

## II. ACTION PLAN (April-15 to March-16)

### Training Programme: Quarter wise Summary

Sr. No.	Subject	On Campus					Off Campus					G.T.
		I	II	III	IV	T	I	II	III	IV	T	
1.	Crop Production	1	1	1	1	4	2	1	2	1	6	10
2.	Pl. Protection	1	1	1	1	4	2	2	2	2	8	12
3.	Home Science	1	1	1	1	4	1	1	1	1	4	08
4.	Agril. Extension	2	1	2	1	6	2	3	1	1	7	13
5.	Animal Science	1	1	2	1	5	2	2	2	2	8	13
6.	Seed Production	2	0	2	1	5	2	0	2	1	5	10
7.	Horticulture	1	1	0	0	2	0	2	0	1	3	05
8.	Agril. Engineering	1	2	1	1	5	2	0	0	1	3	08
9.	Soil Science	0	1	0	1	2	1	1	0	1	3	05
10	Fisheries	0	0	1	1	2	0	1	1	0	2	04
	<b>Total</b>	<b>10</b>	<b>09</b>	<b>11</b>	<b>09</b>	<b>39</b>	<b>15</b>	<b>13</b>	<b>11</b>	<b>11</b>	<b>49</b>	<b>88</b>

### Summary of Training Programme

Sr. No.	Subject	On campus	Off campus	Total
1	Training for F, FW & RY			
1.	Crop Production	4	6	10
2.	Pl. Protection	4	8	12
3.	Home science	4	4	08
4.	Agril. Extension	6	7	13
5.	Animal Science	5	8	13
6.	Seed Production	5	5	10
7.	Horticulture	2	3	05
8.	Agril. Engineering	5	3	08
9.	Soil Science	2	3	05
10.	Fisheries	2	2	04
	<b>Total A</b>	<b>39</b>	<b>49</b>	<b>88</b>
2	Vocational training	05	00	05
3	In-service Training	03	02	05
4	Collaborative / Sponsored	10	10	20
5	ATIC	10	10	20
	<b>GRAND TOTAL</b>	<b>67</b>	<b>71</b>	<b>138</b>

### On Campus Training Programme:

Subject	Title of Training	Dura Days	Probable date	No. of parti.	Type of Parti.
<b>I. Quarter : (1<sup>st</sup> April to 30<sup>th</sup> June, 2015)</b>					
Crop Production	• Improved cultivation practices for Cotton and Sesame	2	21/04/15	25	F
Pl. Protection	• Importance of bio agents & Seed Treatment in Kharif crops	1	01/06/15	25	FW
Home science	• Detergent powder, soap making and phenyl making at household level	2	--	25	FW
Agril. Extension	• ICT in agriculture	1	30/05/15	25	RY
	• Organic farming practices	2	03/06/15	25	RY
Animal Science	• Care and management of livestock during summer	1	27/05/15	25	FW
Seed Production	• Seeds production technique in Groundnut	1	08/05/15	25	F
	• Seeds production technique in Sesamum	1	17/06/15	25	F
Horticulture	• Cultivation of Tomato in Poly house	2	10/04/15	25	F
Agril Eng.	• Use of Laser land leveler & Rotavator	1	26/05/15	25	RY
<b>II. Quarter : (1<sup>st</sup> July to 30<sup>th</sup> September, 2015)</b>					
Crop Prod.	• Castor production technology	1	22/07/15	25	F
Pl. Protection	• Biological & Chemical Control measures for pest and disease of Cotton & Sesamum	1	06/07/15	25	F
Home sci.	• Solar Cooker: Uses & Advantages	1	--	25	FW
Agril. Extension	• Group dynamics for farmers interest group	1	02/07/15	25	F
Animal Science	• Importance and use of green fodder in milk production	1	05/08/15	25	F
Horticulture	• Cultivation of Capsicum in Poly house	1	19/07/15	25	F
Soil Science	• Balance fertilization & INM in Cotton	1	02/07/15	25	F
Agril Eng.	• Micro irrigation systems	2	13/07/15	25	RY
	• Practices for Soil moisture conservation	1	15/07/15	25	RY

<b>III. Quarter : (1<sup>st</sup> October to 31<sup>st</sup> December, 2015)</b>					
Crop Production	• Improved cultivation practices for wheat & Gram	1	09/10/15	25	F
Pl. Protection	• Control measures for pest and disease in Cumin	2	19/10/15	25	F
Home science	• Value addition in fruits and vegetables	2	--	25	RY
Agril. Extension	• Effect of global warming and climatic changes in Agriculture	1	15/10/15	25	F
	• Formation & Management of SHGs	1	02/12/15	25	RY
Animal Science	• Importance of Artificial Insemination	1	01/10/15	25	RY
	• Foot & Mouth disease and its control	1	22/12/15	25	F
Seed Production	• Seeds production technique in Cumin	1	05/11/15	25	RY
	• Seeds production technique in Wheat	1	11/11/15	25	RY
Agril Eng.	• Use of improved farm implements	2	26/10/15	25	F
Fisheries	• Value addition in Fish	1	17/10/15	25	RY
<b>IV. Quarter : (1<sup>st</sup> January to 31<sup>st</sup> March, 2016)</b>					
Crop Production	• Improved cultivation practices for Summer groundnut and Sesame	1	12/01/16	25	F
Pl. Protection	• Precaution while handling pesticides.	1	08/01/16	25	F
Home Sci.	• Rural craft for income generation	1	--	25	FW
Agril. Extension	• Entrepreneurial developments for rural youth	2	07/01/16	25	RY
Animal Science	• Balanced feeding of pregnant animal	1	25/02/16	25	F
Seed Production	• Seeds production technique in Summer Groundnut	1	10/02/16	25	F
Agril Eng.	• Introduction and use of Chaff-Cutter	1	20/02/16	25	RY
Fisheries	• Fresh water prawn farming	1	19/02/16	25	RY
Soil Science	• Preparation of enriched compost	1	02/03/16	25	RY

**Off Campus training Programme:**

Subject	Title of Training	Dura Days	Probable date	No. of parti.	Type Of Parti.
<b>I. Quarter : (1<sup>st</sup> April to 30<sup>th</sup> June, 2015)</b>					
Crop Production	• Crop Production technology in kharif pulses & Gum guar	1	14/05/15	25	F
	• Integrated Nutrient Management in Cotton	1	07/06/15	25	F
Pl. Protection	• IPM in Cotton & Sesame	1	08/06/15	25	F
	• Importance & uses of bio agents & bio pesticides	1	22/06/15	25	F
Home science	• Preparation of Mango pickles, potato and banana wafers	1	--	25	FW
Agril. Extension	• Govt. subsidy schemes for farmers	1	02/06/15	25	RY
	• Entrepreneurial development of farmers	1	29/06/15	25	RY
Animal Science	• Hemorrhagic Septicemia and its control	1	02/06/15	25	F
	• Importance of colostrums feeding in new born calves	1	15/06/15	25	F
Seed Production	• Seeds production technique in Sesamum	1	02/06/15	25	F
	• Seeds production technique in Groundnut	1	10/06/15	25	F
Agril Eng	• Rain water harvesting technology	1	20/06/15	25	RY
	• Use of Laser land leveler & Rotavator	1	25/06/15	25	RY
Soil Science	• Soil Sampling procedure	1	06/04/15	25	F
<b>II. Quarter : (1<sup>st</sup> July to 30<sup>th</sup> September, 2015)</b>					
Crop Production	• Improved cultivation practices for Cumin & Fennel	1	24/09/15	25	F
Pl. Protection	• Management of pest & diseases of Vegetables	1	10/07/15	25	F
	• IPM in Castor	1	25/08/15	25	F
Home science	• Awareness about vaccination in children & Nutrition education	1	--	25	FW
Agril. Extension	• Income generation activities for farmers through secondary agri.	1	01/07/15	25	F

	• Leadership development	1	12/08/15	25	RY
	• WTO & IPR issues	1	11/09/15	25	F
Animal Science	• Awareness about control of Mastitis in animal by audio visual aid	1	02/07/15	25	F
	• Infertility of cow & buffalo by infectious disease & its prevention	1	13/08/15	25	F
Horticulture	• Cultivation of tomato & capsicum in poly house	1	16/07/15	25	F
	• Raising of Seedlings of Vegetable crops	1	01/08/15	25	FW
Fisheries	• Value addition in Fish	1	06/08/15	25	RY
Soil science	• Soil reclamation	1	02/07/15	25	RY
<b>III. Quarter : (1<sup>st</sup> October to 31<sup>st</sup> December, 2015)</b>					
Crop Production	• Integrated weed management & water management in major rabi field crops	1	04/11/15	25	F
	• Importance & use of bio fertilizers	1	18/11/15	25	F
Pl. Protection	• Seeds treatment in Rabi crops	1	06/11/15	25	FW
	• Control measures for pest and disease in Rabi crops	1	07/12/15	25	F
Home science	• Use of sprouted pulses and protein rich diet for low cost nutrition as well as supplementation	1	--	25	FW
Agril. Extension	• Group dynamics & mobilization to FIGs	1	15/10/15	25	RY
Animal Science	• Clean milk production by proper milking, watering & washing	1	16/10/15	25	FW
	• Fodder crop production technology	1	22/12/15	25	F
Seed Production	• Seeds production technique in Cumin	1	02/11/15	25	F
	• Seeds production technique in Wheat	1	13/11/15	25	F
Fisheries	• Fresh water prawn farming	1	20/10/15	25	RY

<b>IV. Quarter : (1<sup>st</sup> January to 31<sup>st</sup> March, 2016)</b>					
Crop Production	• Efficient water management in summer field crops	1	09/02/16	25	F
Pl. Protection	• Disease management in cumin	1	20/01/16	25	F
	• Importance of Natural enemies	1	08/02/16	25	F
Home science	• Value addition in Anola & Preparation of different bakery items	1	--	25	FW
Agril. Extension	• Government subsidy schemes for farmers	1	02/01/16	25	F
Animal Science	• Nutritive deficiency in Infertility problem of Cow & Buffalo	1	12/01/16	25	F
	• Zoonotic disease & its preventive measure	1	16/02/16	25	F
Seed Production	• Seeds production technique in summer Groundnut & summer sesame	1	04/02/16	25	F
Horticulture	• Protected Cultivation	1	21/01/16	25	F
Agril Eng.	• Uses of Improved farm implements	1	07/01/16	25	F
Soil Science	• Preparation of vermi compost & vermi wash	1	10/03/16	25	RY

### Vocational Training Programme:

Sr. No.	Discipline	Title of Training	Dura. Days	Type of parti
1	Animal Science	• Poultry Rearing	4	RY
		• Goat Rearing	4	RY
2	Agril. Ext. / Agril Eng.	• Repair & Maintenance of Improved Farm Implements	4	RY
3	Plant Protection	• Honey Bee Rearing	4	RY
4	Home Science	• Value addition in vegetables	4	RY

### Training for Extension Functionaries (In-service):

Sr. No.	Title of Training	Dura. Days	No. of parti.	Type of parti.
1.	Protected cultivation	1	25	Ext Workers
2.	Pre-seasonal training on <i>Kharif</i> crops	1	25	Ext Workers
3.	Pre-seasonal training on <i>Rabi</i> crops	1	25	Ext Workers
4.	Preventive measure and first aid treatment of important disease in dairy animals	1	25	Ext Workers (OFF)
5.	Cotton production technology	1	25	Ext Workers (OFF)

### Sponsored Trainings / Collaborative training:

Sr. No.	Sponsored agency	No. of training
1.	ATMA	14
2.	NABARD	03
3.	NGOs	01
4.	DRDA	02

### Physical Targets of FLD's to be conducted during 2015-16

Particulars of the FLD	Season	Crop	Component	Area (in ha)	No. of Demo.
Oilseeds	<i>Kharif</i>	Groundnut	Variety GJG-9: 30 Kg Rhizobium: 500 ml PSB culture: 500 ml Trichoderma: 1 kg	4	10
		Sesamum	Variety GT-4: 1 Kg Azotobactor: 500 ml PSB culture: 500 ml Beauveria bassiana:1kg	4	10
Pulses	<i>Kharif</i>	Green gram	Variety GM-4: 4 Kg Rhizobium: 500 ml PSB culture: 500 ml	4	10

			Hexaconazole: 250 ml		
	<i>Rabi</i>	Gram	Variety GG-3: 25kg Rhizobium: 500 ml PSB culture: 500 ml Beauveria bassiana:1kg	4	10
<b>Other Crops</b>	<i>Rabi</i>	Cumin	Variety GC-4: 4 kg Azotobactor: 500 ml PSB culture: 500 ml Dithane M-45: 500 gm	8	20
		Wheat	Variety GW-366: 40kg Azotobactor: 500 ml PSB culture: 500 ml	8	20
	<i>Kharif</i>	Cotton	Variety G cot Hy-6 Bt: 450 gm. Azotobactor: 500 ml PSB culture: 500 ml Beauveria bassiana:1kg	10	25
<b>Other Demonstrations</b>					
• Trichoderma culture	<i>Kharif</i>	Groundnut	Castor cake: 100 kg Trichoderma: 2 kg	4	10
<b>NIFTD Project</b>	<b>Season</b>	<b>Crop</b>	<b>Component</b>	<b>Area (in ha)</b>	<b>No. of Demo.</b>
Urea treatment	<i>Rabi</i>	Wheat		--	11
Forage production under arable lands	<i>Kharif</i>	Bajra Napier Hyb	APBN-1 : Root slits	1	5
	<i>Rabi</i>	Lucerne	L Anand-2: 2 kg	1	5
Forage production under non-arable lands	--	Ber/Lemon +C. Ciliaris +Stylo		--	4
<b>TOTAL FLDs</b>				<b>48</b>	<b>140</b>



## **Physical Targets of OFT's to be conducted during 2015-16:**

### **1. Assessment of sulphur in cumin**

<b>Objective</b>	<b>To increase the yield by different sources of Sulphur</b>
<b>Reason for low yield of Cumin</b>	<ol style="list-style-type: none"> <li>1. Lack of knowledge of Sulphur application.</li> <li>2. Sulphur deficient soil of district (60% Area)</li> <li>3. Unbalance fertilization.</li> </ol>
<b>Technical Intervention</b>	Management of sulphur application in Cumin
<b>Treatments</b>	<ol style="list-style-type: none"> <li>1. Farmers practice (Control) (125 kg DAP and 55 kg Urea / ha)</li> <li>2. Recommended dose of fertilizer (30-15-0 NPK kg/ha) through DAP &amp; Urea (33 kg DAP and 33 kg Urea / ha)</li> <li>3. T-2 + 15 kg Sulphur through Gypsum (33 kg DAP and 33 kg Urea + 100 kg Gypsum / ha)</li> <li>4. Recommended dose of fertilizer (30-15-0 NPK kg/ha) through Ammonium Sulphate &amp; Single Super Phosphate. (94 kg SSP and 142 kg AS / ha)</li> </ol>

### **2. Management of Mealy bug infestation in Cotton.**

<b>Objective</b>	<b>To minimize the incidence of mealy bug in cotton.</b>
<b>Reason for low yield of Cotton</b>	<ol style="list-style-type: none"> <li>1. Lack of knowledge about the use of particular pesticides.</li> <li>2. No adoption of recommended practices.</li> <li>3. Farmers follows instruction given by the local pesticides retailer.</li> </ol>
<b>Technical Intervention</b>	Management of mealy bug in cotton.
<b>Treatments</b>	<ol style="list-style-type: none"> <li>1. Farmers practice (Use of conventional insecticides after infestation)</li> <li>2. Recommended practices: pre-sowing application of Methyl parathion 2% Dust, application of insecticides at the time of infestation &amp; Recommended cultural practices.</li> <li>3. Dusting of Methyl parathion 2% dust as &amp; when required, application of bio-pesticides (Beaveria spp. or Verticillium spp.)</li> </ol>

### 3. Chelated & Area Specific Mineral mixture for dairy buffaloes

<b>Objective</b>	<b>To increase milk yield &amp; regularity of heat</b>
<b>Reason</b>	1. Low milk production & infertility problems in dairy buffalo
<b>Technical Intervention</b>	Enhancement of milk production with improve reproductive efficiency
<b>Treatments</b>	<ol style="list-style-type: none"> <li>1. Farmers practices (Control)</li> <li>2. Buffalo fed with 50 gms/day mineral mixture supplementation (Reco.)</li> <li>3. Buffalo fed with 50 gms/day chelated mineral mixture supplementation (Intervention-1)</li> <li>4. Buffalo fed with 50 gms/day area specific mineral mixture supplementation (Intervention-2)</li> </ol>
<b>Parameters</b>	<ol style="list-style-type: none"> <li>1 Milk yield</li> <li>2 Postpartum estrus</li> <li>3 No. of insemination for conception</li> </ol>

### 4. Assessment of sulphur in Sesamum

<b>Objective</b>	<b>To increase the yield by different sources of Sulphur</b>
<b>Reason for low yield of Cumin</b>	<ol style="list-style-type: none"> <li>1. Lack of knowledge of Sulphur application.</li> <li>2. Sulphur deficient soil of district (60% Area)</li> <li>3. Unbalance fertilization.</li> </ol>
<b>Technical Intervention</b>	Management of sulphur application in Sesamum
<b>Treatments</b>	<ol style="list-style-type: none"> <li>1. Farmers practice (Control) (90 kg DAP +90 kg Urea / ha)</li> <li>2. Recommended dose of fertilizer (50-25-40 NPK kg/ha) through DAP &amp; Urea+ 20 kg Sulphur through Gypsum (55 kg DAP + 55 kg Urea +66 kg MOP + 100 kg Gypsum / ha)</li> <li>3. Recommended dose of fertilizer (50-25-40 NPK kg/ha) through Ammonium Sulphate &amp; Single Super Phosphate. (238 kg AS + 156 kg SSP + 66 kg MOP / ha)</li> </ol>

### 5. Supplementary feeding for improving production performance of lactating goat (does)

<b>Objective</b>	<b>To increase milk production &amp; weight gain in pre-weaned kid</b>
<b>Reason</b>	low milk yield , poor weight gain in pre-weaned kids
<b>Source of technology</b>	Central Institute for research on Goat (CIRG) , Makhdoom
<b>Treatments</b>	<ol style="list-style-type: none"> <li>1. Grazing for 8 hours -Farmers practices (Control)</li> <li>2. T1 + Concentrate feed 150 gms/day for 3 months</li> <li>3. T1+ T2 + mineral mixture 10 gm/day + vitamin A,D,E - 2 ml weekly for 2 weeks</li> </ol>
<b>Parameters</b>	Milk yield (litre) Pre-weaned weight in kid (kg)

### 6. Management of sucking pests in Cotton.

<b>Objective</b>	<b>To minimize the incidence of sucking pests in cotton.</b>
<b>Reason for low yield of Cotton</b>	<ol style="list-style-type: none"> <li>1. Lack of knowledge about the use of particular pesticides.</li> <li>2. No adoption of recommended practices.</li> <li>3. Farmers follows instruction given by the local pesticides retailer.</li> </ol>
<b>Technical Intervention</b>	Management of sucking pests in cotton.
<b>Treatments</b>	<ol style="list-style-type: none"> <li>1. Farmers practice (Use of conventional insecticides after infestation)</li> <li>2. Recommended practices Application of the systemic insecticide will be start at pest infestation occurred. (Acetamiprid: 20 SP @ 2 ml/10 litre of water or Imidacloprid: 200 SL @ 4 ml/10 litre or Cartep hydrochloride 50% S.P. @ 10ml/10 Litre of water at the time of infestation.)</li> <li>3. <i>Beauveria bassiana</i> 5 gm/lit as &amp; when required, application of bio-pesticides + Sticker 0.5 ml/lit of water</li> </ol>

### 7. Varietal assessment of Sesamum Guj Til-4 in Surendranagar district

<b>Objective</b>	<b>To increase yield of Sesamum</b>
<b>Source of technology</b>	Agricultural Research Station, JAU, Amreli
<b>Treatments</b>	<ol style="list-style-type: none"> <li>1.Variety: Guj Til-2 OR Local</li> <li>2.Variety: Guj Til-4</li> </ol>
<b>Parameters</b>	Yield

## 8. Assessment of high density planting in Cotton.

<b>Objective</b>	<b>To observe the yield of cotton in High density.</b>
<b>Reason</b>	1. Low yield of cotton. 2. Less optimum plant population per unit area.
<b>Technical Intervention</b>	Management of spacing between row & between plant.
<b>Treatments</b>	1. Recommendation: Sowing of cotton at spacing 120 x 45 cm. (18,518 plants / ha) 2. Intervention: Sowing of cotton at spacing 60 x 30 cm. (55,555 plants / ha) 3. Intervention: Sowing of cotton at spacing 90 x 45 cm. (24,691 plants / ha)

### Other Extension activities

<b>Particulars</b>	<b>No.</b>	<b>Particulars</b>	<b>No.</b>
Kisan mela	01	Film shows	20
Field day	20	Exhibition	02
Kisan gosthi	10	News paper coverage	06
Radio / TV talk	04	Popular articles	10
Advisory services	25	Kisan Mahila Meeting	02
Animal treatment camp	12	Celebration of important days / Week	04
<b>Extension literature</b>		<b>Diagnostic services</b>	
Folder / pamphlets	10	1. Farmers visit to KVK	As & when Required
Night Meeting	15	2. Scientists visit to farmers field	As & when Required

**Seeds Production & Planting materials to be produced:**

Sr. No.	Name of crop	Variety	Area (ha)	Type of produce	Quantity to be produced (Kg)
1	Ground Nut	GJG-22, GJG-31, GJG-9, GG-2	12	Breeder / TF	6000
2	Sesamum	GT-4,3,	02	Breeder / TF	600
3	Cumin	GC-4	01	TF	300
4	Fruit Crop	--	03	--	--
	<b>Name of crop</b>	<b>Variety</b>			<b>Seedlings (No)</b>
6	Brinjal	GAO-1, GJB-3			25000
7	Tomato	GJT-1,3			10000
8	Chilly	Vadhwani			10000

**Infrastructure needed:**

Sr. No.	Particulars	Estimates (Rs.)
1.	Fencing Wall	40,00,000
2.	Laser land leveler	3,00,000
3.	Bore with submersible pump	6,00,000
4.	New Jeep	7,00,000
5.	Mini bus cum demonstration van	12,00,000
6.	Water storage structure (cement concrete)	20,00,000
	<b>TOTAL</b>	<b>88,00,000</b>

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**Budget Requirement: 2015-16**

S N	Items/Head	Grant to be required
	<b>A RECURRING CONTIGENCY</b>	
1	Pay & Allowances	80,00,000
2	Traveling Allowances	3,00,000
3	Contingencies	15,00,000
a.	Stationary, Telephone, Postage and other expenditure on office running	
b.	POL, repair of vehicles, tractor and equipments	
c.	Meals/refreshments of trainees	
d.	Training materials	
e.	Frontline demonstration except oilseeds and pulses	
f.	On farm testing	
g.	Training of extension functionaries	
h.	Maintenance of building	
	<b>TOTAL-A</b>	<b>98,00,000</b>
	<b>B NON-RECURRING CONTIGENCY</b>	
1		88,00,000
	<b>TOTAL-B</b>	
	<b>GRAND TOTAL</b>	<b>1,86,00,000</b>