

**KRISHI VIGYAN KENDRA, MANGALBHARTI,**  
AT.& PO, GOLAGAMDI, DIST:- VADODARA, GUJARAT

**ORGANIZATIONAL PROFILE:-**

Mangal Bharti Vidyapith (Village University) was established on 1<sup>st</sup> July, 1972 at the hands of Late Pujya Ravi Shankar Maharaj. The mangal Bharti Campus spread over 150 acres of lush green land near village Golagamdi, Ta. Sankheda, Dist Vadodara and it is 45 km away from Vadodara. The Vidyapith working in the field of Education, Rural development, Health, Rural tribal upliftment and agriculture and animal health development. On the basis of the rural development activities taken by the Vidyapith Indian Council of Agriculture Research (ICAR), New Delhi had sectioned the Krishi Vigyan Kendra to the Mangal Bharti Vidyapith in 1994-95 for the Vadodara District.

Krishi Vigyan Kendra is a transfer of technology centre being funded by ICAR in order to uplift the rural people by way of strengthening their Agriculture profession through imparting training to farmers, farm women and rural youth as well extension functionaries of the district. KVK works based on the principles of learning by doing and seeing is believing and therefore some demo units are also developed on instructional farm of KVK and are professionally managed which provide strong support to training and extension activities.

**VADODARA DISTRICT PROFILE:-**

The Vadodara district shares its borders with Anand and Panchmahals districts in North and with Bharuch and Narmada districts in South and with bay of Khambhat in West and border of Madhyapradesh in East. The geographical area of the district is 7.5 lakh ha. The conspicuous feature of the district is undulating topography with steep slopes and heavy rainfall. The average rainfall of the district is about 800–900 mm per annum. The distribution is erratic and thus, causing damage to the crops like cotton, maize and paddy. The district is composed largely of tribal communities. These communities depend primarily on agriculture for their livelihood supplemented by income from seasonal employment in nearest industrial town. Soils of the district in general can be classified as medium black to heavy black, and rocky with low innate fertility.

### **MAJOR THRUST AREA**

- Promoting high yielding varieties of Crops (Cotton, Paddy, Maize, Wheat & Pulses) for maximizing the production
- IPM & INM for reduction in cost of cultivation and improvement in soil health.
- Efficient use of irrigation water through MIS and Mulching.
- Fodder and feed management for Animal health and higher milk production.
- Boosting of off season & quality vegetable production through protected cultivation.
- Empowerment of tribal women.

### **MANDATE**

- Conducting “On-farm testing” for identifying technologies in terms of location specific sustainable land use systems
- To organize short and long-term vocational training courses in agriculture and allied vocations for the farmers and rural youths with emphasis on “learning by doing” for higher production on farms and generating self-employment.
- To organize frontline demonstrations on various crops to generate production data and feedback information
- To organize training to update the extension personnel with emerging advances in agricultural research on regular basis.
- To work as resource and knowledge centre of agricultural technology for supporting initiative of public, private and voluntary sector for improving the agricultural economy of the district.

## STAFF POSITION : All Filled

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr. Bharat M .Mehta	PC	Agril. Extension	37400- 9000-67000	46400	17/09/2013	Permanent	Other
2	Subject Matter Specialist	Chirag R. Patel	SMS	Agronomy	15600-5400-39100	22260	23/6/2011	Permanent	Other
3	Subject Matter Specialist	Milan C. Brahmhatt	SMS	Horticulture	-do-	22260	11/7/2011	Permanent	OBC
4	Subject Matter Specialist	Jagdish P. Meena	SMS	Animal Science	-do-	22260	7/7/2011	Permanent	ST
5	Subject Matter Specialist	Krishna J. Soni	SMS	Home Science	-do-	22260	2/7/2011	Permanent	Other
6	Subject Matter Specialist	Dr. Mahesh L. Patel	SMS	Plant Protection	-do-	21000	02/09/2013	Permanent	Other
7	Subject Matter Specialist	Dr. Babu Lal Dhayal	SMS	Agril. Extension	-do-	21000	23/08/2013	Permanent	Other
8	Programme Assistant	Ketan K. Sutaria	Prog. Asst.	-	9300-4200-34800	16750	1/12/2008	Permanent	SC
9	Computer Programmer	Milind R.Kulkarni	Prog. Asst. (Comp)	-	-do-	16750	21/01/2008	Permanent	Other
10	Farm Manager	Hari Om Sharna	Farm Manager	-	-do-	13500	02/09/2013	Permanent	Other
11	Accountant / Superintendent	Vimal V.Shah	Accountant /	-	-do-	19990	04/06/2001	Permanent	Other
12	Stenographer	Chandrakant M . Raval	Stenographer	-	5200-2400-20200	7600	02/09/2013	Permanent	O.B.C + PH
13	Driver	R.N.Prajapati	Driver	-	5200-2000	9370	17/01/2008	Permanent	O.B.C
14	Driver	Z. S.Vora	Driver	-	5200-2000	7640	27/6/2011	Permanent	Other
15	Supporting staff	P.B.Rathwa	Suppoting Staff	-	5200-1800	9110	5/9/2003	Permanent	S.T.
16	Supporting staff	J.R.Tadvi	Suppoting Staff	-	5200-1800	9110	29/7/2002	Permanent	S.T

## Quarter Wise Summary of Annual Action Plan of K.V.K. Mangal Bharati, Vadodara

**From 1<sup>st</sup> April '2014 to 31<sup>st</sup> March '2015**

### Training Programme

Sr. No.	Subject	On Campus																Sponsored/ In-service Trg. Prog.				Total								Grand Total
		PF				FW				RY				EF								On Campus				Off Campus				
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	
1	Crop Production	2	3	2	3	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	4	3	2	3	2	3	3	2	23
2	Pl. Protection	3	2	2	2	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	3	3	2	3	2	3	3	2	22
3	Horticulture	2	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	3	3	3	3	2	3	2	23
4	Home Science	0	0	0	0	2	3	3	2	0	0	0	0	0	0	0	1	0	0	0	1	2	3	3	3	2	3	2	2	21
5	Animal Science	1	0	0	0	2	2	1	2	0	0	1	0	0	0	1	0	0	1	0	1	3	2	3	2	2	3	3	3	23
6	Extension Education	1	1	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	2	1	2	1	2	2	1	1	13
7	Soil Science	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2	1	1	1	1	2	12
	<b>Total</b>	<b>10</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>16</b>	<b>14</b>	<b>17</b>	<b>16</b>	<b>14</b>	<b>137</b>

PF: Practicing Farmers, FW: Farm Women, RY: Rural Youth, EF: Extension Functionaries.

## 1. Training Programme:

### 1.1 On Campus Training (For Practicing Farmers, Farm women & Rural Youth)

Qtrs.	Subject	Title of Training	Date	Duration (Days)	No. of Participants	Type of Participants
I.	1) Crop production	a) Raising of healthy Paddy seedling	June'14	2	20	Farmers
		b) Cultivation practices of Bt. Cotton	May '14	2	20	Farmers
		c) New Advances in Bt. Cotton cultivation	May '14	2	20	FIG member
		d) Importance of MIS and mulching in cotton cultivation	May'14	2	20	RY
	2) Plant Protection	a) Pest of Cotton and its Management.	May'14	2	20	Farmers
		b) How to use new Molecules for Insect management in kharif Crops	June' 14	2	20	Farmers
		c) IDM in vegetable Crops	June' 14	2	20	Farmers
	3) Horticulture	a) Raising of healthy seedlings of vegetable crops	May. '14	2	20	Farmers
		b) Plug nursery technique for healthy vegetable seedlings	June '14	2	20	Farmers
	4) Home Science	a) Different preparations from mango.	April'14	2	20	Farm Women
		b) Preparation of masalas	May'14	2	20	Farm Women
	5) Animal Science	a) Enrichment of low grade roughages with urea treatment	Apr.'14	2	20	Farm women/Farmer
		b) Care and management of pregnant animal	May '14	2	20	Farm women/Farmer
		c) Disease management in Dairy Animals and First Aid in Animals.	Jun '14	2	20	Farmer
	6) Extension Education	a) Update knowledge level of farmers on major Kharif crop	May '14	2	20	Farmers
		b) Awareness about Bank loans for field crops/crop insurance	June'14	2	20	RY
	7) Soil Science	a) Soil & water sample collection method for testing and importance of soil and water testing	May' 14	2	20	Farmers

<b>Qtrs.</b>	<b>Subject</b>	<b>Title of Training</b>	<b>Date</b>	<b>Duration (Days)</b>	<b>No. of Participants</b>	<b>Type of Participants</b>
II	1) Crop production	a) Weed management in Rice.	July'14	2	20	Farmers
		b) Integrated Weed Management in Cotton	July'14	2	20	Farmers
		c)Scientific cultivation of Castor	Aug'14	2	20	Farmers
	2) Plant protection	a) Integrated Pest Management in Rice	July'14	2	20	Farmers
		b) Identification and Use of Bio- agent in Cotton crop	July'14	2	20	RY
		c) IDM in Castor	Sept.'14	2	20	Farmers
	3) Horticulture	a) Planting technique and INM in banana	July'14	2	20	Farmers
		b) New Production technology in chilli.	July.'14	2	20	Farmers
		c) Precision farming of tomato	Augt'14	2	20	Farmers
	4) Home Science	a) Guidance about anemia, its prevention and cure	July'14	2	20	Farm women
		b ) Fruits and vegetable preservation	August'14	2	20	Farm Women
		c) Preparation of agarbatti	Sept'14	2	20	Farm Women
	5) Animal Science	a) Care and management of dairy animal in rainy season	July'14	2	20	Farm women
		b) Calf rearing and calf management practices for production of a healthy cow/ buffalo	Sept'14	2	20	Farm women
	6) Extension Education	a)Income generation through Co-operative Movement	Aug.'14	2	20	Farmer
7)Soil Science	a) Integrated Nutrient Management in Paddy	4 July'14	1	20	Farmers	
	b) Use of Liquid Bio Fertilizer in Agriculture	21 Aug'14	1	20	Farmers	

Qtrs.	Subject	Title of Training	Date	Duration (Days)	No. of Participants	Type of Participants
III	1) Crop production	a) Scientific cultivation of gram	Nov.'14	2	20	Farmers
		b) Scientific cultivation of wheat	Nov.'14	2	20	Farmers
	2) Pl. Protection	a) IPM and IDM in Maize	Nov.'14	2	20	Farmers
		b) Pest of Chick Pea and their Management through Integrated approach.	Dec.'14	2	20	Farmers
	3) Horticulture	a) Importance of green house technology	Oct'14	2	20	Farmers
		b) Integrated nutrient management in watermelon/muskmelon	Oct'14	2	20	Farmers
		c) Off season vegetable Production	Nov'14	2	20	Farmers
	4) Home Science	a) Importance and layout of nutritional garden	Oct'14	2	20	F W
		b) Preparation of detergent, bam and vasseline.	Nov'14	2	20	FW
		c) Preparation of tomato ketchup and banana waffers.	Nov'14	2	20	FW
	5) Animal Science	a) Dietary supplementation of mineral mixture for increase reproductive & productive performance of dairy animals	Oct'14	2	20	FW
		b) Goat farming – A best income generation activities in Tribal Areas	Nov.'14	2	20	RY
		c) Ideal Dairy farming	Dec.'14	2	20	SHG Leaders
	6) Extension Education	a) Govt. subsidy schemes in agriculture	Nov.'14	2	20	Farmers
		b) Entrepreneurship development of Rural youth	Dec'14	2	20	RY
	7) Soil Science	a) Reclamation of Saline soil	Oct'14	1	20	Farmers
		b) Training on how to calculate fertilizer quantity for application for specific crop	Nov'14	1	20	Farmers

Qtrs.	Subject	Title of Training	Date	Duration (Days)	No. of Participants	Type of Participants
IV	1) Crop production	a) Plant nutrient deficiency symptoms, diagnosis and its remedies in rabi crops.	Jan.'15	2	20	Farmers
		b) Integrated weed management in summer groundnut.	Feb.'15	2	20	Farmers
		c) Different methods of irrigation and importance of Fertigation.	March.'15	2	20	Farmers
	2) Pl. Protection	a) Integrated Pest management in summer Pulses.	Jan. '15	2	20	Farmers
		b) Management of Store grain Pest	Feb'15	2	20	Rural Youth
		c) Importance of bio control agent for the Management of major insect pest .	March'15	2	20	Farmers
	3) Horticulture	a) INM in muskmelon and water melon.	Jan'15	2	20	Farmers
		b) Protected cultivation in vegetable.	Feb'15	2	20	Farmers
		c) Scientific cultivation of summer okra	Feb'15	2	20	Farmers
	4) Home Science	a) Preparation of different types of pickles	Jan.'15	2	20	FW
		b) Preparation of different products from ragi	Feb.'15	2	20	FW
		c) Importance of Vitamins and Minerals in Child growth	March'15	2	20	SHG Leaders
	5) Animal Science	a) Feed management in dairy animals	Jan.'15	2	20	FW
		b) Preventive Measure of endo and ecto parasitic infestation.	Feb.'15	2	20	FW
	6)Extension Education	a) Government subsidy schemes in agriculture	Feb.'15	2	20	Farmers
7)Soil Science	a) Importance of soil and water testing and collection of soil and water sample	Feb'15	1	20	Farmers	



## 1.2 Off Campus Training (For Practicing Farmers, Farm Women & Rural Youth)

Qtrs.	Subject	Title of Training	Date	Duration (Days)	No. of Participants	Type of Participants
I	1) Crop production	a) Integrated crop management system for sustainable crop production	May'14	1	20	Farmers
		b) SRI techniques for higher returns	May '14	1	20	Farmers
	2) Pl. protection	a) Methods of preparation of Bordeaux Mixture and its uses.	May'14	2	20	RY
		b) IPM in Chilli crops	June'14	1	20	Farmers
	3) Horticulture	a) Government Schemes for horticultural crop cultivation	April'14	1	20	Farmers
		b) Protected Cultivation in vegetable crops	April'14	2	20	Farmers
		C) Management of young orchard	May'14	1	20	Farmers
	4) Home Science	a) Training programme on Natural Fiber article making	May'14	30	25	Farm women
		b) Preparation and preservation of mango squash & mango papad	May'14	1	20	Farm women
	5) Animal Science	a) Control of Mastitis in Animals.	April'15	1	20	FW / F
		b) Production of quality Milk and Milk products	May'15	1	20	FW / F
	6) Extension	a) Leadership development	May'14	1	25	FW / F
		b) Strengthening of self help groups	June'14	2	25	RY
	7) Soil Science	a) How to Collect Soil and water Sample	April'14	1	20	Farmers

Qtrs.	Subject	Title of Training	Date	Duration (Days)	No. of Participants	Type of Participants
II	1) Crop production	a) INM in castor	July'14	1	20	Farmers
		b) Scientific cultivation of Pigeon pea	July'14	1	20	Farmers
		c) INM in Bt cotton	Aug'14	1	20	Farmers
	2) Pl. protection	a) Disease of rice and its integrated management	Aug'14	1	20	Farmers
		b) IPM in castor	Sep'14	1	20	Farmers
		c) Management of Store grain pest in <i>Kharif</i> season crops.	Sep'14	1	20	Farmers
	3) Horticulture	a) Importance of desuckering in banana	Aug'14	1	20	Farmers
		b) INM in chilli and Tomato	Sept'14	1	20	Farmers
	4) Home Science	a) Preparation of mix fruit jam	July'14	2	20	Farm Women
		b) Doormat making training programme	July'14	30	20	Farm Women
		c) Guidance about jaundice & viral infections	Sept'14	1	20	Farm Women
	5) Animal Science	a) Prevention and control of various disease occurring during rainy season	July'14	1	20	FW / F
		b) Management of newly born calf	Aug '14	1	20	FW / F
		c) Care and Management of Milch Animals.	Sept.'14	1	20	FW / F
	6) Ext. Education	a) Development of Entrepreneurship among rural youths	July'14	2	20	Rural youth
b) Leadership development among rural youths		Sept.'14	3	20	Rural youth	
7) Soil Science	a) Management of problematic soils.	July'14	1	20	Farmers	

<b>Qtrs.</b>	<b>Subject</b>	<b>Title of Training</b>	<b>Date</b>	<b>Duration (Days)</b>	<b>No. of Participants</b>	<b>Type of Participants</b>
III	Crop Production	a) Micronutrients management in Cotton cultivation	Dec'14	1	20	Farmers
		b) Production technology of maize	Nov.'14	1	20	Farmers
		c) INM in Maize	Nov.'14	1	20	Farmers
	2) Plant Protection	a) Pest management in Banana	Oct'14	1	20	Farmers
		b) Pest management in Chilli Crops	Nov'14	1	20	Farmers
		c) Preventive measures against the Hazardous effect of pesticides.	Dec'14	1	20	Farmers
	3) Horticulture	a) Inter cropping of leafy vegetables and fertilizer management in banana	Oct'14	1	20	Farmers
		b) Post harvest management in vegetable crops	Nov'14	1	20	Farmers
		c) Use of bio fertilizers and PGRs in cucumber	Dec.'14	1	20	Farmers
	4) Home Science	a) Preparation of Aonla candy	Oct'14	2	20	Farm Women
		b) Preparation and preservation of tomato ketchup and chutney	Dec'14	2	20	FW / F
	5)Animal science	a) Back yard poultry management.	Oct.14	1	20	RY
		b) Care and management of Animals during winter.	Nov.14	1	20	FW / F
		c) Care and management of Calves.	Dec. 14	1	20	FW / F
6) Ext.Education	a) Capacity building of SHGs.	Nov'14	3	20	Rural youth	
7) Soil Science	a) Importance of micronutrients and their application	Sept.'14	1	20	Farmers	

<b>Qtrs.</b>	<b>Subject</b>	<b>Title of Training</b>	<b>Date</b>	<b>Duration (Days)</b>	<b>No. of Participants</b>	<b>Type of Participants</b>
IV	1) Crop Production	a) Scientific cultivation of green gram	Jan.'15	1	20	Farmers
		b) Importance of crop rotation in agriculture for effective recycling of farm wastes	March'15	2	20	Farmers
	2) Plant Protection	a) Precaution during spraying of pesticides	Jan. '15	1	20	RY
		b) Pest management in Green Gram	Jan'15	1	20	Farm women
	3) Horticulture	a) Ratoon crop management in banana	Jan'15	1	20	Farmers
		b) Off season vegetable production under Net house condition,	March.'15	1	20	Farmers
	4) Home Science	a) Preparation of masalas	Jan'15	1	20	Farm Women
		b) Minimization of nutrient loss during cooking	Feb'15	1	20	Farm Women
	5) Animal Science	a) Parasitic control in Dairy Animals.	Jan.15	1	20	Farm women/Farmer
		b) Preparation of balance ration for dairy animal	Feb.'15	1	20	Farm women/Farmer
		c) Identification of ecto-parasite and their management	March.'15	1	20	Farm women/Farmer
	6) Ext. Education	a) Leadership development among rural youth	Feb.'15	2	20	Rural youth
	7) Soil Science	a) Reclamation of saline affected soil	Jan.'15	1	20	Farmers
		b) How to Collect Soil and water Sample	March'15	1	20	Farmers

### 1.3 Sponsored Training Programme/ In-Service Training Programme

Qtrs	Subject	Title of Training Programme	Date	Duration (Days)	No. of Participants	Type of Participants	Sponsoring Agency
I	Crop Production	Scientific cultivation of cotton	5 to 6/6/14	2	30	Ext. Officers & VLWS	Department of Agriculture, Dist. Panchayat, Vadodara.
II	Horticulture	Low cost net house and greenhouse	7 to 8/7/14	2	20	MDT/WDT member	DWDU, Vadodara
	Plant Protection	Integrated pest management in Rice	15 to 16 /7/14	2	30	Ext. Officers & VLWS	Department of Agriculture, Dist. Panchayat, Vadodara.
	Animal Science	Orientation training programmer of AI workers.	12 to 13 /8/14	2	20	AI workers	KVK
III	Extension	How to conduct FLD / Demonstration	24 to 25 /10/14	2	25	Ext. Officers & VLWS	KVK
	Horticulture	Precision Farming In Fruit crops	25 to 26/11/14	2	30	Ext. Officers & VLWS	NHM
	Soil Science	Reclamation of Affected Soil	9 to 10 /12/14	2	20	Ext. Officers & VLWS	KVK
IV	Home Science	Nutrition for mother and child	20 to 21/1/'15	2	20	Anganwadi workers (ICDS)	KVK
	Animal Science	Orientation training programmer of AI workers.	5 to 6/2/'15	2	20	AI workers	KVK

## 2 Front Line Demonstration

### 2.1 Front Line Demonstration other than Oil Seed & Pulse Seed

Title of Demon.	Objectives	Variety	Farming Situation	Area (ha.)	No. of Farmers	Existing Technology	Specific Technology	Critical Input	Remarks
<b>Crop production (ICM)</b>									
Cotton	To introduce variety	Sankar (Hybrid)-6 or 8 Bt-II	Irrigation	8.0	20	Use of local variety	Varietal demo	Seed of BT-Cotton Sankar 6 or 8	<i>Kharif- 14</i>
Paddy	To introduce variety	GAR-13	Irrigated	8.0	20	i) Use of local variety ii) No use of Micronutrient	Varietal demo.	Seed of GAR-13	<i>Kharif- 14</i>
Pigeonpea	To introduce variety	Vaishali	Irrigated	8.0	20	Use of local variety	Under TDHPP		<i>Kharif-14</i>
Chickpea	Introduction of variety	GG-2	Irrigated	6.0	15	Use of local variety			<i>Rabi-14</i>
Greengram	Introduction of variety	Meha	Irrigated	8.0	20	Use of local variety	Varietal demo	Seeds	<i>Summer-15</i>

Title of Demon.	Objectives	Variety	Farming Situation	Area (ha.)	No. of Farmers	Existing Technology	Specific Technology	Critical Input	Remarks
<b>Crop production (INM)</b>									
Maize	Integrated Nutrient Management	Prevalent variety	Irrigated	8.0	20	i) No use of Bio-fertilizer ii) No use of micronutrient	INM	<i>Azotobactor</i> & Phosphate culture and Zinc sulphate	<i>Rabi-14</i>
Paddy	Integrated Nutrient Management	Prevalent variety	Irrigated	5.0	12	i) No use of Micronutrient ii) Not follow seed treatment	i) Application of Zinc sulphate iii) Seedling treatment with bio-fertilizer	i) No use of Micronutrient ii) Not follow seed treatment	<i>Kharif'. 14</i>
Wheat	Integrated Nutrient Management	Prevalent variety	Irrigated	5.0	12	No use of Biofertilizer and Micronutrient	INM	Biofertilizer and Micronutrient	<i>Rabi'. 14</i>

<b>Title of Demon.</b>	<b>Objectives</b>	<b>Variety</b>	<b>Farming Situation</b>	<b>Area (ha.)</b>	<b>No. of Farmers</b>	<b>Existing Technology</b>	<b>Specific Technology</b>	<b>Critical Input</b>	<b>Remarks</b>
<b>Plant protection (IPM &amp; IDM)</b>									
Cotton	To introduce IPM technology	BT	Irrigated	8.0	20	Use of Chemical Pesticides	IPM	Azadirachtin, <i>Beauveria bassiana</i> , <i>Verticilium lecani</i>	<i>Kharif- 14</i>
Paddy	To introduce IPM and IDM technology		Irrigated	8.0	20	Use of Chemical Pesticides	IPM and IDM	Pheromone, Lures, Vitavax	<i>Kharif- 14</i>
Pigeon pea	To introduce IPM and IDM technology		Irrigated	8.0	20	Use of Chemical Pesticides	IPM and IDM	Pheromone, Lures, Azadirachtin, <i>Beauveria bassiana</i> , <i>Verticilium lecani</i>	<i>Kharif- 14</i>
<b>Plant protection (ICM)</b>									
Castor	Control of Wilt disease in Castor		Irrigated	8.0	20	Use of Local variety	Used of resistance variety	GCH-7	<i>Kharif- 14</i>



<b>Title of Demon.</b>	<b>Objectives</b>	<b>Variety</b>	<b>Farming Situation</b>	<b>Area (ha.)</b>	<b>No. of Farmers</b>	<b>Existing Technology</b>	<b>Specific Technology</b>	<b>Critical Input</b>	<b>Remarks</b>
<b>Horticulture (INM)</b>									
Water melon	Integrated Nutrient Management	-	-	5.0	12	i) Only adopt chemical fertilizer ii) No use of micronutrient	INM	<i>Azotobactor</i> & Phosphate culture and Zinc sulphate	<i>Rabi-13</i>
Chilli	Integrated Nutrient Management	-	Irrigated	5.0	12	i) Only adopt chemical fertilizer ii) No use of micronutrient	INM	<i>Azotobactor</i> & Phosphate culture and Zinc sulphate	<i>Kharif-13</i>
Tomato	Integrated Nutrient Management	-	Irrigated	5.0	12	i) Only adopt chemical fertilizer ii) No use of micronutrient	INM	<i>Azotobactor</i> & Phosphate culture and Zinc sulphate	<i>Kharif-13</i>

<b>Title of Demon.</b>	<b>Objectives</b>	<b>Variety</b>	<b>Farming Situation</b>	<b>Area (ha.)</b>	<b>No. of Farmers</b>	<b>Existing Technology</b>	<b>Specific Technology</b>	<b>Critical Input</b>	<b>Remarks</b>
<b>Animal Husbandry(ICM)</b>									
Lucerne	Introduction of variety	Anand Lucerne-2	Irrigated	5.0	12	Use of local seed	Varietal demon.	Seeds	<i>Rabi-14</i>
<b>Animal Husbandry (FEED MANAGEMENT)</b>									
Feed supplement for milking animal	To improve milk and fat production	-	-	-	20	No use of By-pass Fat	Feed supplement through By-pass Fat	By-pass Fat	<i>Rabi-14</i>
Feed Supplement for milking Buffalo	To improve milk production and reduction enstrusus problem in Buffalo	-	-	-	20	No use of Mineral mixture and De-worming.	Feed supplement through mineral Mixture, common salt and De-worming.	Mineral Mixture, common salt and De-warmer	<i>Rabi-14</i>

## 2.2 Demonstration other than crops

Title of Demon.	Objectives	Variety	Farming Situation	Area (ha.)	No. of Farmers	Existing Technology	Specific Technology	Critical Input	Remarks
<b>Home Science</b>									
Nutritional garden	To create awareness regarding importance of kitchen gardening in encouraging balance nutrition at low cost.	Improved vegetable varieties	Irrigated	-	50	Growing single vegetable (Local variety)	Use of high yielding variety of vegetables	Seed and Seedlings of Vegetable crops	<i>Rabi-14</i>
Techno economic advantage of Improved equipments over the Traditional practice	Drudgery reduction	Serreted sickle	-	-	20	Traditional practice- desi Sickle	Improved equipment	Improved Sickle	<i>Kharif-14</i>
Techno economic advantage of Improved equipments over the Traditional practice	Drudgery reduction	Twin wheel hoe weeder	-	-	20	Use of Khurpa	Improved equipment	Twin wheel hoe weeder	<i>Kharif-14</i>

### 2.3 Components demonstration (Bio-agents)

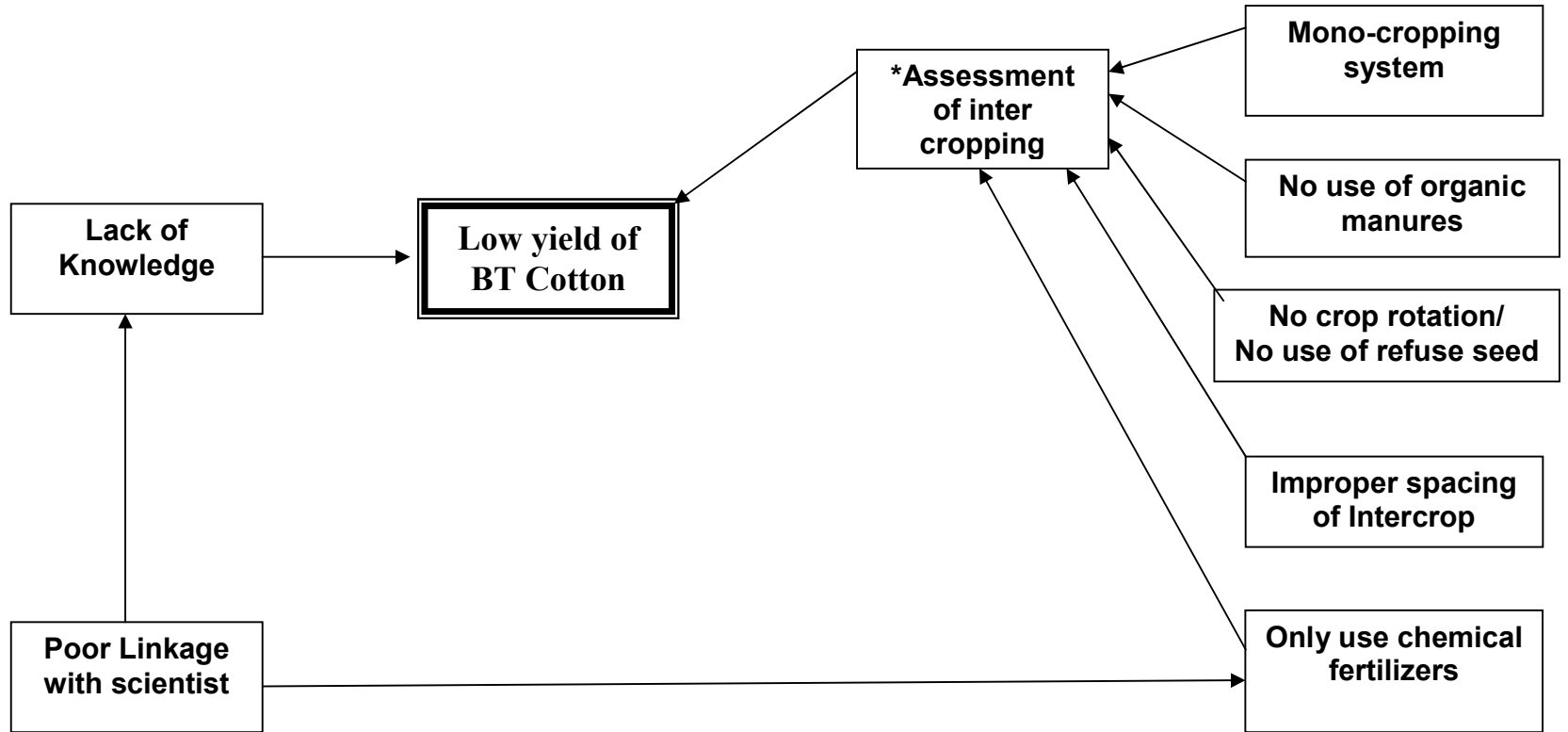
Title of Demon.	Objectives	Variety	Farming Situation	Area (ha.)	No. of Farmers	Existing Technology	Specific Technology	Critical Input	Remarks
<b>IPM</b>									
Castor	Biological control	-	Irrigated	8.0	20	No use of bio-agents	IPM	<i>Pheromone</i>	<i>Kharif- 14</i>
Tomato	Biological control	-	Irrigated	8.0	20	No use of bio-agents	IPM	<i>Pheromone</i>	<i>kharif- 14</i>
<b>IDM</b>									
Groundnut	Biological Control	-	Irrigated	8.0	20	No use of bio-agents	IDM	<i>Trichoderma</i>	<i>Rabi- 14</i>
Gram	Biological control	-	Irrigated	8.0	20	No use of bio-agents	IDM	<i>Trichoderma</i>	<i>Rabi- 14</i>

### 3. On Farm Testing:

#### On Farm Testing: Agronomy Trial-1 ( 1<sup>st</sup> year)

1	Title	:	<b>Assessment of inter cropping in Bt cotton.</b>
2	Problem diagnose/defined	:	Cotton crop yield was reducing due to unviable cropping system
3	Details of technologies selected for assessment /refinement	:	Treatments T <sub>1</sub> : Farmers practices ( Uneven Row) T <sub>2</sub> : Cotton + Pesion Pea ( 4:2) (Recommended ) T <sub>3</sub> : Cotton + Pigeon pea (Suggested 4:1)
4	Source of technology	:	CICR , Nagpur
5	Production system & Thematic Area	:	Cotton based cropping system
6	Thematic area	:	ICM
7	No. of Trials	:	3
8.	Plot size and total area (ha)	:	0.6 ha/farmers, Total :1.8 ha
9	Spacing	:	120-150 X 45-60 Cm
10	Critical inputs	:	Seed of Pigeon pea and Bt cotton
11	Performance indicator	:	Yield of cotton crop. Grain yield of inter crop.
12	Total Approximate cost	:	4500/-Rs.

# PROBLEM CAUSE DIAGRAM



Socio- Economic

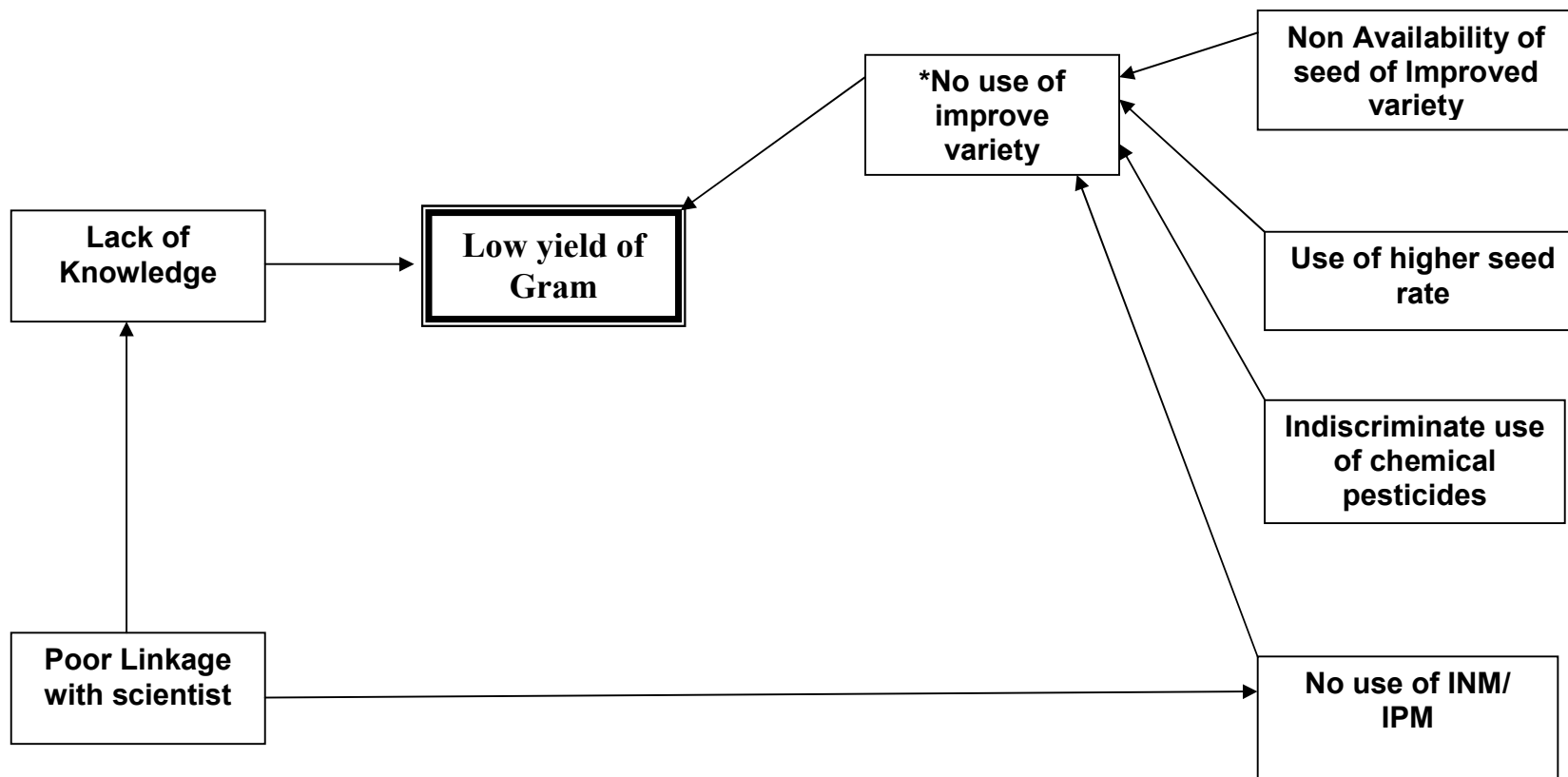
\* Intervening point

Bio-physical

## On Farm Testing: Agronomy Trial-2 (1<sup>st</sup> year)

1	Title	:	<b>Assessment of performance of different varieties of gram under un irrigated/rainfed condition of Vadodara district.</b>
2	Problem diagnose/defined	:	Low production of Gram due to non use of improved varieties.
3	Details of technologies selected for assessment /refinement	:	Treatments T <sub>1</sub> : Farmers practices (Market available seed) T <sub>2</sub> : To be assessed : GG-2 T <sub>3</sub> : To be assessed : GJG-3
4	Source of technology	:	SAU
5	Production system & Thematic Area	:	Paddy-Gram based cropping system
6	Thematic area	:	ICM
7	No. of Trials	:	3
8.	Plot size and total area (ha)	:	0.6 ha/farmers, Total :1.8 ha
9	Spacing	:	45-30 Cm
10	Critical inputs	:	Seed of GG-2 and GJG-3
11	Performance indicator	:	Yield/ha
12	Total Estimated Cost	:	12000/-

## PROBLEM CAUSE DIAGRAM



Socio- Economic

\* Intervening point

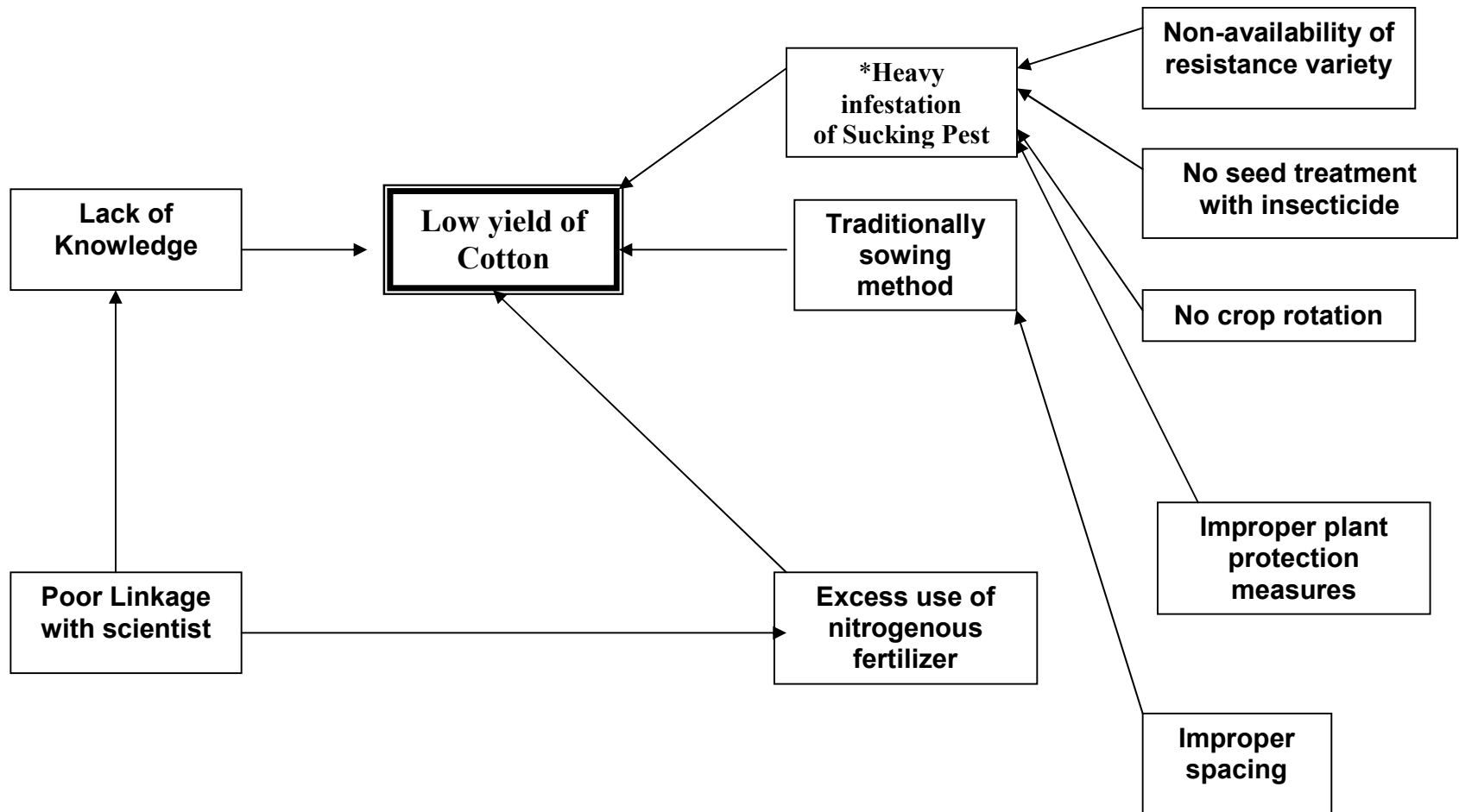
Bio-physical



### On Farm Testing - Plant Protection: Trial -3 ( 1<sup>st</sup> year)

<b>1</b>	<b>Title</b>	<b>:</b>	<b>Management of Sucking pest in Bt Cotton</b>
<b>2</b>	Problem diagnose/defined	<b>:</b>	Low yield of Cotton due to heavy infestation of sucking pest in Cotton.
<b>3</b>	Details of technologies selected for assessment /refinement	<b>:</b>	Treatments T <sub>1</sub> : Farmers practice- Arbitrary use of insecticides. T <sub>2</sub> : Use of New Insecticide at Recommended Dose(Imidacloprid,Thiomethoxam, Acetamiprid- 8 spray) T <sub>3</sub> :Flonicamid and Azadirachtin 1500ppm as alternate spray- 6 spray
<b>4</b>	Source of technology	<b>:</b>	SAU
<b>5</b>	Production system & Thematic Area	<b>:</b>	Cotton based cropping system
<b>6</b>	Thematic area	<b>:</b>	Integrated Pest Management in Cotton
<b>7</b>	No. of Trials	<b>:</b>	5
<b>8.</b>	Plot size and total area (ha)	<b>:</b>	0.8 ha/farmers, Total :4.0 ha
<b>9</b>	Spacing	<b>:</b>	120 cm x 45 cm
<b>10</b>	Critical inputs	<b>:</b>	Pesticide
<b>11</b>	Performance indicator	<b>:</b>	Yield/ha

## PROBLEM CAUSE DIAGRAM



Socio- Economic

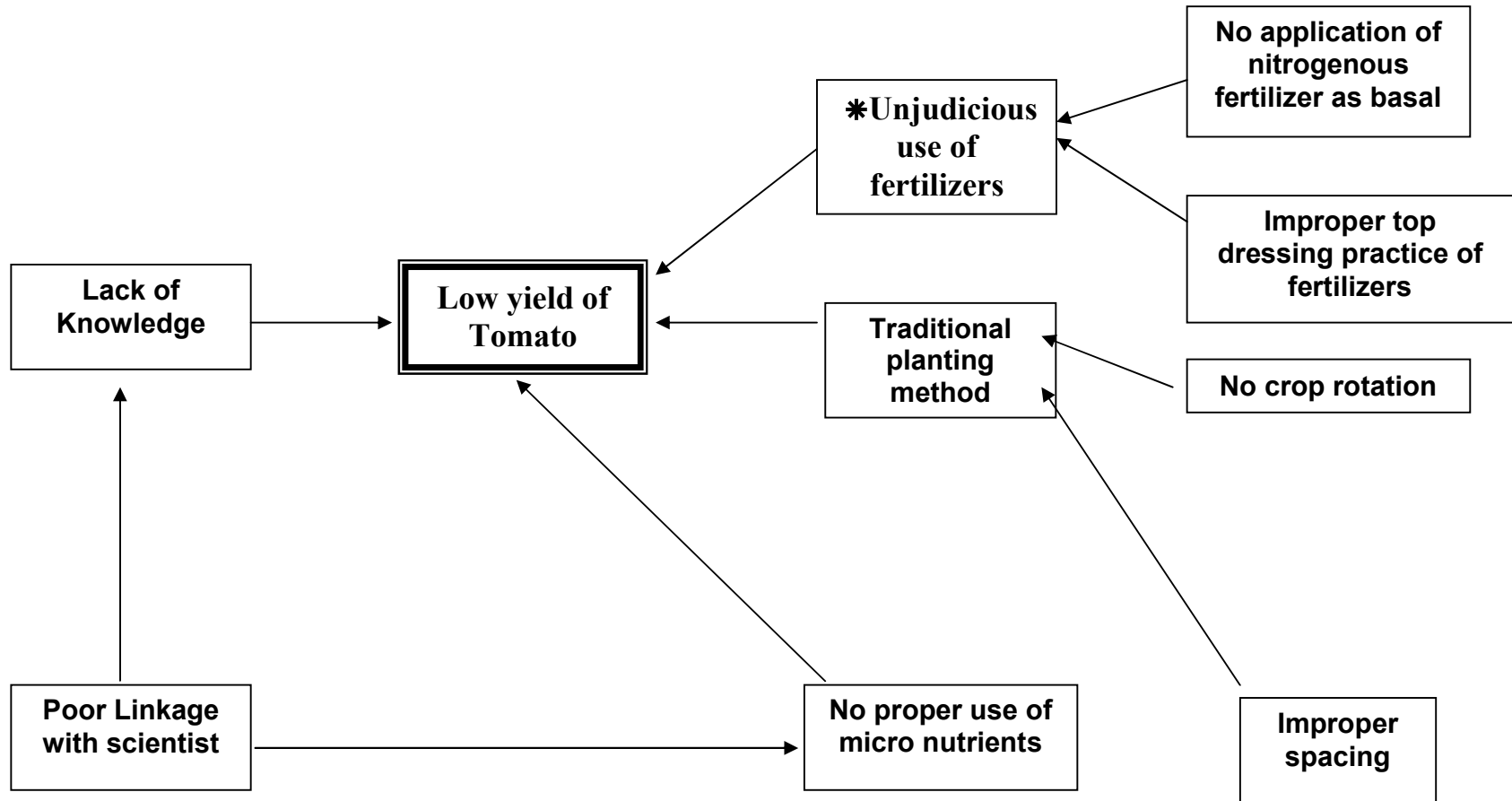
\* Intervening point

Bio-physical

## On Farm Testing – Horticulture : Trial -4 ( 1<sup>st</sup> year)

1	Title	:	<b>Effect of combination of macro and micro nutrients to acquire higher yield in tomato (INM)</b>
2	Problem diagnose/defined	:	Low yield of Tomato due to improper use of Fertilizer.
3	Details of technologies selected for assessment /refinement	:	<p style="text-align: center;"><b>Treatments</b></p> <p>T<sub>1</sub>: Imbalance use of fertilizers (Farmer's Practice)</p> <p>T<sub>2</sub>: Recommended Dose of Fertilizers (150: 75:75)</p> <p>T<sub>3</sub>: 125-75-75 + 2% foliar spray of urea and Micronutrients (Grade-4) 1% (Soil analysis based) at 45,60 and 75 DATP.</p>
4	Source of technology	:	SAU
5	Production system	:	Sole vegetables
6	Thematic area	:	Integrated Nutrient Management.
7	No. of Trials	:	3
8.	Plot size and total area (ha)	:	0.6 ha/farmers, Total :1.8 ha
9.	Critical inputs	:	Micro-nutrients
10.	Performance indicator	:	Yield/ha

## PROBLEM CAUSE DIAGRAM



Socio- Economic

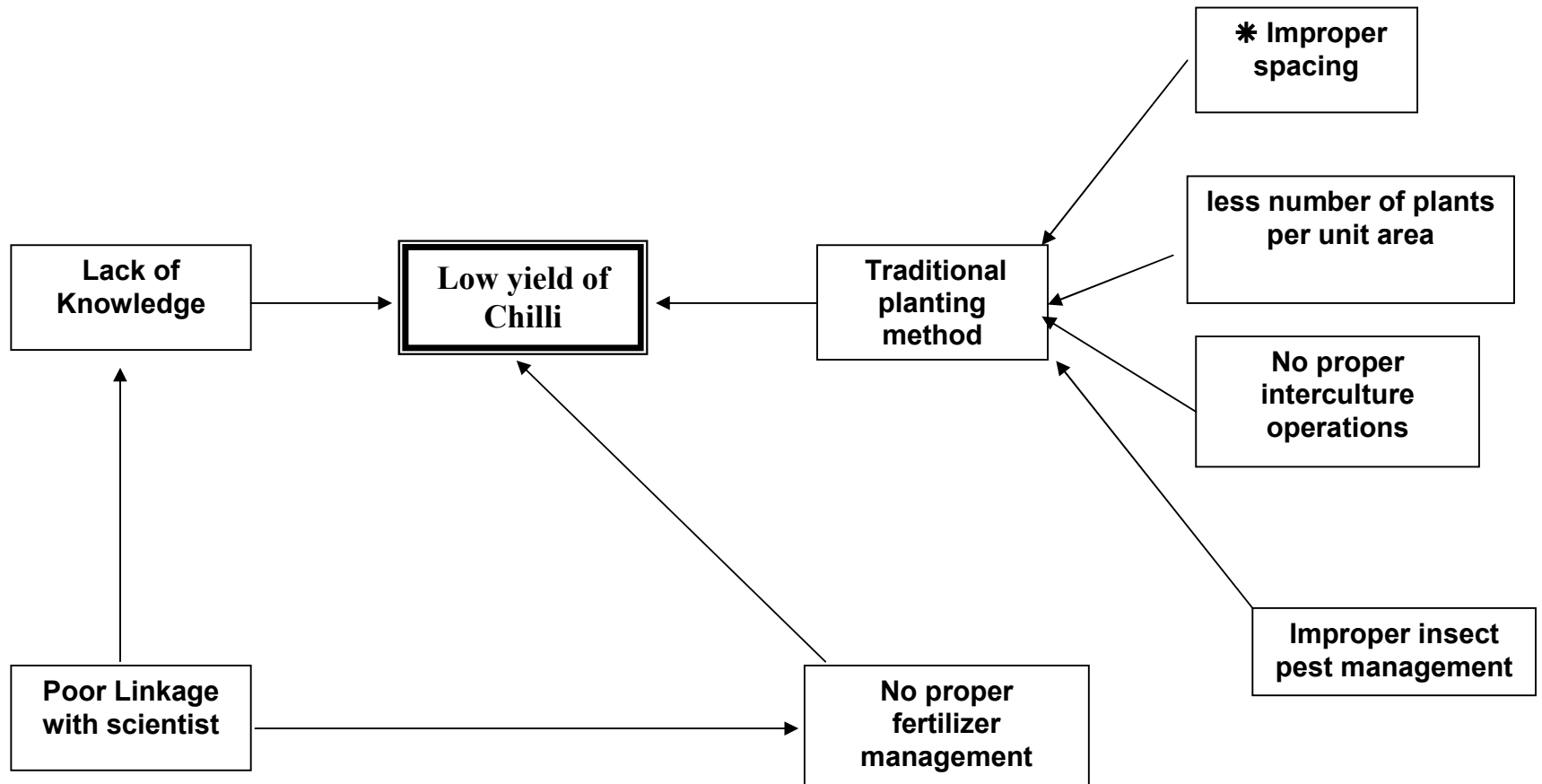
\* Intervening point

Bio-physical

## On Farm Testing - Horticulture: Trial -5 ( 1<sup>st</sup> year)

1	<b>Title</b>	:	<b>Effect of Plant geometry in chilli.</b>
2	Problem diagnose/defined	:	No adoption of recommended spacing.
3	Details of technologies selected for assessment /refinement	:	<p style="text-align: center;"><b>Treatments</b></p> <p>T<sub>1</sub> :Farmer Practices 120x 60 cm  T<sub>2</sub> : Recommended 60x 60 cm  T<sub>3</sub> : Suggested 90 x 60 cm</p>
4	Source of technology	:	SAU
5	Production system	:	Sole vegetable
6	Thematic area	:	Method of Planting.
7	No. of Trials	:	3
8.	Plot size and total area (ha)	:	0.6 ha/farmers, <span style="float: right;">Total :1.8 ha</span>
9	Spacing	:	60*60 / 120*60 /90*60 cm.
10	Critical inputs	:	Vegetable seedlings
11	Performance indicator	:	Yield/ha

## PROBLEM CAUSE DIAGRAM



Socio- Economic

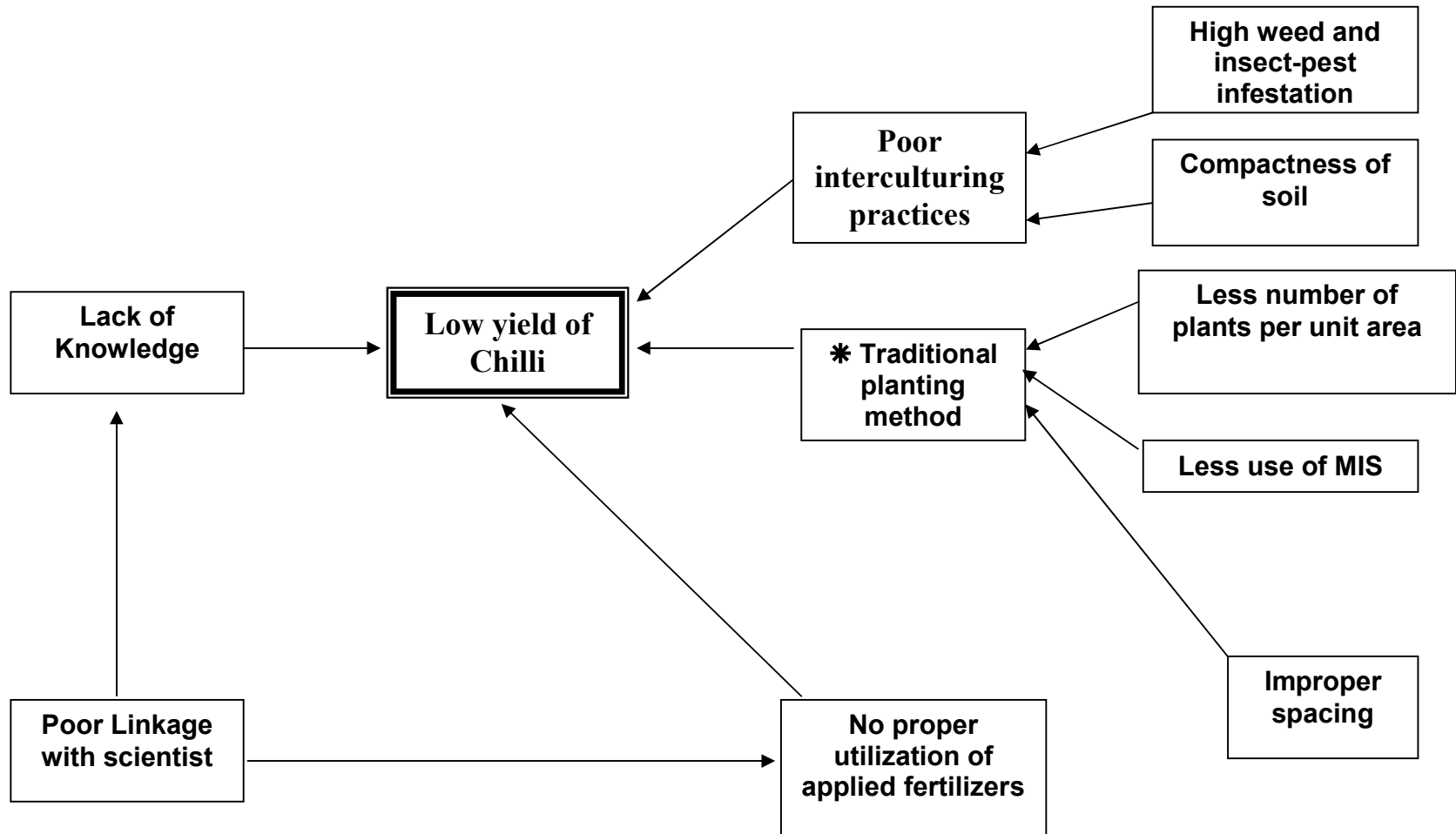
\* Intervening point

Bio-physical

**On Farm Testing - Horticulture: Trial -6 ( 1<sup>st</sup> year)**

1	Title	:	<b>Effect of method of planting on yield of chilli.</b>
2	Problem diagnose/defined	:	No use of raised bed, Heavy mortality, Black cotton soil, difficulties in intercultural operation due to lodging.
3	Details of technologies selected for assessment /refinement	:	<p style="text-align: center;"><b>Treatments</b></p> <p>T<sub>1</sub> : Flat bed (farmer Practice)</p> <p>T<sub>2</sub> : Ridges and furrow method (flood irrigation)</p> <p>T<sub>3</sub> : Paired row on Raised bed with drip irrigation.</p>
4	Source of technology	:	SAU
5	Production system	:	Sole vegetable
6	Thematic area	:	Method of Planting.
7	No. of Trials	:	3
8.	Plot size and total area (ha)	:	0.6 ha/farmers, Total :1.8 ha
9	Spacing	:	90*60
10	Critical inputs	:	Vegetable seedling
11	Performance indicator	:	Yield/ha

## PROBLEM CAUSE DIAGRAM



Socio- Economic

\* Intervening point

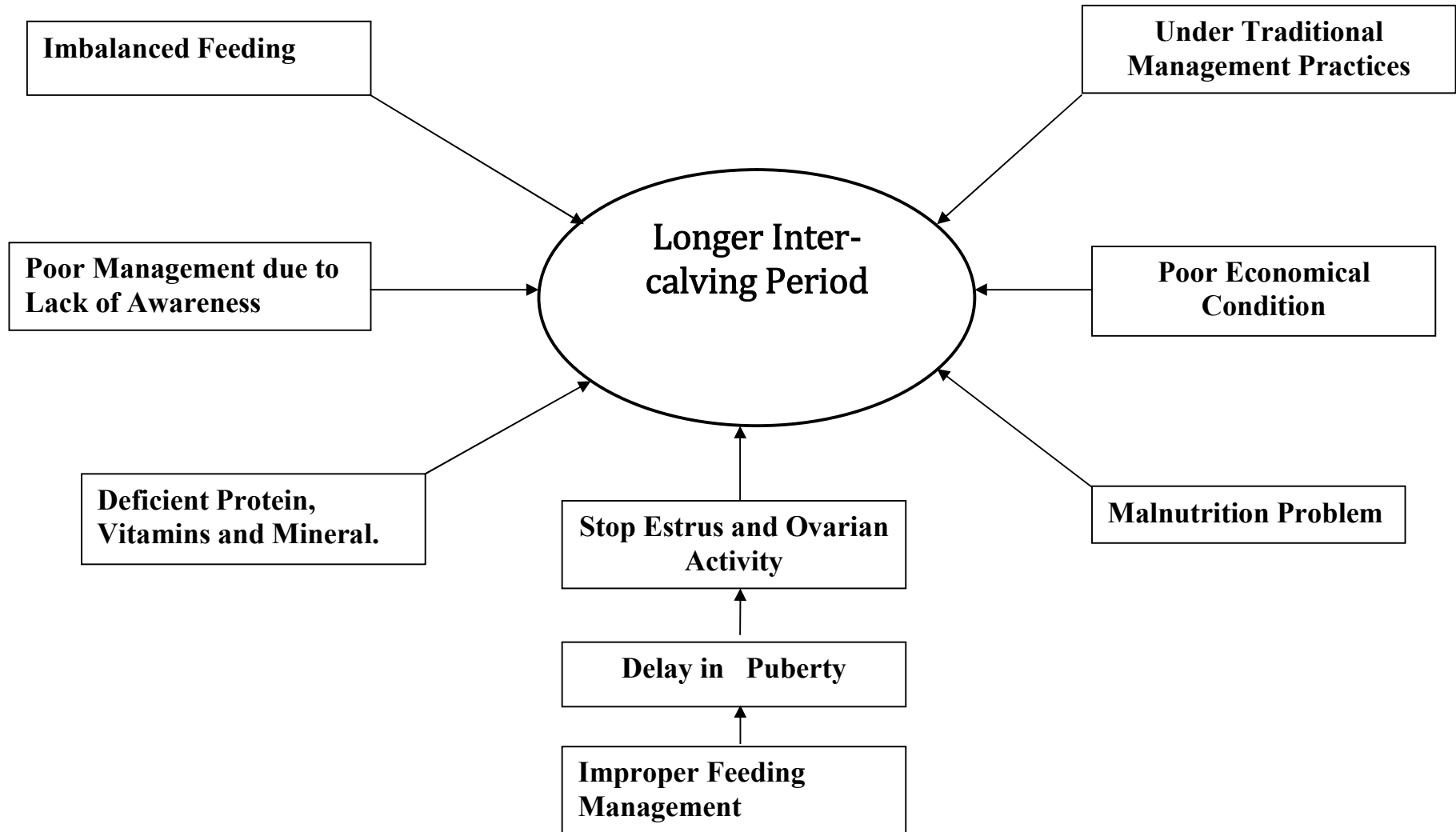
Bio-physical



## On Farm Testing - Animal Husbandry Trial -7 ( 1<sup>st</sup> year)

1	Title	:	<b>Reduction of Calving Interval in Cross bred cow.</b>
2	Problem diagnose/defined	:	Imbalanced feeding, Poor management of Dairy Animals due to lake of awareness ,Under traditional management Practices,
3	Details of technologies selected for assessment /refinement	:	<p style="text-align: center;"><b>Treatments</b></p> <p>T<sub>1</sub> : Farmers practice (No feeding of mineral mixture)</p> <p>T<sub>2</sub> : Mineral mixture @ 50 g./head/day for 60 Days + De-worming (Recommended).</p> <p>T<sub>3</sub> :Mineral mixture @ 50 g./head/day + de-worming+ Hydrogenic fat ( Vegetable Ghee) @ 200g / day for 30 Days (Suggested)</p>
4	Source of technology	:	SAU
5	Thematic area	:	Animal Nutrition.
6	No. of Trials	:	3
7	Sample size	:	6 Animal, Total :18 Animals
8	Critical inputs	:	Mineral mixture, Dalda Ghee and De-warmer
9	Performance indicator 1. Indicator - I	:	Incidence of Heat and conception rate. General Health.

## PROBLEM CAUSE DIAGRAM



### On Farm Testing - Animal Husbandry Trial -8(1<sup>st</sup> year)

1	Title	:	<b>Increase of Milk production and Reduction anestrus problem in Buffaloes by supplementing of By-pass protein.</b>
2	Problem diagnose/defined	:	Malnutrition problem, Imbalanced use of feed and fodder, no use of Mineral mixture in feed, No use of De-worming agents, poor knowledge of management practices.
3	Details of technologies selected for assessment /refinement	:	<p style="text-align: center;"><b>Treatments</b></p> <p>T<sub>1</sub>: Farmers practice (No use of by-pass protein)</p> <p>T<sub>2</sub>: By-pass protein @ 1kg / day</p> <p>T<sub>3</sub>: T<sub>2</sub> +Mineral mixture @ 50 g./head/day + De Worming ( On the basis of analysis).</p>
4	Source of technology	:	SAU
5	Thematic area	:	Health management/ Animal Nutrition.
6	No. of Trials	:	3
7	Sample size	:	5 Animal/farmers, Total :15 Animals
8	Critical inputs	:	Mineral mixture ,By-pass protein and De-worming .
9	Performance indicator 1. Indicator - I	:	Daily milk yield (morning and evening) and Service period (days)

## On Farm Testing - Animal Husbandry :- Trial -09( 1<sup>st</sup> year)

1	Title	:	<b>Fertility improvement in Buffalo.</b>
2	Problem diagnose/defined	:	Repeat breeding problem, Anestrus problem, Silent Heat/ Estrus.
3	Details of technologies selected for assessment.	:	Treatments T <sub>1</sub> : No Specific treatment. T <sub>2</sub> : Ovsynch Protocol Detail of Ovsynch Protocol treatment Day-0: Injection Receptal 2.5 ml. Day-7: Injection Lutalyse 5 ml. Day-9: Injection Receptal 2.5 ml. Day-10: Morning Insemination, Evening Insemination.
4	Source of technology	:	NDRI , Karnal
5	Thematic area	:	Dairy Management.
6	No. of Trials	:	1
7	Sample size	:	30 Animals
8	Critical inputs	:	Receptal and Lutalyse Injection.
9	Performance indicator 1. Indicator - I	:	Occurrence of Heat, Conception rate.
10	Total Estimated Cost	:	18000/-

### On Farm Testing - Home Science :- Trial -10 (1<sup>st</sup> year)

1	Title	:	<b>Feeding of protein and energy rich diet to children to cure protein energy malnutrition in rural area (Age group – 1 to 3 years)</b>
2	Problem diagnose/defined	:	Malnutrition in Rural tribal children
3	Details of technologies selected for assessment /refinement	:	Treatments T1 : Control (without any extra food) T2 : Use a mixture of cereals (30 gm) and pulses (10gm) in 3:1 ratio T3: Use a mixture of cereals (30 gm), sprouted pulses (10 gm) + ghee (5 gm) + Jaggery (10 gm)
4	Source of technology	:	Home science department, S. P. University, Book: Dietetics
5	Production system & Thematic Area	:	Nutrition management
6	Thematic area	:	Nutrition management
7	No. of Trials	:	3
8	Critical inputs	:	As above
9	Performance indicator	:	Height, Weight

## On Farm Testing Trial-11 Agronomy (Ongoing 3<sup>rd</sup> year)

1	Title	:	<b>Integrated Nutrient Management in Bt cotton</b>
2	Problem diagnose/defined	:	Low yield of BT Cotton due imbalanced use of fertilizer
3	Details of technologies selected for assessment /refinement	:	Treatments T1 : Farmers practices T2 : 240 : Kg. NPK/ha (Recommended) T3 : 240 : 40 :00 Kg. NPK / ha + liquid <i>Azotobactor</i> and Phosphate culture as seed treatment and foliar spray at 30, 45 and 60 DAS (Suggested)
4	Source of technology	:	SAU
5	Production system & Thematic Area	:	Cotton based cropping system
6	Thematic area	:	INM
7	No. of Trials	:	3
8.	Plot size and total area (ha)	:	0.6 ha/farmers, Total :1.8 ha
9	Spacing	:	120-180 X 60-90 Cm
10	Critical inputs	:	Urea, DAP, <i>Azotobactor</i> and Phosphate culture
11	Performance indicator	:	Yield/ha

## On Farm Testing Trial -12 Agronomy (Ongoing 3<sup>rd</sup> year)

1	Title	:	Control of stem borer in Paddy
2	Problem diagnose/defined	:	Low yield of paddy due to heavy infestation of stem borer
3	Details of technologies selected for assessment /refinement	:	Treatments T <sub>1</sub> : Farmers practice T <sub>2</sub> : Clipping of seedling tips and Soil application with Cartap hydrochloride 4% G @ 20 kg/ha. (Recommended) T <sub>3</sub> : Soil application with Cartap hydrochloride 4% G @ 20 kg/ha. + clipping of seedling tips + spraying of Fipronil 5 SC @ 20 ml/10 litre of water at 45 and 60 DATP (Suggested)
4	Source of technology	:	SAU
5	Production system & Thematic Area	:	Rice-Wheat cropping system
6	Thematic area	:	Integrated Management in Paddy
7	No. of Trials	:	3
8.	Plot size and total area (ha)	:	0.6 ha/farmers, Total :1.8 ha
9	Spacing	:	15-20 cm x 10-15 cm
10	Critical inputs	:	Pesticide
11	Performance indicator	:	
	1. Indicator - I	:	Yield/ha
	2. Indicator - II	:	No. of Tillers/ Plant

## On Farm Testing - Trial -13 Home Science :- (Ongoing 2<sup>nd</sup> year)

1	Title	:	Food supplement efficacy to increase hemoglobin content.
2	Problem diagnose/defined	:	Low hemoglobin in Adolescent girls
3	Details of technologies selected for assessment /refinement	:	<p style="text-align: center;"><b>Treatments</b></p> <p>T1 : Control</p> <p>T2 : Iron-folic acid tablets</p> <p>T3:Iron-folic acid tablets + food supplements</p>
4	Source of technology	:	The Journal of Nutrition: Feb. 1, 2000, vol. 130, no. 2
5	Production system & Thematic Area	:	Nutrition management
6	Thematic area	:	Nutrition management
7	No. of Trials	:	3
8	Critical inputs	:	As above
9	Performance indicator	:	Hemoglobin content



## On Farm Testing Animal Husbandry Trial - 14 (Ongoing 2<sup>nd</sup> year)

1	Title	:	<b>Improvement in milk production in Buffalo</b>
2	Problem diagnose/defined	:	Low milk yield
3	Details of technologies selected for assessment /refinement	:	<b>Treatments</b> T <sub>1</sub> : Farmers practice T <sub>2</sub> :Mineral mixture @ 50 g./head/day (Recommended) T <sub>3</sub> :Mineral mixture @ 50 g./head/day + common salt @ 25 g /head/day + de-worming (Suggested)
4	Source of technology	:	SAU/AAU
5	Thematic area	:	Health management
6	No. of Trials	:	3
7	Sample size	:	3 animal/farmers, Total :9 animals
8	Critical inputs	:	Mineral mixture and common salt
9	Performance indicator	:	Daily milk yield (morning and evening)

#### 4.0 Extension Activities: -

Sr. No.	Activities	Quarter				Total
		I	II	III	IV	
1	Field Day	4	4	11	6	25
2	Crop Symposium	1	0	0	1	2
3	Agri. Exhibition	1	0	1	0	2
4	Scientist Farmers interaction	1	2	2	1	6
5	Mahila Mandal / SHG	2	2	2	2	8
6	Ex-trainee Meeting	1	1	1	1	4
7	<b>Celebration Day</b>					
i	Institution Foundation Day				1	1
ii	ICAR Industry Day		1			1
iii	Agriculture Education Day		1			1
iv	World Food day			1		1
v	Farm Innovators Day			1		1
vi	Woman in Agri. Day			1		1
8	<b>Diagnostic Services</b>					
i	Farmers Visit to KVK	30	30	50	40	150
ii	Scientist Visit to farmers Field	24	30	30	24	108
9	Lecture to be delivered in other Programme	5	8	10	10	33
10	Night Training Camp	1	1	1	1	4
11	<b>Publication</b>					
i	Research paper to be published	2	2	2	2	8
ii	Popular article to be published	5	5	5	5	20
iii	Extension Bulletin	1	1	1	1	4
iv	Pamphlet/Folder	2	2	2	2	8
v	Poster and Charts	1	1	1	1	4
vi	Six Monthly News Letter		1		1	2
12	<b>Communication Media</b>					
i	Radio talk	1	1	1	1	4
ii	T.V./Film Show	1	1	1	1	4
iii	Newspaper Coverage	3	5	5	2	15
iv	Advisory service (SMS:- VKVK, Farmer.gov.in)	15	15	15	15	60

## 5. Seed production/ planting material to be produce

Name Of the crop	Area (ha)	Details of production		
		Variety	Type of Produce	Qty. (q)
Green gram	2.0	Meha	Seed	16.00
Paddy	4.0	GAR-13	Seed	72.00
Wheat	3.0	GW-496	Seed	60.00
Vegetable seedlings	0.4	Chilli, tomato	Seedlings	50000 nos

**SAC Meeting Proposed: April-14**

## 6. Infrastructure needed:-

<b>Sr.No.</b>	<b>Items/Head</b>	<b>Fund Requirement (Rs. In Lac)</b>
1	Equipment & Furniture for farmer hostel	7.00
2	compound wall cum Fencing of office premises	15.00
3	Training cum conference hall	19.00
	<b>Total</b>	<b>41.00</b>

## 7. Budget requirement

<b>Sr.No.</b>	<b>Items/Head</b>	<b>Fund Requirement (Rs. In Lac)</b>
<b>A</b>	<b>Recurring Contingencies</b>	
1	Pay and Allowances	85.00
2	Travelling Allowances	2.00
3	Contingencies	15.00
	<b>Total (A)</b>	<b>102.00</b>
<b>B</b>	<b>Non-Recurring Contingencies</b>	
1	Equipment & Furniture for farmer hostel	7.00
2	compound wall cum Fencing of office premises	15.00
3	Tractor with implements	8.00
4	Training cum conference hall	19.00
5	Zerox	1.00
	<b>Total (B)</b>	<b>50.00</b>
	<b>Grand Total (A+B)</b>	<b>152.00</b>