KRISHI VIGYAN KENDRA

AMBHETI-VALSAD

Gujarat

ANNUAL ACTION PLAN

[April 2014 to March 2015]

SUBMITTED
TO
INDIAN COUNCIL OF AGRICULTURAL RESEARCH
NEW DELHI. 110 012.

THRUST AREA

1 Promoting organic farming.(Biofertilisers, vermicompost and liquid fertilizers)

2 Crop diversification through vegetable crops.

3. Increase milk production.

4. Popularize the techniques of soil and water conservation.

5. Promote livelihood options for rural women through empowerment

6. Development of climate smart technology village model.

Quarter wise summary of annual action plan , Krishi Vigyan Kendra, Ambheti – Valsad –Gujarat Year : 2014-15

1 . Training programme

Sr. No.	Subject	On campus																Total on campus				Total off campus				Total
		PF				FW				RY				EF				Sponsored										
		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	3	3	2	2	-	-	-	-	-	-	-	-	-	-	-	1	-	6	-	-	3	9	2	3	2	2	1	2	24
2	Horticulture	2	2	3	1	-	-	-	-	1	1	-	1	-	1	-	1	-	-	-	-	3	4	3	3	3	3	3	3	25
3	Pl. Protection	2	2	3	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	2	2	4	2	2	3	3	3	21
4	Home Science	-	-	-	-	3	3	2	1	-	-	-	-	1	-	-	-	-	2	1	-	4	5	3	1	3	-	2	1	19
5	Animal Science	-	-	-	-	1	1	2	2	-	-	-	-	-	1	-	-	-	-	-	-	1	2	2	2	2	1	1	3	14
6	Agril. Engg.	-	1	1	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	2	1	1	1	1	3	1	11
7	Agri. Extn	1	1	1	1	1	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	3	1	1	2	1	1	1	1	11
8	Soil Science	2	2	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1	2	2	2	2	1	14
	Total	**10**	**11**	**11**	**9**	**6**	**4**	**4**	**4**	**1**	**2**	**-**	**1**	**2**	**2**	**1**	**2**	**-**	**8**	**1**	**-**	**19**	**27**	**17**	**16**	**16**	**13**	**16**	**15**	**139**

PF = Practicing farmer FW= Farm women RY = Rural youth EF = Ext. functionaries

2. Demonstration

Sr. No.	Type of demonstration	Crop	Farming situation	No. of demonstration	Area (ha)
2.1	**Front Line Demo.**				
(I)	Pulses- Rabi	Green gram	Irrigated	25	05
2.2	**Other FLD**				
(A)	Crop Production				
	Kharif	Paddy	Rainfed	125	25
		Finger millet	Rainfed	125	25
	Rabi	Sugarcane	Irrigated	25	05
(B)	Horticulture				
	Kharif	Brinjal	Irrigated	25	05
	Kharif	Turmeric	Irrigated	05	01
	Kharif	Sweetpotato	Irrigated	05	01
	Rabi	Chilly	Irrigated	25	05
	Rabi	Tomato	Irrigated	25	05
	Rabi	Bittergourd	Irrigated	25	05
(C)	Plant Protection	IPM- Paddy	Rainfed	80	20
		IPM- Finger millet	Rainfed	40	04
		IPM- Brinjal	Irrigated	25	05
		IPM- Chilli	Irrigated	25	05
		IPM- Cucurbits	Irrigated	25	05
(D)	Animal Science	Perennial grass, Sorghum	Irrigated	200	07
		Syncronization	--	20	--
(E)	Agri. Engg.	Paddy-Thresur	--	02	--
(F)	Home Science	Vegetables	Irrigated	25	0.5
(G)	Soil Science	Bio fertilizer	Irrigated	100	20
		Micronutrient	Irrigated	25	05
(H)	Others	Vermicompost Azola	- -	05 05	05unit 05unit

3 On Farm Testing : On going

(1) Assessment of different technologies for control of Snail in Brinjal. (Third Year)

(2) Assessment of combined use of Azolla and liquid biofertilisers in paddy. (Second Year)

(3) Management of Anoestrous(Age of first calving) in HF cross breed heifer. (Second Year)

(4) To Assess the fruit setting in Chilli. (Second Year)

(5) To assess the Planting method in Chilly. (Second Year)

(6) Effect of micronutrient on fruit setting and yield of Mango. (Second Year)

On Farm Testing : New Programme

1. Assessment of technology for reducing drudgery in threshing of paddy
2. Assessment of different models of kitchen gardening
3. Assessment of Use of Liquid Biofertilizer enriched Vermi compost in Fingermillet.

3.0 Other Extension Activities :

Sr. No	Activities	Total
1	Field day	07
2	Farmers day/ Seminar.	07
3	Agril. Exhibition	01
4	Scientist farmer interaction	23
5	Farm science club	04
6	Mahila mandals	05
7	Ex trainees meeting	01
8	World food day	01
9	Women in Agri. day	01
10	**Diagnostic services** - Farmers visit to KVK - Scientist visit to farmers field	As per need 120
11	Lectures to be delivered in other prog.	12
12	Cattle treatment camp	01
13	Artificial insemination	50
14	Soil Water Analysis – Soil Sample - Water Sample	300 300
15	Distribution of seeds on cost basis	1500
16	**Publication** Research papers to be published Popular articles to be published Pamphlet / folders	 03 09 12
17	**Communication media** News paper coverage Subscription of farm magazine	 11 13
18	Farm Innovation day	01
19	Agriculture Education Day	01
20	Pest Disease Diagnostic Sample	150

5. Proposed plan of work for Instructional farm:

5.1 Crop production

5.2 Horticulture

5.2.1 Nursery

5.2.2 Medicinal plants unit

5.3 Dairy unit

5.3.1 Fodder unit

5.3.2 Gober gas Unit

5.4 Soil Water Testing Laboratory

5.5 Vermi compost

5.6 Irrigation park

5.7 Agro forestry .

5.8 Greenhouse

5.9 Plant health clinic

5.10 Fruit fly Trap Production Unit

6. SAC meeting proposed : June- 2014, December-2014

1. Training Programme

1.1 On Campus Training (For practicing farmers, farm women, and rural youth)

Subject	Title of training programme	Date	Duration	No.of	Type of

			(Days)	participants	participants
I st quarter (April-June)					
Crop production					
1	Preparation of good quality organic manure.	09/04/14	01	20	Farmers
2	Nursery raising of kharif Paddy & Nagali	26/05/14	01	20	Farmers
3	Finger millet Production Technology	24/06/14	01	20	Farmers
Horticulture					
1.	INM and PHT of Mango.	16-17/04/14	02	20	Farmers
2.	Pruning in Mango orchard and Rejuvenation of Old orchard	25-26/05/14	02	20	Farmers
3.	Techniques of epicotyls grafting and softwood grafting in Mango.	25/06/14 to 27/06/14	03	20	Rural youth
Plant protection					
1.	Pest and disease management in Green gram	23/04/14	01	20	Farmers
2.	Identification and control measures of pest and disease of cucurbit vege.	18/06/14 to 19/06/14	02	20	Farmer

Subject	Title of training programme	Date	Duration	No. of	Type of

			(Days)	participants	participants
Home science					
1	Health care of farm women	08/04/14	01	20	Farm women
2	Kitchen gardening	19//05/14	01	20	Farm women
1	Formation of SHG	09/06/14	01	20	Farm women
Animal Husbandry					
1.	Feed and fodder management	23/04/14	01	20	Farm women
Agril. Engg					
1	Farm mechanization for women drudgery reduction	12/06/14	01	20	Farm women
Agri. Extn					
1	Making of women SHGs	30/04/14	01	20	Farm women
2	Formation and functuning of FIG	12/06/14	01	20	Farmers
Soil Science					
1	Soil management in Paddy crop	14/04/14	01	20	Farmers
2.	Importance of Azolla in paddy	28/ 04/14	01	20	Farmers

Subject	Title of training programme	Date	Duration	No. of	Type of

			(Days)	participants	participants
II[nd] quarter (July-Sept)					
Crop production					
1	Scientific Cultivation of kharif paddy.	03/07/14	01	20	Farmers
2	Integrated nutrient management in Paddy & Nagli	31/07/14	01	20	Farmers
3.	Weed management in kharif paddy	27/08/14	01	20	Farmers
Horticulture					
1.	Scientific cultivation of kharif Brinjal	10-11/07/14	02	20	Farmer
2.	Scientific cultivation of Vine crops	12-13/08/14	02	20	Farmers
3	Raising of Rabi vegetables seedling Nursery	17/09/14to 19/09/14	03	25	Rural youth
Plant protection					
1.	IPM in Cucurbits	19/08/14	01	20	Farmers
2.	Integrated pest and disease management in Paddy.	18/09/14	01	20	Farmers
Home science					
1.	Preservation of Mango juice.	18/07/14 to 19/07/14	02	20	Farm women
2	Role of farm women in Agri.	08/08/14	01	20	Farm women
3	Storage of food grain	05/09/14 06/09/14	02	20	Farm women

Subject	Title of training programme	Date	Duration (Days)	No. of participants	Type of participants
Animal Husbandry					
1	Care and management of milch animals	24/09/14	01	20	Farm women
Agril. Engg					
1	Diesel engine repairing & maintenance	01/07/14 to 08/07/14	08	18	Rural youth
2	Farm mechanization in agriculture.	25/08/14	01	20	Farmers
Agri. Extn					
1	Benefits of farmers co operatives	17/07/14	01	20	Farmers
Soil Science					
1	Methods of making liquid manures	14/07/14	01	20	Farmers
2.	Methods for increasing Fertiliser use Efficiency	25/08/14	01	20	Farmers
III rd quarter (Oct-Dec)					
Crop production					
1	Production technology of Sugarcane	10/10/14	01	20	Farmers
2	Production technologies of Gram	06/11/14	01	20	Farmers
Horticulture					
1	Scientific cultivation of Bottle gourd	08-09/10/14	02	20	Farmer
2	Scientific cultivation of Bitter gourd	12/11/14	01	20	Farmer
3	Scientific cultivation of Chilly	03-04/12/14	02	20	Farmer
Subject	**Title of training programme**	**Date**	**Duration**	**No.of**	**Type of**

			Days)	participants	participants
Plant protection					
1	IPM in Mango.	09/10/14	01	20	Farmers
2	Integrated pest and disease management in Sugarcane	06/11/14	01	20	Farmers
3	Pest and Disease Management in Mango	04/12/14	01	20	Farmers
Home science					
1.	Fruit & Vegetable preservation	13/10/14 to 17/10/14	05	20	Farm women
2.	Kitchen Gardening	20/11/14	01	20	Farm women
Animal Husbandry					
1	Cultivation practices of Fodder Sorgum	29/10/14	01	20	Farm women
2	Cultivation practices of Fodder Sorgum	04/11/14	01	20	Farmers
Agril. Engg.					
1.	Efficient use of water in agriculture.	05/10/14	01	20	Farmers
Agri. Extn					
1	Formation of farmers interest groups.	05/11/14	01	20	Farmers
Soil Science					
1	Types of fertilizers and their Methods of application	18/11/14	01	20	Farmers

Subject	Title of training programme	Date	Duration (Days)	No. of participants	Type of participants
IV th quarter (Jan-Mar)					
Crop production					
1	Production technology of Ground nut	13/01/15	01	20	Farmers
2	Green gram production technology	24/02/15	01	20	Farmers
Horticulture					
1	Approach Grafting technique in mango	24/02/15 28/02/15	05	20	Rural youth
2	INM and IPM Bottle gourd	11/03/15	01	20	Farmer
Plant protection					
1.	Integrated pest management in Gram.	08/01/15	01	20	Farmer
2.	Identification and control measures of pest and disease of Brinjal .	26/02/15	01	20	Farmer
Home science					
1	Formation of SHG	09/01/15	01	20	Farm women
Animal Husbandry					
1	Feed and fodder management of milch animals	03/12/14	01	20	Farm women
2	Cultivation practices of Fodder Perennial grasses	07/01/15	01	20	Farmer

Subject	Title of training programme	Date	Duration (Days)	No. of participants	Type of participants
Agril. Engg.					
1	Care & maintenance of drip irrigation	06/01/15	01	20	Farmer
Agri. Extn					
1	Making of women SHGS	10/02/15	01	20	Farm women
2	Importance and activities of farmer club	06/01/15	01	20	Farmer
Soil Science					
1	Integrated nutrient Management in sugarcane	08 /01/15	01	20	Farmers
2.	Micronutrients and their application in Vegetable crops	10/02/15	01	20	Farmers

Training Programme

1.2 Off Campus Training (For practicing farmers, farm women, and rural youth)

Subject		Title of training programme	Date	Duration (Days)	No. of participants	Type of participants
I quarter (April-June)						
Crop production						
	1	Advantages of green manuring in Paddy	24/04/14	01	20	Farmers
	2	Raising of healthy seedlings of Paddy. & Nagali	04/06/14	01	20	Farmers
Horticulture						
	1.	Post harvest management and marketing of chilli.	05/04/14	01	20	Farmers
	2.	Care and management of orchard after harvesting of Mango.	16/05/14	01	20	Farmers
	3.	Protected cultivation of Horticultural	05/06/14	01	20	Farmers
Plant protection						
	1	Importance and use of botanical pesticides in pest management	07/05/14	01	20	Farmers
	2	IPM in Cucurbit crops.	06/06/14	01	20	Farmers
Home Science						
	1	Sewing work s	06/01/14to 05/04/14	90	20	Farm women
	2.	Preparation of foot mat	16/04/14to 18/04/14	03	20	Farm women
	3.	Making of articles from coconut thread	02/05/14to 01/06/14	30	20	Rural Youth

Subject		Title of training programme	Date	Duration (Days)	No. of participants	Type of participants
Animal Husbandry						
	1.	Diagnosis and preventive measures for infertility	08/05/14	01	20	Farm women
	2.	Care and management of milch animal	25/06/14	01	20	Farm women
Agril. Engg.						
	1	Diff. techniques of Low cost water harvesting	14/05/14	01	20	Farmers
Agri. Extn						
	1	Implementation of FLDs	23/04/14	01	20	Farmers
Soil Science						
	1.	Soil management in paddy crop .	08/05/14	01	20	Farmers
	2	Method of azolla application in Paddy	13/06/14	01	20	Farmers
II nd quarter (July - Sept)						
Crop production						
	1	Scientific Cultivation of kharif Paddy & Nagali	10/07/14	01	20	Farmers
	2.	Improved package of practices of Sugarcane	24/09/14	01	20	Farmers

Subject	Title of training programme	Date	Duration (Days)	No. of participants	Type of participants
Horticulture					
1.	Improved package of practices of Brinjal.	23/07/14	01	20	Farmer
2.	Improved package of Practices of Bottlegourd	21/08/14	01	20	Farmer
3.	Improved package of practices of rabi vegetables.	06/09/14	01	20	Farmer
Plant protection					
1.	Identification of pest and disease of paddy and its management	03/07/14	01	20	Farmers
2.	Pest and disease management in Paddy	20/08/14	01	20	Farmers
3.	IPM in Brinjal	27/08/14	01	20	Farmers
Animal Husbandry					
1.	Urea treatment of paddy straw	25/09/14	01	20	Farmers
Agril. Engg.					
1.	Use of drip and Sprincler irrigation.	07/09/14	01	23	Farmers
Agri. Extn.					
1	Importance of FIGs	20/08/14	01	20	Farmers
Soil Science					
1	Methods of fertilizer application	09 / 08/14	01	20	Farmers
2	Methods of Liquid biofertilizer application	15 /09/ 14	01	20	Farmers

Subject		Title of training programme	Date	Duration (Days)	No. of participants	Type of participants
III rd quarter (Oct-Dec)						
Crop production						
	1	Varietal selection and seed treatment in Sugarcane.	22/10/14	01	20	Farmers
Horticulture						
	1.	High density plantation of TC Banana	18/10/14	01	20	Farmers
	2.	Improved cultivation practices of Chilly	20/11/14	01	20	Farmers
	3.	Fertigation & mulching in. Vegetables	12/12/14	01	20	Farmers
Plant Protection						
	1.	Management of pest and diseases of Chili	17/10/14	01	20	Farmers
	2.	Management of pest and diseases of Sugarcane	13/11/14	01	20	Farmers
	3.	Major pest and disease of mango and their integrated management.	18/12/14	01	20	Farmers
Home Science						
	1	Sewing work	03/10/14to 03/01/15	90	20	Farm women
	2	Fruit & Vegetable preservation	14/11/14 to 16/11/14	03	20	Farm women

Subject		Title of training programme	Date	Duration (Days)	No. of participants	Type of participants
Animal Husbandry						
	1	Cultivation practices of Sorghum	01/10/14	01	20	Farm women
Agril. Engg.						
	1.	Imroved farm machinery for drudgery Reduction of farm women	10/10/14	01	20	Farm women
	2	Low cost water harvesting technique	02/12/14	01	20	Farmers
	3	Use of drip & sprinkler irrigation	15/12/104	01	20	Farmers
Agri. Extn						
	1	Importance of women self help groups	15/10/14	01	20	Farm women
Soil Science						
	1	Methods of soil and water sample collection	20/10/14	01	20	Farmers
	2	INM. in Sugarcane	25/11/14	01	20	Farmers
IVth quarter (Jan-Mar)						
Crop Production						
	1.	Integrated Nutrient management in Sugarcane.	08/01/15`	01	20	Farmers
	2.	Weed and water management . in Sugarcane	12/03/15	01	20	Farmers

Subject		Title of training programme	Date	Duration (Days)	No. of participants	Type of participants
Horticulture						
	1.	Fertilizer management of Rabi Vegetables	22/01/15	01	20	Farmer
	2.	Use of PGR in mango production	03/02/15	01	20	Farmers
	3.	PHT in cucurbitace vegetables .	15/03/15	01	20	Farmers
Plant protection						
	1.	Pest and disease management in Sugarcane	22/01/15	01	20	Farmer
	2.	Bio control of pest of vegetables	12/02/15	01	20	Farmer
	3.	Identification ,nature of damage and control measures of fruit fly in Mango.	20/03/15	01	20	Farmer
Home science						
	1	Leaf cup / Leaf dish making	08/02/15 to 12/02/15	05	20	Farm women
Animal Husbandry						
	1	Feed and Fodder managment	23/01/15	01	20	Farmers
	2	Feed and Fodder managment	29/01/15	01	20	Farmers
	3	Syncronisation of heat	12/02/15	01	20	Farmers

Subject		Title of training programme	Date	Duration (Days)	No. of participants	Type of participants
Agril. Engg.						
	1	Use of sprinkler irrigation system in Vegetable crops.	04/01/15	01	22	Farmers
Agri. Extn						
	1	Importance of Farmers Co operatives	22/01/15	01	20	Farmers
Soil Science						
	1	Liquid biofertilisers application in pulse crop	21/01/15	01	20	Farmers

1.3 Sponsored training programme

Quarter	Title of training	Date	Duration Days	Participants No.	Type of Participants	Sponsoring Agency
July-Sept	Farm School	Proposed	01 (06 programmes)	25 (per batch)	Farmers	ATMA, Valsad
July-Sept	Making of articles from Okra threads	17/07/14 to 31/07/14	15	20	Rural youth	Rural Technology Institute, Pardi
	Leaf cup / Paper cup making	15/09/14 to 19/09/14	05	20	Rural youth	Rural Technology Institute, Pardi
Oct-Dec	Making of Footmats	25/12/14 to 01/01/15	10	20	Rural youth	Rural Technology Institute, Pardi

1.4 In service training programme

Quarter	Title of training	Date	Duration Days	Participants No.	Type of Participants	Sponsoring Agency
April-June	Formation of SHGs	11/05/14 to 12/05/14	01	20	Anganvadi worker	ICDS Valsad
	Formation and functioning of farmers cooperatives	18/06/14 to 19/06/14	01	20	Members of village panchayat	Taluka Panchayat,Kaparada
July-Sept	Protected cultivation of Horti. Crops	27 /09/14to 28 /09/14	01	20	VLWs	State dept of Horti., Valsad
	Care & Mgt. of Milch cow	15/09/14 to 16/09/14	01	20	Secretary	Milk Co-Op. Societies.
Oct- Dec	Ecofriendly Pest Dis. Management	05/10/14 to 06/10/14	01	20	Science Teachers/ VLWs	DIAT, Valsad / State dept of Agri, Valsad
Jan-Mar	Production Technology of Rabi pulses	20/01/15 to 21/01/15	01	20	Sarpanchs	Village Panchayats, Kaparada block
	Post harvest handling of fruit &vegetables	08/01/15 to 09/01/15	01	20	VLWs	State dept of Horti. Valsad

2. Demonstration

2.1 Front Line Demonstration

Title of Demon	Objective	Variety	Farming situation	Area Ha	No. of farmers	Existing technology	Specefic Technological Intervention	Critical inputs	Season
Pulses									
Green gram	To demonstrate production potentiality of Green gram	Meha	Irrigated	05	25	-Local variety No seed treatment -Imbalance ferti -No control of pest/diseases	Improved var. -Treated seed -Balanced ferti -Protection Measures	-Seeds -MEMC -Bio fertilizer -Chemical ferti - Bio pesticides & - fungicides	summer 2014-15

2.2 Other Demonstration

1. Crop production									
Paddy	To demonstrate performance of improved variety of paddy	GNR-3	Rainfed	25	125	-Local variety - No seed treatment -Planting 10-12 seedlings / hill .	-Improved var. -Seed treatment -Planting with 1-2 Seedlings / hill	-Improved Variety -MEMC	Kharif 2014
Fingermillet(Nagali)	To demonstrate performance of improved variety of Fingermillet	Guj.Nagali-5	Rainfed	25	125	-Local variety - No seed treatment -Planting 10-12 seedlings / hill .	-Improved var. -Seed treatment -Planting with 1-2 Seedlings / hill	-Improved Variety -MEMC	Kharif 2014
Sugarcane	To demonstrate performance of improved variety	Co-N-5071	Irrigated	05	10	-Old variety -No set treatment -Dense planting	-Improved var -Set treatment - wide spacing	-Improved var. -Bio ferti -Carbendezim -Dimethoate	Rabi 2014-15

2. Horticulture

Chilly	To demonstrate performance of improved variety	G. Chilly-1	Irrigated	05	25	-Use of local variety	-Improved variety	-Seedlings of -Improved variety	Rabi 2014-15
Turmeric	To demonstrate performance of improved variety	Sugandh am	Irrigated	01	10	-Use of local variety	-Improved variety	-Seedlings of -Improved variety	Kharif 2014
Sweetpotato	To demonstrate performance of improved variety	Collection -71 , Cross-4	Irrigated	05	25	-Use of local variety	-Improved variety	-Seedlings of -Improved variety	Kharif 2014
Brinjal	To demonstrate performance of improved variety	DPR	Irrigated	05	25	-Use of local variety	-Improved variety -IPM	-Seedlings of Improved variety -Pheromone trap	Kharif 2014
Bittergourd	To demonstrate performance of improved variety	F1	Irrigated	05	25	-Use of local variety	-F1 hybrid variety	-Seedlings of F1 hybrid variety	Rabi 2014-15

3. Plant protection

IPM in Paddy	To improve yield by managing major pest & dis.	GNR-3, MTU-1010	Rainfed	25	80	Arbitrary use of pesticides	Recommended IPM practices	Carbofuran, Trizophos, Pseudomonas, Imidachloprid	Kharif-14
IPM in Nagli	To improve yield by managing major pest & dis.	Guj. Nagli -5	Rainfed	04	40	Arbitrary use of pesticides	Recommended IPM practices	Carbofuran, Neemoil,, Pseudomonas, Imidachloprid	Kharif-14
IPM in Brinjal	To improve yield by managing major pest & dis.	DPR	Irrigated	05	25	Arbitrary use of pesticides	Recommended IPM practices	Pheromone Trap, Sticy trap, Trizophos,	Rabi 2014-15

								Imidachloprid	
IPM in Chilli	To improve yield by managing major pest & dis.	G.C.1	Irrigated	05	25	Arbitrary use of pesticides	Recommended IPM practices	Sticy trap, Trizophos, Imidachloprid	Rabi 2014-15
IPM in Cucurbites.	To improve yield by controlling fruit fly	Bottle gourd/ Bitter gourd(F1)	Irrigated	05	25	Arbitrary use of pesticides	Recommended IPM practices	Fruit fly trap, COC, Carbaryl	Rabi 2014-15
4. Animal husbandry									
Perrenial grasses	To increase milk production	CO-1,2,3,4	Irrigated	02	100	No technology	Improved variety	Fodder toussecks	Kharif 14
Green fodder	To increase milk production	MFSH-2	Irrigated	05	100	No technology	Improved variety	Fodder seeds	Rabi 2014-15
Syncronization	To reduce calving interval	Hormonal treatment	Cows	20 cows	20	No technology	Hormonal treatment	Hormones	Yearround 2014-15
5. Agri. Engg.									
Low cost drip irrigation.	To reduce the cost of drip irrigation.	Pepsi pipes	Irrigated	02	10	Flood irrigation	Use of low costing pepsi lateral pipes.	Plastic lateral pipes	Rabi 2015
6. Home Science									
Nutritional gardening	To improve health status by producing organic	Seeds & seedlings of diff. vegetables	Irrigated	0.5	25	Insufficient use of green vegetables.	To get self sufficiency for home consumption	Seeds & seedlings of diff. vegetables	Rabi-2015

vegetables.

7 <u>Soil Science</u>

Liquid Biofertilizer	To improve soil fertility & reduction in fertilizer cost	Azotobactor, PSB, Acetobactor, Rhizobium	Irrigated	05	20	No use of bio fertilizer.	To reduce use of costly chemical fertilisers with INM	Liquid Bio fertilizer	Khariff -Rabi 2014-15
Azolla	To improve soil fertility & reduction in fertilizer cost	*Azolla pinnata*	Irrigated	05	20	No use of Azolla	To reduce use of costly chemical fertilisers with INM	Azolla culture	Khariff 2014

8. Others

Vermi compost	To improve soil fertility by appling vermicompost.	Eugiene Eudrilis	Irrigated	--	10	No production of vermicompost	To improve soil health	Earthworms	Rabi 2014

3. On Farm Testing : (1)

Title of OFT : Assessment of different technologies for control of Snail in Brinjal

Introduction :

The area under vegetable crops in Valsad district is increased during last decade owing to the high profitability as compared to other crops. Brinjal, Chilli, Tomato, Gourds, Okra etc. are the major vegetable crops in this area. Among these crops, brinjal covers large area in the block.

The farmers of this area are facing the problem of Snail since last few years. The problem of snail cause economic loss to the vegetable growers. This pest cause severe damage to brinjal crop in this area resulting into yield loss. .It is very difficult to manage this pest. Farmers waste lot of money for spraying pesticides with no result in control. .. Therefore, it is very necessary to think for proper management of this pest. So, this KVK has decided to assess the different possible solutions for the management of snail in brinjal.

Problem : Low Return from Brinjal Cultivation.
Intervening point : Management of Snail in Brinjal.
Crop : Brinjal
Season/Year : Rabi 2014-15
Village : Sarondha **Block :** Umargam
Plot size : 0.20 ha (0.05 ha per treatment)
No. of Replication : 5 (farmers)

Treatments :

T1 : Application of Metaldehyde or Tobacco dust @90 kg/ha (SAU recommendation)

T2 : Poison bait of Methomyl

T3 : Fencing with Nylon Net (2 to 3 ft height)

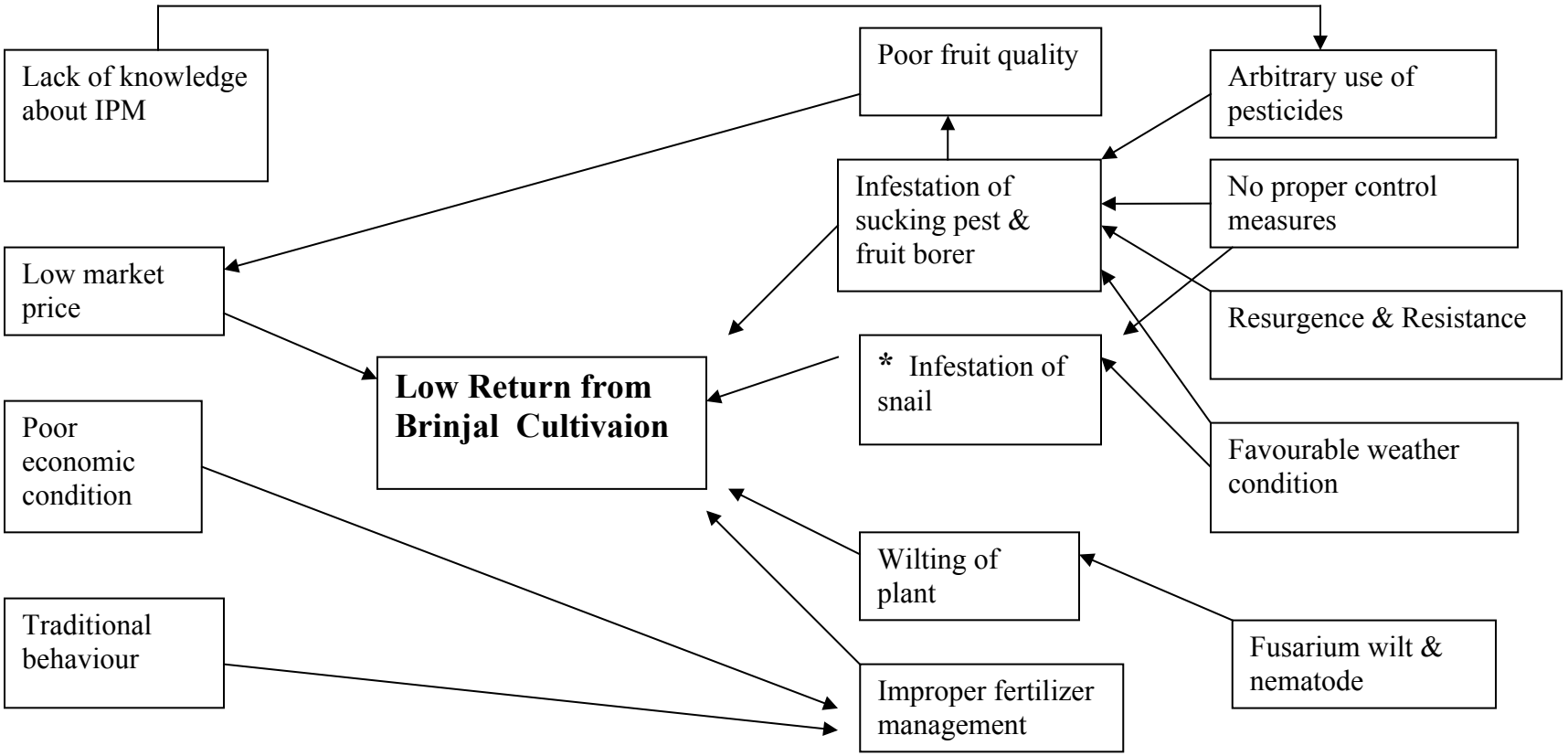
T4 : Farmers practices (Mechanical /arbitrary use of pesticides)

Approx. Cost of Inputs :

1. Metaldehyde : 3000 Rs
2. Methomyl Bait : 800 Rs
3. Nylon Net : 4200 Rs

Total : 8000 Rs

Problem – Cause Diagram



* Intervening point

On Farm Testing (2)

Title of OFT: Assessment combined use of azolla and liquid biofertilisers in paddy.

Introduction :

Paddy is a major crop of valsad district. Farmers of district use large amount of chemical fertilizers. Yield potentiality of rice and soil fertility declined due to continuous use of costly chemical fertilizers.Liquid biofertilisers and azolla are much more economical and safer source of plant nutrients. The important factor in using *Azolla* as a biofertilizer for rice crop is its quick decomposition in soil and efficient availability of its nitrogen to rice. They can be more suitable and efficient biofertilisers for paddy. Combine use of azolla and liquid biofertilisers can be improve soil fertility and yield of paddy with reduction in cost of cultivation . So, this KVK has decided to conduct experiment to assess the combined application of azolla and liquid biofertilisers in paddy.

Problem : Costly chemical fertilizer, reduce net profit and declined soil health

Interveining point : Combined use of liquid biofertilisers and azolla

Crop : Paddy
Year : 2014
Season: Kharif
Variety : MTU-1010
Village : Asma
Plot size : 1.50 ha.(0.10 ha per treatment)
No.of farmers : 05

Title of on-farm trials : : Assessment combined use of azolla and liquid biofertilisers in paddy

1. Problem diagnose : Assessment of combined application of azolla and liquid biofertilisers in paddy to improve soil health and net profit in cultivation.

2. Details of technologies selected for assessment / refinement

Treatments :

T_1 : Farmer practice

T_2 : Recommended Dose of Fertiliser (RDF) (100 : 50 : 00 kg NPK ha^{-1})

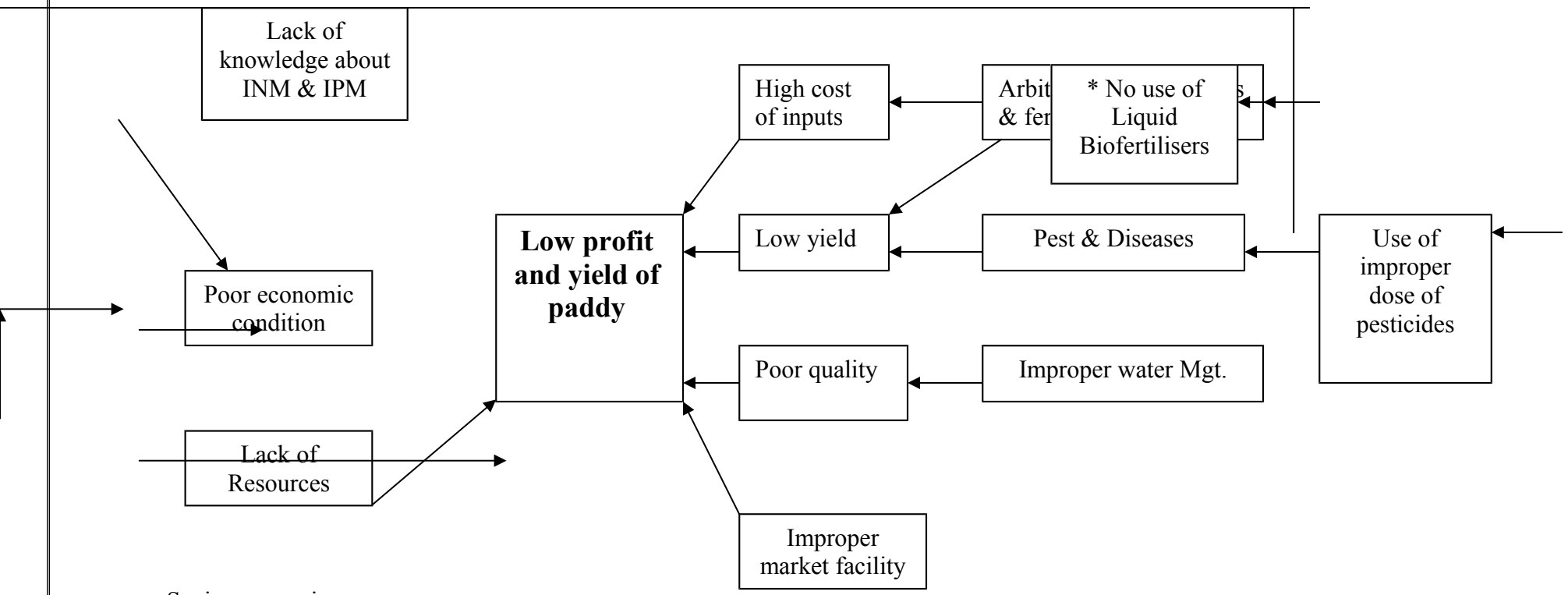
T_3 : 50% N + Twice incorporation of azolla @ 0.1 kg m^{-1}(30 & 60 DAP)+ Liquid Biofertilisers (i.e *Azotobactor* & PSB) @ 1.25 lit ha^{-1} (as seedling treatment)

***** Broadcast the fresh *Azolla* in the transplanted rice field on 7th day after planting @ 500 kg ha^{-1}

Approx. Cost of Inputs (per farmer):

1. Azolla	:	500.00 Rs.
2. Biofertilisers	:	600.00 Rs.
3. Chemical fertilizers	:	5000.00 Rs
		6100.00 Rs.

Problem-Cause Diagram



Socio-economic

* Intervening point

Bio-physical

On Farm Trial (3)

Title : **Management of Anoestrous(Age of first calving) in HF cross breed heifer.**

Introduction :

In ideal condition age of puberty (conceive heat) of HF cross breed heifer is 16 to 18 month and body weight gains about 250 kg to 270 kg and lactation start at the age of 30 months(Age of first calving) At first lactation period milk production of HF cross is 2000 to 2500 ltrs In Kaparada block of Valsad district in some of the HF cross breed heifer problem of prolong Age of Puberty - conceive heat and Age of first calving(4 years) due to Anoestrous leads to loss of milk production of one lactation.

Problem – Anestrous in HF cross breed heifer.
Intervening point : Feed management
Year :- 2014 - 15
Village : Sukhala
Taluka : Kaparada
No. Animals: 05
Treatments :
T_1 :- Farmer practice
Improper feeding of concentrate, feed supplement, green fodder , low grade paddy straw and Deworming .
T_2 :- University Recommendation as below,

Age Month	Weight (kg)	Concentrate Per day	Green fodder (kg)	Dry fodder (kg)
0-1	25-45	50-100 gms	1	0.5
3-6	55-95	200-600 gms	3	1
7-9	110-140	600gms-1kgs	5	1.5
10-12	155-185	1.5-2 kgs	10	4
16-18	245-275	2-2.5 kgs	12	4

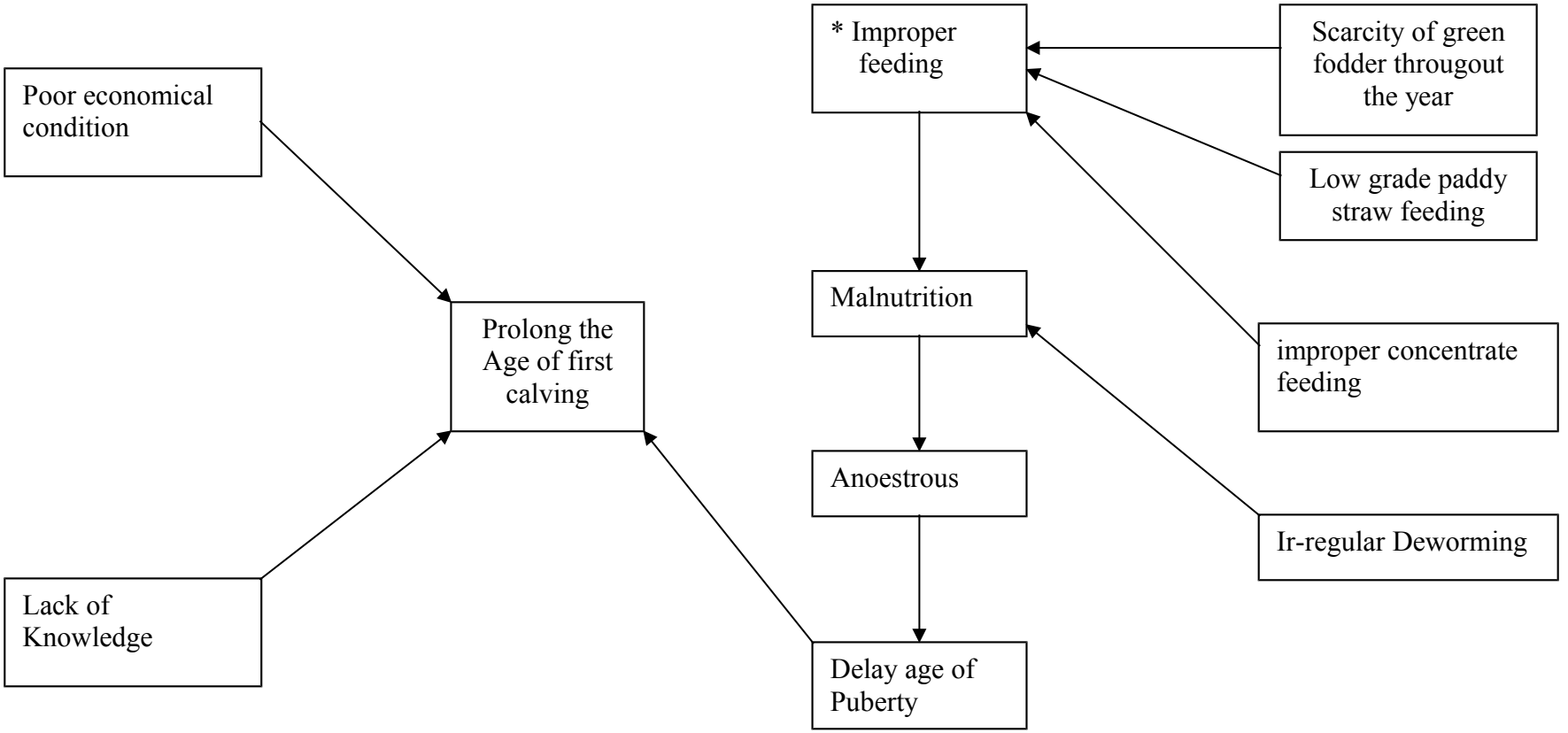
T_3 : SAU Recommended feed and fodder management continue for 2 months with medicinal treatments after selection and registration of Anoestrous cross breed heifer (age above 18 month) which is the over age of puberty(conceive heat).

Cost of treatment for each animal

1. Deworming :-	50 Rs
2. Concentrate feed 2 to 3 kg per day for 2 months (200 kg x 12 Rs)	2400 Rs.
3. Mineral mixture 50 grams per day (3 Kgs)	400 Rs.
4. Green fodder 10 – 20 kgs / day (input of sorghum and Maize seed & Fertilizer)	1000 Rs
5. Dry fodder 1 tone (Urea treatment done for improving nutritive value of paddy straw)	2000 Rs
6. Medicine (hormonal Treatment)	550 Rs
	Total = 6400 Rs.

No. of heifer = 5 **Total Cost** = 6400 x 5 =**32,000 Rs**

PROBLEM CAUSE DIAGRAM



* Interveining point

On Farm Trial (4)

Title of OFT : To Assess the fruit setting in chilli.

Introduction :

Tribal area of valsad district economy depends on agriculture .In this region agriculture is marginalized because of various factors such as fragmented holdings, undulating topography with steep slope causing erosion during heavy monsoon. Paddy is the staple foods of the tribal communities.

Chilli grown by the farmers on the plain land in the Rabi in available surrounding marginal area with supportive irrigation after monsoon as short duration cash crop. At present farmer are sowing the seed in the month of sept-oct in the nursery and then transplanted in the field during Nov.-Dec,. Sometimes due to seasonal change and improper fertilizer management there is heavy flower drops and less fruit setting which result into economic loss to the farmer and delay in production , because of that they get less profit from the crop.

Problem **:** Low Yield of Chilli.

Intervening point **:** Increase the fruit setting.

Crop **:** Chilli.

Season/Year **:** Rabi- 2014-15

Village **:** Velparva **Block :** Pardi

Plot size **:** 1.00 ha (0.05 ha per treatment)

No. of Replication **:** **10** (farmers)

Treatments :

T1: Farmer Practices - Arbitory use of PGR.

T2 : Recommended practices- Spray of NAA @ 20 PPM at 50% flowering stage

T3: Refinement Practice: i) Spray of NAA @ 20 PPM at 50% flowering stage

ii) Two sprays of 0.25% Boron at 50% flowering an interval of 15 days

Approx. Cost of Inputs :

1. Seedlings of improved var. : 9600 Rs
2. NAA and Borax : 4200 Rs.

On Farm Trial (5)

Title of OFT : To assess the planting method in chilli

Introduction :

Tribal area of valsad district economy depends on agriculture. In this region agriculture is marginalized because of various factors such as fragmented holdings, undulating topography with steep slope causing erosion during heavy monsoon. Paddy is the staple foods of the tribal communities.

Chilli grown by the farmers on the plain land in the Rabi in available surrounding marginal area with supportive irrigation after monsoon as short duration cash crop. At present farmer are sowing the seed in the month of sept-oct in the nursery and then transplanted in the field during Nov.-Dec,. The land is medium heavy black, after each and every irrigation weeds grow very fast and which resulted into insect/ pest attack and damage the crops. Sometimes due to seasonal change and improper water management there is heavy flower drops and less fruit setting which result into economic loss to the farmer and delay in production , because of that they get less profit from the crop.

Problem **:** Low Yield in chilli due to heavy weed and pest problems

Intervening point **:** Planting method.

Crop **:** Chilli.

Season/Year **:** Rabi- 2014-15

Village **:** Tarmalia **Block :** Pardi

Plot size **:** 1.00 ha (0.05 ha per treatment)

No. of Replication **:** **10** (farmers)

Treatments: T1 - Farmers practice (Ridges & Furrows method).

T2 – Planting With drip irrigation.

T3 - Raised bed with Drip and polythene mulch application (Recommended practices)

Approx. Cost of Inputs :

1. Polythene Mulch : 26700 Rs

On Farm Trial (6)

Title of assessment: Effect of micronutrient on fruit setting and yield of Mango.

Mango in Valsad district of Gujarat is done by since long. The tribal farmers are resource poor, moderate literate with scare resources understand the importance of mango production. But due to some erratic changes in climate during last 3-4 years the problems of flower dropping and fruit setting, which resulted into economic losses to the farmers.

Problem **:** Low fruit setting & low fruit retention.

Intervening point **:** Increase the fruit setting and yield.

Crop **:** Mango.

Season/Year **:** Rabi- 2014-15

Village **:** Ambach **Block :** Pardi

Plot size **:** 1.00 ha (0.05 ha per treatment)

No. of Replication **:** **10** (farmers)

Treatments : T1 : Farmer practices (750:160:750 gm/ tree) + 100kg FYM.

T2: RDF + NAA (20ppm)+ 2% Urea (SAU Recommandation)

T3: RDF+NAA (20 ppm)+ 2% Urea + 3 Foliar spray of 0.1% borax+0.2%$ZnSO_4$ (Nov., Dec. and Jan.)

Approx. Cost of Inputs :

1. Borex & ZnSO4 : Rs 18000/-

NEW OFT
On Farm Testing (1)

Title of OFT: Assessment of technology for reducing drudgery in threshing of paddy

Introduction :

Paddy is an important crop of the district. Tribal Farmers growing paddy on small pieces of land. Manual threshing of paddy is much time consuming and laborious job. Few farmers started use of electrically operated paddy thresher. Most of the paddy thresher owner are not happy with the machine because .This is mainly due to breakage of paddy straw. Of course machine reduced drudgery involved in the operation and also reduced the cost of labour involved in it. But on the other hand breakage of paddy straw fetchs lower price. Thus with a view to check the efficiency of modified paddy thresher in the field condition and get feedback from the farmer the trial is designed.

Problem :

- High cost of threshing of Paddy.
- Higher breakage of paddy straw through manual threshing and existing thresher.

Intervening point : Use of modified thresher (manual/electrically operated)

Crop : Paddy

Year : 2014-15

Village : Khuntli

No. of farmers : 05

Treatments :

T_1 : Farmer practice (Beathing method)

T_2 : Recommended Paddy Thresher

T_3 : Modified thresher (both electrically and manually operated)

Approx. Cost of inputs (per farmer):

1. Thresher with modification : Rs.17000.00

Source of technology : University recommendation /

i. Production system and thematic area : Drudgery reduction

ii. Performance indicators-Breakage of paddy straw, Reduction in drudgery in a given time frame. Safety measure while working with machine. Maximum out put with in stipulated time. Affordable cost of machine for poor tribal farmers.

iii. Process of farmers participation and their reaction :

Farmers associated with the Paddy cultivation were identified. Information pertaining to threshing of paddy(manually) under hilly area followed by farmers was collected. The problems faced by them was also discussed. .Treatments were thoroughly discussed with them and lastly according to their suggestions modifications in the thresher will be made. From among these farmers five farmers will be selected for testing the technology on their farm.

On Farm Testing (2)

Title of OFT: Assessment of different models of kitchen gardening

Introduction :
Growing of vegetable around their homestead is the traditional practice followed by the tribal farm women. The very purpose of this practices is to meet the daily requirement of their family. Shortage of land, water and adoption of low yield variety gave them low production .Poor combination of different vegetable crops not fulfill the purpose. Mal nutrition is still a great problem with the tribal people. Hence the different design of kitchen garden which gives good yield from the given place and proper combination of short duration crop with one or two fruit crops are tested on farmers field.

Problem : Low production of vegetable crops.

Intervening point : Use of Gangama models of kitchen gardening.

Crops : Different vegetable crops

Year : 2014-15

Village : Khuntli

No. of farmers : 05

Treatments :

T_1 : Farmer practice

T_2 : Recommended (Kitchen garden model-NAU)

T_3 : Gangama circle model of kitchen gardening

Approx. Cost of Inputs (per farmer):

1. Vegetable seedlings : Rs.5000.00

Source of technology : University recommendation

i. Production system and thematic area : Vegetable cultivation

ii. Performance indicators-Production of different vegetable, land requirement

iii. Final recommendation for micro level situation : Assessment of technology will be continued for another two years

iv. Process of farmers participation and their reaction :

Farm women associated with the kitchen gardening were identified. Information pertaining to kitchen gardening practices followed by farmers was collected. The problems faced by them was also discussed. Treatments were thoroughly discussed with them and lastly according to their suggestions design of the suggested model was made.

On Farm Testing (3)

Title of OFT: To Assess use of liquid biofertiliser enriched vermicompost in Nagli.

Tribal farmers of Kaparada block of Valsad are not used chemical fertilizers due to its cost and FYM due to its unavailability. Yield potentiality of Nagli declined due to no use of fertilizers and poor soil fertility .Use of liquid biofertiliser enriched Vermicompost can be improve soil fertility and yield of Nagli with reduction in cost of cultivation. So, this KVK has decided to conduct experiment to assess the application of liquid biofertiliser enriched Vermicompost in Nagli.

Problem : Costly chemical fertilizer, reduce net profit and declined soil health

Interveining point : Use of Liquid biofertiliser enriched vermicompost

Crop : Nagli

Year : 2014-15 Season: Kharif

Variety : Guj. Nagli- 5

Village : Girnara

Plot size : 0.30 ha.(0.10 ha per treatment)

No.of farmers : 05

TREATMENTS

T1 : Farmer practice (No Use of fertilizers)

T2 : Recommended Dose of Fertiliser (RDF) (8 -10 t ha-1 FYM + 40 : 20 : 00 kg NPK ha-1)

T3 : 20 : 10 : 00 kg NPK ha-1+ 1 t ha-1 Vermicompost + Liquid Biofertilisers (i.e *Azotobactor* & PSB) @ 1.25 lit ha-1 (For enrichment of Vermicompost)

Approx. Cost of Inputs :

1. Liquid Biofertilizers : 600/- Rs
2. Vermicompost : 6000/- Rs
3. Chemical fertilizers : 8000/- Rs.

Total : 14600/- Rs

4. Extension Activities

Sr. No	Activities	Quarters				Total
		I	II	III	IV	
1	Field day	02	02	02	01	07
2	Farmers day/ Seminar.	02	02	02	01	07
3	Agril. Exhibition	-	-	-	01	01
4	Scientist farmer interaction	05	05	07	06	23
5	Farm science club	01	--	01	02	04
6	Mahila mandals	03	--	01	01	05
7	Ex trainees meeting	-	--	-	01	01
8	World food day	-	-	01	-	01
9	Women in Agri. day	-	-	01	-	01
10	**Diagnostic services** - Farmers visit to KVK - Scientist visit to farmers field	 200 30	 200 30	 200 30	 200 30	 800 120
11	Lectures to be delivered in other prog.	04	02	04	02	12
12	Cattle treatment camp	-	-	00	01	01
13	Artificial insemination	10	10	15	15	50
14	Soil Water Analysis – Soil Sample - Water Sample	75 75	75 75	75 75	75 75	300 300
15	Distribution of seeds on cost basis	300	400	200	600	1500
16	**Publication** Research papers to be published Popular articles to be published Pamphlet / folders	 01 01 04	 01 02 02	 - 03 04	 01 03 02	 03 09 12
17	**Communication media** News paper coverage Subscription of farm magazine	 03 02	 03 02	 02 01	 03 08	 11 13

5. Proposed plan of work for instructional farm

5.1 Crop production / Horticulture / Forestry

Sr. No.	Name of unit	Season	Crop	Variety	Area (ha)
1.	Crop production	Kharif	Paddy	MTU-1010 Jaya	1.5
		Rabi	Sugarcane	CO-N-5071, 5072,07072	4.0
		Summer	Paddy	GAR- 13 Jaya	1.0
2.	Horticulture				
	Pomology	Perennial	Mango	Kesar, Amrapali Alphanso	3.0
	Olericulture	Rabi	Chilly	Semi – 4884	0.05
			Tomato	Abhinav	0.05
			Brinjal,	DPR	0.15
	Nursery	-	Mango	Local	1.0
		Rabi / Kharif	Vegetable seedlings	Improved variety	0.40
3.	Forestry	Perennial	Casurina	Local	2.0
4.	Green fodder unit	--	Green Fodder	CO-1,2,4	0.6

5.2 Animal production

Name of unit	No. of animals	Breed	Special activities to be taken up
Dairy demonstration unit	5 milch Cow	Crossbred	Breed improvement through AI Introduction of fodder varieties