

# ANNUAL PROGRESS REPORT

Central Sector Scheme

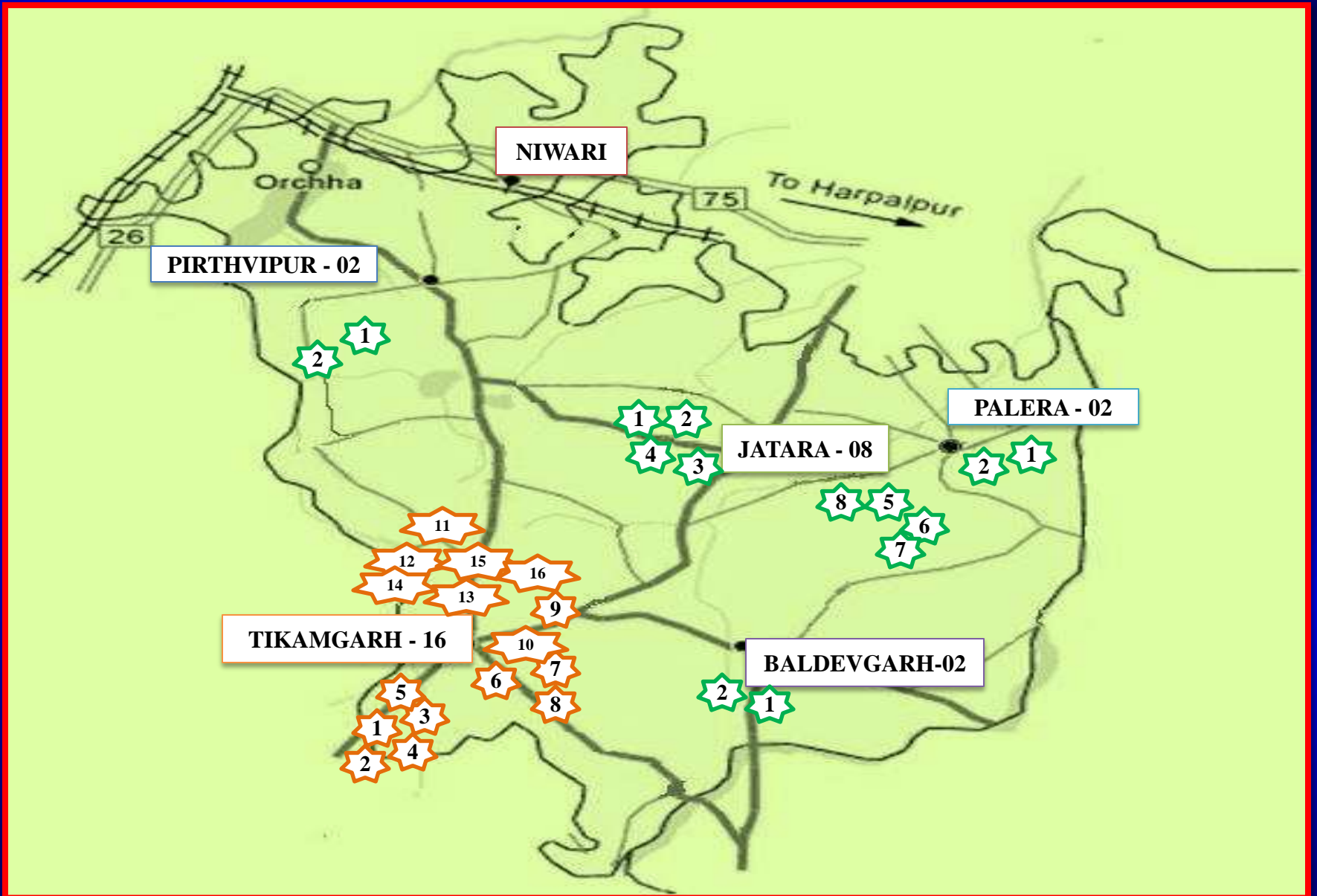
National Project on Organic Farming (NPOF)

2009-10



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# CLUSTERS OF TIKAMGARH DISTRICT (MAP)



# NO. OF FARMERS SELECTED



# NATIONAL ORGANIC FARMING PROJECT

## A. Trainings

**Motivation and Technical Back stopping of farmers.**

## B. Field demonstrations on different crops.

### 1. Biological management of tobacco caterpillar

*(Spodoptera litura).*

### 2. Biological management of pod borer (*Helicoverpa*

*armigera)* in Gram.

## C. Field demonstration on Organic inputs.

## D. Field demonstration on utilization of enrich biogas slurry.

# 1. SERVICE PROVIDER

## A. Motivation and technical back stopping of farmers

### KHARIF 2009-10

S.No.	Title of training	Village	No. of farmers	Date
1.	Scientific method of FYM preparation	Surajpur	50	25 Aug 2009
2.	Bio-fertilizer application in different crops	Charpuwan	50	26 Aug 2009
3.	NADEP method of composting	Khiriya-Naka	50	27 Aug 2009
4.	Verimicompost preparation and uses	Bhopalpura	50	28 Aug 2009
5.	Integrated pest management in soybean	Judawan	50	30 Aug 2009
6.	Integrated pest management in chilli	Karmari	50	31 Aug 2009
7.	Role of cultural practices in diseases and insect-pest management	Nachanwara	50	01 Sept.2009

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<b>S.No.</b>	<b>Title of training</b>	<b>Village</b>	<b>No. of farmers</b>	<b>Date</b>
<b>8</b>	<b>Biological control of diseases and pest in vegetable</b>	<b>Devapur</b>	<b>50</b>	<b>02 Sept.2009</b>
<b>9</b>	<b>Use of microbial bio-fertilizers in pulses crops</b>	<b>Hatheri</b>	<b>50</b>	<b>03 Sept.2009</b>
<b>10</b>	<b>Use of botanical pesticides in vegetables</b>	<b>Badamari</b>	<b>50</b>	<b>04 Sept.2009</b>
<b>11</b>	<b>Use of NSKE in tomato</b>	<b>Kanti</b>	<b>50</b>	<b>05 Sept.2009</b>
<b>12</b>	<b>Biological control of ginger diseases</b>	<b>Harpura-Madiya</b>	<b>50</b>	<b>06 Sept.2009</b>
<b>13</b>	<b>Integrated farming system</b>	<b>Tindari</b>	<b>50</b>	<b>07 Sept.2009</b>
<b>14</b>	<b>Use of neem oil to control insect-pest and diseases</b>	<b>Simrakhurd</b>	<b>50</b>	<b>11 Sept.2009</b>
	<b>TOTAL</b>		<b>700</b>	

# ORGANIC FARMING TRAINING PROGRAMME – 15 Days (25 Aug. to 11 Sept. 2009)



# TRAINING PROGRAMMES –KHARIF 2009-10



Village-Surajpur (25 Aug 2009)



Village-Charpuwan (26 Aug 2009)



Village-Khiriya-Naka (27 Aug 2009)



Village-Bhopalpura (28 Aug 2009)



Village-Judawan (30 Aug 2009)



Village-Karmari (31 Aug 2009)

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# TRAINING PROGRAMMES –KHARIF - 2009-10



Village-Nachanwara ( 01 Sept 2009)



Village-Devapur ( 02 Sept 2009)



Village-Hatheri (03 Sept 2009)



Village-Badamari (04 Sept 2009)



Village-Kanti (05 Sept 2009)



Village-Harpura-Madiya (06 Sept 2009)

# **1. SERVICE PROVIDER**

## **A. Motivation and technical back stopping of farmers**

**RABI 2010**

<b>S.No.</b>	<b>Title of training</b>	<b>Village</b>	<b>Participants (No. of farmers)</b>	<b>Date</b>
<b>1.</b>	<b>Integrated diseases management in gram</b>	<b>Mohanpura</b>	<b>50</b>	<b>15 Feb 2010</b>
<b>2.</b>	<b>Use of vermicompost in vegetables</b>	<b>Hanumansagar</b>	<b>50</b>	<b>16 Feb 2010</b>
<b>3.</b>	<b>Use of bio-fertilizers in pulses crops</b>	<b>Dargawan-Kala</b>	<b>50</b>	<b>17 Feb 2010</b>
<b>4.</b>	<b>Use of vermin-compost and bio-fertilizers in wheat under limited irrigation condition</b>	<b>Bamohari</b>	<b>50</b>	<b>18 Feb 2010</b>
<b>5.</b>	<b>Use of organic manure in potato</b>	<b>Bhorgarh</b>	<b>50</b>	<b>19 Feb 2010</b>
<b>6.</b>	<b>Integrated pest management in mustard</b>	<b>Dikauli</b>	<b>50</b>	<b>20 Feb 2010</b>
<b>7.</b>	<b>Seed treatment with bio-agents</b>	<b>Mastapur</b>	<b>50</b>	<b>21 Feb 2010</b>
<b>8.</b>	<b>Biological pod borer management in gram</b>	<b>Heeranagar</b>	<b>50</b>	<b>22 Feb 2010</b>

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<b>S.No.</b>	<b>Title of training</b>	<b>Village</b>	<b>Participants (No. of farmers)</b>	<b>Date</b>
<b>9.</b>	<b>Preparation of FYM by scientific method</b>	<b>Basnera</b>	<b>50</b>	<b>23 Feb 2010</b>
<b>10.</b>	<b>Use of tankage</b>	<b>Bigha</b>	<b>50</b>	<b>24 Feb 2010</b>
<b>11.</b>	<b>Importance of non-edible oil cakes</b>	<b>Shankargarh</b>	<b>50</b>	<b>25 Feb 2010</b>
<b>12.</b>	<b>Preparation of vermin-compost</b>	<b>Bandha ji</b>	<b>50</b>	<b>26 Feb 2010</b>
<b>13.</b>	<b>Biological management of YMV in okra</b>	<b>Brashbhanpura</b>	<b>50</b>	<b>05 Mar 2010</b>
<b>14.</b>	<b>Biological control of fruit borer in fruit vegetables</b>	<b>Matauli</b>	<b>50</b>	<b>06 Mar 2010</b>
<b>15.</b>	<b>Inclusion of pulse crop in different intercropping system</b>	<b>Lakhaipur</b>	<b>50</b>	<b>09 Mar 2010</b>
<b>16.</b>	<b>Biological management of store grain-pests</b>	<b>Biraora-pahar</b>	<b>50</b>	<b>015Mar 2010</b>
	<b>TOTAL</b>		<b>800</b>	

# TRAINING PROGRAMMES –RABI-2010



Village-Hanumansagar (16 Feb 2010)



Village-Darigawan-Kalaa (17 Feb 2010)



Village-Bamohari (18 Feb 2010)



Village-Dikauli (20 Feb 2010)



Village-Heeranagar (22 Feb 2010)



Village-Basnera (23 Feb 2010)

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# TRAINING PROGRAMMES –RABI-2010



Village-Bigha (24 Feb 2010)



Village-Sankargarh (25 Feb 2010)



Village-Brashbhanpura (05 Mar 2010)



Village-Matauli (06 Mar 2010)



Village-Lakhaipur (09 Mar 2010)



Village-Biraura –Pahar (15 Mar 2010)

## B. FIELD DEMONSTRATIONS ON DIFFERENT CROPS

**KHARIF 2009**

**Biological Management of tobacco caterpillar (*Spodoptera litura*) in soybean**

**Name of village : Surajpur**

**No. of farmers : 20**

**Area/demo plot : 2000 M. Sq.**

### **(T1) FARMER PRACTICES**

**(indiscriminative use of pesticides)**

### **(T2) TECHNOLOGY DEMONSTRATED**

- Use of 50 No. bird perchers/ha.
- Pheromone traps 10/ha.
- Spray of Neem oil (20ml/lit of water) at podding stage.
- Spray of 250 LE, NPV-SL after 10 days of second spray.

### **Use of critical inputs/demo**

**(2000 M. sq.) each demo**

- Use of 50 No. bird perchers/ha.
- Pheromone traps 10/ha.
- Spray of Neem oil (20ml/lit of water) at podding stage.
- Spray of 250 LE, NPV-SL after 10 days of second spray.

Demo.No	% infestation of Tobacco Larve / plot		% reduction in infestation of S.litura/plot	Yield in quintal/ha		% increase in yield over the farmer practices
	Tech. demo.	Farmers practice		Tech. demo.	Farmers practice	
1.	02.1	36.8	94.29	16.32	15.31	06.18
2.	05.6	37.6	85.10	15.21	14.49	04.73
3.	03.1	42.3	92.67	16.10	14.28	11.30
4.	07.8	44.9	82.26	14.32	12.89	09.98
5.	04.3	35.8	87.98	15.30	14.95	02.28
6.	05.5	37.2	85.21	15.21	14.55	04.33
7.	06.7	33.5	80.00	15.10	14.37	04.83
8.	07.1	45.3	84.32	13.78	12.53	09.07
9.	01.3	43.7	97.02	17.25	14.71	14.72
10.	01.5	50.1	97.00	18.01	13.48	25.15
11.	03.2	45.6	92.98	16.00	13.70	14.37
12.	05.6	44.7	87.42	15.21	13.39	12.62
13.	08.9	46.5	80.86	13.00	11.95	08.00
14.	06.4	47.5	86.52	13.48	11.59	14.02
15.	05.3	43.6	87.84	15.20	13.22	13.02
16.	04.5	45.2	90.04	17.32	15.60	09.99
17.	06.3	37.5	83.20	14.80	11.32	10.00
18.	04.4	33.8	86.32	14.98	13.66	09.00
19.	05.1	34.5	85.31	16.10	12.30	23.60
20.	02.5	38.9	93.57	17.58	15.76	10.35
<b>Average</b>	<b>04.86</b>	<b>39.37</b>	<b>87.99</b>	<b>15.51</b>	<b>13.70</b>	<b>10.87</b>

# BIOLOGICAL MANAGEMENT OF TOBACCO CATERPILLAR IN SOYBEAN



Use of Bird Purcher @ 50 No. /ha



Spray of NPV- SL@250 LE after 10 days of second spray



Spraying of Neem oil @ 20 ml/lit. at podding stage



Soybean crop free from infestation of *Spodoptera litura*



Pheromone traps @10 No. /ha



Heavy infestation of *S. litura* in control plot



## B. DEMONSTRATIONS ON DIFFERENT CROPS

RABI 2009-10

Biological pod borer (*H. armigera*) management in gram

Name of village : Surajpur  
No. of farmers : 20  
Area/demo plot : 2000M. Sq.

### TECHNOLOGY DEMONSTRATED

- Destruction of plant debris.
- Resistant variety JG-130.
- Early sowing
- 50-T shaped bird perchers/ha.
- Seed treatment with *T.viride* @ 5g/kg seed.
- Spraying of HaNPV @ 250 LE + 0.5% jaggery + 0.1% tinopal on noticing 1<sup>st</sup> instar larvae or egg of pod borer (3 spray of weekly interval in evening hourg.
- Spraying of NSKE 5% at pre-flowering stage at 15 days interval.

### Use of critical inputs/demo (2000 M. sq.) each demo

- Wilt resistant variety (JG-130 @ 15 Kg/plot
- Pheromone traps 04/plot.
- T-shaped pegs @ 10/plot.
- Spray of 250 LE, NPV-SL after 10 days of second spray.
- Seed treatment with *T.viride* @ 5g/kg seed+ *Rhizobium*+PSB @ 2.5Kg/ha
- Spraying of NSKE 5% at pre-flowering stage at 15 days interval

Demo.No	% infestation of pod borer/ plot		% reduction in infestation of pod borer/plot	Gram yield in quintal/ha		% increase in yield over the farmer practices
	Tech. demo.	Farmers practice		Tech. demo.	Farmers practice	
1.	2.60	35.80	93.01	14.32	13.42	06.70
2.	3.60	34.60	89.59	14.20	13.12	08.23
3.	3.50	40.30	91.31	14.25	13.75	03.63
4.	4.80	43.90	89.06	13.26	12.36	06.78
5.	4.20	31.80	96.85	15.00	14.20	05.63
6.	5.30	36.20	85.35	13.01	12.27	05.68
7.	6.50	35.50	81.69	12.01	11.22	06.72
8.	7.60	41.30	81.59	11.01	10.27	07.20
9.	1.50	42.70	96.48	15.25	13.20	15.53
10.	1.60	51.10	96.86	15.23	13.27	14.70
11.	3.40	43.60	92.86	14.27	13.20	08.10
12.	5.70	44.60	92.20	13.42	11.00	01.80
13.	8.0	44.20	87.21	12.97	10.21	22.00
14.	6.30	44.60	81.90	12.20	11.10	10.81
15.	5.10	44.20	85.87	13.40	10.28	30.35
16.	5.60	32.50	88.46	12.75	11.20	13.83
17.	6.70	32.80	85.84	10.97	10.00	09.70
18.	4.40	34.50	79.57	12.42	11.21	09.74
19.	5.30	34.90	87.24	12.97	11.20	15.80
20.	2.60	34.90	84.81	14.25	11.25	26.66
<b>Average</b>	<b>4.71</b>	<b>39.20</b>	<b>88.38</b>	<b>13.35</b>	<b>11.88</b>	<b>11.47</b>

## FIELD DEMONSTRATIONS ON GRAM



Seed treatment with *T. viride* @ 5g/Kg seed



Use of pheromone traps @ 10 No./ha

Biological Pest Management of Pod Borer  
(*Helicoverpa armigera*)



T-shaped peg (bird puncher) @ 50/ha



Light trap



Heavy podding crop free from gram pod borer



Natural Predator (bird)



Spraying of NSKE (Neem Extract) @ 5% at pre flowering stage at 15 days interval



Infestation of pod borer in control plot



Larvae of pod borer (*H. armigera*)

Larvae of *H. armigera* inside the pod



Pod borer affected in gram crop



## **(C ) DEMONSTRATIONS : FIELD DEMONSTRATION ON USE OF ORGANIC INPUTS IN PEA**

**Name of the farmer** : Shri-Heeralal s/o Shri-Bhare Lal Kushwaha  
**Village** : Bigha  
**Crop** : Pea  
**Variety** : Arkile  
**Date of sowing** : 07/11/2009

### **Technology Demonstration**

**Vermicompost** @ 5qtl/ 2000 M sq.  
**Azotobacter** 10 pkt/demo.  
**PSB** 10 pkt/demo  
**Trichoderma viride** 1.0 Kg/demo  
**Neem oil** 2.0 litre/demo

<b>Observations</b>	<b>Tech. Demo.</b>	<b>Farmer practices</b>
<b>Germination(%)</b>	<b>98.00 %</b>	<b>96.21 %</b>
<b>Total biomass/unit</b>	<b>-</b>	<b>-</b>
<b>Yield(Kg/ha) green pod</b>	<b>3532</b>	<b>3136</b>
<b>Yield increase(%) over control</b>	<b>12.62 %</b>	
<b>Cost : Benefit ratio</b>	<b>4.98</b>	<b>3.66</b>

# FIELD DEMONSTRATIONS ON ORGANIC INPUTS



Seed treatment with  
*Rhizobium*, *PSB*, *Azotobacter*, *T. viride* @ 2.5  
Kg/ha



Vermi compost bags

Application of  
Vermi-compost @  
5t/ha



Organic field  
pea crop



Heavy  
podding in pea



Use of Vermi-compost + Bio-fertilizers in Pea

## (D) DEMONSTRATIONS : FIELD DEMONSTRATION ON USE OF BIOGAS SLURRY IN CORIANDER

**Name of the farmer** : **Shri-Ambika Prasad Tiwari**  
**Village** : **Purani Tehari**  
**Crop** : **Coriander**  
**Variety** : **Simpo**  
**Date of sowing** : **11/11/2009**

### Technology Demonstration

**Biogas slurry** @ 2-tonnes/ 2000 M sq.  
**Azotobacter** 10 pkt/demo.  
**PSB** 10 pkt/demo  
***Trichoderma viride*** 500 g/demo  
**Neem cake** 250 Kg/demo

Observations	Tech. Demo.	Farmer practices
Germination(%)	98.11	97.86
Total biomass/unit	38.23	37.21
Yield(Kg/ha) green pod	1426	1320
Yield increase(%) over control	8.03	
Cost: Benefit ratio	2.41	2.17

## **(D) DEMONSTRATIONS : FIELD DEMONSTRATION ON USE OF BIOGAS SLURRY IN WHEAT**

**Name of the farmer** : **Purushatam Nayak**  
**Village** : **Manak Pura**  
**Crop** : **Wheat**  
**Variety** : **GW-322**  
**Date of sowing** : **12/11/2009**

### **Technology Demonstration**

**Biogas slurry** @ 2-tonnes/ 2000 M sq.  
**Azotobacter** 10 pkt/demo.  
**PSB** 10 pkt/demo  
***Trichoderma viride*** 500 g/demo  
**Neem cake** 250 Kg/demo

<b>Observations</b>	<b>Tech. Demo.</b>	<b>Farmer practices</b>
<b>Germination(%)</b>	<b>98.78</b>	<b>98.23</b>
<b>Total biomass/unit</b>	<b>42.31</b>	<b>40.25</b>
<b>Yield(Kg/ha) green pod</b>	<b>2137</b>	<b>2031</b>
<b>Yield increase(%) over control</b>	<b>4.92</b>	
<b>Cost: Benefit ratio</b>	<b>2.89</b>	<b>2.36</b>



# FIELD DEMONSTRATIONS ON UTILIZATION OF ENRICH BIOGAS SLURRY

Application of enrich biogas slurry.

## TECHNOLOGY DEMONSTRATED

Biogas slurry	:	5 t/ha
PSB	:	2.5 Kg/ha
<i>Azotobactor</i>	:	2.5 Kg/ha
Neem cake	:	750 Kg/ha
<i>Trichoderma viride</i> :		2.5 Kg/ha

**Crops** : Corinder and wheat under limited irrigation



# FIELD DEMONSTRATIONS ON UTILIZATION OF ENRICH BIOGAS SLURRY

Application of enrich biogas slurry



Mixing of bio-fertilizers ( *PSB*, *Azotobactor*, *T.viride* @ 2.5Kg/5t biogas slurry



Prepared enrich bio-gas slurry

Bio-gas slurry



Enrich biogas slurry applied coriander crop



Enrich biogas slurry applied wheat crop under limited irrigation condition



**Crops** : Coriander and wheat under limited irrigation

# FARMERS FAIRS AND VISIT AT KVK



Scientist Deliver Lecture in Farmers Fair  
(Use of Organic input in Pea)



Scientist Deliver Lecture in Farmers Fair  
( Demonstration on use of enrich biogas slurry in Coriander )

Scientist demonstrating Light Trap



Farmers fair at coriander crop



Farm Women visiting Technological park



Farmers Visiting Technological park



**(1) SERVICE PROVIDER****Expenditure statement**

<b>(A) Trainings of 1500 farmers in Kharif and Rabi</b>	<b>Allotment (Rs)</b>	<b>Expenditure (Rs.)</b>	<b>Balance (Rs.)</b>
Meal	75,000=00	649,25=00	10,075=00
Pend, pad and reading materials	30,000=00	29,600=00	400=00
Honorium to resources	30,000=00	30,000=00	Nil
POL etc.	30,000=00	29,858=00	142=00
<b>TOTAL</b>	<b>1,65,000=00</b>	<b>1,54,383=00</b>	<b>10,617=00</b>
<b>(B) Demonstration on crops</b>			
Critical inputs	80,000=00	72,730=00	7,270=00
POL and miner repairing etc.	40,000=00	39,622=00	378=00
<b>TOTAL</b>	<b>1,20,000=00</b>	<b>1,12,352=00</b>	<b>7,648=00</b>
<b>(C) Documentation</b>	15,000=00	14,800=00	200=00
<b>TOTAL</b>	<b>15,000=00</b>	<b>14,800=00</b>	<b>200=00</b>
<b>(D) TOTAL (A+B+C)</b>	<b>3,00,000=00</b>	<b>2,81,535=00</b>	<b>18,465=00</b>
<b>(E) Organic demo (verm.)</b>	10,000=00	7,600=00	2,400=00
<b>(F) Biogas-demo.</b>	32,000=00	7,336=00	24,664=00
<b>TOTAL (D+E+F)</b>	<b>3,42,000=00</b>	<b>2,96,471=00</b>	<b>45,529=00</b>



# THANKS

