

## Action plan 2020

It is proposed to organize the following batches of training programmes for farmers, farm women, rural youth and extension functionaries during January to December 2020

### A. Training Programmes :

Date	Clientele	Title of the training programme	No. of Course	Number of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
<b>Crop Production</b>										
April	PF	Importance of organic farming in Groundnut	1	25		25			0	25
June	PF	Reduction of cost of cultivation practices in kharif crops	1	22	3	25			0	25
July	PF	Weed management in Kharif crops	1	21		21	4		4	25
October	PF	Improved cultivation practices in Rabi crops.	1	22	3	25			0	25
November	PF	Use of Bio-products in Rabi crops	1	22	3	25			0	25
<b>Horticulture</b>										
May	PF	Improved cultivation practices for important fruit crops	1	20		20	5		5	25
July	PF	Different propagation methods for fruit crops suitable for arid and semi arid region.	1	22		22	3		3	25
<b>Livestock prod.</b>										
Jan.	PF	Importance of Artificial Insemination	1	25		25				25
Feb.	PF	Balanced feeding of Pregnant Animals	2	50		50				50
May	PF	Care and management of livestock during summer	1	20	0	20	05	0	05	25
August	PF	Importance and use of green fodder in milk production	1	15	03	20	4	1	05	25
November	PF/ FW	Infertility of cow & buffalo by infectious disease & its prevention	1	18	0	18	07	0	07	25
<b>Agril. Engg.</b>										
Feb.	PF	Importance of secondary agriculture	1	23		23	2		2	25
April	PF	Operation and maintenance of micro irrigation system	1	23		23	2		2	25
May	PF	Rain Water harvesting and groundwater recharge technologies	1	23		23	2		2	25
July	PF	Selection, maintenance and use of improved farm implements and machinery	1	25		25			0	25

August	PF	Use of improved small tools in farm mechanization and implements for drudgery reduction in agriculture	1	20		20	5		5	25
Octo.	PF	Importance of small scale processing and value addition of agriculture produce	1	20		20	5		5	25
<b>Home Science</b>										
January	FW	Importance of green leafy vegetables in diet and preparing recipes from vegetables.	1		25	25				25
May	FW	Use of sprouted pulses in preparation of low cost nutrition diet.	1		23	23		2	2	25
November	FW	Income generating activities	1		25	25				25
<b>Plan protection</b>										
January	PF	Principles of storage pest management	1	25		25				25
April	PF	Importance of seed treatment for insect-pest & disease management	1	20		20	5		5	25
may	PF	Integrated insect-pest & disease management in cotton	1	22		22	3		3	25
July	PF	Skill development for preparation of Bio pesticides.	1	24		24	1		1	15
Octo.	PF	Integrated insect-pest & disease management in Rabi crops.	1	25		25				25

**i) Farmers & Farm women (Off Campus)**

Date	Clientel e	Title of the training programme	No. of Cours e	No. of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
<b>Crop Production</b>										
January	PF	Efficient water management in summer groundnut	1	20		20	5		5	25
January	PF	Efficient water management in summer Sesame	1	20		20	5		5	25
April	PF	Soil & water analysis & its importance	1	22		22	3		3	25
May	PF	Improved cultivation practices for kharif groundnut	1	22		22	3		3	25
May	PF	Improved cultivation practices for cotton	1	22		22	3		3	25
June	PF	Use of Bio fertilizers in Kharif crops	1	20		20	5		5	25
June	PF	Integrated Nutrient Management in Cotton	1	17	5	22	3		3	25
September	PF	Improved cultivation practices for Rabi crops.	1	25		25			0	25
October	PF	Use of Bio fertilizers in Rabi crops	1	20		20	5		5	25

November	PF	Integrated weed management & water management in cumin	1	22		22	3		3	25
November	PF	Integrated weed management & water management in chick pea	1	22		22	3		3	25
December	PF	Integrated weed management & water management in wheat	1	22		22	3		3	25
<b>Horticulture</b>										
March	PF	Improved cultivation practices for summer vegetables	1	23	2	25				25
May	PF	Preparation of planting materials in nursery	1	23	2	25				25
May	PF	Importance of drip irrigation in horticultural crops	1	25		25				25
July	PF	Technology on mulching in pomegranate plantation	1	22		22	3		3	25
August	PF	Cultivation practices for onion & garlic	2	50		50				50
Sept.	PF	Production technologies for rabi vegetables	2	47		47	3		3	50
<b>Live Stock Production.</b>										
Jan.	PF	Nutritive Deficiencies in Infertility problems of Cow and Buffaloes	1	15	03	20	4	1	05	25
March	PF	Zoonotic disease & its preventive measure	1	18	0	18	07	0	07	25
May	PF	Hemorrhagic Septicemia and its control	1	18	0	18	07	0	07	25
May	PF	Care and management in livestock during summer	1	25		25				25
July	PF	Fodder Production Technology	1	17	05	22	03	0	3	25
July	PF	Care and management in livestock during monsoon	1	25		25				25
August	PF	Brucellosis and its control	1	25		25				25
Sept.	PF	Importance of colostrums feeding in new born calves	1	12	06	18	4	3	7	25
Nov.	PF	Awareness about control of Mastitis in animal by audio visual aid	1	12	5	17	7	0	7	25
Nov.	PF	Importance of vaccination in sheep and goat	1	25		25				25
Dec.	PF	Clean milk production by proper milking, watering & washing	1	20	0	20	05	0	05	25
<b>Agril. Engg.</b>										
March	PF	Importance and use of non-conventional sources of energy in agriculture	1	25		25			0	25
March	PF	Rain water harvesting and their efficient use in crop production	1	25		25			0	25
June	PF	Use of Plastics in farming practices	1	23		23	2		2	25
June	PF	In-situ moisture conservation practices in dry land agriculture	1	15	7	22	3		3	25

Sept	PF	Importance of post harvest technology in agriculture	2	45		45	5		5	50
Nove	PF	Importance of drip irrigation in horticulture crops	1	23		23	2		2	25
Dec.	PF	Selection, repair and maintenance of plant protection equipments	3	73		73	2		2	75
<b>Home Science</b>										
January	FW	Preparation and preservation of fruits & vegetables	1		22	22		3	3	25
April	RY	Preparation of bakery products	1		25	25				25
May	FW	Preparation of milk products	1		21	21		4	4	25
June	FW	Household food security by kitchen gardening	2		49	49		1	1	50
August	FW	Income generation activities for empowerment of rural Women	2		44	44		1	1	45
October	FW	Drum stick-A nutritional diet	1		25	25				25
Nov.	FW	Importance of green leafy vegetables in diet and preparing recipes from vegetables.	2		50	50				50
December	FW	Preparation of jam, squash, catch up from fruits	1		23	23		2	2	25
<b>Plant Protection</b>										
January	PF	Integrated insect-pest & disease management for summer crops.	2	24		24	1		1	25
May	PF	Management of pinkboll worm in cotton	2	45		45	5		5	50
June	PF	Insect pest & disease management in groundnut	2	50		50				50
September	PF	Emerging insect pests & disease of Bt. cotton & their management.	2	48	2	50				50
October	PF	Store grain pest management	1	22		22	3		3	25
December	PF	Management of insect pest & disease in spices crops	1	23		23	2		2	25

## ii) Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title	Month	Duration (days)	No. of Participants			SC/ST participants			G.Total
					M	F	T	M	F	T	
Agronomy	Integrated farming	Integrated farming System	May	6	23		23	2		2	25
Home Sci.	Tailoring and Stitching	Income generating activities by SHG	May	5		25	25				25
Agri. Engg.	Maintenance of farm machinery	Repair and maintenance of sprayer, power sprayer, duster etc.	July	2	23		23	2		2	25
Home Sci.	Rural Crafts	Income generating activities by rural youth	Octo.	5		23	23		2	2	25
Animal Sci.	Dairy	Scientific Dairy Farming	Dec.	7	25		25				25

Home Sci.	Value addition	Preparation and preservation of fruits & vegetables products	Dec.	6		24	24		1	1	25
			<b>Total</b>	<b>6</b>	<b>71</b>	<b>72</b>	<b>133</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>150</b>

### iii) Training programme for extension functionaries

Date	Clientele	Title of the training programme	Duration in days	No. of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
June	Extension workers	Pre-seasonal training on package of practice for Kharif crops	1	25		25				25
May	Ext Workers	Integrated Nutrient management in kharif crops	1	18	0	18	7	0	7	25
July	Ext Workers of DWDU	Watershed management	1	23		23	2		2	25
May	Ext Workers	Preventive measures and first aid treatment of important disease in dairy animals	1	23		23	2		2	25
Sept.	Ext Workers	Livestock feed and fodder production	1	23		23	2		2	25
<b>Total</b>			<b>5</b>	<b>112</b>	<b>0</b>	<b>112</b>	<b>13</b>	<b>0</b>	<b>13</b>	<b>125</b>

### iv) Sponsored training programme

Discipline	Sponsoring agency	Clientele	Title of the training programme	No. of course	No. of participants			Number of SC/ST			G. Total
					M	F	T	M	F	T	
<b>a) Sponsored training programme</b>											
Livestock	Gopal Dairy Rajkot	PF	Scientific Dairy management	1	25		25				25
Home Sci.	ATMA	FW	Value addition in Groundnut	1		22	22		3	3	25
Home Sci.	FTC	FW	Squash making from fruits	1		23	23		2	2	25
Agri. Engg.	Agri. Dep.	PF	Use of improved farm implements	1	22		22	3		3	25
Agri. Engg.	FTC	PF	Efficient use of micro irrigation system	1	25		25				25
Crop production	ATMA	PF	Fertilizer management in Kharif crop	1	25		25				25

**Summary of Training programme :**

Sr. No.	Subject	On campus	Off campus	Total
1.	Crop Production	5	12	17
2.	Plant protection	5	10	15
3.	Animal Science	6	11	17
4.	Horticulture	2	8	10
5.	Agril. Engineering	6	10	16
6.	Home science	3	11	14
	<b>Total</b>	<b>27</b>	<b>62</b>	<b>89</b>
1.	Vocational training	-	6	6
2.	In service training	5	-	5
3.	Sponsored Training	6	-	6
	<b>Grand Total</b>	<b>38</b>	<b>68</b>	<b>106</b>

**B. Front Line Demonstrations (Proposed)**

Sl. No	Crop	Variety	Thematic area	Technology for demon.	Critical inputs with cost (Rs.)	Season and year	Area (ha)	No. of farmers/demon.	Parameters identified
1	Ground nut	GJG-22/32	NRM	Variety+ INM+ IPM+IDM	Seed – 30 kg Tricoderma-500 gm Beauveria-500 gm PSB	Kharif -2020	4.0	10	No. of Pods/Plants, Yield, B:C ratio, Farmers perception
2	Ground nut	GG-22	ICM	IPM	Chloro-pyriphos 25EC (1 Lit./ Farmer)	Kharif -2020	4.0	10	No. of damaged plants, Yield, B:C ratio, Farmers perception
3	Chick pea	GJG-3	NRM	Variety (GJG-3)	Seed of GJG-3 (20 Kg/ Farmer)	Rabi-2020-21	4.0	10	No. of Pods/Plants Yield, B:C ratio, Farmers perception
4	Wheat	GW-366/ GW-361	ICM	INM	ZnSO <sub>4</sub> , Azatobactor and PSB	Rabi-2020-21	2.0	5	Length of spike, Yield, B:C ratio, Farmers perception
5	Cumin	GC-4	ICM	IPM	Seed of GC-4 (6 Kg/ Farmer) and Trichoderma 2Kg/Farmer	Rabi-2020-21	4.0	10	No. of infected plants, Yield, B:C ratio, Farmers perception
6	Cumin	GC-4	ICM	line sowing for minimizing the diseases intensities	Seed of GC-4 (6 Kg/ Farmer) and Fungicide	Rabi 2020-21	2.0	5	No. of infected plants, Yield, B:C ratio, Farmers perception
7	Seasonal vegetables	-	Kitchen gardening	Health management	Seed of different Veg.	Kharif -2020	0.5	5	Nutritional value, farm women perception

**a. Farm Implements :**

Name of the implement	Crop	Season and year	No. of farmers	Area (ha)	Critical inputs	Performance parameters / indicators
Chaff cutter	Fodder crop	2020-21	5	-	Chaff cutter Demo.	Fodder waste reduction, Farmers perception
Mobile chopper	Cotton	2020-21	5	-	Mobile chopper Demo.	Recycling of farm residues i.e., cotton & castor stalk

**b. Livestock Enterprises**

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Critical inputs	Performance parameters / indicators
Nutrient Management	Cow	20	20	Chelated mineral Mixture	Milk yield
Nutrient Management	Buffalo	10	10	Bypass Fat	Milk yield
Nutrient Management	Buffalo	10	10	Bypass Protein	Milk yield
Disease Management	Buffalo	20	20	Deworming tablet	Mortality
Fodder Management	Buffalo	10	10	Jinjvo	Milk yield

**C. ON FARM TESTING (OFTs)**

S. No	Crop/enterprise	Prioritized problem	Title of OFT	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the OFT(Rs.)	Parameters to be studied	Team members
1	Child	Nutritional deficiency and poor health status of child	Assessment of Drum stick leaves powder as nutritional supplement in 6 month-5 years old child	Daily existing normal food	Local	-	-	-	-	-	Body weight and Height,	Smt. H. H. padsu mbiya
				Moringa pods as vegetable and leaf powder/ 5gm/ day and fruits / 50gm/ day as supplement	Dept. of Health, Govt. of Gujarat	leaf powder and fruits	900 gm & 9 kg/ child	1000 /-	10	10000/-		
2	Farm woman	Lack of knowledge	Preservation techniques of different pulses with organic methods	Use of Neem leaves	IRRI-2011	Neem leaves	50gm dry leaves/500gm food grain	-	10	4000/-	Quality of stored grain, damage percentages	Smt. H. H. padsu mbiya
				Use of Castor oil		Castor oil	1kg castor oil/ 100Kg food grain					
				Use of pro super bag		Super bag	-					



3	Cotton	Water scarcity in the region due to less rainfall.	Water management in drip irrigated cotton crop	Without mulching and flood irrigation		-	-	-	-	-	Yield and Soil moisture content	Shri D. P. Sanepara
				Plastic mulch (25 micron) with drip irrigation)	RTTC, JAU, Junagadh	Silver-black plastic sheet	1000 sq.m	2000	2	4000		
4	Groundnut	High soil moisture losses during the crop period.	Effect of mulching on productivity of kharif groundnut	1. Without mulching		-	-	-	-	-	Yield and Soil moisture content	Shri D. P. Sanepara
				2. Farm residues mulching	JAU, Junagadh	-	500 kg	2000	2	4000		
5	Groundnut	Higher use of chemical fertilizers	Organic farming in Kharif Groundnut	T-1 : Chemical fertilizers	Junagadh Agril. University ,Junagadh	-	-	-	3	3500/-	1. Growth and yield parameters 2. Available Soil Nutrients.	Dr. J. H. Chaudhry
				T-2 : 5 t FYM/ha + Bio-fertilizers		Rhizobium + PSB + KSB + neem oil + Tricoderma, + Beuveria etc.	3 lit/ha + 3 lit./ha	2000/-				
				T-3 : Cow base farming		cow dung + cow urine + cow curd + cow ghee + cow milk + panchagavya	9 kg + 5 lit. + 2 lit. + 2 lit. + 2 lit.	1500/-				

6	Groundnut	Higher use of pesticides	Infestation of white grub in organic Kharif Groundnut	T-1 : Chemical + seed treatments for white grubs and sucking pests.	Junagadh Agril. University , Junagadh	-	-	-	3	3500/-	1. Growth and yield parameters 2. % of white grub infestation and numbers of white grubs	Shri M. K. Jadeja
				T-2 : 5 t FYM/ha + Bio-fertilizer		Rhizobium + PSB + KSB + neem oil + Tricoderma ,+ Beauveria etc.	3 lit/ ha + 3 lit./ha	2000 /-				
				T-3 : Cow base farming		cow dung + cow urine +cow curd + cow ghee + cow milk + pancha-gavya	9 kg + 5 lit. +2 lit. + 2 lit. + 2 lit.	1500 /-				
7	Cumin	<i>Heavy incidence of wilt disease in cumin</i>	<i>Use of Trichoderma for wilt disease management in cumin</i>	No use of trichoderma or fungicide at the time of sowing. But they use fungicides viz., carbendazim, hexaconazole, difenconazole, tebuconazole, propiiconazole, , etc after initiation of diseases. (Farmers practices.)	-	-	-	-	3	-	<b><i>Wilt (%) and Yield</i></b>	Shri M. K. Jadeja
				Application of Trichoderma @ 5 kg /ha with organic manure @500 kg / ha at the time of sowing.. (Recommended practices.)	JAU, Junagadh	Tricoderma	1 Kg	70		210		

				Application of Trichoderma @ 5 kg /ha along with organic manure @500 kg / ha at the time of sowing and second application of Trichoderma @ 5 kg /ha along with organic manure by broadcasting method at 15 days after germination. (Intervention).	-	Tricoderma	2 Kg	140		420		
8	Cow	During winter season Kid mortality, Pneumonia , diarrhea & low body weight	Fortified Health management for reducing kid mortality of cow	T-1 Colostrum after birth upto 3 days	IVRI, Izzatnagar	Colostrum	10 % of body wt	-	3	-	1. Kid survival rate 2. Body weight	Dr. M. M. Tajpar a
				T-2 T1+ Antibiotics (otc) after 5-7 days		Colostrum  Oxytetracycline	10% of b.w 6 mg/kg b.w	Rs 30/-	3	Rs. 90/-	1. Kid survival rate 2. Body weight	
9	Cow	Low milk production & infertility problems in dairy cow	Chelated & Area Specific Mineral mixture for dairy Cows	T1:-Farmers practices (Control) T2:-Fed with 50 gms/day mineral mixture supplementation (Reco.) T3:-Cow fed with 50 gms/day chelated & area specific mineral mixture supplementation (Intervention)	NDRI, ernel, Hariyana	T1:- Nil T2:- Mineral Mixture T3:- Chelated and Area specific	1 kg  1kg	180  200	5  5	900  1000	1.Milk yield 2.Postpartum estrus 3.No. of insemination for conception	Dr. M. M. Tajpar a

10	Cotton	low yield of cotton due to Imbalance fertilization in cotton	Low yield of cotton	Farmer's practices	-	-	-	-	-	-	-	Dr. J. H. Chaudhry
				<p>Recommended dose of fertilizer 240 – 50 – 150 + 50 ZnSO<sub>4</sub> and three spray of KNO<sub>3</sub></p> <p>(1) 240 Kg N in four equal split first as a basal second, third and fourth at 30, 60 and 90 days after sowing.</p> <p>(ii) 50 Kg P<sub>2</sub>O<sub>5</sub> as basal dose.</p> <p>(iii) 150 Kg K<sub>2</sub>O as basal or in two equal split.</p> <p>(iv) Three spraying of KNO<sub>3</sub> at 15 days interval starting from flowering.</p>	GAU	Fertilizers	-	-	-	-	-	
				T <sub>2</sub> + 25 Kg/ ha MgSO <sub>4</sub> + 500 kg /ha Castor cake. (Intervention)	-	-	-	-	-	-	-	

## B. Extension Activities:

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	5	75	45	120	7		7	82	45	127
KisanMela	3	30000	10000	40000	45	5	50	30045	10005	40050
KisanGhoshi	15	300	65	365	7		7	307	65	372
Exhibition	3	2100	250	2350	15	2	17	2115	252	2367
Film Show	12	289	78	367	15	3	18	304	81	385
Farmers Seminar	2	400	50	450	3		3	403	50	453
Workshop	1	35	5	40			0	35	5	40
Group meetings	10	230	20	250			0	230	20	250
Lectures delivered as resource persons	25	1050	350	1400	25	5	30	1075	355	1430
Newspaper coverage	5			0			0	0	0	0
Radio talks	5			0			0	0	0	0
TV talks	5			0			0	0	0	0
Popular articles	8			0			0	0	0	0
Extension Literature	10			0			0	0	0	0
Advisory Services	8			0			0	0	0	0
Scientific visit to farmers field	22	220	20	240	10		10	230	20	250
Farmers visit to KVK	150	6000	500	6500	20	10	30	6020	510	6530
Diagnostic visits	5	75		75	5		5	80	0	80
Exposure visits	3	75	75	150	3	2	5	78	77	155
Ex-trainees Sammelan	1	150	25	175			0	150	25	175
Soil health Camp	2	250	50	300	4		4	254	50	304
Animal Health Camp	3	1500		1500	5		5	1505	0	1505
Soil test campaigns	480						0	0	0	0
Self Help Group Conveners meetings	2		60	60		3	3	0	63	63

Mahila Mandals Conveners meetings	2		90			2				
				90			2	0	92	92
Celebration of important days	5	780	234		5		5	785	234	1019
				1014						
Krishi Mohostva	1			0			0	0	0	0
Krishi Rath	1			0			0	0	0	0
Pre Kharif workshop	1	75			5		5	80	0	80
				75						
Pre Rabi workshop	1	75			5		5	80	0	80
				75						
Any Other (Specify)	3	245	25		3		3	248	25	273
				270						
<b>Total</b>	<b>1019</b>	<b>43924</b>	<b>11942</b>	<b>55866</b>	<b>182</b>	<b>32</b>	<b>214</b>	<b>44106</b>	<b>11974</b>	<b>56080</b>