capacity building
XI.	Institute of Socio Economic Development	Empowerment of women in the areas of agriculture and allied sectors.
XII.	Institute of peoples education	Empowerment of women through introduction of apiary and mushroom enterprise.
XIII.	NGOs (SARC, FES, PIUS)	Resource person in their rural development programmes
XIV	Farmers' Clubs, Farmers' Federation, Angul	Platform for dissemination of technology in order to have a broad basing effect, consultancy service as and when needed
XV	ATMA, Angul	Strategic planning and programme implementation.

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

5.2 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.)
Acid Soil Management	Feb, Mar-08	OUAT	24000/-
Plasticulture and precision farming	Oct-07	OUAT	6000/-

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

5.4 Give details of programmes implemented under National Horticultural Mission

S. No.	Programme	Nature of linkage	Constraints if any
Not implemented			

5.5 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks
1	Skill development training	Financial assistance	Programmes to be implemented

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of estt.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
Partially developed									

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	
Black gram, Green gram Arhar	12.07.07	Nov-08	0.5	PU-30 PDM-54 Laxmi	Non seed	3.0 qtl.	2257	7800	

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

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
Vermi unit recently introduced					

6.4 Performance of instructional farm (livestock and fisheries production)

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
No yet developed							

6.5 Utilization of hostel facilities

Accommodation available (No. of beds) :

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
October 2006			N.A. as Farmers' Hostel is yet to get power supply and furnishings.
November 2006			
December 2006			
January 2007			
February 2007			
March 2007			
April 2007			
May 2007			
June 2007			
July 2007			
August 2007			
September 2007			

(for whole of the year)

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account		Name of the bank	Location	Account Number
With Host Institute		SBI, OUAT campus	Bhubaneswar	10173711728
KVK	General	SBI, ADB	Hulurisingha, Angul	10220951144
	Revolving	SBI, ADB	Hulurisingha, Angul	30160005025

7.2 Utilization of funds under FLD on Oilseed (Rs.)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2008
	Kharif 2007	Rabi 2007-08	Kharif 2007	Rabi 2007-08	
Inputs		8750		6091	2659
Extension activities		1250		1200	50
TA/DA/POL etc.		1250		1250	-
TOTAL		11250		8541	2709

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2008
	Kharif 2007	Rabi 2007-08	Kharif 2007	Rabi 2007-08	
Inputs		9190		6765	2425
Extension activities		1315		1200	115
TA/DA/POL etc.		1965		1500	465
TOTAL		12470		9465	3005

7.4 Utilization of funds under FLD on Cotton (Rs. In Lakhs)

Item	Released by ICAR		Expenditure		Unspent balance as on 1 st April 2008
	Kharif 2007	Rabi 2007-08	Kharif 2007	Rabi 2007-08	
Inputs	NA				
Extension activities					
TA/DA/POL etc.					
TOTAL					

7.5-a- Utilization of KVK funds during the year 2007-08

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances			
2	Traveling allowances			
3	Contingencies			
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 equipments			

<i>C</i>	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
<i>D</i>	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
<i>E</i>	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
<i>F</i>	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
<i>G</i>	Training of extension functionaries			
<i>H</i>	Maintenance of buildings			
<i>I</i>	Establishment of Soil, Plant & Water Testing Laboratory			
<i>J</i>	Library			
TOTAL (A)				
B. Non-Recurring Contingencies				
1	Works			
2	Equipments including SWTL & Furniture			
3	Vehicle (Four wheeler/Two wheeler, please specify)			
4	Library (Purchase of assets like books & journals)			
TOTAL (B)				
C. REVOLVING FUND		1,00,000	40,000	28776
GRAND TOTAL (A+B+C)				

7.6 Status of revolving fund (Rs. in lakhs) for the three years

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2005 to March 2006				
April 2006 to March 2007	40,000	-	-	40,000
April 2007 to March 2008	40,000	43722	28776	54946

8. Constraints

(a) Administrative

- Post of one SMS, one Farm Manager, one Computer Operator cum Steno, Section Officer & one attendant are lying vacant
- Laboratory assistant/ Technician for Soil & Water Testing lab should be appointed immediately as additional post to run the soil & water testing lab.
- Farmers' Hostel is not being used due to lack of furnishing & power supply.

(b) Financial

- Leave salary, incremental pay, enhanced DA etc of staff are pending due to inadequate salary provision relating to the period 2002-03 to 2007-08.
- KVK programme are hampered due to delay in release of funds.

(c) Technical

- Demonstration units have not been constructed / developed yet to benefit of farmers.
- Improved farm machineries can't be procured for conducting demonstration and awareness amongst farmers due to lack of funds.
- Training hall need immediate funding for full furnishing to start with on-campus training programmes/ conference/ important meetings of KVK.
- Increased frequency, intensity and quantum of report-returns along with Dist. and state level meetings/ trainings/ conferences etc don't permit to spare time for accomplishment quality works of KVK in farmers field as well as in KVK campus.
- A suitable monitoring information system should be introduced as a solution

(PROGRAMME COORDINATOR)