

# ANNUAL REPORT

## (1-04-2007 to 31-03-2008)

### 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	
Krishi Vigyan Kendra, Deogarh	At/PO.- Purunagarh Dist. Deogarh , Pin- 768 119, Orissa			06641-226039	deogarhkvk@yahoo.co.in

#### 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 and Technology	At/PO. Surya Nagar (Bhubaneswar) Dist. Khurda Pin. 751003	0674	2397780	2397780	vcouat@indiatimes.com

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. M. K. Tripathy		09937660144	Manojtri_2003@yahoo.co.in

#### 1.4. Year of sanction: 2006

### 1.5. Staff Position (as on 30<sup>th</sup> September 2007)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discip.	Pay Scale with present basic	Date of joining	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
1	Programme Coordinator	Dr. M. K. Tripathy	Programme Coordinator	Ento.	12000-420-16500 12420	17.4.2006	Permanent	Others
2	Subject Matter Specialist (hort.)	Mr. S. K. Sahoo	SMS	Hort.	8000-275-13500 8275	19.7.2006	Temporary	Others
3	Subject Matter Specialist (Agronomy)	Mr. S.K. Dwibedi	SMS	Agro.	8000-275-13500 8275	24.11.2006	-do-	-do-
4	Subject Matter Specialist (Ag. Engg.)	Er. D. K. Mohanty	SMS	Ag. Engg	8000-275-13500 8825	01.04.2007	-do-	-do-
5	Subject Matter Specialist	Vacant						
6	Subject Matter Specialist	Vacant						
7	Subject Matter Specialist	Vacant						
8	Programme Assistant	Miss. S. Sahu	Prog. Asst.	H. Sc.	5500-175-9000 5500	18.10.2006	-do-	-do-
9	Prog. Asst. Computer	Sri. G. D. Moharana	Comp. Prog.	Computer	5500-175-9000 5675	11.07.2006	-do-	-do-
10	Farm Manager	Sri. S.K. Pattanaik	F.M.	Hort.	5500-175-9000 5675	01.08.2006	-do-	-do-
11	Accountant / Superintendent	Sri. H.K. Samantaray	S.O.	Graduation	5900-9000 7200	24.03.2008	Permanent	-do-
12	Stenographer	Sri. B.D. Moharana	JSCCO	Steno	4000-100-6000	11.10.2006	Temporary	-do-
13	Driver	Sri. P. K. Barik	Driver	Driver	3050-6000	02.08.2007	-do-	-do-
14	Driver	Vacant						
15	Supporting staff	Vacant						
16	Supporting staff	Vacant						

**1.6. Total land with KVK (in ha) : 20 ha**

S. No.	Item	Area (ha)
1	Under Buildings	-
2.	Under Demonstration Units	-
3.	Under Crops	2
4.	Orchard/Agro-forestry	6
5.	Others	-

**1.7. Infrastructural Development:**

**A) Buildings – Not started till date**

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							Not yet started
2.	Farmers Hostel							Not yet started
3.	Staff Quarters (6)							Not yet started
4.	Demo. Units (2)							Not yet started
5	Fencing	ICAR	Nov.,2007		6,85,000/-			Handed over to KVK
6	Rain Water harvesting system							Not yet started
7	Threshing floor							Not yet started
8	Farm godown							Not yet started

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms / Hrs. Run	Present status
TATA Sumo	2006	4,50,000	24,189 kms	Operational
Tractor	2006	4,75,000	186 hrs.	Operational

**C) Equipments & AV aids**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
T.V.	2007	14,600	Operational
DVD & Stabilizer	2007		Operational
Digital Camera	2007	9,800	Operational
Fax	2008		Operational
Photocopier	2008		Operational
Handicam	2008		Operational

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

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken
1.	01.10.2007	33	<i>A copy of SAC proceedings along with list of participants is attached below</i>	

#### **Proceedings of the first meeting of Scientific Advisory Committee of Krishi Vigyan Kendra, Deogarh held on 01.10.2007 at 11.00 am in the Conference hall at D.R.D.A., Deogarh.**

The first meeting of the Scientific Advisory Committee of the Krishi Vigyan Kendra, Deogarh was held on 01.10.2007 at 11.00 am in the conference hall of D.R.D.A., Deogarh. At the outset, the Programme Coordinator of KVK, Deogarh Dr. M. K. Tripathy welcome all the dignitaries, district level officers and member farmers present in the meeting. The list of members present in the meeting is annexed herewith (*Annexure – A*).

After inauguration of the session by lighting candles by the dignitaries, Dr. S. C. Mishra, Dean, Extension Education, OUAT, BBSR delivered his speech. He threw light on the mandates, role and need of KVK in post green revolution scenario. The KVK in the district will act as “Knowledge Bank”. The agriculture and allied departments along with the farmers of the district can take help of the KVK for solving agricultural problems. He also clarified the linkage between the KVK and other district administrations. The KVK in association with the district Animal Husbandry department will take up animal health camps in villages to check poultry and kid mortality.

The Project Director, D.R.D.A., Mr. S. N. Dash, pressed upon the marketing of the agricultural produce. He expressed his concern over the interest of the farmers at the grass root level and assured full support of his department towards KVK, Deogarh.

The Programme Coordinator then presented the achievements of the KVK, Deogarh during 2006-07 and 2007-08 (till date). *In toto*, vocational trainings of 40 nos for farmers and farm women, 4 nos. for rural youths and 3 nos. for extension functionaries have been conducted by KVK till date. In addition to these activities, 21 nos. of FLDs (other than oilseed and pulses) and 9 nos. of OFTs have also been conducted. Other activities like field days, Radio and TV talks, Krishak Melas, etc were also presented by the Programme Coordinator. Then he placed over the formulation of action plan for the year 2008-09.



The Dean, Extension Education and the Programme Coordinator discussed with members on major problems and thrust areas for finalization of the action plan. Mr. P. Patel, a progressive farmer of Tileibani block stressed upon the diseases and pests in chillies. He also expressed his concern over under exploitation of forest resources by taking up honeybee and lac rearing activities in nearby villages. Mr. Jagannath Pradhan an orange grower of Khilabarini village of Reamal block requested the scientists to take control measures for fruit sucking moth and die back disease in sweet orange. The horticulturist, Deogarh Mr. Bhagaban Das expressed satisfaction over the spraying of chelated zinc to control cracking of litchi fruits. The Programme Coordinator, KVK, Jharsuguda suggested to spray boron with zinc for checking fruit cracking of litchi. Mr. P. Patel also requested for storage technology of onion to which the horticulturist suggested to try growth regulators for enhancing keeping quality by inducing dormancy so as to fetch good market price. The Dean, Extension Education suggested to grow white onion for getting very good profit in adjacent states. Mr. Peter Minz cited poor yield of groundnut in Bangalimunda village, which was confirmed by the Jr. Agril. Officer of Tileibani block. The Asst. Soil conservation officer and the subject matter specialist (Agronomy) suggested for reclamation of acid soil through liming for increasing the yield. The DEE suggested taking up OFT on this problem.

The Dean, Extension Education stressed upon Azolla multiplication in farmers' backyard for supplementing cattle and poultry feed apart from its application in paddy field. The lady farmers' representatives Mrs. Babita Sahu and Mrs. Anjali Sahu expressed their satisfaction over the benefits of mushroom cultivation by their SHGs. The Programme Coordinator read out the action plan and it was finalized in the session.

The Collector and District Magistrate, Deogarh Sj. Ambika Prasad Mishra, (IAS) appreciated the achievements of the new KVK in the district and assured full support of the district administration towards KVK activities. He was very much hopeful for sorting out all possible problems in agriculture and allied sectors by KVK. He also expressed his concern over the absence of the District Agril. Officer, Deogarh and Dy. Director of Agril., Sambalpur and Dy. Director of Horticulture, Sambalpur in such an important meeting.

The meeting ended with special vote of thanks to the Collector, Deogarh and Project Director, Deogarh by the Dean, Extension Education on behalf of the KVK, Deogarh.

**List of members attend the Scientific Advisory Committee meeting held on  
01.10.2007 at 11.00 AM.**

1.	Dr. S.C. Mishra	Dean, Extension Education, OUAT, Chairman BBSR	
2.	Sj. A.P. Mishra, IAS	Collector & D.M., Deogarh	Chief Guest
3.	Sj. S.N. Dash	PD., D.R.D.A., Deogarh	Member (Invited)
4.	Sj. B.K. Dash	AGM, NABARD,	Member
5.	Sj. B. Dash	Horticulturist (Farm), Deogarh	Member
6.	Sj. S. Behera	Horticulturist (Range), Deogarh	Member
7.	Dr. S.K. Dash	VAS (Deogarh)	Member
8.	Dr. R.N. Nanda	CDVO (Deogarh)	Member
9.	Dr. A. K Jena	VAS, (Barkote)	Member
10.	Er. Y.B. Pradhan	Asst. Engg. L.I. Deogarh	Member
11.	Sj. C.K. Bose	Secy, RMC, Deogarh	Member
12.	Sj. D.P. Singh	Asst. Director, NHRDF, BBSR	Member
13.	Sj. N.K. Singh	G.M. DIC, DGM, Deogarh	Member
14.	Sj. A.K. Sundaray	ADS, Deogarh	Member
15.	Sj. D. Pradhan	JAO, Barkote	Member
16.	Sj. P. Sahoo	JAO, Reamal	Member
17.	Sj. C.M. Behera	APD, DRDA, Deogarh	Member
18.	Sj. S. Mishra	VAS, Tileibani	Member
19.	Sj. N.B. Pradhan	ARCS, Kuchinda	Member
20.	Sj. P. K.Patel	Farmer	Member
21.	Sj. J. Pradhan	Farmer	Member
22.	Mrs. B. Sahoo	Farmer	Member
23.	Mrs. A. Sahoo	Farmer	Member
24.	Sj. C. M. Padna	P.C. Jharsuguda	Member
25.	Sj. M. K. Barik	SMS (Extension) KVK, Jharsuguda	Member
26.	Sj. M. K. Naik	AO., Barkote	Member
27.	Sj. B. K. Panigrahi	ASCO, Deogarh	Member
28.	Sj. K.C. Mishra	Horticulture Office	Member
29.	Dr. M. K. Tripathy	PC., KVK, Deogarh	Member Secretary
30.	Sj. A. Sahoo	Farmer	Member
31.	Sj. P. Minz	Farmer	Member
32.	Sj. D.N. Pradhan	JAO, Tileibani	Member
33.	Sj. D. Mohanty	JHO, (Farm)	Member

## 2. DETAILS OF DISTRICT (2006-07)

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

S. No	Farming system/enterprise
1.	<b>Field crops:</b> Paddy – Mung / Biri, Groundnut – Potato / Til / Wheat, Paddy – Toria / Til, Groundnut + Arhar – Mung / Biri, Paddy – Groundnut, Paddy – Toria + Wheat
2.	<b>Vegetables :</b> Tomato / Brinjal / Bitter gourd / Ridge gourd – cole crops / radish / tomato / brinjal
3.	<b>Fruits crops:</b> Sweet orange / Litchi / Mango
4.	<b>Pisciculture:</b> Fish + Duckery
5.	<b>Animal Husbandry:</b> Dairy, Piggery, Goatery, Poultry,
6.	<b>Miscellanies:</b> Nil

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

S. No	Agro-climatic Zone	Characteristics
1.	West Central Table Land Zone	The zone consists of light to medium textured red soils and heavy textured calcareous soil (black soil). The climate is hot and moist sub humid with mean summer maximum temperature of 40 <sup>0</sup> C and mean winter minimum of 12.4 <sup>0</sup> C. The mean annual rainfall is 1610 mm of which about 87% is received during June to September. A substantial area of the zone comes under Hirakud command area. About 25% of the gross cropped area is irrigated in kharif and 15% in rabi. A portion of the zone is also drought prone. The principal crop of the zone is rice occupying 64% of the gross cropped area. Other important crops are Pulses (Green gram, Black gram and Horse gram), Oilseeds (Groundnut and Sesamum), Wheat, Sugarcane, Ragi and Vegetables

### 2.3 Soil type/s

Sl. No	Soil type	Characteristics	Area in ha
1	Red soil	Sandy loam to loamy in texture, acidic in soil reaction, very low in Organic carbon, Nitrogen and medium in P & K.	--
2	Forest soil	Loamy to clay loamy in texture acidic in reaction, high organic carbon, medium to high nitrogen, medium P&K	--

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

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1.	Paddy	36040	67208	18.65
2.	Wheat	1150	1438	12.5
3.	Maize	1030	1087	10.55
4.	Jowar	18	9	5
5.	Ragi	20	12	5.9
6.	Total millet	928	952	10.26
7.	<b>Total cereals</b>	<b>39968</b>	<b>-</b>	<b>-</b>
8.	Arhar	1130	1000	8.85
9.	Gram	515	240	4.66
10.	Green gram	10219	3268	3.2
11.	Black gram	7889	2668	3.38
12.	Horse gram	1957	664	3.34
13.	Field pea	540	449	8.37
14.	Other Pulses	701	365	5.21
15.	Cowpea	310	225	7.26
16.	<b>Total Pulses</b>	<b>22859</b>	<b>8879</b>	<b>3.89</b>
17.	Groundnut	1725	2124	12.31
18.	Sesame	15333	6335	4.13
19.	Castor	92	-	-
20.	Niger	100	22	4.44
21.	Sunflower	730	396	5.42
22.	Mustard	3020	1197	3.96
23.	<b>Total Oilseeds</b>	<b>21080</b>	<b>10139</b>	<b>4.81</b>
24.	Mesta	360	235	6.53
25.	Sunhemp	240	46	6.1
26.	<b>Total fiber</b>	<b>600</b>	<b>381</b>	<b>6.35</b>
27.	Sweet potato	510	6059	118.8
28.	Other vegetables	6100	-	-
29.	Chillies	1490	-	-
30.	Ginger	262	2150	82.06
31.	Turmeric	370	771	20.85
32.	<b>Total condiments</b>	<b>2897</b>	<b>-</b>	<b>-</b>
33.	Sugarcane	30	2250	750
34.	Onion	880	-	-
35.	Coriander	325	-	-
36.	Potato	590	4796	81.28
	<b>Grand Total</b>	<b>93847</b>	<b>-</b>	<b>-</b>

## 2.5. Weather data

Month	Rainfall (mm)	No. of Rainy days	Temperature ° C		Relative Humidity (%)
			Maximum	Minimum	
April	25	1	33.23	15.6	--
May	11.5	3	37.54	17.45	--
June	118	8	40.36	26.1	--
July	250	14	37.25	24.51	--
August	231.5	15	35.09	24.06	--
September	246	13	32.36	23.3	--
October	30	4	32.7	22.2	--
November	0	0	32.5	24.3	--
December	0	0	32.97	24.48	--
January 2008	47.0	2	32.26	17.59	--
February	0	0	31.17	13.48	--
March	0	0	32.68	14.68	--

## 2.6. Production and productivity of livestock, Poultry, Fisheries etc. in the district (As per 2003 Census)

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	2743	--	--
<i>Indigenous</i>	175767	8550 MT	
<b>Buffalo</b>	11764	--	--
<b>Sheep</b>			
<i>Crossbred</i>		--	--
<i>Indigenous</i>	5373	--	--
<b>Goats</b>	100729	--	--
<b>Pigs</b>	--	--	--
<i>Crossbred</i>		--	--
<i>Indigenous</i>	5477	--	--
<b>Rabbits</b>		--	--
<b>Poultry</b>	141848	Egg – 8.08 Million	
Hens	--	--	--
<i>Desi</i>	--	--	--
<i>Improved</i>	--	--	--
Ducks	1134	--	--
Turkey and others	--	--	--
Fish	--	--	--
<i>Marine</i>	--	--	--
<i>Inland</i>	--	3792.57 MT	
Prawn	--	--	--
Scampi	--	--	--
Shrimp	--	--	--

## 2. 7 Details of Operational area / Villages (2006-07)

Sl. No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Deogarh	Tileibani	Niktimal	Paddy, Toria, Green gram, Black gram, Tomato, Cowpea, Brinjal, Cauliflower, Cabbage, Radish, Sesamum, Pumpkin	Lack of suitable variety to replace disease and pest susceptible Swarna variety of paddy, Lack of knowledge on improved varieties and hybrids of vegetables, Lack of knowledge on disease and pest management, Lack of knowledge on modern Agril. Tools and implements, Lack of knowledge of value addition and preservation, Water scarcity, Cattle disease	Income generation of rural poor women, Crop diversification in rain fed upland, Introduction of horticulture based cropping system, Enforcement of proper IRM strategies in water melon, Farm mechanization
2.	Deogarh	Tileibani	Bangalimunda	Paddy, Groundnut, Chilies, Tomato, Brinjal	Low productivity of groundnut and wilt in solanaceous vegetables due to acid soil, Lack of knowledge on disease and pest management, High kid mortality in Piggery & Dairy due to worm infestation.	Income generation of rural poor women, Crop diversification in rain fed upland, Acid soil management for raising higher productivity, Farm mechanization
3.	Deogarh	Tileibani	Hadamunda	Paddy, Tomato, Brinjal, Chilies	Monocropping of paddy and improper disease and pest management, Low productivity from dairy, piggery and goatery, Absence of farm mechanization	Income generation of rural poor women, Crop diversification in rain fed upland, Water management & soil-water conservation, Farm mechanization, Better & efficient utilization of forest produce for income generation of rural poor.

Sl. No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
4.	Deogarh	Tileibani	Kureibahal	Paddy, Toria, Sugar cane, Sesamum, Litchi, Mango	Fruit cracking in litchi, Disease in banana, Low bearing in mango, Low yield from agril crops, Water scarcity, Lack of mechanisation	Income generation of rural poor women, Crop diversification in rainfed upland, Rejuvenation of existing orchards, Yield enhancement of vegetables, pulse & oilseed crops through implementation of proper IPM strategies, Farm mechanization, Better & efficient utilization of forest produce for income generation of rural poor.
5.	Deogarh	Reamal	Medinpur	Paddy, Sunflower, Tomato, Onion, Cabbage, Cauliflower, Brinjal	Orobanche in solanaceous crops, Water scarcity, Wild animal menace, Cattle disease, Lack of mechanisation	Income generation of rural poor women, Introduction of horticulture based cropping system, Farm mechanization

## 2.8 Priority thrust areas

Sl. No	THRUST AREA
1	Crop diversification in rainfed upland
2	Introduction of horticulture based cropping system
3	Rejuvenation of existing orchards
4	Acid soil management for raising higher productivity
5	Introduction of more remunerative new crops into the cropping system
6	Income generation of rural poor women
7	Yield enhancement of existing paddy crop through seed replacement and other scientific management
8	Yield enhancement of vegetables, pulse & oilseed crops through implementation of proper IPM strategies
9	Water management & soil-water conservation
10	Farm mechanization
11.	Better & efficient utilization of forest produce for income generation of rural poor.



### 3. TECHNICAL ACHIEVEMENTS

#### 3.1. A. Abstract of interventions undertaken

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
1.	Crop diversification in rainfed upland	Paddy	Low yield of upland paddy,	-	-	i) Crop diversification in upland ii) Farming system approach	-	-	-
		Sugarcane				Improved method of sugarcane cultivation			
		Cereals and Pulses	Low yield or no yield due to severe intermittent dry-spells/ drought like situations	-	-	Intercropping of cereals and pulses for drought management	Dryland farming	-	-
		Pulses	Low yield of pulses due to tradition cultivation practices	-	Sequence cropping with Rajma	Advanced crop production technology for rabi pulses	-	-	Rajma seeds

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
		Oilseed				i) Improved package of practices for Kharif oilseed production ii) Improved cultivation practices for Toria iii) Technology of cultivation hybrid sunflower			
2.	Introduction of horticulture based cropping system	Ginger	Low yield of Ginger	-	-	Cultivation practices of Ginger	-	-	-
		Fruit crops	Low yield and return from traditional cropping system	-	Cultivation of hybrid Papaya	Introduction of horticulture based cropping system	-	-	Seedlings (c.v. CHD)
		Banana	Low yield of crops due to improper management	-	-	Improved methods for cultivation of Banana	-	-	

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
		Vegetables	Low yield of kharif vegetable crops and seasonal vegetables due to use of local seeds.	Varietal trial of kharif tomato	1.Cultivation of new variety of French beans 2. Cultivation of YMV resistant variety of Okra 3. Hybrid tomato cultivation	Nursery raising of vegetable crops like brinjal, chilli, cabbage, cauliflower & tomato Improved cultivation practices of onion and garlic	Importance and use of biofertilizers for vegetable production	-	1. Seeds (c.v. Raikia local) 2. Seeds (c.v. Arka Anamika) 3.Seeds cv. Sanchi chiranjibi
		Off season Vegetables	Low return from crops in season	Boron management in cauliflower	-	Technology for off season cauliflower & cabbage cultivation	-	-	-
		Tuber crops	Lack of knowledge about production of tuber crops	-	1.Cultivation of high yielding variety of Dioscorea 2.Cultivation of new variety of Elephant foot yam	Production technology of major tuber crops	-	-	1.Planting materials (C.V. Orissa Elite) 2. Planting materials (C.V. Gajendra)

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
3.	Rejuvenation of existing orchards	Citrus	Low yield of Citrus due to improper management and severe pest and disease incidence	Nutrient management in sweet orange	-	-	-	-	Micronutrients and fertilizers
		Litchi	Low yield due to fruit cracking and pest attack	Management of fruit cracking in litchi	-	Control of litchi bark borer (2 nos)	-		Cheated zinc
		Mango				Management of mango orchard			
4.	Acid soil management for raising higher productivity	Groundnut, Sunflower, Mustard and Pulses	Low yield of crops due to severe soil acidity	Assessment of lime application in acid soil in groundnut crop	-	Acid soil management	-		Supply of Paper mill sludge
5.	Introduction of more remunerative new crops into the cropping system	Turmeric	Improper utilization of inter space of orchards of the districts	-	Intercropping in Mango orchards with turmeric	Cultivation practices of turmeric	-	-	Supply of turmeric rhizomes

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
6.	Income generation of rural poor women	Mushroom	Lack of income generation during lean season of the year	-	1. Growing of paddy straw mushroom for raising income 2. Growing of Oyster mushroom for raising income	1. Paddy straw mushroom cultivations 2. Oyster mushroom cultivation 3. Preservation of mushroom	-	Mushroom mela (1 no), Exhibition (1 no), Group discussion (10 nos), Night meeting (2 nos)	Mushroom spawn
		Vegetables	Lack of knowledge on vegetable nursery raising	-	-	Raising of vegetable seedlings	-	-	-
		Vegetables and fruits	Lack of knowledge on preservation and value addition	-	-	1. Value addition to seasonal fruits and vegetables 2. Value addition to shoots of bamboo	-	-	-
		Rural craft	Low income of rural poor	-	--	1. Fabric printing 2. Preparation of household materials	-		

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
7.	Yield enhancement of existing paddy crop through seed replacement and other scientific management	Paddy	Low yield from existing paddy crops		1. IPDM in rice 2. INM in kharif rice 3. cultivation of medium land rice 4. cropping system in paddy - rajma	1. Scientific raising of paddy nursery for kharif 2. IPDM in Kharif rice 3. Technology of biofertilizer use in paddy for sustainable crop production			1. Paddy seeds of cv. Pratikshya 2. Biofertilizers 3. Chemical fertilizers

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
8.	Yield enhancement of vegetables, fruits, pulse & oilseed crops through implementation of proper IPM strategies	Vegetables	Low yield of crops due to initial pest and disease attack, Use of conventional pesticides to reduce pests in cruciferous vegetables causing various hazards	Biological control of fruit and shoot borer infesting brinjal	Control of wilt disease in tomato	1. Technique of seed and soil treatment by pesticides and biocides 2. Wilt disease control in solanaceous vegetables 3. Ecofriendly pest management in cruciferous vegetables 4. Technology of controlling pumpkin fruit fly	Biological control of crop pests.	-	Seeds, biocides, pesticides
		Chilli	Frequent chemical application unable to reduce the severe disease and pest incidence in chilli grown in the area	Chemical control of chilli thrips	-	Low cost pest management strategies in chilli	-	-	Pesticides
		Mustard	Aphid attack during flowering decreases yield severely	-	Management of mustard aphid through biological and botanical methods	-	-	-	Bioagents, Neem oil

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
		Banana	Area under D.C. is gradually increasing with reports of heavy infestation of diseases like bunchy top, panama wilt & weevil attack	-	Integrated pest and disease management in banana	Disease and pest management in Banana	-	-	Biopesticide and fungicide
		Orange	Severe incidence of fruit sucking moth in sweet orange reduces marketable yield	-	Integrated management of fruit sucking moth attacking sweet orange	1. Pest management in citrus 2. Management of fruit sucking moth in orange.	-	-	Pesticides and biocides
		Mango			Chemical control of mango hopper	IPM in mango			
		Cereals and pulses	Knowledge regarding above parameters is low	-	-	Storage of cereal and pulses by use of ITKS	Concepts of pest monitoring, surveillance and ETL determination for taking IPM strategies in different crops.	-	-



Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
		Cereals, pulses and fruits	Knowledge regarding advanced pest management techniques is low		Management of stem borer in paddy	-	Recent advances in implementable pest management techniques.	-	Bioagents and traps
9.	Water management & soil-water conservation	Drip irrigation system	Low water use efficiency due to lack of knowledge on micro irrigation	-	-	Use, operation & maintenance of drip irrigation system in horticultural crops	-	-	-
		soil and water conservation measures	Hilly area but ignorance about low cost soil and water conservation measures	-	-	Water management in crop production and different soil and water conservation measures	-	-	-
		Sprinkler irrigation system	Heavy loss of water and reduction of yield in vegetable crops due to surface irrigation	-	-	Operation and maintenance of sprinkler irrigation system in vegetable crops	-	-	-

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
		Mulching	Water scarcity during Rabi season	-	-	Use of plastic mulch in fruit and vegetable cultivation	-	-	-
		Protective cultivation	Less cultivation of vegetables in off season due to adverse climatic condition	-	-	Production of quality planting materials under protective cultivation	-	-	-
10.	Farm mechanization	Farm implements	Lack of mechanization in crop production	-	-	-	Poverty alleviation through farm mechanization	-	-
		Oilseed and pulses implement	Partial or no mechanization in oilseeds and pulses cultivation	-	Use of ground nut decorticator	Use of operation of different implements for production of oilseeds & pulses	-	-	-
		Seed drills / planters / paddy transplanter	High cost of seeding/planting by broadcasting and manual transplanting and seasonal labour scarcity	-	-	Use, operation and maintenance of seed drills / planters / paddy transplanter	-	-	-

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
		Intercultural implement	Low yield of crops due to heavy weed infestation in primary stage and traditional management practices	-	-	Use & operation of different implements for intercultural operation in different crops	-	-	-
		Primary & secondary tillage implement	Lack of knowledge about implements for proper seed bed preparation	-	-	Use of primary & secondary tillage implements for seed bed preparation	-	-	-
		Custom hiring	Non availability of farm implements for custom hiring to avoid seasonal labour scarcity	-	-	Use of modern agricultural implements for increasing productivity & income generation by custom hiring by owing the machine or through agro service center	-	-	-
		Pump, sprayer, tractors and power tiller	No income generating activities of rural youth	-	-	Use, operation, repair & maintenance of pumps, sprayers, tractors and power tillers	-	-	-

Sl. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extn. activities	Supply of seeds, planting materials etc.
		Harvesting & threshing implement	Non availability of agricultural labours during peak period of harvesting/ threshing and high operational cost	Assessment in the evaluation of bullock drawn ground nut digger	Use of power operated paddy thresher	Use, operation & maintenance of different harvesting & threshing implements.	-		-
		Plant protection equipment	Maximum investment in plant protection measures	-	-	Use, operation and care during operation of plant protection equipment	-	Field day on Farm Implements	-
		Threshing implements	High cost of operation in threshing operation	-	Use of pedal operated ground nut thresher	Use, operation and maintenance of different threshing equipment	-	-	-

### 3.1. B. Details of each On Farm Trial furnished in the given format

#### OFT - 1

- 1) Title of on-farm trials : Chemical control of chilli thrips
- 2) Problem diagnose : Severe incidence of thrips in all stages of crop growth reduces yield
- 3) Details of technology selected for assessment/refinement :  
T<sub>1</sub> : Farmers practice (unjudicious application of pesticide mixtures)  
T<sub>2</sub> : Profenophos application @ 0.5 kg ai/ha at the initiation of infestation and second spraying at 10 days interval
- 4) Source of technology : OUAT, BBSR
- 5) Production system and thematic area : Commercial crop production system, Integrated pest management
- 6) Performance of the Technology with performance indicators:  
T<sub>2</sub> - 78.5 q/ha T<sub>1</sub> – 70 q/ha, C.B. ratio = 1:1.75
- 7) Final recommendation at micro level situation :  
Profenophos application @0.5 kg ai/ha at the initiation of infestation and second spraying at 10 days interval,  
Variety-Kuchinda local
- 8) Constraints identified and feedback for research : Exact date for initiation of spraying operation.
- 9) Process of Farmers participation and their reaction : Methods to differentiate symptoms of attack due to might leaf curl and thrips.

#### OFT - 2

- 1) Title of on-farm trials : Control of die back in sweet orange
- 2) Problem diagnose : Severe mortality of twigs and plants due to die back causes yield loss.
- 3) Details of technology selected for assessment/refinement :  
T<sub>1</sub> Farmers practice (Once or twice application of fungicides as per the advise of merchant)  
T<sub>2</sub> Application of streptocyclin (0.1 g/lit)+ confider ( 3 ml/10 lit) + Redomeal (2 g/ lit) at 15 day interval from marble fruit size.
- 4) Source of technology : Department of Plant Pathology, OUAT, BBSR & KVK, Angul.
- 5) Production system and thematic area : Commercial crop production system Rejuvenation of old orchards and IDM
- 6) Performance of the Technology with performance indicators:  
T<sub>2</sub>. 260 kg/plant, T<sub>1</sub> 180 kg/plant, C/B ratio 1:1.76
- 7) Final recommendation at micro level situation : T<sub>2</sub> -Application of streptocyclin (0.1 g/ lt) + confider (3 ml /10 lt) + Redomeal (2 g / lt) at 15 day interval from marble fruit size. Variety –Nagpur Santra
- 8) Constraints identified and feedback for research : Exact diagnosis of the reason and frequency of application for complete control.
- 9) Process of Farmers participation and their reaction : Easy availability of chemicals and simpler methods of pesticide application.

### OFT - 3

- 1) Title of on-farm trials : Biological control of fruit and shoot borer infesting brinjal
- 2) Problem diagnose : Low yield due to severe incidence of fruit and shoot borer. Frequent application of pesticides does not control infestation.
- 3) Details of technology selected for assessment/refinement :  
T<sub>1</sub> - Farmer's practice (Indiscriminate and frequent application of chemical pesticides)  
T<sub>2</sub> - Foliar spraying of B.T at flowering, along with alternate application of neem oil (5ml/lit of water) and demilin (1g/lit)
- 4) Source of technology : Department of Entomology, OUAT, BBSR.
- 5) Production system and thematic area : Post Green Revolution Production System
- 6) Performance of the Technology with performance indicators:  
T<sub>2</sub>. 140q/Acre T<sub>1</sub> - 110q/Acre , C/B ratio 1 :1.59
- 7) Final recommendation at micro level situation :  
– Foliar spraying of B.T. at flowering, along with alternate application of neem oil and demilin (1 g/lit) cv. Green star
- 8) Constraints identified and feedback for research : Unavailability of inputs like B.T. and Dimilin in local market.
- 9) Process of Farmers participation and their reaction : Very much encouraging. Both the pesticides were said to safer health and environment.

### OFT - 4

- 1) Title of on-farm trials : Varietal trial of kharif tomato
- 2) Problem diagnose : Low yield of kharif tomato due to use of local seeds.
- 3) Details of technology selected for assessment/refinement :  
T<sub>1</sub> - Farmers variety (Local variety)  
T<sub>2</sub> - BT - 10  
T<sub>3</sub> - Arka Alok
- 4) Source of technology : VIP, OUAT, BBSR and CHES, BBSR
- 5) Production system and thematic area : Post green revolution production System. Off season vegetables and nursery raising
- 6) Performance of the Technology with performance indicators:  
T<sub>3</sub> – 160 q/ha T<sub>2</sub> – 140 q/ha T<sub>1</sub> – 80 q/ha, C/B ratio. 1:2.80
- 7) Final recommendation at micro level situation :
- 8) Constraints identified and feedback for research : Adjustment of time of planting according to soil type and existing weather condition.
- 9) Process of Farmers participation and their reaction : Arka Alok is providing satisfactory yield than BT-10 in red soil condition.

#### OFT - 5

- 1) Title of on-farm trials : Management of fruit cracking in litchi
- 2) Problem diagnose : Zinc deficiency in litchi causes cracking of ripened fruits
- 3) Details of technology selected for assessment/refinement:  
T<sub>1</sub> - Farmers practice (No application of ZnSO<sub>4</sub>, application of straight fertilizers)  
T<sub>2</sub> - Foliar application of Zinc (1g /lit) during marble fruit size (two applications at 15 days interval)
- 4) Source of technology : Department of Horticulture, OUAT, BBSR
- 5) Production system and thematic area : Commercial crop production system. Management of young orchards.
- 6) Performance of the Technology with performance indicators:  
T<sub>2</sub>-65 kg/ plant , T<sub>1</sub>-60 kg/plant, C/B ratio1:1.05
- 7) Final recommendation at micro level situation :  
T<sub>2</sub> – Foliar application of Zinc (1g / lit) during marble fruit size (two application at 15 days interval)
- 8) Constraints identified and feedback for research :Exact diagnosis for the reason.
- 9) Process of Farmers participation and their reaction : Lack of sufficient irrigation during fruting.

#### OFT - 6

- 1) Title of on-farm trials : Nutrient management in sweet orange
- 2) Problem diagnose : Sweet orange fruits of the area are less tasty and plants are less productive.
- 3) Details of technology selected for assessment/refinement:  
T<sub>1</sub> - Farmers practice (Soil application of chemical fertilizers (Urea 500g +SSP-nil+MOP-nil)  
T<sub>2</sub> - Soil application chemical fertilizers (1 kg Urea + 1.2 kg SSP + 1.1 kg MOP) +Foliar application of micro nutrients (3ml / lit) + Soil application of micronutrients( 250 g/ plant)
- 4) Source of technology : Department of Horticulture, OUAT, BBSR
- 5) Production system and thematic area : Commercial Crop Production system. Management of young orchards.
- 6) Performance of the Technology with performance indicators:  
T<sub>2</sub>- 280 Kg., T<sub>1</sub>- 220 Kg. , C/B ratio- 1:1.87
- 7) Final recommendation at micro level situation :  
T<sub>2</sub> - Soil application chemical fertilizers (1 kg Urea + 1.2 kg SSP + 1.1 kg MOP) +Foliar application of micro nutrients mixture (3ml / lit) + Soil application of micronutrients mixture( 250 g/ plant)
- 8) Constraints identified and feedback for research : Lack of sufficient knowledge regarding micronutrient. and non availability of credit to farmers at the time of requirement.
- 9) Process of Farmers participation and their reaction : Very much encouraging result after application of micronutrients.

## OFT - 7

- 1) Title of on-farm trials : Assessment of liming on ground nut in acid soil
- 2) Problem diagnose : Low yield of ground nut due to severe prevalent acidity in soil
- 3) Details of technology selected for assessment/refinement:  
T<sub>1</sub> – Imbalanced dose of NPK with no lime application  
T<sub>2</sub> – 0.1 LR (2.5q/ha) + Rhizobium inoculation in seed + balanced NPK (20:40:40kg/ha)
- 4) Source of technology : Dept. of Agronomy, OUAT, Bhubaneswar, 1992
- 5) Production system and thematic area: Commercial crop production system. Integrated crop management.
- 6) Performance of the Technology with performance indicators: Crop is standing in the field
- 7) Final recommendation at micro level situation:
- 8) Constraints identified and feedback for research:
- 9) Process of Farmers participation and their reaction:

## OFT - 8

- 1) Title of on-farm trials : Assessment in the performance of bullock drawn groundnut digger
- 2) Problem diagnose : Manual digging by hand & phowra is time consuming and tedious
- 3) Details of technology selected for assessment/refinement:  
T<sub>1</sub> - Farmers practice (Manual digging)  
T<sub>2</sub> – Bullock drawn groundnut digger
- 4) Source of technology : CAET, OUAT, Bhubaneswar, 1997
- 5) Production system and thematic area: Operation and maintenance of farm machinery
- 6) Performance of the Technology with performance indicators: Field capacity, Ha/h, Cost of operation, Rs/ha
- 7) Final recommendation at micro level situation: Digging of groundnut by bullock drawn groundnut digger
- 8) Constraints identified and feedback for research: Height of the handle of the digger is too high in ergonomic point of view.
- 9) Process of Farmers participation and their reaction: Highly appreciated the technology





Assessment in the performance of bullock drawn groundnut digger

#### OFT - 9

- 1) Title of on-farm trials : Boron management in Cauliflower
- 2) Problem diagnose : Boron deficiency in cauliflower reduces yield and quality.
- 3) Details of technology selected for assessment/refinement:
  - T<sub>1</sub> - Farmers practice (No use of boron)
  - T<sub>2</sub> – Foliar spraying of boron at 30 and 40 DAT @ 1g/litre
- 4) Source of technology : Department of Horticulture, OUAT, BBSR
- 5) Production system and thematic area : Commercial Crop Production system.  
Off season vegetable cultivation.
- 6) Performance of the Technology with performance indicators:
  - T<sub>2</sub>- 80q/ Acre, T<sub>1</sub>- 60q/Acre, C/B ratio-1:1.71
- 7) Final recommendation at micro level situation :  
Foliar spraying of boron at 30 and 40 DAT @ 1g/litre
- 8) Constraints identified and feedback for research : Lack of sufficient knowledge regarding boron application in cauliflower.
- 9) Process of Farmers participation and their reaction : Timely application of boron increases yield and quality.

## OFT -10

- 1) Title of on-farm trials : Varietal trial of Watermelon.
- 2) Problem diagnose : Low yield of watermelon due to use of traditional /conventional variety year after year
- 3) Details of technology selected for assessment/refinement:  
T<sub>1</sub> - Farmers variety (Sugar Baby)  
T<sub>2</sub> – Black Magic
- 4) Source of technology : Seminis / Department of Horticulture, OUAT, BBSR
- 5) Production system and thematic area : Commercial Crop Production system.  
Export potential vegetable.
- 6) Performance of the Technology with performance indicators:  
T<sub>2</sub>- , T<sub>1</sub>- , C/B ratio-
- 7) Final recommendation at micro level situation :  
T<sub>2</sub> - Black Magic
- 8) Constraints identified and feedback for research : Experiment is continuing.
- 9) Process of Farmers participation and their reaction :

## OFT - 11

- 1) Title of on-farm trials : Varietal trial of bottle gourd
- 2) Problem diagnose : Low yield of bottle gourd due to use of traditional /conventional variety.
- 3) Details of technology selected for assessment/refinement:  
T<sub>1</sub> - Farmers variety (local)  
T<sub>2</sub> - Warad
- 4) Source of technology : Department of Horticulture, OUAT, BBSR
- 5) Production system and thematic area : Commercial Crop Production system.  
Off season vegetable cultivation.
- 6) Performance of the Technology with performance indicators:  
T<sub>2</sub>- , T<sub>1</sub>- , C/B ratio-
- 7) Final recommendation at micro level situation : Experiment is continuing.
- 8) Constraints identified and feedback for research :
- 9) Process of Farmers participation and their reaction :

### 3.1.C. Results of On Farm Trials

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Chilli	Irrigated	Severe incidence of thrips in all stages of crop growth reduces yield	Chemical control of chilli thrips	8	Profenophos application @0.5 kg ai/ha at the initiation of infestation and second spraying at 10 days interval, Variety-Kuchinda local	Technical: Yield q/ha Economic: C.B. ratio
Sweet orange	Irrigated	Severe mortality of twigs and plants due to die back causes yield loss.	Control of die back in sweet orange	10	T <sub>2</sub> - Application of streptocyclin (0.1 g/ lt) + confider (3 ml /10 lt) + Redomeal (2 g / lt) at 15 day interval from marble fruit size. Variety – Nagpur Santra	Technical Yield performance, kg/plant Economic indicator C/B ratio
Brinjal	Irrigated	Low yield due to severe incidence of fruit and shoot borer. Frequent application of pesticides does not control infestation.	Biological control of fruit and shoot borer infesting brinjal	10	T <sub>2</sub> - Foliar spraying of B.T. at flowering, along with alternate application of neem oil and demilin (1 g/lt) cv. Greenstar	Technical: Yield – kg/ha Economic: C.B. ratio
Tomato	Rainfed	Low yield of kharif tomato due to growing of local seeds.	Varietal trial of kharif tomato	8	T <sub>2</sub> - BT-10 T <sub>3</sub> - Arka Alok	Technical: Yield q/ha Economic: C.B.

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Litchi	Irrigated	Zinc deficiency in litchi causes cracking of ripened fruits	Management of fruit cracking in litchi	8	T <sub>2</sub> – Foliar application of Zinc (1g / lit) during marble fruit size (two application at 15 days interval)	Technical: Yield kg/plant  Economic: C.B. ratio
Sweet orange	Irrigated	Sweet orange fruits of the area are less testy and plants are less productive.	Nutrient management in sweet orange	10	T <sub>2</sub> - Soil application chemical fertilizers (1 kg Urea + 1.2 kg SSP + 1.1 kg MOP) +Foliar application of micro nutrients (3ml / lit) + Soil application of micronutrients( 250 g/ plant)	Technical: Yield (kg/plant)  Economic: C.B. ratio.
Ground nut	Irrigated	Low yield due to soil acidity and imbalanced NPK	Assessment of liming on Ground nut in acid soil	5	T <sub>2</sub> -0.1 LR (2.5q/ha) + Rhizobium inoculation +balanced NPK(20:40:40kg/ha)	Technical: Yield (q/ha) Economic: C:B ratio

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment
1	2	3	4	5	6	7
Groundnut digger	Rainfed	Manual digging by hand & phowra is time consuming and tedious	Evaluation of bullock drawn groundnut digger	5	T <sub>2</sub> – Use of bullock drawn groundnut digger	Technical: Field capacity, ha/h  Economic: Cost of operation, Rs/ha Cost saving, %
Cauliflower	Irrigated	Boron deficiency in cauliflower reduces yield and quality	Boron management in Cauliflower	5	T <sub>2</sub> – Foliar spraying of boron at 30 and 40 DAT @ 1g/litre	Technical: Yield (kg/plant) Economic: C.B. ratio -
Watermelon	Irrigated	Low yield of watermelon due to use of traditional /conventional variety year after year	Varietal trial of Watermelon	5	T <sub>2</sub> – Black Magic	Technical: Yield (kg/plant) Economic: C.B. ratio -
Bottle gourd	Irrigated	Low yield of bottle gourd due to use of traditional /conventional variety	Varietal trial of bottle gourd	5	T <sub>2</sub> – Warad	Technical: Yield (kg/plant) Economic: C.B. ratio -

\* No. of farmers

Data on the parameter 8	Results of assessment 9	Feedback from the farmer 10	Any refinement done 11	Justification for refinement 12
Yield T <sub>2</sub> - 78.5 q/ha, T <sub>1</sub> – 70 q/ha C.B. ratio = 1:1.75	Profenphos application @ 0.5 ai/ha at the initiation of infestation and 2 <sup>nd</sup> application after 10 days recorded highest yield	Improvement of technology through assessment and refinement of technology with regards to date of application	Spraying should be started after 45 DAT	Flowering comes at 45 DAT and the plant is prone to thrips attack from that time.
Yield T <sub>2</sub> . 260 kg/plant T <sub>1</sub> 180 kg/plant C/B ratio 1:1.76	Application of streptocyclin (0.1 g/lit)+ confider ( 3 ml/10 lit) + Redomeal (2 g/ lit) at 15 day interval from marble fruit size resulted in highest fruit yield.	Popularization of technology with refinement with reference to date of application	Instead of initiation of spraying from flowering it could be done from marble fruit size from October onwards after ceasation of monsoon.	Flowering starts from May (Summer) but maximum infestation of shoots is being recorded during monsoon. The plants are ready for the next flowering.
T <sub>2</sub> . 140q/Acre T <sub>1</sub> - 11.q/Acre , C/B ratio 1 :1.59	Foliar spraying of B.T at flowering, along with alternate application of neem oil (5ml/lit of water) and demilin (1g/lt)	Knowledge regarding adjuvant technology	--	--

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
8	9	10	11	12
Yield T3 – 160 q/ha T2 – 140 q/ha T1 – 80 q/ha C.B. 1:2.80	Arka Alok has shown higher yield than BT-10	Date and methods of sowing is to be streamlined	Planting time should be adjusted according to soil type and weather conditions of the locality	High mortality due to excess rainfall just after planting
Yield T2-65 kg/ plant T1-60 kg/plant C.B. ratio- 1:1.05	Foliar application of Zinc (1g /lit) during marble fruit size (two applications at 15 days interval) did not give satisfactory result	Improvement of the technology through exact diagnosis	Application of boron (1g/1lit) along with zinc(1g/lit) during marble fruit size (two applications at 15 days interval)	Due to soil acidity soil is deficient in boron which is help full for tight skin of fruits.
Yield T2- 280 Kg., T1- 220 Kg. , C/B ratio- 1:1.87	Soil application chemical fertilizers (1 kg Urea + 1.2 kg SSP + 1.1 kg MOP) +Foliar application of micro nutrients mixture (3ml / lit) + Soil application of micronutrients mixture( 250 g/ plant)	Very much encouraging result after application of micronutrients	Refinement will be done during second year of trial	--
Crop is yet to be harvested	--	--	--	--

Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
8	9	10	11	12
Field capacity- 0.05 ha/h Cost of operation- Rs 800/ha Cost saving, 57.34%	Digging of groundnut by bullock drawn groundnut digger can save 57.34 % cost and around 82 % time against manual digging	Popularization of technology with refinement with reference to height of handle of the digger	Refinement will be done during second year of trial	Height of handle is not match with the height of the operator resulting drudgery
T2- 80q/ Acre, T1- 60q/Acre, C/B ratio-1:1.71	Foliar spraying of boron at 30 and 40 DAT @ 1g/litre	Timely application of boron increases yield and quality.	Refinement will be done during second year of trial	--
Crop is yet to be harvested	--	--	--	--
Crop is yet to be harvested	--	--	--	--



Title of the OFT	Technology Assessed / Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio	
	13	14	15	16	
Chemical control of chilli thrips	Farmer's practice**	70 q/ha	85000	1:1.5	
	Technology assessed**	78.5 q/ha	102000	1:1.75	
	Technology refined**	Spraying timing should be changed			
Control of die back in sweet orange	Farmer's practice**	180 kg/plant	2600	1:2.6	
	Technology assessed**	260 kg/plant	3700	1:1.76	
	Technology refined**	Spraying schedule should be changed			
Biological control of fruit and shoot borer infesting brinjal	Farmer's practice**	110 q/ac	55000	1:1.37	
	Technology assessed**	140 q/ac	70000	1:1.59	
	Technology refined**				
Varietal trial of kharif tomato	Farmer's practice**	8t/ha	40, 000	1:1.95	
	Technology assessed**	16t/ha	87, 000/-	1:2.80	
	Technology refined**	Sowing time should be preponed			
Management of fruit cracking in litchi	Farmer's practice**	60 kg/plant	1800	1:1.02	
	Technology assessed**	65 kg/ plant	2300	1:1.05	
	Technology refined**	Boron may be applied along with zinc			
Nutrient management in sweet orange	Farmer's practice**	220 kg/plant	3300	1:1.53	
	Technology assessed**	280 kg/plant	4200	1:1.87	
	Technology refined**	--	--	--	
Assessment of liming on Ground nut in acid soil	Farmer's practice**	Crop is standing in the field			
	Technology assessed**	Crop is standing in the field			
	Technology refined**				
	Technology Assessed / Refined	Field Capacity, ha/h	Cost of operation, Rs/ha	% saving in labour-time	% saving in cost
Assessment in the	Farmer's practice**	0.0045	1875	82	57.34

performance of bullock drawn groundnut digger	Technology assessed**	0.05	800	
	Technology refined**	Height of handle should be reduced		
Assessment in the management of Boron in cauliflower	Farmer's practice**	60 q/ac.	30000/-	1:1.53
	Technology assessed**	80 q/ac.	40000/-	1:1.71
	Technology refined**	--	--	--
Assessment of varietal trial in watermelon	Farmer's practice**	Crop standing in the field		
	Technology assessed**			
	Technology refined**			
Assessment of varietal trial in bottle gourd	Farmer's practice**	Crop standing in the field		
	Technology assessed**			
	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.

\*\* Give details of the technology assessed or refined and farmer's practice

### 3.2 Achievements of Frontline Demonstrations

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

List of technologies demonstrated during previous year and popularized during 2006-07 and recommended for large 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 villages	No. of farmers	Area in ha
1	IPM	Integrated control of mustard aphid	Field visits of farmers of near by villages, group discussion,	3	50	10
2	Integrated Crop Management	Sulphur application in mustard	Group discussion, Krushak Samparka Mela, more demonstrations	4	60	12
3	Export potential	Hybrid tomato cultivation	Field days, Group discussion, Exhibition in the	10	400	25

	vegetables		Local annual festival at Pradhanpat, Visit of members of SHGs, Broad casting through AIR and Doordarsan			
4	Export potential vegetables	Introduction of YMV resistant variety of Okra	Group meetings, Night meetings	10	50	8
5	Export potential vegetables	Introduction of hybrid papaya	Field visits of farmers and district level officers, group discussion	5	50	5
6	IPM	Integrated control of mango hopper	On farm demonstration in front of farmers, Group discussions, Night meetings, farmers club, Video shows	8	100	10
7	Income generation activities for empowerment of rural Women	Techniques of raising Oyster mushroom	Group discussions, Farmers meetings, Demonstration in the Pradhanpat festival, Group visits of the SHGs of nearby villages	10	200	-
8.	Income generation activities for empowerment of rural Women	Paddy straw mushroom cultivation	Group discussions, Farmers meetings, Demonstration in the Pradhanpat festival, Group visits of the SHGs of nearby villages	10	200	-
9.	Integrated Crop Management	INM in Sunflower	Group discussion, Krushak Samparka Mela, more demonstrations	10	60	15

**b. Details of FLDs implemented during 2007-08 :**

**i. Cereals**

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	Integrated crop management	Integrate nutrient management in low land kharif paddy	Kharif 2007	1	1	3	7	10	-
2.	Paddy	Integrated crop management	Cultivation of medium land rice	Kharif 2007	1	1	-	10	10	-
3.	Paddy	IPM and IDM	IPDM in rice	Kharif 2007	1	1	1	9	10	-
4.	Paddy	Cropping system	Introduction of Rajma to the cropping system	Kharif and rabi 2007-08	0.4	0.4	2	3	5	-

**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	Kharif 2007	Rainfed	Sandy clay loam	L	M	M	Fallow	1 <sup>st</sup> week June , 2007	December,07	845.5	50
Paddy	Kharif 2007	Rainfed	Sandy clay loam	L	M	M	Fallow	1 <sup>st</sup> week June , 2007	December,07	845.5	50
Paddy	Kharif 2007	Rainfed	Sandy clay loam	L	M	M	Fallow	1 <sup>st</sup> week June , 2007	December,07	845.5	50
Paddy	Kharif & rabi 2007	Rainfed	Sandy clay loam	L	M	M	Fallow	1 <sup>st</sup> week July, 2007	Feb. 2008	727.5	42

**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.	Paddy	Integrate nutrient management in low land kharif paddy	Lalata	10	1	56.5	45.5	53.3	42.0	26.9	Grain yield and quality is better	Grain yield and quality are inferior
2.	Paddy	Cultivation of medium land rice cv Pratikshya to replace Swarna	Pratikshya	10	1	72.5	59.5	66.2	New introduction	--	Grain yield is more	Poor yield
3.	Paddy	IPDM in rice	Pooja	10	1	70	55	63	50.5	24.8	%dead heart-3% % white head-1.5% GLH no. per hill-1.25	%dead heart-5% % white head-2.75% GLH no. per hill-2.5
4.	Paddy	Introduction of Rajma to the cropping system.	Khandagiri (Paddy)	5	0.4	41.5 (Paddy + 8.5 (Rajma))	32.5 + 6.2 (Rajma)	37.0 + 7.3 (Rajma)	New introduction	--	Cumulative yield of each component crop was higher compared sole crop of paddy	Yield from medium land paddy was lower and field remained fallow after harvest of paddy

**NB: Few good action photographs with title at the back with pencil have been attached herewith**



INM in kharif paddy – Seedling root deep with Azospirillum and use of BGA

IPDM in rice





**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
14300	10700	33900	25200	19600	14500	1:2.37
15800	--	39720	--	23920	--	1:2.51
14500	12200	37000	30300	22500	18100	1:2.55
20500	--	43800	--	23300	--	1:2.14

**ii. Pulses**

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.	Arhar	Integrate crop manageme nt	Infestation due to severe pod boror and wilt damage could be successfully checked due to adoption of proper IPDM practices. Proper nutrient management practices could be followed along with bio-fertilizers	Kharif 2007	5	5	15	-	15	--
2.	Green gram	Integrate crop manageme nt	High yield and profit from improved varieties Low disease pest infestation with proper plant protection measures	Rabi 2007-08	5	5	--	15	15	-

### 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					
Arhar	Kharif 2007	Rainfed	Red sandy loam to loam	L	M	M	Fallow	June 1 <sup>st</sup> week	Sept., 3 <sup>rd</sup> week	849.5	50
Green gram	Rabi 2007-08	Rainfed	Sandy clay loam to clay loam	L	M	M	Paddy	Dec. 3 <sup>rd</sup> week	March 1 <sup>st</sup> week	47.2	2

### 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.	Arhar	FLD pulses	Asha	15	5	11.75	8.6	12.68	7.5	42.4	Less attack of pod borer	Severe attack
2.	Greengram	FLD oilseeds	PDM-54	15	5	7.85	5.4	6.6	4.43	48.98	YMV absent	Severe attack

**NB: Few good action photographs with title at the back with pencil have been attached herewith**





**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
12000	10000	23500	15000	11500	5000	1:1.96
4500	3500	13200	8860	8700	5360	1:2.9

**iii. Oilseeds**

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Propo sed	Actu al	SC/ ST	Othe rs	Total	
1	Mustard	IPM	<ul style="list-style-type: none"> <li>• Use of Short duration variety</li> <li>• Need base application of neem pesticides</li> <li>• Release of <i>C. cornea</i> @ 20000/ ha</li> </ul>	Second year- Rabi 2007-08	1	1	7	3	10	--
2	Groundnut	IPDM and INM	<ul style="list-style-type: none"> <li>• Seed treatment</li> <li>• Rhizobium inoculation</li> <li>• Spraying of Dithane – M – 45, endosulphan</li> </ul>	Kharif 2007	5	5	15	-	15	--
3	Sunflower	IPDM and INM	<ul style="list-style-type: none"> <li>• Use of high yielding variety</li> <li>• Seed treatment</li> <li>• Azospirillum inoculation</li> <li>• Soil application of boron and spraying of boron</li> </ul>	Rabi 2008	5	5	15	-	15	-

**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					
Mustard	Rabi 2007-08	Irrigated	Sandy loam	L	M	M	Paddy	1 <sup>st</sup> week of November-2007	Last week of January-2008	3.0	1
Groundnut	Kharif 2007	Rainfed	Red sandy loam	L	M	M	Fallow	Julne 1 <sup>st</sup> week 2007	Sept. 3 <sup>rd</sup> week 2007	826.7	47
Sunflower	Rabi 2007-08	Irrigated	Clay loam	L	M	M	Paddy	Nov. 4 <sup>th</sup> Week 2007	March 3 <sup>rd</sup> week 2008	72.6	6

**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	Mustard	IPM	PT-303	10	2	3.41	2.51	3.1	2.5	24	2 aphids per top 10 cm shoot	10 aphids per top 10 cms shoot
2	Groundnut	IPDM and INM	AK 12-24	15	5	10.7	8.95	9.55	7.8	20	Yield increased by 20 %	High incidence of wilt and tikka disease
3	Sunflower	IPDM & INM	MFSH-8	15	5	7.45	5.5	6.95	4.7	69.4	Yield increased by 69.4%	High lodging Low yielder

**NB: Few good action photographs with title at the back with pencil have been attached herewith**



#### 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
6500	5800	12300	9800	5800	4000	1:1.89
15000	14000	24000	16800	9000	2800	1:1.6
7000	5000	14900	8900	7900	3900	1:2.1

#### iv. Horticultural crops

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	Tomato	Export potential vegetables	<ul style="list-style-type: none"> <li>Use of Hybrids tolerant to wilt</li> <li>Seed treatment and nursery management</li> </ul>	2 <sup>nd</sup> year- Rabi 2007-08	0.4	0.4	-	10	10	--
2	Okra	Export potential vegetables	<ul style="list-style-type: none"> <li>Use of YMV resistant variety</li> <li>Seed treatment</li> </ul>	2 <sup>nd</sup> year- Kharif, 07	0.4	0.4	-	10	10	--

3	Papa ya	Export potential vegetables	<ul style="list-style-type: none"> <li>• Use of high yielding hybrids</li> <li>• Seed treatment and seedling management</li> </ul>	2 <sup>nd</sup> year- Kharif 07	0.4	0.4	5	5	10	--
4	Mang o	IPM	<ul style="list-style-type: none"> <li>• Application of immedachloprid @ 3 ml/10 lit during bud swelling and marble foot size.</li> <li>• Application of acephate @ 1.5gm/lit of water during full blossoming</li> </ul>	2 <sup>nd</sup> year Rabi- 2007- 08	1.0	1.0	--	10	10	--
5	Toma to	IPDM in Kharif tomato	<ul style="list-style-type: none"> <li>• Application of <i>Tricoderma viridae</i> to the nursery bed after imbucaion with FYM</li> <li>• Use of tolerant variety BT-10</li> </ul>	First year Kharif 2007	0.4	0.4	3	7	10	--
6	Frenc h Bean s	Off season vegetable	<ul style="list-style-type: none"> <li>• Use of high yielding variety</li> <li>• Seed treatment</li> </ul>	1 <sup>st</sup> year Kharif 2007	0.4	0.4	--	10	10	--
7	Diosc orea	Tuber crops Production management technology	<ul style="list-style-type: none"> <li>• Use of high yielding variety</li> <li>• Planting material treatment</li> <li>• Stacking of plants</li> </ul>	1 <sup>st</sup> year kharif, 2007	0.4	0.4	--	5	5	--
8	Eleph ant foot yam	Tuber crops Production management technology	<ul style="list-style-type: none"> <li>• Use of high yielding variety</li> <li>• Planting material treatment</li> </ul>	1 <sup>st</sup> year kharif, 2007	0.4	0.4	4	1	5	--
9	Turm eric	Species Production management technology	<ul style="list-style-type: none"> <li>• Use of high yielding variety</li> <li>• Intercropping in mango orchard</li> </ul>	1 <sup>st</sup> year kharif, 2007	0.4	0.4	--	10	10	--
10	Onion	Species Production management technology	<ul style="list-style-type: none"> <li>• Use of high yielding variety</li> <li>• Seed and seedling treatment</li> </ul>	1 <sup>st</sup> year Rabi, 07-08	0.4	0.4	2	8	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					
Tomato	Rabi 2007-08	Irrigated	Red loam	L	M	H	Paddy	Last week of November	Last week of February onwards	3.0	1
Okra	Kharif-2007	Irrigated	Red loam	L	M	H	Brinjal	First week of October	December	31.2	4
Papaya	Kharif-2007	Irrigated	Red loam	L	M	H	Fallow	Sept 2006	May-2007	147.3	13
Mango	Rabi- 2006-07	Rainfed	Red loam	L	M	H	--	Dec 2006	May-2007	104.6	9
Tomato	Kharif-2007	Rainfed	Red loam	L	M	H	Fallow	August 2007	Nov. 1 <sup>st</sup> week onwards	477.5	28
French Beans	Khairf, 07	Irrigated	Red loam	L	M	H	Okra	July 2007	Sept., 2007		
Dioscorea	Khairf, 07	Rainfed	Red loam	L	M	H	Cowpea	May, 2007	January, 2008		
Elephant foot yam	Khairf, 07	Rainfed	Red loam	L	M	H	Fallow	May, 2007	December,07		
Turmeric	Khairf,07	Irrigated	Red loam	L	M	H	Watermelon	June, 2007	December,07		
Onion	Rabi,07-08	Irrigated	Red loam	L	M	H	Brinjal	Nov.,2007	Crop in the field		

**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	Tomato	<ul style="list-style-type: none"> <li>• Higher yield</li> <li>• Good keeping quality</li> <li>• Tolerant to wilt</li> </ul>	Sanchi	10	0.4	255	230	245	85	188	Wilt 1.30%, Keeping period -10 days	5% Keeping period -4 days
2	Okra	<ul style="list-style-type: none"> <li>• Higher yield</li> <li>• Seed treatment</li> </ul>	Arka Anamika	10	0.4	68	42	63	48	31.2	YMV (plant) 2%	5%
3	Papaya	<ul style="list-style-type: none"> <li>• Higher yield</li> <li>• YMV tolerant</li> </ul>	Farm selection	10	0.4	Crop is standing in the field						
4	Mango	<ul style="list-style-type: none"> <li>• Application of pesticides like Roko and Hildan</li> </ul>	Amrapalli	10	1.0	Crop is standing in the field					Hopper population 1.5 nymph + adult per blossom	Hopper population 5.5 nymph + adult per blossom
5	Tomato	<ul style="list-style-type: none"> <li>• Use of wilt tolerant BT-10 variety</li> </ul>	BT-10	10	0.4	130	95	116	85	36	Wilt- 3%	Wilt
6	Frenc	<ul style="list-style-type: none"> <li>• Use of high</li> </ul>	Raikia	10	0.4	55	40	47	35	35	Yield	Yield

	h Beans	yielding variety <ul style="list-style-type: none"><li>Seed treatment</li></ul>	local									
7	Diosc orea	<ul style="list-style-type: none"><li>Use of high yielding variety</li><li>Planting material treatment</li><li>Stacking of plants</li></ul>	Orissa Elite	5	0.4	110	90	105	83	26.5	Yield	Yield
8	Eleph ant foot yam	<ul style="list-style-type: none"><li>Use of high yielding variety</li><li>Planting material treatment</li></ul>	Gajendra	5	0.4	60	49	54	45	20	Yield	Yield
9	Turm eric	<ul style="list-style-type: none"><li>Use of high yielding variety</li><li>Intercropping in mango orchard</li></ul>	Lakdong	10	0.4	55	43	51	40	27.5	Yield	Yield
10	Onion	<ul style="list-style-type: none"><li>Use of high yielding variety</li><li>Seed and seedling treatment</li></ul>	N-53	10	0.4	Crop is yet to be harvested					Yield	Yield

**NB: Few good action photographs with title at the back with pencil have been attached herewith**







**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
36400	18300	82400	28000	46000	9760	1:2.26
23650	22900	60000	50000	36350	27100	1:2.53
-	-	-	-	-	-	-
-	-	-	-	-	-	-
31200	18300	58000	42500	26800	24200	1:1.85
22700	19300	47000	35000	24300	15700	1:2.07
70300	65800	157500	124500	87200	58700	1:2.24
35200	30500	81000	67500	45800	37000	1:2.49
30500	27300	76500	60000	46000	32700	1:2.50
-	-	-	-	-	-	-



**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
Okra	Kharif 2007	Seeds, Variety - Arka Anamkia	Rainfed	63	48	31.2
Tomato	Rabi 07-08	1. Seed , Variety- Sanchi	Rainfed	245	85	188
		2. Plant protection materials				
Papaya	Kharif 2007	Seedlings, Variety - Farm selection	Irrigated	Crop is standing in the field		
Mustard	Rabi 07-08	1. Seeds , Variety- PT 303	Irrigated	3.1	2.5	24
		2. PP – Acephate				
Mango	Rabi 2007	1. PP. – Roko, Hildon	Rainfed	Crop is standing in the field		
Paddy straw mushroom	Kharif 2007	Spawn, polythene sheets	-	2.5kg per bed	-	New Introduction
Oyster Mushroom	Rabi 2007	Spawn, polythene bags	-	2 kg per bed	-	New introduction
Paddy	Kharif 2007	1. Seed, Var. - Pratikshya	Rainfed	66.2	--	New introduction
		2. Chemical fertilizer				
Paddy	Kharif 2007	1. Sunhemp seeds	Rainfed	53.3	42.0	26.9
		2. Bio-F. – Azolla, Azospirillum, PSB., BGA				
Paddy	Kharif 2007	1. Seeds, Var. -Pooja	Rainfed	63	55.5	24.8

		2. P.P. – Pheromone traps and lure, Cartap hydrochloride				
Paddy - Rajma	Kharif- Rabi2007-08	Rajma Seeds+ Seed treating chemicals	Rainfed	37.0 (Paddy) + 7.3 (Rajma)	--	New introduction
Sweet orange	Kharif 2007	P.P. – Confider, Mithyl parathion dust	Rainfed			
Tomato	Kharif 2007	1. Seeds, Var,- BT-10	Rainfed	116	85	36
		2. P.P. – Neem cake, Trichoderma viridae				
Banana	Kharif 2007	P.P.- Neem cake	Irrigated	Crop is standing in the field		
Dioscorea	Kharif 2007	Planting material, Var.- Orissa elite	Rainfed			
Elephant foot yam	Kharif 2007	Planting material, Var.- Gajendra	Rainfed			
Turmeric	Kharif 2007	Rhizomes, Var. – Lakdong	Irrigated			
Papaya	Kharif 2007	Seedlings, Var. – Farm selection	Irrigated	Crop is standing in the filed		
Beans	Rabi 2007	Seeds, Var. – Raikia local	Irrigated			
Onion	Rabi 07-08	Seed, Var-N-53	Irrigated	Crop is standing in the field		

### Technical Feedback on the demonstrated technologies

Sl. No.	Title	Feed Back
1.	Integrated control of mustard aphid	Neem based control practice along with release of <i>Chrysopa</i> is the most cost effective method for controlling aphids in mustard. Timely availability of bioagent, <i>Chrysopa</i> is important.
2.	Hybrid tomato cultivation	More yielder, less infected by diseases, good keeping quality and heavy marketing demand with higher price.
3.	Introduction of YMV resistant variety of Okra	Higher yield, YMV tolerant, and well suited to this region
4.	Introduction of hybrid papaya	High yielder, resistant to leaf curl, easy for plucking because of short height.
5.	Integrated control of mango hopper	Increases fruit setting, retention and ultimately yield
6.	Techniques of raising Oyster mushroom	Good income generating process for landless labourer particularly women, good marketing demand.
7.	Paddy straw mushroom cultivation	Good income generating process for landless labourer particularly women, good marketing demand round the year.
8.	Integrated nutrient management in low land kharif paddy	Integrated use of Chemical and biological source of fertilizers enhanced yield and quality of seed grains.
9.	Cultivation of medium land rice	Introduction of Cv. Pratikshya could successfully replace disease-pest susceptible ruling cv. Swarna
10.	IPDM in rice	Traps, lures, bioagents should be easily available in the local market at the time of need. The techniques is simpler and less expensive.
11.	Introduction of Rajma to the cropping system	Introduction of Rajma in the cropping system by replacing medium duration mono crop of paddy increased cropping intensity and fetched high net return.
12.	Cultivation of high yielding variety of Dioscorea	Good income generating process for farmers and farm women, good marketing demand round the year.
13.	Cultivation of Elephant foot yam	Good income generating process for farmers and farm women, good marketing demand round the year.
14.	Inter cropping in mango orchard	Use of inter space of orchard crops to generate revenue

		from the unused spaces.
15.	Cultivation of new variety of french bean	Higher yield and well suited to this region
16.	Integrated control of fruit sucking moth attacking sweet orange	Installation of poison bit does not fit well. Alternative methods by using chemicals is to be searched.
17.	Control of wilt disease in tomato	Neem oil cake application has greater bearing in reduction of wilt. The technology is simpler and locally available.
18.	IPDM in Banana	Crop standing in the field.
19.	Cultivation of high yielding variety of Onion	Crop standing in the field.
20.	Rearing management of honey bee, <i>a. cerana indica</i>	Easy way of getting return by house wives. Well suited technology for the district.
21.	Use of pedal operated groundnut thresher	Threshing should be done in the optimum moisture content to avoid detaching stalk with pod
22.	Use of groundnut decorticator	The size of the hole in the sieve should be slightly increased to avoid internal damage of seed
23.	Use of power operated paddy thresher	The machine should be operated in the plain surface to avoid vibration and the motor should be properly aligned with thresher pulley to avoid any noise and frictional loss

#### Farmers' reactions on specific technologies

S. No	Specific Technologies	Feed Back
1	Release of Chrysopa along with spraying of neem oil to control mustard aphid	Availability of Chrysopa and quality neem oil along with adjuvant
2	Hybrid tomato cultivation	More yielder, less infected by diseases, good keeping quality and heavy marketing demand with higher price.
3	Introduction of YMV resistant variety of Okra	Higher yield, YMV tolerant, and well suited to this region
4	Introduction of hybrid papaya	High yielder, resistant to leaf curl, easy for plucking because of short height.
5	Integrated control of mango hopper	Increases fruit setting, retention and ultimately yield
6	Techniques of raising Oyster mushroom	Good income generating process for landless labourer

		particularly women, good marketing demand.
7	Paddy straw mushroom cultivation	Good income generating process for landless labourer particularly women, good marketing demand round the year.
8	Application of Azolla, BGA, Azospirillum, PSB culture and incorporation of Dhanicha at tender age.	Timely availability of bio-fertilizers in the district is requested
9	Introduction of cv Pratikshya	Cv Pratikshya is tolerant to most pest and disease attack, good yielder, good quality grains.
10	Introduction of Rajma as second crop and short duration paddy cv Khandagiri as first crop	Rajma most suited to the soil and climate of the district.
11	Pedal operated groundnut thresher	Appreciated the technology
12	Groundnut decorticator	Germination percentage reduced in the machine decorticating seed
13	Use of power operated paddy thresher	Appreciated the technology but the cost is too high for initial investment

#### Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organized	Date	No. of participants	Remarks
1.	Field Days	5	7.11.06, 8.11.06, 20.3.07, 21.3.07, 24.3.07	450	Field days of FLD Oilseed Pulses, Organic farming
2.	Farmers Training	7	12.10.06 & 13.10.06, 20.11.06, 6.12.06 & 7.12.06, 2.1.07 & 3.1.07, 22.3.07, 23.3.07	100	FLD on Tomato cultivation
3.	Media coverage	5	07.11.06, 08.11.06, 28.02.07, 28.03.07, 20.04.07	Mass	Organic farming, Acid soil management, Tomato cultivation, Groundnut cultivation
4.	Training for extension functionaries	1	20.11.06	11	Tomato cultivation

c. Details of FLD on Enterprises  
(i) Farm Implements

Name of the implement	Crop	No. of farmers	No. of demo	Performance parameters / indicators	Capacity, Kg/h		Cost of operation, Rs/q		% saving in labour-time	% saving in cost	Remarks
					Demon.	Local check	Demon.	Local check			
Pedal operated groundnut thresher	Groundnut	40	4	Capacity in kg/h Cost of operation in Rs/q Saving in cost and labour in %	32	5.8	82.28	201.7	63.74	59.2	Both cost and time can be saved by using groundnut thresher

- *Field efficiency, labour saving etc.*



Use of pedal operated groundnut thresher



Name of the implement	Crop	No. of farmers	No. of demo	Performance parameters / indicators	Capacity, Kg/h		Cost of operation, Rs/q		% saving in labour-time	% saving in cost	Remarks
					Demon.	Local check	Demon.	Local check			
Groundnut decorticator	Groundnut	39	4	Capacity in kg/h Cost of operation in Rs/q Saving in cost and labour in %	34	3.2	53.5	365.6	71.8	85.39	Both cost and time can be saved by using groundnut decorticator



Use of groundnut decorticator



Name of the implement	Crop	No. of farmers	No. of demo	Performance parameters / indicators	Capacity, Kg/h		Cost of operation, Rs/q		% saving in labour-time	% saving in cost	Remarks
					Demon.	Local check	Demon.	Local check			
Power operated paddy thresher	Paddy	41	2	Capacity in kg/h Cost of operation in Rs/q Saving in cost and labour in %	132	21.7 (Hand beating) 118 (Bullock treading)	48.55	107.55 (Hand beating) 55.08 (Bullock treading)	69.2 11.68	54.85 11.85	Both cost and time can be saved by using power paddy thresher



**Power operated paddy thresher cum winnower**

**(ii) Livestock Enterprises**

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

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

**(iii) Other Enterprises**

Enterprise	Variety/ breed/Species/others	No. of farmers	No. of Units	Performance parameters / indicators	Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Mushroom	Dhingiri mushroom cultivation	35	100	Yield per bed	2.kg per bed	--	New introduction	A very good demand in the local market
Apiary	Bee keeping	5	5	Honey yield / hive	--	--	New introduction	Rearing started in the last July, harvesting awaited
Vermicompost	Vermi composting units	3	3	Yield / pit	2 in one and half month cycles / pit	--	New introduction	Earth worm inoculated in the month of March, 2007
Mushroom	Paddy straw	30	30	Yield / bed	2.5kg per bed	--	-do-	A very good demand in the local market



**Adoption of new technologies in group**



**Past dream now become reality**



**United we can – Astha SHG**



**Learning by doing**





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

#### A) On Campus: All trainings were conducted off-campus

#### B) OFF Campus

Thematic Area	No. of Courses	Duration (days)	No. of Participants						
			Others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
<b>(A) Farmers &amp; Farm Women</b>									
<b>I Crop Production</b>									
Weed Management									
Resource Conservation Technologies									
Cropping Systems	1	1	15	1	16	4	-	4	20
Crop Diversification	2	2	22	-	22	18	-	18	40
Integrated Farming									
Water management									
Seed production									
Nursery management	1	1	20	-	20	--	--	--	20
Integrated Crop Management	8	8	74	18	92	65	3	68	160
Fodder production									
Production of organic inputs									
<b>II Horticulture</b>									
<b>a) Vegetable Crops</b>									
Production of low volume and high value crops	4	4	50	6	56	22	2	24	80
Off-season vegetables	2	2	13	-	13	27	--	27	40
Nursery raising	2	2	31	-	31	9	-	9	40
Exotic vegetables like Broccoli									
Export potential vegetables									
Grading and standardization	1	1	23	-	23	2	-	2	25
Protective cultivation (Green Houses, Shade Net etc.)	1	1	2	-	2	17	1	18	20
<b>b) Fruits</b>									
Training and Pruning									
Layout and Management of Orchards	1	1	20	-	20	--	--	--	20
Cultivation of Fruit	2	2	32	-	32	8	-	8	40
Management of young plants/orchards	3	3	38	--	38	22	-	22	60

Thematic Area	No. of Courses	Duration (days)	No. of Participants						
			Others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
Rejuvenation of old orchards									
Export potential fruits									
Micro irrigation systems of orchards									
Plant propagation techniques									
<b>c) Ornamental Plants</b>									
Nursery Management									
Management of potted plants									
Export potential of ornamental plants									
Propagation techniques of Ornamental Plants									
<b>d) Plantation crops</b>									
Production and Management technology									
Processing and value addition									
<b>e) Tuber crops</b>									
Production and Management technology	1	1	-	12	12	-	8	8	20
Processing and value addition									
<b>f) Spices</b>	4	4	64	7	71	14	-	14	85
Production and Management technology									
Processing and value addition									
<b>g) Medicinal and Aromatic Plants</b>									
Nursery management									
Production and management technology									
Post harvest technology and value addition									
<b>III Soil Health and Fertility Management</b>									
Soil fertility management									
Soil and Water Conservation									
Integrated Nutrient Management									
Production and use of organic inputs									
Management of Problematic soils									
Micro nutrient deficiency in crops									
Nutrient Use Efficiency									
Soil and Water Testing									

<b>IV Livestock Production and Management</b>									
Dairy Management									
Poultry Management									
Piggery Management									
Rabbit Management									
Disease Management	1	1	-	11	11	-	9	9	20
Feed management									
Production of quality animal products									
<b>V Home Science/Women empowerment</b>									
Household food security by kitchen gardening and nutrition gardening	2	2	-	34	34	-	6	6	40
Design and development of low/minimum cost diet									
Designing and development for high nutrient efficiency diet									
Minimization of nutrient loss in processing									
Gender mainstreaming through SHGs									
Storage loss minimization techniques	1	1	-	16	16	-	4	4	20
Value addition	6	6	-	98	98	-	27	27	125
Income generation activities for empowerment of rural Women	2	4	-	29	29	-	39	39	68
Location specific drudgery reduction technologies									
Rural Crafts	2	2	-	25	25	-	15	15	40
Women and child care									
<b>VI Agril. Engineering</b>									
Installation and maintenance of micro irrigation systems	2	2	19	-	19	21	-	21	40
Use of Plastics in farming practices	1	1	14	-	14	6	-	6	20
Production of small tools and implements									
Repair and maintenance of farm machinery and implements	7	7	80	1	81	57	2	59	140
Small scale processing and value addition	-		-						
Post Harvest Technology	-		-						
Soil and Water Conservation	1	1	8	-	8	12	-	12	20
Protective cultivation (Green Houses, Shade Net etc.)	1	1	19	-	19	1	-	1	20

<b>Total</b>	<b>12</b>	<b>12</b>	<b>140</b>	<b>1</b>	<b>141</b>	<b>97</b>	<b>2</b>	<b>99</b>	<b>240</b>
<b>VII Plant Protection</b>									
Integrated Pest Management	10	10	150	18	168	40	2	42	210
Integrated Disease Management	7	7	121	-	121	24	-	24	145
Bio-control of pests and diseases	2	2	26	-	26	14	-	14	40
Production of bio control agents and bio pesticides									
<b>VIII Fisheries</b>									
Integrated fish farming									
Carp breeding and hatchery management									
Carp fry and fingerling rearing									
Composite fish culture									
Hatchery management and culture of freshwater prawn									
Breeding and culture of ornamental fishes									
Portable plastic carp hatchery									
Pen culture of fish and prawn									
Shrimp farming									
Edible oyster farming									
Pearl culture									
Fish processing and value addition									
<b>IX Production of Inputs at site</b>									
Seed Production									
Planting material production									
Bio-agents production									
Bio-pesticides production									
Bio-fertilizer production									
Vermi-compost production									
Organic manures production									
Production of fry and fingerlings									
Production of Bee-colonies and wax sheets									
Small tools and implements									
Production of livestock feed and fodder									
Production of Fish feed									



<b>X Capacity Building and Group Dynamics</b>									
Leadership development									
Group dynamics									
Formation and Management of SHGs									
Mobilization of social capital									
Entrepreneurial development of farmers/youths									
WTO and IPR issues									
<b>XI Agro-forestry</b>									
Production technologies									
Nursery management									
Integrated Farming Systems									
<b>XII Others (Pl. Specify)</b>									
<b>TOTAL</b>									
<b>(B) RURAL YOUTH</b>									
Mushroom Production									
Bee-keeping									
Integrated farming									
Seed production	1	1	24	-	24	1	-	1	25
Production of organic inputs									
Integrated Farming	2	2	40	-	40	--	--	--	40
Planting material production									
Vermi-culture									
Sericulture	1	1	1	1	2	12	6	18	20
Protected cultivation of vegetable crops									
Commercial fruit production									
Repair and maintenance of farm machinery and implements	2	2	25	-	25	15	-	15	40
Nursery Management of Horticulture crops									
Training and pruning of orchards									
Value addition									
Production of quality animal products									
Dairying									
Sheep and goat rearing									

Quail farming									
Piggery									
Rabbit farming									
Poultry production	1	1	-	-	-	-	15	15	15
Ornamental fisheries									
Para vets									
Para extension workers									
Composite fish culture									
Freshwater prawn culture									
Shrimp farming									
Pearl culture									
Cold water fisheries									
Fish harvest and processing technology									
Fry and fingerling rearing									
Small scale processing									
Post Harvest Technology									
Tailoring and Stitching									
Rural Crafts	1	1	-	-	-	-	20	20	20
<b>TOTAL</b>									
<b>(C) Extension Personnel</b>									
Productivity enhancement in field crops	1	2	10	-	10	--	--	--	10
Integrated Pest Management	1	1	11	1	12	3	-	3	15
Integrated Nutrient management	1	2	9	-	9	1	-	1	10
Rejuvenation of old orchards									
Protected cultivation technology									
Formation and Management of SHGs									
Group Dynamics and farmers organization									
Information networking among farmers									
Capacity building for ICT application									
Care and maintenance of farm machinery and implements	1	2	8	-	8	2	-	2	10
WTO and IPR issues									
Management in farm animals									
Livestock feed and fodder production									
Household food security									

Women and Child care									
Low cost and nutrient efficient diet designing									
Production and use of organic inputs									
Gender mainstreaming through SHGs									
Any other (Pl. Specify)									
<b>TOTAL</b>									

**C) Consolidated table (On and Off Campus)**

Thematic Area	No. of Courses	Duration (days)	No. of Participants						
			Others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
<b>(A) Farmers &amp; Farm Women</b>									
<b>I Crop Production</b>									
Weed Management									
Resource Conservation Technologies									
Cropping Systems	1	1	15	1	16	4	-	4	20
Crop Diversification	2	2	22	-	22	18	-	18	40
Integrated Farming									
Water management									
Seed production									
Nursery management	1	1	20	-	20	--	--	--	20
Integrated Crop Management	8	8	74	18	92	65	3	68	160
Fodder production									
Production of organic inputs									
<b>II Horticulture</b>									
<b>a) Vegetable Crops</b>									
Production of low volume and high value crops	4	4	50	6	56	22	2	24	80
Off-season vegetables	2	2	13	-	13	27	--	27	40
Nursery raising	2	2	31	-	31	9	-	9	40
Exotic vegetables like Broccoli									
Export potential vegetables									
Grading and standardization	1	1	23	-	23	2	-	2	25
Protective cultivation (Green Houses, Shade Net etc.)	1	1	2	-	2	17	1	18	20
<b>b) Fruits</b>									
Training and Pruning									

Thematic Area	No. of Courses	Duration (days)	No. of Participants						
			Others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
Layout and Management of Orchards	1	1	20	-	20	--	--	--	20
Cultivation of Fruit	2	2	32	-	32	8	-	8	40
Management of young plants/orchards	3	3	38	--	38	22	-	22	60
Rejuvenation of old orchards									
Export potential fruits									
Micro irrigation systems of orchards									
Plant propagation techniques									
<b>c) Ornamental Plants</b>									
Nursery Management									
Management of potted plants									
Export potential of ornamental plants									
Propagation techniques of Ornamental Plants									
<b>d) Plantation crops</b>									
Production and Management technology									
Processing and value addition									
<b>e) Tuber crops</b>									
Production and Management technology	1	1	-	12	12	-	8	8	20
Processing and value addition									
<b>f) Spices</b>	4	4	64	7	71	14	-	14	85
Production and Management technology									
Processing and value addition									
<b>g) Medicinal and Aromatic Plants</b>									
Nursery management									
Production and management technology									
Post harvest technology and value addition									
<b>III Soil Health and Fertility Management</b>									
Soil fertility management									
Soil and Water Conservation									
Integrated Nutrient Management									
Production and use of organic inputs									
Management of Problematic soils									
Micro nutrient deficiency in crops									
Nutrient Use Efficiency									

Thematic Area	No. of Courses	Duration (days)	No. of Participants						
			Others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
Soil and Water Testing									
<b>IV Livestock Production and Management</b>									
Dairy Management									
Poultry Management									
Piggery Management									
Rabbit Management									
Disease Management	1	1	-	11	11	-	9	9	20
Feed management									
Production of quality animal products									
<b>V Home Science/Women empowerment</b>									
Household food security by kitchen gardening and nutrition gardening	2	2	-	34	34	-	6	6	40
Design and development of low/minimum cost diet									
Designing and development for high nutrient efficiency diet									
Minimization of nutrient loss in processing									
Gender mainstreaming through SHGs									
Storage loss minimization techniques	1	1	-	16	16	-	4	4	20
Value addition	6	6	-	98	98	-	27	27	125
Income generation activities for empowerment of rural Women	2	4	-	29	29	-	39	39	68
Location specific drudgery reduction technologies									
Rural Crafts	2	2	-	25	25	-	15	15	40
Women and child care									
<b>VI Agril. Engineering</b>									
Installation and maintenance of micro irrigation systems	2	2	19	-	19	21	-	21	40
Use of Plastics in farming practices	1	1	14	-	14	6	-	6	20
Production of small tools and implements									
Repair and maintenance of farm machinery and implements	7	7	80	1	81	57	2	59	140
Small scale processing and value addition	-		-						

Thematic Area	No. of Courses	Duration (days)	No. of Participants						
			Others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
Post Harvest Technology	-		-						
Soil and Water Conservation	1	1	8	-	8	12	-	12	20
Protective cultivation (Green Houses, Shade Net etc.)	1	1	19	-	19	1	-	1	20
<b>Total</b>	<b>12</b>	<b>12</b>	<b>140</b>	<b>1</b>	<b>141</b>	<b>97</b>	<b>2</b>	<b>99</b>	<b>240</b>
<b>VII Plant Protection</b>									
Integrated Pest Management	10	10	150	18	168	40	2	42	210
Integrated Disease Management	7	7	121	-	121	24	-	24	145
Bio-control of pests and diseases	2	2	26	-	26	14	-	14	40
Production of bio control agents and bio pesticides									
<b>VIII Fisheries</b>									
Integrated fish farming									
Carp breeding and hatchery management									
Carp fry and fingerling rearing									
Composite fish culture									
Hatchery management and culture of freshwater prawn									
Breeding and culture of ornamental fishes									
Portable plastic carp hatchery									
Pen culture of fish and prawn									
Shrimp farming									
Edible oyster farming									
Pearl culture									
Fish processing and value addition									
<b>IX Production of Inputs at site</b>									
Seed Production									
Planting material production									
Bio-agents production									
Bio-pesticides production									
Bio-fertilizer production									
Vermi-compost production									
Organic manures production									
Production of fry and fingerlings									

Thematic Area	No. of Courses	Duration (days)	No. of Participants						
			Others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
Production of Bee-colonies and wax sheets									
Small tools and implements									
Production of livestock feed and fodder									
Production of Fish feed									
<b>X Capacity Building and Group Dynamics</b>									
Leadership development									
Group dynamics									
Formation and Management of SHGs									
Mobilization of social capital									
Entrepreneurial development of farmers/youths									
WTO and IPR issues									
<b>XI Agro-forestry</b>									
Production technologies									
Nursery management									
Integrated Farming Systems									
<b>XII Others (Pl. Specify)</b>									
<b>TOTAL</b>									
<b>(B) RURAL YOUTH</b>									
Mushroom Production									
Bee-keeping									
Integrated farming									
Seed production	1	1	24	-	24	1	-	1	25
Production of organic inputs									
Integrated Farming	2	2	40	-	40	--	--	--	40
Planting material production									
Vermi-culture									
Sericulture	1	1	1	1	2	12	6	18	20
Protected cultivation of vegetable crops									
Commercial fruit production									
Repair and maintenance of farm machinery and implements	2	2	25	-	25	15	-	15	40

Thematic Area	No. of Courses	Duration (days)	No. of Participants						
			Others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
Nursery Management of Horticulture crops									
Training and pruning of orchards									
Value addition									
Production of quality animal products									
Dairying									
Sheep and goat rearing									
Quail farming									
Piggery									
Rabbit farming									
Poultry production	1	1	-	-	-	-	15	15	15
Ornamental fisheries									
Para vets									
Para extension workers									
Composite fish culture									
Freshwater prawn culture									
Shrimp farming									
Pearl culture									
Cold water fisheries									
Fish harvest and processing technology									
Fry and fingerling rearing									
Small scale processing									
Post Harvest Technology									
Tailoring and Stitching									
Rural Crafts	1	1	-	-	-	-	20	20	20
<b>TOTAL</b>									
<b>(C) Extension Personnel</b>									
Productivity enhancement in field crops	1	2	10	-	10	--	--	--	10
Integrated Pest Management	1	1	11	1	12	3	-	3	15



Thematic Area	No. of Courses	Duration (days)	No. of Participants						
			Others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
Integrated Nutrient management	1	2	9	-	9	1	-	1	10
Rejuvenation of old orchards									
Protected cultivation technology									
Formation and Management of SHGs									
Group Dynamics and farmers organization									
Information networking among farmers									
Capacity building for ICT application									
Care and maintenance of farm machinery and implements	1	2	8	-	8	2	-	2	10
WTO and IPR issues									
Management in farm animals									
Livestock feed and fodder production									
Household food security									
Women and Child care									
Low cost and nutrient efficient diet designing									
Production and use of organic inputs									
Gender mainstreaming through SHGs									
Any other (Pl. Specify)									
<b>TOTAL</b>									

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

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
29.5.07 to 31.5.07	Farmer and Farm women	Paddy straw mushroom cultivation	3	Off	-	48	48	-	28	28
14.6.07	Farmer and Farm women	Pest management in citrus	1	Off	30	-	30	4	-	4
30.6.07	Farmer and Farm women	Cultivation practices of ginger	1	Off	25	-	25	4	-	4
11.7.07	Farmer and Farm women	Introduction of horticulture based cropping system	1	Off	20	-	20	12	-	12
12.7.07	Farmer and Farm women	Techniques of seed and soil treatment by pesticides and biocides	1	Off	20	-	20	8	-	8
17.7.07	Farmer and Farm women	Use of primary and secondary tillage implements for seed bed preparation	1	Off	20	-	20	6	-	6
17.7.07	Farmer and Farm women	Planning, layout and crop rotation in kitchen garden	1	Off	-	20	20	-	6	6
1.08.07	Farmer and Farm women	Integrated pest and disease management in kharif rice	1	Off	20	-	20	4	-	4
4.8.07	Farmer and Farm women	Use, operation of different implement for intercultural operation in different crop	1	Off	20	-	20	-	-	-
4.8.07	Farmer and Farm women	Raising of vegetable seedlings	1	Off	-	20	20	-	-	-
8.8.07	Farmer and Farm women	Improved methods for production of kharif vegetables	1	Off	20	-	20	4	-	4
29.8.07	Farmer and Farm women	Pest and disease management in kharif vegetables like cucurbits, brinjal, okra and beans	1	Off	25	-	25	1	-	1
30.8.07	Farmer and Farm women	Value addition to fruit and vegetable products	1	Off	-	25	25	-	14	14
6.9.07	Farmer and Farm women	Effective use of hybrid vegetables seeds for maximizing production	1	Off	17	3	20	-	-	-

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
6.9.07	Farmer and Farm women	Integrated pest management in oilseeds crops like groundnut, sesamum and mustard	1	Off	20	-	20	-	-	-
7.9.07	Farmer and Farm women	Use, Operation and maintenance of drip irrigation system in horticultural crops	1	Off	20	-	20	6	-	6
7.9.07	Farmer and Farm women	Nursery raising of vegetable crops like brinjal, chilli, cabbage, cauliflower and tomato	1	Off	20	-	20	3	-	3
11.9.07	Farmer and Farm women	Crop diversification in upland	1	Off	20	-	20	4	-	4
12.9.07	Farmer and Farm women	Storage of cereals and pulses by use of ITK	1	Off	-	20	20	-	4	4
12.9.07	Farmer and Farm women	Operation and maintenance of seed drills / planters / paddy transplanters	1	Off	20	-	20	1	-	1
13.9.07	Farmer and Farm women	Disease and pest management in banana	1	Off	20	-	20	-	-	-
13.9.07	Farmer and Farm women	Improved methods for cultivation of banana	1	Off	20	-	20	-	-	-
14.9.07	Farmer and Farm women	Intercropping of cereals and pulses for drought management	1	Off	19	1	20	4	-	4
5.10.07	Farmer and Farm women	Control of wilt disease in water melon	1	Off	20	-	20	3	-	3
5.10.07	Farmer and Farm women	Technology for biofertilizer use in paddy for sustainable crop production	1	Off	20	-	20	4	-	4
6.10.07	Farmer and Farm women	Wild disease control in solanaceous vegetables	1	Off	20	-	20	4	-	4
6.10.07	Farmer and Farm women	Advanced crop production techniques for rabi pulses	1	Off	20	-	20	8	-	8
8.10.07	Farmer and Farm women	Technology for off season cauliflower and cabbage cultivation	1	Off	20	-	20	6	-	6

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
9.10.07	Farmer and Farm women	Cultivation practices in turmeric	1	Off	20	-	20	7	-	7
9.10.07	Farmer and Farm women	Fabric printing	1	Off	-	20	20	-	6	6
13.11.07	Farmer and Farm women	Acid soil management	1	Off	20	-	20	12	-	12
13.11.07	Farmer and Farm women	Oyster mushroom cultivation	1	Off	-	20	20	-	10	10
14.11.07	Farmer and Farm women	Use operation and maintenance of different harvesting and threshing implements	1	Off	17	3	20	13	2	15
14.11.07	Farmer and Farm women	Organic farming concept for farmers	1	Off	19	1	20	17	1	18
15.11.07	Farmer and Farm women	Use and operation of different implements of oilseed and pulses	1	Off	20	-	20	20	--	20
16.11.07	Farmer and Farm women	Fruits and vegetable preservation	1	Off	-	20	20	-	--	-
17.11.07	Farmer and Farm women	Improved cultivation practices of onion and garlic	1	Off	13	7	20	-	--	-
17.11.07	Farmer and Farm women	IPM in pulses like okra, greeengram and blackgram	1	Off	11	9	20	-	--	-
3.12.07	Farmer and Farm women	Non-conventional method of pests control	1	Off	20	-	20	11	--	11
4.12.07	Farmer and Farm women	Water management in crop production and different soil and water conservation methods	1	Off	20	-	20	12	--	12
4.12.07	Farmer and Farm women	Improved packages of practices of kharif oil seed production	1	Off	20	--	20	15	--	15
10.12.07	Farmer and Farm women	Improved method of sugarcane cultivation	1	Off	20	--	20	12	--	12
10.12.07	Farmer and Farm women	Operation, maintenance and economics of sprinkler irrigation	1	Off	20	--	20	15	--	15

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
		system in vegetable crops								
11.12.07	Farmer and Farm women	Eco-friendly pest management in cruciferous vegetables.	1	Off	20	--	20	5	--	5
17.12.07	Farmer and Farm women	Control of bud rooting in groundnut	1	Off	20	--	20	8	--	8
17.12.07	Farmer and Farm women	Improved cultivation practices of water melon	1	Off	20	--	20	8	--	8
18.12.07	Farmer and Farm women	Management of litch orchards	1	Off	20	--	20	5	--	5
8.1.08	Farmer and Farm women	Introduction of horticulture based cropping system	1	Off	20	--	20	8	--	8
8.1.08	Farmer and Farm women	Advance crop techniques for rabi pulses	1	Off	20	--	20	6	--	6
9.1.08	Farmer and Farm women	Management of mango orchard	1	Off	20	--	20	14	--	14
10.1.08	Farmer and Farm women	Storage of cereals and pulses by use of ITK	1	Off	20	--	20	6	--	6
10.01.08	Farmer and Farm women	Nursery raising vegetable crops like brinjal, chilli, cabbage cauliflower, tomato etc.	1	Off	20	--	20	6	--	6
11.01.08	Farmer and Farm women	Crop diversification in dry land	1	Off	20	--	20	14	--	14
11.01.08	Farmer and Farm women	IPM in mango	1	Off	20	-	20	10	--	10
12.01.08	Farmer and Farm women	Improved cultivation practices for Toria	1	Off	20	--	20	8	--	8
12.01.08	Farmer and Farm women	Use of plastic mulch in fruit and vegetable crops.	1	Off	20	--	20	6	--	6
19.01.08	Farmer and Farm women	Seed treatment a primary need for proper implementation of IPM	1	Off	20	--	20	7	--	7
1.2.08	Farmer and Farm women	Improved cultivation practices of onion and garlic	1	Off	20	--	20	3	--	3
1.2.08	Farmer and	Use, operation and care during	1	Off	20	--	20	4	--	4

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
	Farm women	operation of plant protection equipment								
2.2.08	Farmer and Farm women	Value addition to orange	1	Off	--	20	20	-	9	9
2.2.08	Farmer and Farm women	Low cost pest management strategies in chilli	1	Off	9	11	20	3	2	5
4.2.08	Farmer and Farm women	Technology for off season cauliflower and cabbage cultivation	1	Off	20	--	20	13	-	13
4.2.08	Farmer and Farm women	Use, operation and maintenance of different threshing implements	1	Off	20	--	20	13	--	13
5.2.08	Farmer and Farm women	Value addition to tomato	1	Off	--	20	20	-	-	--
6.2.08	Farmer and Farm women	Fabric printing	1	Off	--	20	20	-	9	9
21.02.08	Farmer and Farm women	Technique of cultivation of hybrid sunflower	1	Off	--	20	20	-	3	3
23.02.08	Farmer and Farm women	Techniques of controlling pumpkin fruit fly	1	Off	20	--	20	-	--	-
1.3.08	Farmer and Farm women	Value addition to shoots of bamboo	1	Off	--	20	20	-	--	-
4.3.08	Farmer and Farm women	Production technology of elephant foot yam	1	Off	--	20	20	-	8	8
4.3.08	Farmer and Farm women	Preservation of mushroom	1	Off	--	20	20	-	4	4
10.3.08	Farmer and Farm women	Production of quality planting materials under protective cultivation	1	Off	20	--	20	1	--	1

**(D) Vocational training programmes for Rural Youth**

Crop / Enterprise	Identified Thrust Area	Training title*	Duration (days)	No. of Participants			Self employed after training			Number of persons employed elsewhere
				Male	Female	Total	Type of units	Number of units	Number of persons employed	
Seed production	Seed production	Seed production techniques in vegetables like tomato, brinjal, chilli, okra	1	25	-	25	--	--	--	--
Rural craft	Income generation of rural poor women	Preparation of household materials	1	-	20	20	--	--	--	--
Sericulture	Sericulture	Disease of mulberry silk worm	1	11	9	20	--	--	--	--
Fodder crops	Introduction of more remunerative crops in cropping system	Agronomic practices for grasses and leguminous fodder crops	1	20	--	20	--	--	--	--
Integrated farming system	Crop diversification	Farming system approach	1	20	--	20	--	--	--	--
Improve	Farm	Use of improved	1	20	-	20	-	-	-	-

agricultural implements	mechanization	agricultural implements and self employment by owning the machine or by custom hiring through Agro service centre								
		Use, Operation, care and maintenance of pumps, sprayers, tractors and power tillers	1	20	-	20	-	-	-	-

\* *Training title should specify the major technology /skill transferred*

**(E) Sponsored Training Programmes : NIL**

**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	6	210	41	251	--	-	--	210	41	251
Kisan Mela	--	--	--	--	--	--	--	--	--	--
Kisan Ghosthi										
Exhibition	1			Mass			Mass			Mass
Film Show	10	888	632	1520	21	12	33	909	644	1553
Method Demonstrations	15	192	108	300	4	2	6	196	110	306
Farmers Seminar										
Workshop										
Group meetings	42	553	300	853	25	12	37	578	312	890
Lectures delivered as resource persons	20	782	428	1210	33	4	37	815	432	1247
Newspaper coverage	9			Mass			Mass			Mass



Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Radio talks	6			Mass			Mass			Mass
TV talks	7			Mass			Mass			Mass
Popular articles	5			Mass			Mass			Mass
Extension Literature	1									
Advisory Services										
Scientific visit to farmers field	93	400	255	655	5	2	662	405	257	662
Farmers visit to KVK	366	305	61	366	10	--	376	315	61	376
Diagnostic visits	35	200	50	250	20	10	30	220	60	280
Exposure visits										
Ex-trainees Sammelan										
Soil health Camp										
Animal Health Camp	2	78	47	125	4	1	5	82	48	130
Agri mobile clinic										
Soil test campaigns										
Farm Science Club Conveners meet										
Self Help Group Conveners meetings	2		24	24	--	2	2	--	--	26
Mahila Mandals Conveners meetings										
Celebration of important days										
1.Akshya Trutiya	1	23	17	40	3	1	4	26	18	44
2. World Food day	1	36	5	41	--	--	--	36	5	41
3. Women in agriculture day	1	--	40	40	-	--	--	--	40	40
Any Other (Specify)										
<b>Total</b>	<b>623</b>	<b>3667</b>	<b>2008</b>	<b>5675</b>	<b>125</b>	<b>46</b>	<b>1192</b>	<b>3792</b>	<b>2028</b>	<b>5846</b>

### 3.5 Production and supply of Technological products

#### SEED MATERIALS

Category	Crop	Variety	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
<b>CEREALS</b>				--	--
<b>OILSEEDS</b>	Sesamum	GT2	0.51	--	--
<b>PULSES</b>				--	--
<b>VEGETABLES</b>	Okra	Arka Anamika	0.1	--	--
	Beans	Raikia local	0.1	--	--
<b>FLOWER CROPS</b>				--	--
<b>OTHERS (Specify)</b>	Dhanicha	--	0.3	--	--
	Turmeric	Rajendra Sonia Lakdong Roma	0.8	--	--
	Dioscorea	Orissa Elite	1.5	--	--
	Elephant foot yam	Gejendra	0.3	--	--
	Ginger	Suruchi	0.05	--	--

#### SUMMARY

Sl. No.	Crop	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
1	CEREALS	--	--	--
2	OILSEEDS	0.51	--	--
3	PULSES	--	--	--
4	VEGETABLES	0.2	--	--
5	FLOWER CROPS	--	--	--
6	OTHERS	2.15	--	--
<b>TOTAL</b>		<b>2.86</b>		

**PLANTING MATERIALS**

Sl. No.	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
<b>FRUITS</b>	Papaya	CHD	5000	15000/-	500
	Jack fruit	Local	300	1500/-	10
	Bael	Local	300	1500/-	25
	Cashew	V-4	500	5500/-	To be used in instructional farm of KVK
	Mango	Amrapalli	1000	18000/-	-do-
	Drum stick	PKM-1	500	2500/-	50
<b>SPICES</b>	Turmeric	Roma, Rajendra sonia, Lakdong	1.5 qtl.		
	Ginger	Suprava	0.05 qtl.		
<b>VEGETABLES</b>					
	Tomato	Sanchi	5000	1250	<b>22</b>
	Brinjal	Tarini	5000	1250	<b>28</b>
<b>FOREST SPECIES</b>					
<b>ORNAMENTAL CROPS</b>	Bougainvillea	--	500	5000	80
<b>PLANTATION CROPS</b>					
<b>Others (specify)</b>					

**SUMMARY**

Sl. No.	Crop	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
1	FRUITS	7600	44000/-	585
2	VEGETABLES	1000	2500/-	50
3	SPICES	1.55		
4	FOREST SPECIES			
5	ORNAMENTAL CROPS	500	5000	80
6	PLANTATION CROPS			
7	OTHERS			
	<b>TOTAL</b>	<b>8100</b>	<b>51500/-</b>	<b>715</b>

### BIO PRODUCTS

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	(kg)		
BIOAGENTS						
1						
2						
3						
4						
BIOFERTILIZERS						
1	Azola species	Mexicana		40 kg	--	10
2						
3						
4						
BIO PESTICIDES						
1	Neem Oil Cake	Local		100 kg	Free	15
2	Pongamia Oil Cake	-do-		-do-	-do-	-do-
3	Mahua Oil Cake	-do-		-do-	-do-	-do-
4						

### SUMMARY

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	(kg)		
1	BIOAGENTS	--	--	--	--	--
2	BIO FERTILIZERS	Azola species		40 kg	--	15
3	BIO PESTICIDE	Local species of neem, pongamia and mahua		300 kg.	--	45
	<b>TOTAL</b>			<b>340 kg</b>		<b>60</b>

**LIVESTOCK**

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			(Nos)	Kgs		
Cattle						
Sheep and Goat						
Poultry						
Fisheries						
Others (Specify)						

**SUMMARY**

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			Nos	Kgs		
1	CATTLE					
2	SHEEP & GOAT					
3	POULTRY					
4	FISHERIES					
5	OTHERS					
	<b>TOTAL</b>					

### 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	<ul style="list-style-type: none"> <li>• Farmers perception of IPM in paddy, Angul, Orissa</li> <li>• Efficacy of certain insecticides in controlling jassids and whiteflies of brinjal</li> </ul>	Dr. M.K. Tripathy Dr. A.P. Kanungo  Dr. M.K. Tripathy Mrs. K. Sethi Dr. A.P. Kanungo	<ul style="list-style-type: none"> <li>• Paper to be presented in the symposium of Road map agriculture development in Orissa</li> <li>• Society for plant protection and environment on 6<sup>th</sup> and 7h December,2007.</li> </ul>
Technical reports	<ul style="list-style-type: none"> <li>• Annual Report 2007</li> <li>• Annual Repot 2007-08</li> <li>• 11<sup>th</sup> Plan EFC Report 2008-2012</li> <li>• Bench Mark survey report</li> <li>• PRA survey report</li> <li>• Action Plan 2007</li> <li>• Action Plan 2007-08</li> <li>• Report on success story of KVK</li> <li>• Report on achievement of KVK since inception (Report presented at meeting of SAC)</li> <li>• Annual Report on FLD on oilseed and pulses 2007-08.</li> </ul>	--	--
News letters			
Technical bulletins	<ul style="list-style-type: none"> <li>• How to get more profit from Brinjal cultivation</li> <li>• Improved method of sunflower cultivation</li> <li>• Improved method of litchi cultivation</li> </ul>	Dr.M.K.Tripathy, Mr. S. K. Sahoo and Mr. S. K. Pattanaik  Mr. S.K. Dwibedi Dr. M.K. Tripathy Mr. S.K. Sahoo Dr. M.K. Tripathy	1000 copies   500 copies  500 copies

	<ul style="list-style-type: none"> <li>• Use of Agriculture machineries for better crop productivity in groundnut</li> <li>• Integrated pest management in mango</li> </ul>	Mr. D.K. Mohanty Dr. M.K. Tripathy Dr. M.K. Tripathy	500 copies  500 copies
Popular articles	<ul style="list-style-type: none"> <li>• Panipariba Phasalre kitanashak ra matra kamantu, Chasira sansara</li> <li>• Biodiesel , chasira sansar</li> <li>• Rotavator – Eka urnnata jami prastutikari jantra</li> </ul>	Dr M.K.Tripathy and S.K. Pattanaik,  Mr. D.K. Mohanty Mr. M. Mohanty Mr. D.K. Mohanty Dr. M.K. Tripathy	May- Aug,2007, pp43-44.  May- Aug,2007, pp41-43.  Sept., to Dec., 2007
Extension literature			
Others (Pl. specify) Radio talk	<ul style="list-style-type: none"> <li>• Pest control by use of botanicals</li> <li>• Vermi compsting</li> <li>• Agricultural mechanization</li> <li>• Fodder cultivation</li> </ul>	Dr. M.K. Tripathy  Mr. S.K. Sahoo Mr. D.K. Mohanty Mr. S.K. Dwibedi	
<b>TOTAL</b>			

**N.B. Please enclose a copy of each. In case of literature prepared in local language please indicate the title in English**

**(C) Details of Electronic Media Produced**

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number
1	VCD	Pradhanpat festival-cum-exhibition	1

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

## HYBRID TOMATO CULTIVATION -A SUCCESSFUL WILT COMBATING EFFORT

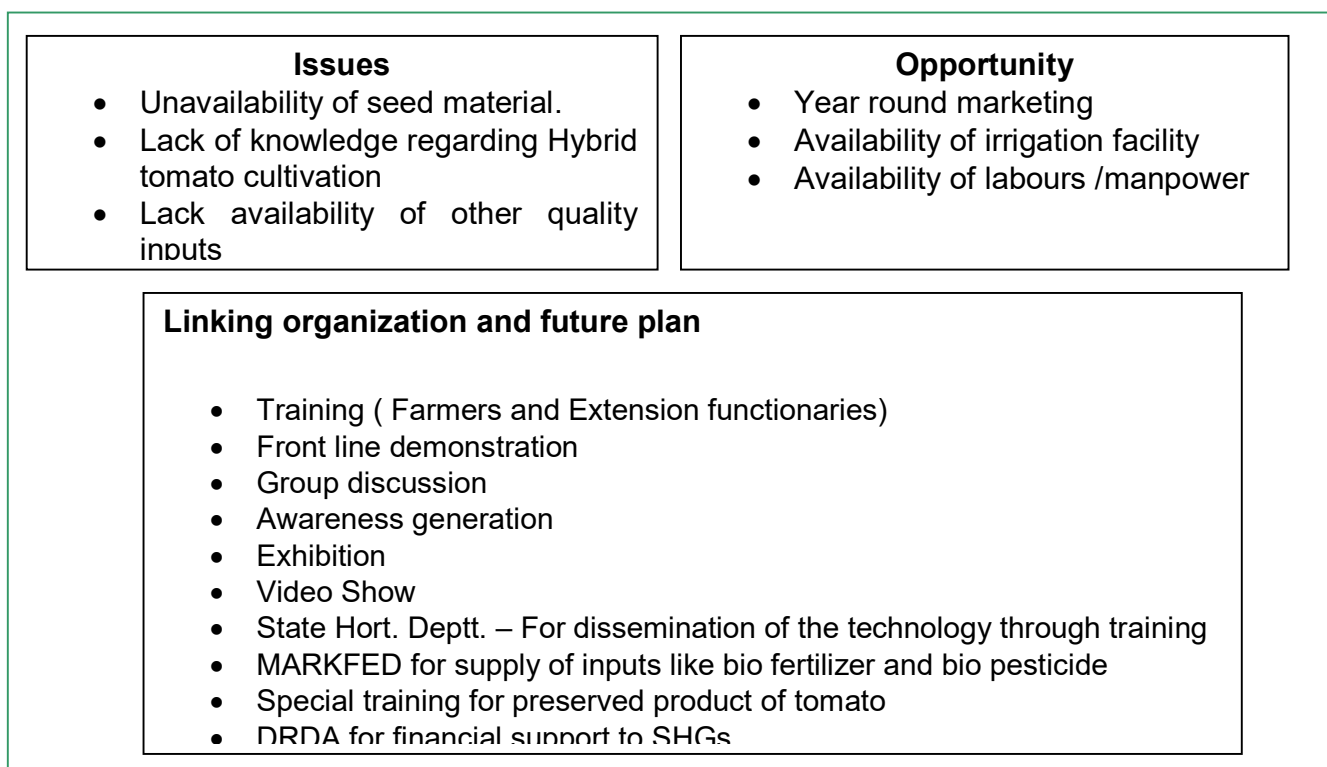
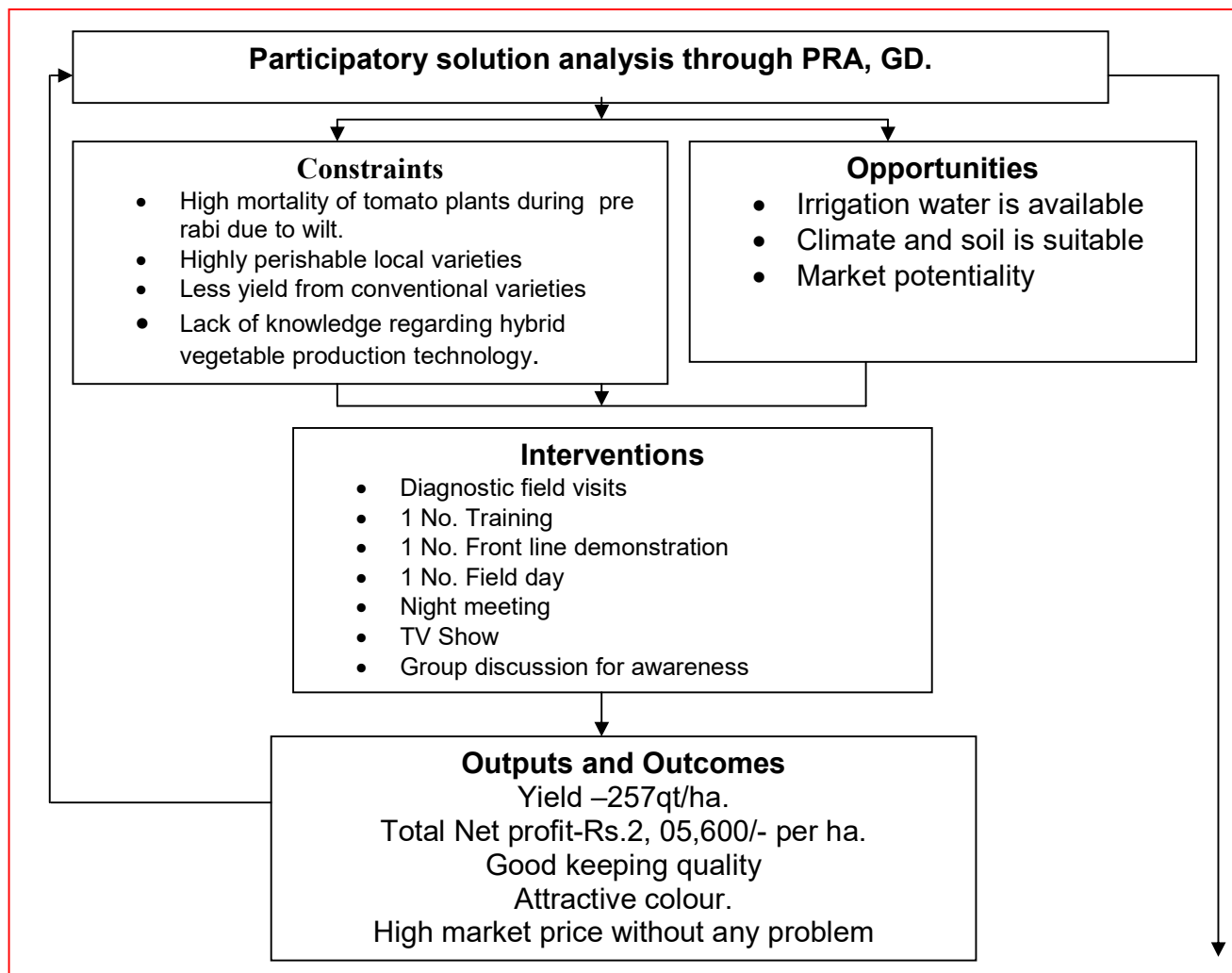
1. **Name of the enterprise / practice / Technology :** Cultivation of wilt resistant hybrid tomato
2. **Name & address of the farmer :** Sri Ananta Charan Sahoo  
Village : Niktimal  
Block : Tileibani  
Dist : Deogarh
3. **Initial status:** Tomato, Brinjal and Chilli are most predominant vegetable crops in the Deogarh district. Niktimal, a village in Tileibani block of Deogarh district is situated at a distance of 25 kms from the district headquarters. Most of the farmers in the village are small and marginal and cultivate paddy, pulses, oilseeds and vegetables. Tomato is the major crops among vegetables and being cultivated mostly by using local and improved varieties. Among several problems encountered during cultivation, wilt was the major problem incurring heavy losses and the average yield was 35 q/acre.
4. **KVK intervention:** Keeping in view of the above aspects it was proposed to promote wilt resistant hybrid tomato in the village. Training programmes were organised in the village on "Improved technologies for vegetables cultivation". FLD was conducted on "Introduction of wilt resistant hybrid tomato" A night meeting was also organised in that village.
5. **Innovative extension approach:** Necessary technical literature was provided to the farmers. Linkage was facilitated with Deogarh daily market for selling of the produce with minimum support price.
6. **Details of technology:**
  - i) **Introduction of wilt resistant hybrid variety :** S-108
  - ii) **Seed treatment and seed bio priming :** *Trichoderma viridae* @ 5gm/kg of seed *Pseudomonas flourescence* @ 10gm/kg seed mixed with the seeds along with half rotten FYM and kept for 2 days before sowing in nursery.



- iii) **Nursery raising** : Neem oilcake –4 kg/standard nursery sowing of seeds in line soil disinfection through smoke.
- iv) **Main field treatment** : Neem oilcake @ 1 qtl/ha *Trichoderma viridae* along with FYM during final land preparation. FYM quantity 20 cart load / acre.
- v) **Seedling treatment** : Streptocycline – 0.1gm, Redomeal – 2gm/lit of water and seedling are kept in the solution for 20 minutes after cutting the tips and planted in main field.
- vi) **Fertilizer application** : Application of DAP 55 kg and MOP 25 kg as basal dose 20 kg urea as first top dressing after 25 DAP and 20 kg urea and 25 kg MOP as second top dressing after 55 DAP to fulfill the fertilizer requirement.
- vii) **Pesticide application** : Twice Immedachloprid application @ 3ml/10 lit of water for control of whiteflies and jassids at an interval of 15 days. Alternate application of HNPV @ 250LE/ha along with leepol and neemoil @ 2.5ml/lit of water and profenophos @ 2.5ml/lit for control of *H. armigera*.

**7. Adoption of the technology and benefit to the farmers** : After being exposed to extension interventions made by KVK, the farmers in the village Niktimal treated seeds with *Trichoderma viridae* @ 5g/kg and *Pseudomonas flourescence* @ 10g/kg of seeds. Well prepared nursery beds were raised and seeds were sown in rows in the bed after treating nursery bed with smoke. During planting, seedlings were treated with Streptocycline – 0.1gm/lit, Redomeal – 2gm/1lit. of water and main field was treated through soil drenching. Mr. Sahu along with 20 farmers of the village cultivated hybrid tomato in an area of 1 acre and recorded a yield of 103 quintals as against 35 quintals in the traditional varieties. The fruits were of attractive colour, bigger and uniform size and the keeping quality was recorded up to 15 days after plucking. The group earned a net profit of Rs. 82,400/- which was a unique experience for the tomato growers in the district.

## 8. Models of technology dissemination :



**9. Farmers reaction and feed back :** The farmers of the village have a unique experience in the tomato cultivation. The farmers expressed their happiness and satisfaction over the success achieved due to the efforts of the scientists and promoted collaboration in future.

**10. Extent of diffusion effect of the newly adopted technology :** Being inspired by the success of the enterprise, more farmers in the village and nearby villages have started hybrid tomato cultivation and rushed to the KVK for technology transfer through training & FLD.

**11. Follow up action :** KVK, Deogarh has documented the success and has developed plan to promote the technology in the other parts of the district.

## PHOTO GALLERY



Practicing seedling root dip on their own, the base line protection for vegetable growing.



Getting pleasure in working with group



Result of scientific advice by KVK.



Now very much satisfied with the end product



Attractive colour



Name and fame of KVK in the district level exhibition along with the Hon'ble Minister of PR & District Magistrate.



Need based application of chemical based on ETL



Only scientists can solve our problems

## ORGANIC TOMATO IN SUMMER CHANGED THE FARMERS' COLOUR

1. **Name of the Enterprise / Practice / Treatment :** Organic tomato production of c.v. Krishna during summer.
2. **Name & address of the farmer:** Sri. Khitish Chandra Pradhan  
S/o. Sri. Mohan Pradhan  
Village: Nuabhuin  
Block: Tileibani  
Dist.- Deogarh
3. **Initial status:** Generally, tomato is grown in winter season in Deogarh district as a major vegetable crop. Due to abundant production of tomato in winter, the farmers fetch low price of the produce. To encounter the problem attempt has been made to take tomato as a crop in summer with organic inputs. Nuabhuin, a village in Tileibani block of Deogarh district is situated at a distance of 15 km from the district headquarters which has been chosen for the practice. Most of the farmers in the village are small and marginal category and cultivate paddy, sunflower & vegetables with average yield of 20 q/acre.
4. **KVK Intervention:** Keeping in view of the above aspects, it was proposed to promote organic tomato production of c.v Krishna during summer in that village. A farmers' fair was organized in the village on "Organic farming". A demonstration on organic inputs was conducted on "Organic tomato production" of c.v. Krishna during summer. A night meeting and group discussion were also organized in that village.
5. **Innovative extension approach:** Necessary technical literature was provided to the farmers regarding production of organic tomato. Market linkage and facilitation for selling of the organic produce to get maximum profit were made by the KVK.

### 6. Details of technology:

- i. Introduction of heat tolerant variety : - Krishna
- ii. Seed treatment:- *Trichoderma viridae* @ 5 g / kg of seed.
- iii. Nursery raising :-
  - (a) *Trichoderma viridae* @ 100 g / 10kg of FYM mixed and kept for 2 days and spread on nursery bed after seed sowing.
  - (b) Neem oil cake was applied in bed @4 kg / nursery of 3'x6'
  - (c) Sowing of seeds in line
  - (d) Nursery bed soil disinfection through smoke

iv. Main field treatment :

(a) Neem oil cake @ 1qtl//acre

(b) *Trichoderma viridae* along with FYM during final land preparation.

(c) 30 cart loads of FYM was applied per acre along with 1 cart load of goat manure to fulfill the nutrient requirement.

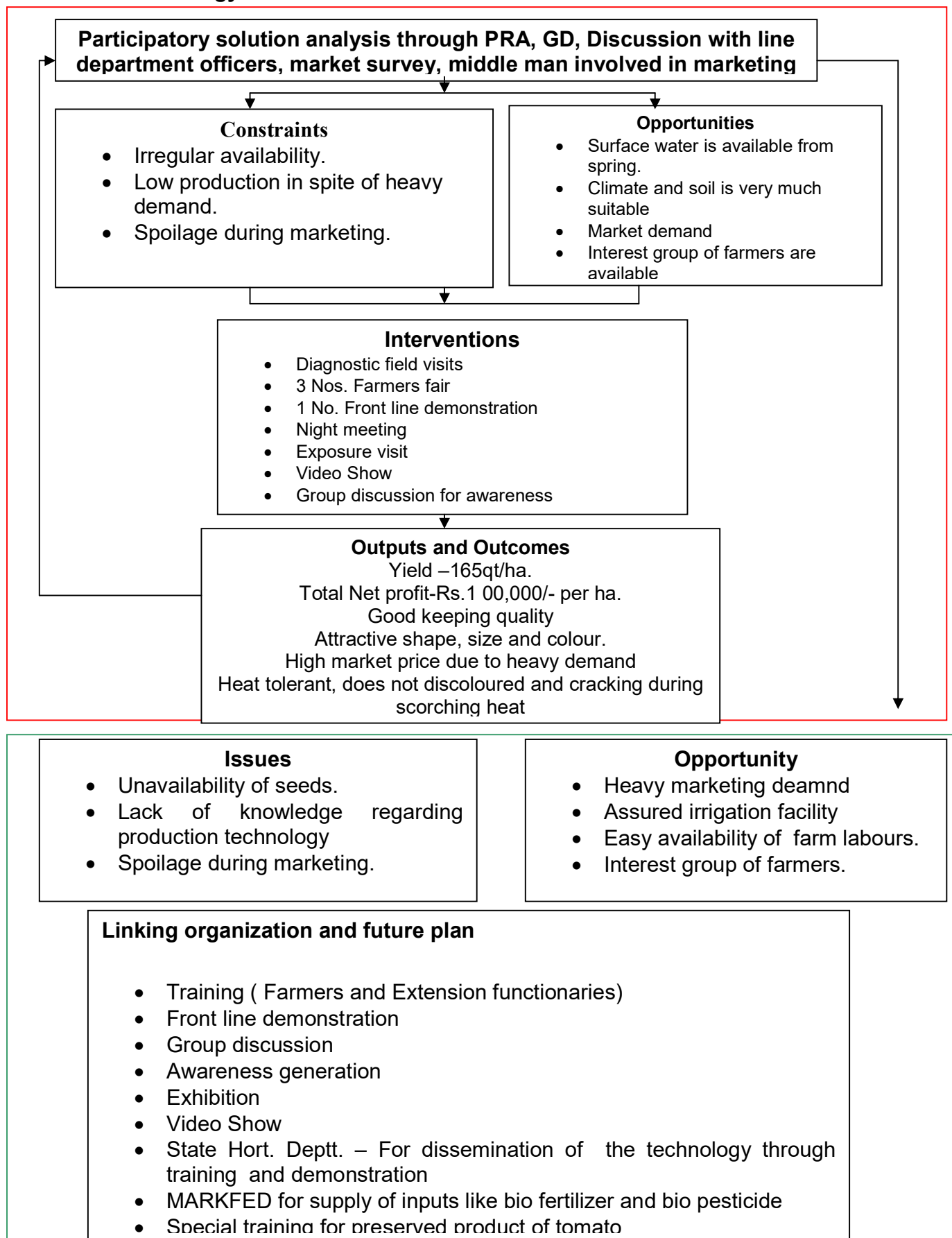
(v) Seedling treatment:- *Trichoderma viridae* powder was mixed @ 10g/ 1 lt of water and seedling were kept in the solution for 20 minutes after cutting the tips and planted in main field.

(vi) Fertilizer application :- No chemical fertilizer applied in the nursery or in the field. Only FYM and goat manure were applied during land preparation and also top dressed after 25 & 55 of planting along with vermicompost.

(vii) Pesticide application :- Twice application of neem oil @ 5 ml / 1 lt of water during vegetative stage along with teepol. Application of HMPV @ 250 CE / ha along with teepol and BTC 1 gm / lt of water to control fruit borer attacking the crop.

**7. Adoption of the technology and benefit to the farmers:** After being exposed to extension interventions made by KVK, the farmers of Nuabhuin village treated seeds with *Trichoderma viridae* @ 5 g / kg. Well prepared nursery beds of size 3'x10' were made and seeds were sown in line in the bed after treatment of nursery bed with smoke. The plants were ready after 21 days of seed sowing in nursery bed. During transplanting seedlings were treated with *Trichoderma viridae* @ 10 g/1 lt of water and main field was treated with *Trichoderma viridae* @ 1 kg / 100 kg of FYM. Mr. Pradhan cultivated tomato in summer using organic inputs in 0.5 acre area and got an yield of 165q /ha as against 50 q/ha in the traditional variety sown during the main season. The fruits were of uniform size, attractive colour with good keeping quality and also resistant to fruit cracking in summer. Mr. Pradhan earned a net profit of Rs.40,000.00 /acre. It was a unique experience for farmers who desire to grow tomato in summer in the district.

## 8. Models of technology dissemination :-



**9. Farmer's reaction & feedback:** Mr. Pradhan has a unique experience in the organic tomato cultivation in summer. He expressed his satisfaction and happiness over the final produce with the efforts of the scientists and promised collaboration in future.

**10. Extent of diffusion effect of the newly adopted technology:** Farmers of the nearby villages and relatives visiting to his home are surprised by seeing the good quality bumper produce in the field during summer. The consumers and middle men involved in marketing of the produce also enquired regarding the production technology and some of them were interested to take up the variety during this year.

**11. Follow up action :** KVK Deogarh has documented the success and has developed a plan to promote the technology through state Govt. line departments. There is a plan to publish separate literature, TV and radio coverage for wider dissemination of the technology.



## PHOTO GALLERY



Field preparation for organic tomato cultivation



Result of KVK advice



Intervention of KVK, changes in nursery raising methodology



Satisfied with organic end product

## **MUSHROOM CULTIVATION: A PERENIAL AVENUE OF INCOME GENERATION FOR SHGS**

1. **Name of the Enterprise / practice / Technology** :Mushroom cultivation

2. **Name and address of the farmers** : Self Help Group'Astha'

Village: Kureibahal

Block : Teleibani

District: Deogarh

3. **Initial Status** : Inspite of heavy demand for the paddy straw mushroom in the local market of Deogarh town, none of the self help groups functioning in the vicinity were able to produce mushroom as a profitable venture due to lack of technology and motivation.

Kureibahal, a village in Tileibani block is situated 20 kms away from the Deogarh town just along the side of the NH-6. Neither of the SHG present in that village was actively involved in agriculture based activities.

4. **KVK intervention**: The scientists of the Krishi Vigyan Kendra, Deogarh motivated the women members of the newly formed SHG-Astha in its adopted village Kureibahal to take up mushroom cultivation on commercial scale. With the technical support of the scientist of Krishi Vigyan Kendra and financial assistance of the Utkal Gramya Bank, Deogarh, they resolved to invest in this venture for regular income.

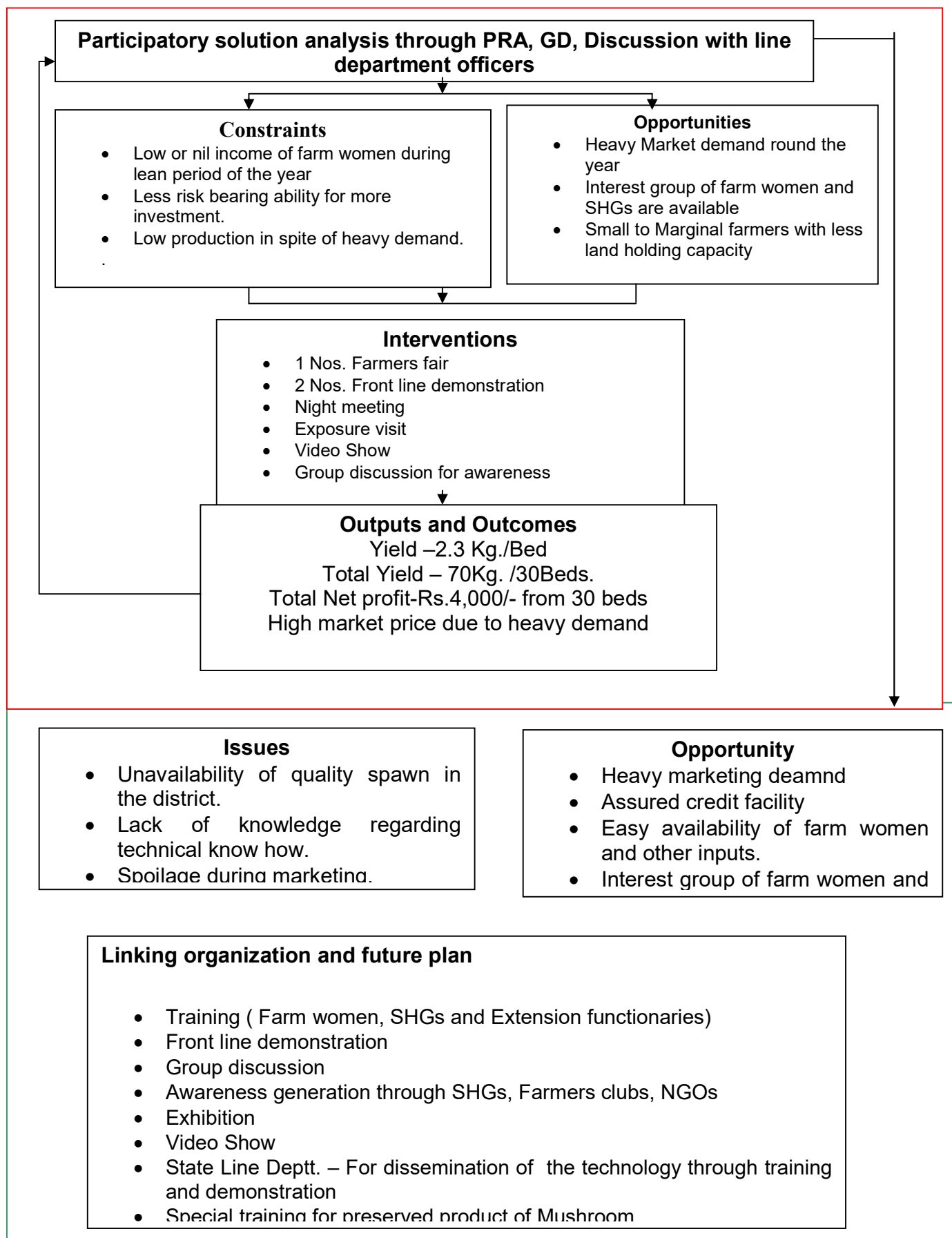
5. **Innovative extension approach**: Initially, 30 beds of paddy straw mushroom were prepared by the members in scientific way and with an investment of Rs. 1000/- towards purchase of inputs viz. spawn, flour and polythene. The members took utmost care for maintenance of humidity. After 20 days they got profit of Rs. 4000/- by selling 70 kg of mushroom in Deogarh town market @ Rs. 80 per kg.

6. **Details of technology** :

- i) Procurement of good quality spawn
- ii) Dis-infection of the mushroom unit by spray of formation solutions.
- iii) Maintenance of humidity of spraying water by hanging gunny bag
- iv) Dis-infection of paddy straw by using boiling water
- v) Bedding on wooden racks.

7. **Adoption of the technology and benefit to the farmers**: After being exposed to the technological interventions by the KVK, the members of the SHG learnt the mushroom production procedure. They are now able to follow the cultivation techniques by themselves.

## 8. Innovative technology dissemination model:



**9. Farmers' reaction and feedback:** By seeing the extraordinary success in mushroom cultivation, the farmers of the village and members of the other SHG were interested for talking up this venture.

**10. Extent of diffusion effect of the newly adopted technology:** the farmers of the nearby villages and SHGs of other villages are now touching KVK for mushroom cultivation. After getting report, the Manager of UGB, Deogarh was very happy over the profit and overall success of the group. He was pleased to sanction a lump sum amount of Rs. 14000/- to the SHG for compounding this venture. The bank is now confident on financial multiplication through mushroom cultivation.

**11. Follow up action:** The KVK, Deogarh has documented and reported the successful achievement of the group and enlisted other SHGs interested for taking up the venture through trainings and FLD. Special attention is being made to produce quality spawn by the SHGs in this locality in future.



## PHOTO GALLERY



Adoption of new technologies in group



Learning by doing



Bed preparation



United we can – Astha SHG

## IPDM IN TOMATO- A SUCCESSFUL GROUP ACHIEVEMENT IN KALAMATI VILLAGE.

1. **Name of the enterprise / practice / Technology :** IPDM in tomato

2. **Name & address of the farmer :** Sri Biranchi Narayan Thakur

Village : Kalamati

Block : Tileibani

Dist : Deogarh

3. **Initial status:** Tomato is usually cultivated in most part of Deogarh district due to its suitability to the soil and agro climatic situation of the region. However, wilt and fruit borers seriously affect the crop. As the soil of Deogarh is mostly acidic in nature *i. e.* 5.5 to 6.0, the crop is frequently affected by all types of wilt resulting in severe yield loss. Sometimes the situation becomes so devastating that the farmers face total crop failure. Keeping in mind the above scenario, the scientists at KVK diagnosed the problems of the farmers approaching them.

The Kalamati village is situated 10kms away from Deogarh town just at the side of NH-6 in Tileibani block of Suguda Panchayat. The farmers were dissatisfied with the cultivation of solanaceous crops like Tomato due to severe incidence of wilt and fruit borer attacks. It was a challenge for the scientists to motivate the farmers to switch on to the cropping system which they have had been practicing since their fore fathers.

4. **KVK intervention:** The scientists of KVK decided to conduct a FLD in the field of the farmers on community basis at Kalamati village. The farmers were convinced to cultivate tomato on 1 acre of land through several group discussions and night meetings. The farmers with the leadership of Sri Biranchi Narayan Thakur came forward to adopt the technology suggested by the scientists.

5. **Innovative extension approach:** Necessary technical literature was provided to the farmers. Linkage was facilitated with Deogarh daily market for selling of the produce with minimum support price.

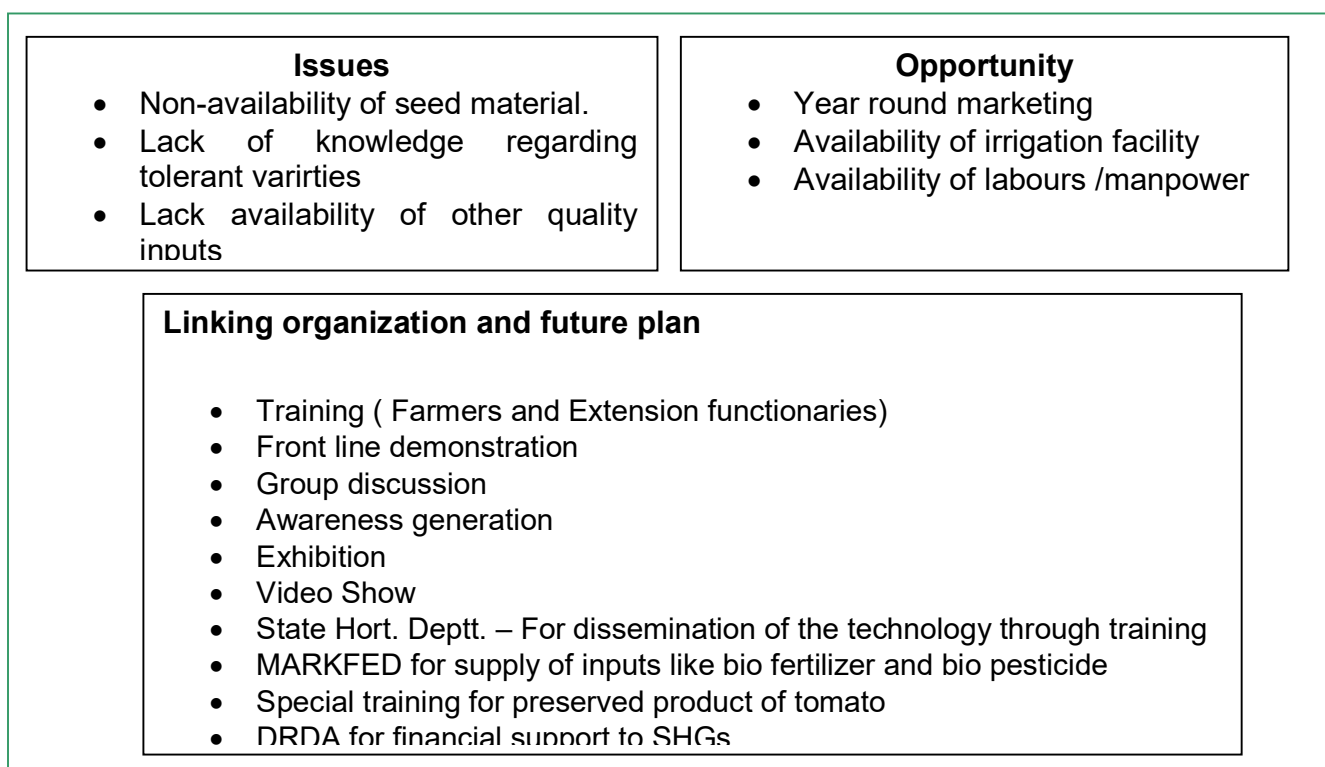
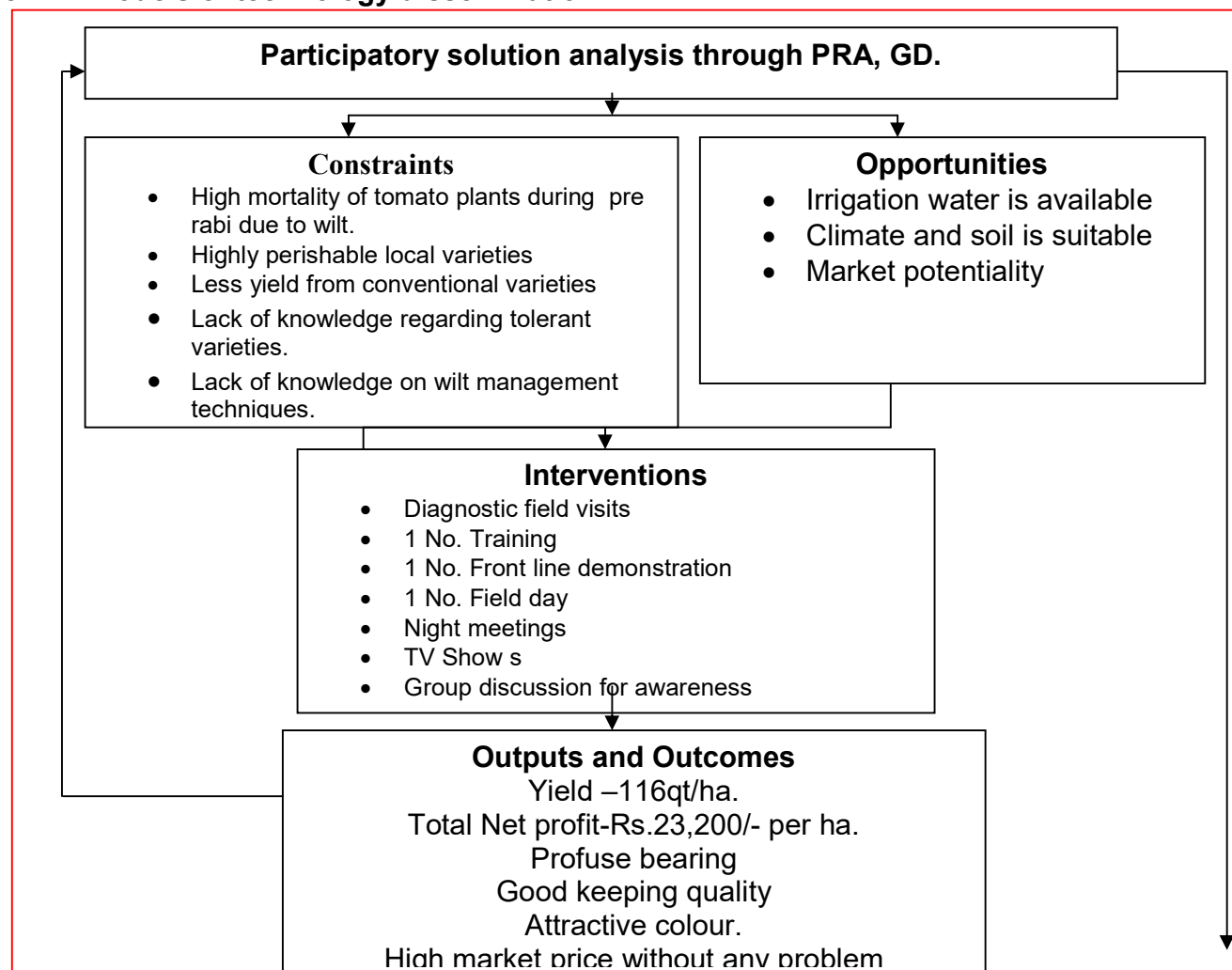
6. **Details of technology:**

viii) ***Introduction of wilt tolerant variety :*** BT-10

- ix) **Seed treatment and seed bio priming** : *Trichoderma viridae* @ 5gm/kg of seed *Pseudomonas flourescence* @ 10gm/kg seed mixed with the seeds along with half rotten FYM and kept for 2 days before sowing in nursery.
- x) **Fumig of Nursery beds**: Nursery beds were fumigated with smoke before sowing of the seeds.
- xi) **Nursery raising** : Neem oilcake –4 kg/standard nursery sowing of seeds in line soil disinfection through smoke.
- xii) **Main field treatment** : Neem oilcake @ 1 qtl/ha *Trichoderma viridae* along with FYM during final land preparation. FYM quantity 20 cart load / acre.
- xiii) **Seedling treatment** : Streptocycline – 0.1gm, Redomeal – 2gm/lit of water and seedling are kept in the solution for 20 minutes after cutting the tips and planted in main field.
- xiv) **Fertilizer application** : Application of DAP 55 kg and MOP 25 kg as basal dose 20 kg urea as first top dressing after 25 DAP and 20 kg urea and 25 kg MOP as second top dressing after 55 DAP to fulfill the fertilizer requirement.
- xv) **Pesticide application** : Twice Imidachloprid application @ 3ml/10 lit of water for control of whiteflies and jassids at an interval of 15 days. Alternate application of HNPV @ 250LE/ha along with leepol and neem oil @ 2.5ml/lit of water and profenophos @ 2.5ml/lit for control of *H. armigera*.

**7. Adoption of the technology and benefit to the farmers** : After being exposed to extension interventions made by KVK, the farmers in the village Niktimal treated seeds with *Trichoderma viridae* @ 5g/kg and *Pseudomonas flourescence* @ 10g/kg of seeds. Well-prepared nursery beds were raised and seeds were sown in rows in the bed after treating nursery bed with smoke. During planting, seedlings were treated with Streptocycline – 0.1gm/lit, Redomeal – 2gm/1lit. of water and main field was treated through soil drenching. Mr. Thakur along with 10 farmers of Kalamati village cultivated hybrid tomato in an area of 1 acre and recorded a yield of 46.4 quintals as against 34 quintals in the traditional varieties. The fruits were of attractive colour, bigger and uniform size and the keeping quality was recorded up to 12 days after plucking. The group earned a net profit of Rs. 23,200/-, which was a unique experience for the tomato growers in the district.

## 8. Models of technology dissemination :





**9. Farmers reaction and feed back :** The farmers of the village have a unique experience in the tomato cultivation. The farmers expressed their happiness and satisfaction over the success achieved due to the efforts of the scientists and promoted collaboration in future.

**10. Extent of diffusion effect of the newly adopted technology :** Most of the farmers of near by villages have turned back to their age old cultivation but with modern look. They have rushed KVK for more demonstrations, trainings and group discussions.

**11. Follow up action :** KVK, Deogarh has documented the success and has developed plan to promote the technology in the other parts of the district. The fruits fetched a very good price due to its attractive colour, size and keeping ability.

## PHOTO GALLERY



( Nursery beds of tomato)



After transplanting in main field)



(Scientists discussing with the farmers)



(Sprayings conducted under supervision of Scientists)



(Grading of fruits before marketing)



(Farmers selling tomato at Deogarh daily market)

## IPDM AND INM IN HYBRID SUNFLOWER, A SUUCCESS IN ACID SOIL.

1. **Name of the Enterprise / practice / Technology :** IPDM and INM in hybrid sunflower
2. **Name and address of the farmers :** Farmers of Village : Kalamati  
Block : Teleibani  
District : Deogarh
3. **Initial Status :** The farmers were cultivating traditional varieties of sunflower by using their own seeds as a result of which the yield was very poor. Moreover, they were unable to take proper plant protection measures, which often lead to total crop failure. Injudicious application of pesticides also creates pest resurgence. They were also totally ignorant about use of secondary plant nutrients and the need of boron and sulphur in acid soil for getting good oil yield. Imbalance application of fertilizers and particularly the excess use of N in form of urea resulted in severe lodging and insect pest attack in late vegetative stage. Capitulum.

Kalamati village of Tileibani block is situated 10 kms away from the Deogarh town just nearby the NH-6. The farmers were growing sunflower as second crop in rabi after paddy with the canal water. Although they were able to irrigate the crop with suffiecient water, they were getting very poor yield over years due to attack of pest s and diseses and use of their own seeds.

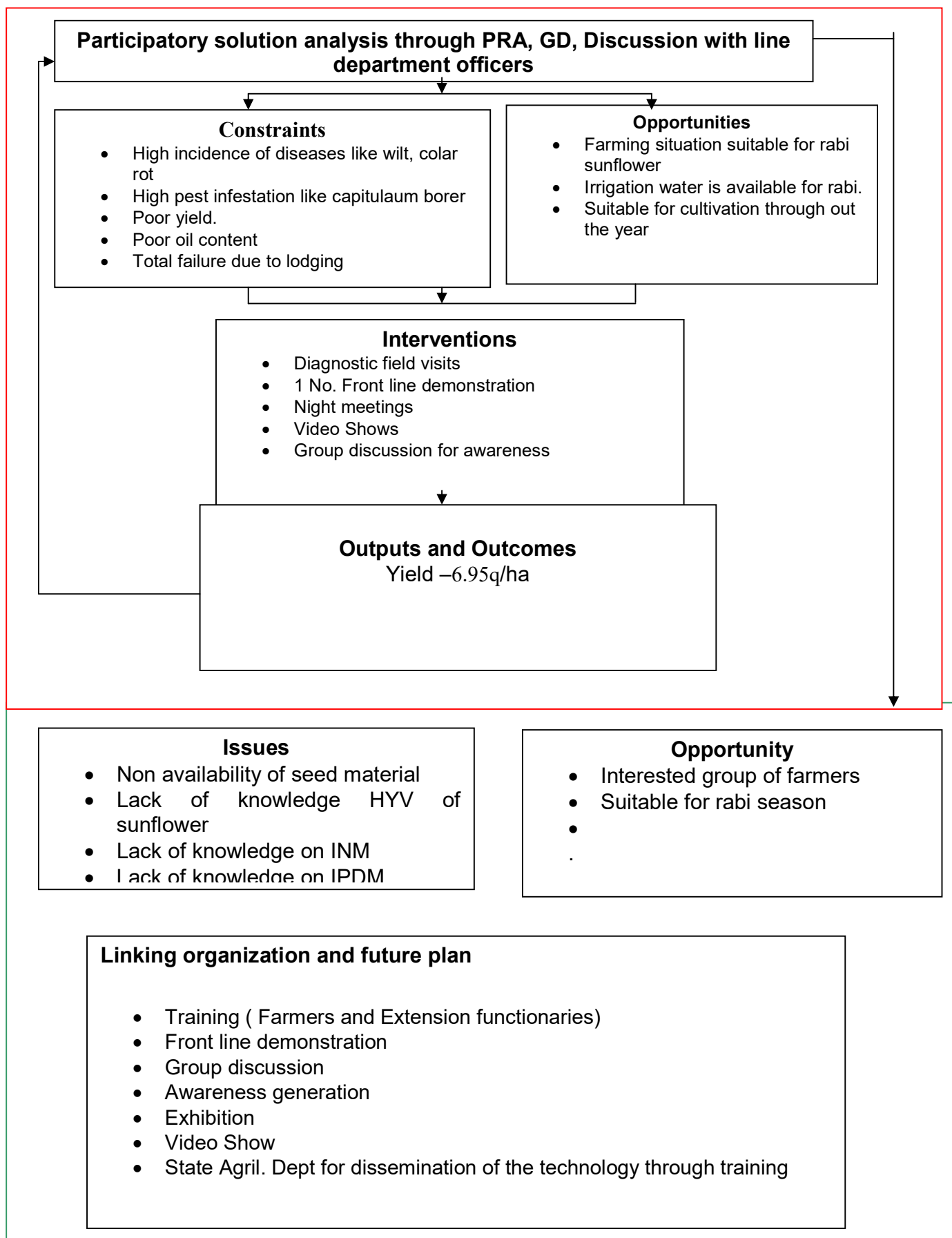
4. **KVK intervention:** The scientists of the Krishi Vigyan Kendra, Deogarh visted their field and discussed with them in their village and diagnosed their problems. They were advised to replace their own variety with a promising HYVs and hybrids along with INM and IPDM practices.
5. **Innovative extension approach:** MSFH-8, a hybrid was provided to replace their own variety in some patches and they were advised to take INM and IPDM practices. The farmers could get a yield of 6.95q/ha with 69.4% increase over local check.

## 6. Details of technology:

- vi) Seed treatment of MSFH-8 with Bavistin, Streptocycline and Imidachloprid before sowing.
- vii) Well prepared main field with 4 cart loads of FYM and 1q of paper mill sludge per acre at final land preparation along with 0.25q urea, 1q. of SSP and 0.15q MOP per acre.
- viii) Spacing of at least 45 x 30 was maintained.
- ix) Thinning and gap filling within a week.
- x) Weeding, hoeing, earthing up and first top dressing with 0.25q urea , 0.1q Mop and 0.5kg of concentrated Boron to soil.
- xi) Spraying of Dithane M-45 reduced the seedling wilt.
- xii) Two sprayings of Boron 20% @ 0.2%, one at bud formation stage and another at seed setting.
- xiii) Two sprayings of endosulfan @ 0.2% at 15 days intervals during flowering stage checked the capitulum borer attack.
- xiv) Adequate measures for bird scare.

**7. Adoption of the technology and benefit to the farmers:** After cultivating MSFH-8 in a portion of their field they could mark the difference in terms of crop growth trend, seed setting, head size and finally the oil yield. The crop was worth seeing with better germination and lower disease pest attack. The farmers by seeing the result were convinced to adopt the new variety and technologies. They are now interested to replace their own varieties with the MSFH-8. The farmers who were cultivating with closer spacing suffered a lot due to lodging effect to mild turbulent wind.

## 8. Innovative technology dissemination model:



**9. Farmers' reaction and feedback:** By seeing the success of MSFH-8, the farmers were happy and they determined to replace their own varieties with the new one or the like. They were also acquainted with the INM and IPDM practices. The most encouraging was the final oil yield. The farmers could get double the oil yield that they were getting before.

**10. Extent of diffusion effect of the newly adopted technology:** The farmers of the nearby villages are now touching KVK for advice. The district level officers of the line dept of agriculture have been invited to see the result and they were requested to take adequate measures for spreading of the technologies all over the district. A booklet in oriya entitled "Suryamukhi chasa,: Eka byabasaika anuchinta" has been published by KVK narrating all the technologies required for increasing the oil yield from sunflower cultivation. The has been circulated among the farmers and the workers of the district agril. dept.

**11. Follow up action:** The KVK, Deogarh has documented and reported the successful achievement of the farmers. Few farmers of Kalamati village are now able to train their fellow farmers of nearby villages on the production technologies. The farmers of Niktimal have made up their mind to take up sunflower cultivation in a scientific way.



## PHOTO GALLERY



(Primary tillage operation after paddy)



(Application of paper mill sludge)



(Making of lines at 45 X 30 cm spacing)



(Sowing of MSFH-8)



(Weeding by farm women)



( The crop at flowering ready for spraying of boron + endosulfan)

## **PRATIKSHYA ACCEPTED AS VERY GOOD SUBSTITUTE FOR SWARNA**

- 1. Name of the Enterprise / practice / Technology :** Introduction of Pratikshya to replace Swarna
- 2. Name and address of the farmers :** Farmers of Village : Niktimal  
Block : Teleibani  
District : Deogarh
- 3. Initial Status :** The ruling Swarna was susceptible to most of the diseases like BLB, BLS, Sheath rot, Blast, etc and pest attack like stem borer and gall midge. Because of which the farmers were compelled to administer chemical disease and pest control measures which ultimately resulted in low benefit : cost ratio.

Niktimal an adopted village of KVK in Tileibani block is situated 20 kms away from the Deogarh town nearby the NH-6. The farmers were fed up with the Swarna variety and they were in search of a suitable variety to replace it but without compromising with the yield potentiality and grain quality.
- 4. KVK intervention:** The scientists of the Krishi Vigyan Kendra, Deogarh motivated the farmers of Niktimal village. They were convinced to replace Swarna with Pratikshya newly released from OUAT, Bhubaneswar.
- 5. Innovative extension approach:** The certified seeds of Pratikshya were pregerminated before sowing in the nursery beds. After 20days the seedlings were uprooted and transplanted in the main field with sufficient FYM and organic matter along with basal dose of chemical fertilizers. Two split doses of nitrogen and potash at maximum tillering and P.I. stage produced vigorous crop stand. The farmers could get highest yield of 72.5q/ha with average yield of 66.2q/ha and benefit cost ratio of 1: 2.51. They were able to sale the produce nearby by market and some of them exchanged seeds with their relatives and farmers of nearby villages.

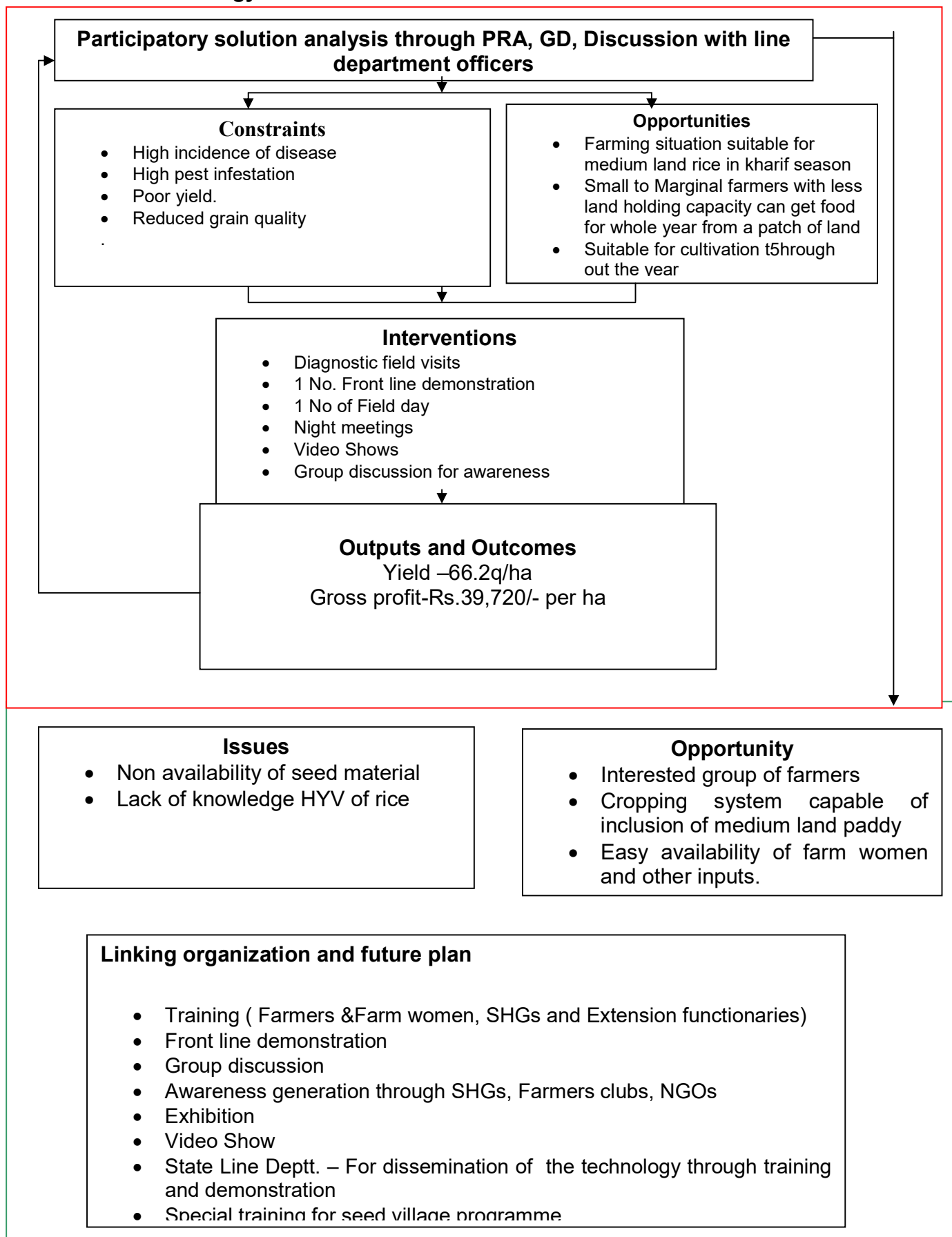


## **6. Details of technology :**

- xv) Procurement of quality seeds/quality seeds.
- xvi) Preparation of nursery bed with sufficient organic matter and drainage facility.
- xvii) Removal of floating seeds in salt water before soaking for germination
- xviii) Germination technique by using worm water and gunny bags for getting uniform germination.
- xix) Puddling of main field and transplanting with 2 seedlings per hill at 20 x 30cm spacing
- xx) INM practices.

**7. Adoption of the technology and benefit to the farmers:** After cultivating Pratikshya in a portion of their field they could mark the difference in seedling vigour, tillering ability and incidence of disease pest attack and could differentiate the superiority of Pratikshya over the ruling Swarna in their locality. The farmers were actually cultivating Swarna for getting good quality grains which are palatable. As the new variety has been developed from Swarna and IR-64, it is having the palatability trait in it like Swarna and the grains are slender like IR-64. The near by villagers, relatives and the agricultural labours coming from nearby villages for work were very much satisfied with the new variety.

## 8. Innovative technology dissemination model:



**9. Farmers' reaction and feedback:** By seeing the extraordinary success of Pratikshya, the farmers were now convinced and confident enough to divert most of their medium land to Pratikshya and they were also ready to disseminate the seed to their near relatives.

**10. Extent of diffusion effect of the newly adopted technology:** The farmers of the nearby villages and SHGs of other villages are now touching KVK for getting quality seeds of Pratikshya. A few farmers of Niktimal village who had taken due care for getting quality seeds with through roughing are now willing to exchange seeds or sale it to the nearby villagers approaching them. A SHG from Barkote and another from Kandhal have approached KVK for spreading the new variety next year. Some farmers of Kalamati village have already procured seeds from Niktimal village. By seeing the interest of the villagers the district agriculture dept has been advised to do needful for easy and timely availability of the quality seeds.

**11. Follow up action:** The KVK, Deogarh has documented and reported the successful achievement of the farmers and has taken special for horizontal spread of quality seeds among farmers and attempts are being made to train the farmers for safe storage of the produce for next season.

## PHOTO GALLERY



(Well managed nursery)



(Puddling the field for transplanting)



(Well managed(Seedling root dip with Azospirillum and PSB) nursery)



(An azolla tank in the back yard being taken care of for its use in paddy field)



(Pratikshya at maximum tillering stage)



( Farmers very much satisfied with the final result)

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

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1.	Pulses	✓ After harvesting of pulse crops like arhar, greengram and blackgram, the grains are 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.	Pest control
2.	Banana	✓ In case of banana, the size is increased if urea is tied up at the tip of the main stalk of bunch after the removal of floral bud.	Crop Production
3.	Pumpkin	✓ Incorporation of a small quantity of opium in the main stem of pumpkin after flowering enhances the size of pumpkin and helps in control of flower dropping.	Crop production
4.	Brinjal	✓ In case of brinjal, the 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.	Crop production
5.	Papaya	✓ 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.	Crop production
6.	Pulses	✓ Use of sand and 'begunia' leaf powder in layers at the base of bamboo storage bins can reduce pulse beetle infestation on stored grains of blackgram and greengram.	Storage pest management
7.	Paddy	✓ Use of 'Karada' leaves and twigs in late transplanted paddy reduces the menace of leaf folder.	Pest management
8.	Paddy	✓ Use of rotten snails reduces gundhibug attack while fire torch on field bunds at night reduces both gundhibug and leaf hopper attack in paddy.	Pest management
9.	Brinjal	✓ Use of raw turmeric at the base of brinjal plants reduces wilt during <i>kharif</i> .	Disease management
10.	Tomato and Brinjal	✓ Use of hing (asphoitida) at the base of the plant (tomato and brinjal) reduces wilt.	Disease management

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

- Identification of courses for farmers/farm women
- Rural Youth
- In-service personnel

**3.11 Field activities**

- i. Number of villages adopted - 5
- ii. No. of farm families selected - 250
- iii. No. of survey - 15
- iv. PRA conducted - 5

**3.12. Activities of Soil and Water Testing Laboratory**

Status of establishment of Lab : **Not yet established**

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

Sl. No	Name of the Equipment	Qty.	Cost
1	T.V.	1	24400
2	DVD	1	
3	Digital Camera	1	
4	Digital Camera	1	9490
5	Fax	1	19741
6.	Xerox	1	55258
<b>Total</b>			

**3. Details of samples analyzed so far :**

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples				
Water Samples				
<b>Total</b>				

**4.0 IMPACT (analysis will be conducted in the next year).****4.1. Impact of KVK activities (Not to be restricted for reporting period).**

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Method of planting in vegetables	100	50	10000/ha	15000/ha
Use of biofertilizer in paddy	100	40	5000/ha	6000/ha
Use of neem oil cake in vegetable nursery	100	45	Rs. 500/bed	Rs. 750/bed

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

- 4.2. Cases of large scale adoption :** Will be furnished during subsequent reports.  
(Please furnish detailed information for each case)

- 4.3 Details of impact analysis of KVK activities carried out during the reporting period :**  
Will be furnished during subsequent reports.

## **5.0 LINKAGES**

### **5.1 Functional linkage with different organizations**

<b>Name of organization</b>	<b>Nature of linkage</b>
Collectorate, Deogarh	Participation in District Strategy meeting
DRDA, Deogarh	-do-
District Agricultural Office, Deogarh	Participation in meeting, conducting training programmes and demonstrations
District Horticulture Office, Deogarh	Joint diagnostic survey, Participation in meeting, conducting training programmes and demonstrations
District Veterinary Office, Deogarh	Joint implementation
Asst. Director of Fishery, Deogarh	-do-
Asst. Soil Conservation Office, Deogarh	Joint diagnostic survey,
Asst. Director, Sericulture, Deogarh	-do-
Utkal Gramya Bank, Deogarh	-do-
Regulated Marketing Cooperative, Deogarh	Marketing of agriculture produce
Divisional Forest Office, Deogarh	Joint implementation, conducting training programmes and demonstrations

### **5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies**

<b>Name of the scheme</b>	<b>Date/ Month of initiation</b>	<b>Funding agency</b>	<b>Amount (Rs.)</b>
Acid Soil Management	22 <sup>nd</sup> and 23 <sup>rd</sup> March, 2007	Dept. of Soil chemistry, College of Agriculture, BBSR (OUAT)	12,000
Organic Farming	January, 2007	Regional Council of Organic farming	27,000

### 5.3 Details of linkage with ATMA (under process)

- a) Is ATMA implemented in your district : Yes/No (ATMA started recently and not fully implemented)

S. No.	Programme	Nature of linkage	Remarks
1.	SREP formulation	Training, consultancy	Depyt P.D. (Tech) is nominated from KVK

### 5.4 Give details of programmes implemented under National Horticultural Mission (Started very recently and not fully implemented)

S. No.	Programme	Nature of linkage	Constraints if any

### 5.5 Nature of linkage with National Fisheries Development Board : Not yet Implemented

S. No.	Programme	Nature of linkage	Remarks

## 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	
Not yet started									



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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Pulses									
Oilseeds									
Sesamum	1 <sup>st</sup> week of August	Crop is standing in the field	0.4	GT-2 Local	Seed	0.52 qtl.			
Spices & Plantation crops									
Turmeric	1 <sup>st</sup> week of June	1 <sup>st</sup> week of January	0.1	Lakdong Rama Rajendrasonia	Rhizome	0.82 qtl			
Ginger	-do-	-do-	0.01	Suprava	Rhizome	0.05 qtl.			
Floriculture									
Fruits									
Vegetables									
Okra	Last week of July	1 <sup>st</sup> week of Nov.	0.2	Arka Anamika	Seed	0.1 qtl			
Beans	1 <sup>st</sup> of September	1 <sup>st</sup> week of December	0.01	Raikia local	Seed	0.1 qtl.			
Elephant foot yam	1 <sup>st</sup> week of June	1 <sup>st</sup> week of January	0.01	Gejendra	Tuber	0.2 qtl			
Dioscorea	-do-	-do-	0.02	Orissa Elite	Tuber	1.5 qtl.			
Others (specify)									
Sunhemp	Last week of July	1 <sup>st</sup> week of December	0.25	--	Seed	0.28			

**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	

**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	

**6.5 Utilization of hostel facilities: Hostel has not yet been constructed  
Accommodation available (No. of beds) :**

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
October 2006			
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	--	--	--
With KVK	S.B.I.	Deogarh	300621655311

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2007
	Kharif 2007	Rabi 2007 -08	Kharif 2007	Rabi 2007-2008	
Inputs	12075	8700	12074	8699	2
Extension activities	1750	1250	1750	1240	10
TA/DA/POL etc.	1750	1125	1740	1114	21
<b>TOTAL</b>	15575	11075	15564	11053	33

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2007
	Kharif 2007	Rabi 2007 -08	Kharif 2006	Rabi 2006-07	
Inputs	8855	--	8827	Money not sanctioned from ICAR. Hence expenditure of Rs. 4746/- is booked under head of A/C KVK FLD	28
Extension activities	1315	--	1315		--
TA/DA/POL etc.	1950	--	1949		1
<b>TOTAL</b>	12120		12091		29

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2007
	Kharif 2006	Rabi 2006 -07	Kharif 2006	Rabi 2006-07	
Inputs					
Extension activities					
TA/DA/POL etc.					
<b>TOTAL</b>					

**7.5 Utilization of KVK funds during the year 2006 -07 and 2007 -08 (upto Sep. 2007)**

No. Estimation of R&R funds during the year 2006-07 and 2007-08 (upto Sep. 2007)							
S. No.	Particulars	2006-07			2007-08		
		Sanctioned	Released	Exp.	Sanctioned	Released	Exp.
A. Recurring Contingencies							
1	Pay & Allowances						
2	Traveling allowances	50,000	50000	49,785	48000	48000	47,857
3	Contingencies						
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	200000	200000	53726	550000	537385	
B	POL, repair of vehicles, tractor and equipments			17326			54216
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			24920			69720
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			60720			134536
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			18355			59480
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			4819			19535
G	Training of extension functionaries			880			1600
H	Maintenance of buildings			-			--
I	Establishment of Soil, Plant & Water Testing Laboratory			-			-
J	Library			5427			8854
TOTAL (A)		250000	250000	235958	598000	204300	537300
B. Non-Recurring Contingencies							
1	Works						
2	Equipments including SWTL & Furniture	84400	84400	74400	95000	85889	84490
3	Vehicle (Four wheeler/Two wheeler, please specify)			-			
4	Library (Purchase of assets like books & journals)			10000			
TOTAL (B)		84400	84400	84400	95000	85889	84490
C. REVOLVING FUND		Nil	Nil	Nil		Nil	Nil
GRAND TOTAL (A+B+C)		334400	334400	320358		208300	

**7.5 Status of revolving fund (Rs. in lakhs) for the three years) : Not yet received**

<b>Year</b>	<b>Opening balance as on 1<sup>st</sup> April</b>	<b>Income during the year</b>	<b>Expenditure during the year</b>	<b>Net balance in hand as on 1<sup>st</sup> April of each year</b>
April 2004 to March 2005				
April 2005 to March 2006				
April 2006 to March 2007				

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

**8.1 Constraints**

**Constraints :**

**Type of Constraints**

**Administrative**

- On-campus training programmes are not being conducted due to lack of infra-structural facilities & AV Aids.
- KVK is functioning in a rented building at Deogarh, as the administrative building construction has not yet started.
- Seed/sapling production is not possible at present, due to absence of proper infrastructure in the instructional farm & fencing.
- The vacant post such as 3 nos. of SMS, driver & peon should be filled immediately for smooth operation of KVK.

**Technical**

- Skill oriented trainings are not being conducted due to lack of demonstration unit.
- Without computer it is not possible to carryout such voluminous report return work, storing of data, photographs etc.

**Financial**

- KVK programmes are hampered due to delay in release of funds.

**(Signature of Programme Coordinator)**