

## Chapter-V

## Extension Education











### 5.1 Directorate of Extension Education

The Directorate of Extension Education was established according to the Chapter-3 Part-IX vide Section 14.1(3) of the Gujarat Agricultural Universities Act-2004, for dissemination of the research findings and technical information through extension education programmes. The main function of the Directorate is to plan, coordinate, organize and guide the extension education programmes in the University and to ensure efficient working of the extension activities in close coordination with other development departments and state voluntary organizations, other officers and scientists of the

University. Dr. R.L. Savaliya supervised and guided the extension education activities during the reporting year.

### 5.2 Extension Education Council

The Extension Education Council was constituted according to the provision of the Gujarat Agricultural Universities Act-2004 in exercise of the power vested under Section 62(1) in pursuance of Section 17(5). During The year 2009-10, Extension Education Council meeting was organized on Dt. 18.06.2009. The list of members attended the meeting of Extension Education Council during 2009-10 were as under:

No.	Name	Designation
1	Dr. N.C. Patel	Vice Chancellor (Chairman)
2	Dr. R.L. Savaliya	Director of Extension Education (Secretary)
3	Dr. H.J. Vyas	Director of Research & Dean PG Studies
4	Dr. A.M. Parakhia	Associate Director of Extension Education
5	Dr. P.G. Butani	Principal & Dean, Agriculture Faculty
6	Prof. A.H. Memon	Principal & Dean, Agril. Engg. & Tech. Faculty
7	Dr. A.Y. Desai	Principal & Dean, Fisheries Science Faculty
8	Dr. P.U. Gajbhiye	Principal & Dean, Veterinary Faculty
9	Dr. D.B. Kuchhadiya	Principal, PGIABM
10	Dr. M.N. Popat	Professor & Head, Agril. Ext. Edu.
11	Dr. M.N. Kapadia	Professor & Head, Agril. Entomology
12	Dr. A.H. Raval	Professor & Head, Agril. Engg. Ext. Edu.
13	Dr. B.R. Karkar	Asstt. Ext. Edu., SSK
14	Dr. L.B. Ranaparia	Principal, Polytechnic in Horticulture
15	Prof. B.A. Kunadia	Research Scientist (Groundnut)
16	Dr. M.D. Khanapara	Research Scientist (Cotton)
17	Dr. P.H. Vatalia	Research Scientist (AGB)
18	Dr. H.D. Rank	Research Scientist (Agril. Engg.)
19	Dr. S.M. Upadhyay	Professor & Head, Agril. Statistics
20	Prof. D.M. Vyas	Principal, Polytechnic in Agro-Processing
21	Dr. B.B. Kunjadia	Training Organizer, KVK, Amreli

## Junagadh Agricultural University



### 5.3 Extension Education and Training Centres

Sr. No.	Type	Location
I.	<b>Diploma Certificate Courses</b>	
1.	Agriculture Diploma School	Halvad, Dhari
2.	Horticulture Diploma School	Junagadh
3.	Livestock Inspector Training Centre	Junagadh
4.	School of Baking	Junagadh
5.	Mali Training Centre	Junagadh
II	<b>Training Programmes for Extension Workers</b>	
1.	Training & Visit System Training Centre	Junagadh
2.	Centre of Excellence for Training (Oilseeds)	Junagadh
III.	<b>Training Programmes for Farmers/Farm Women</b>	
1.	<i>Krishi Vigyan Kendra</i>	Jamnagar, Targhadia, Amreli, Khapat, Nana Kandhasar
2.	<i>Sardar Smrutli Kendra</i>	Junagadh
IV.	<b>Extension Education Programmes for Rural People</b>	
1.	Farmer Advisory Service Centre	Junagadh
2.	Extension Programme for Fisheries	Okha

### 5.4 Extension Education and Training Programmes

#### (i) Diploma/Certificate Courses for Farm Youths

The Junagadh Agricultural University continued various Diploma/ Certificate courses during the year under report as per the details given below.

Sr. No.	Name of Course	Duration	Location	No. of Students Completed the Course
1)	Horticulture Diploma	2 years	Junagadh	27
2)	Agriculture Diploma	2 years	Halvad, Dhari	54
3)	Livestock Inspector Training	1 year	Junagadh	33
4)	Bakery Training			
	Basic Course in Baking	20 weeks	Junagadh	15 (2 Batches)
	Science			
	Special Training to Women	1 week	Junagadh	99 (5 Batches)
5)	Mali Training	6 months	Junagadh	10 (1 Batch)
	Total			238

All these courses are aiming to impart skill oriented practical training to farmers' son/daughter in order to provide an

opportunity for self-employment and employment in different organizations.



## Junagadh Agricultural University

### (II) Training Programmes for Extension Workers

#### (A) Training & Visit System

Junagadh Agricultural University has taken-up the task of training the extension personnel of the Department of Agriculture and Horticulture through T & V System.

The details about number of bimonthly workshops, pre-seasonal training workshops and short-term training programmes organized for the extension personnel of the Department of Agriculture and the number of SMSs/AEOs who attended the programmes is as under.

Sr. No.	Type of programme	Programmes	No of Participants
1.	Bimonthly Workshop	3	75
2.	Pre-seasonal Training Programme	2	71
3.	Short Duration Course	4	92
<b>Total</b>		<b>9</b>	<b>238</b>

#### (B) Other Training Programmes

The centre has continued to provide better training to the extension personnel to improve their technical competency and

technical personnel of KVKs. The details about numbers of the attended the programmes are as under.

#### National Level Training Model Training Course

Sr. No.	Name of the Course	Period	Sponsored Authority	No. of Participants
1.	Technology for Achieving Higher Productivity of Groundnut Crop	Sept. 9-16, 2009	Govt. of India, Ministry of Agriculture, Department of Agriculture & Cooperation Extension division	17
2.	Bio-control an Eco-friendly Method of Plant Protection	Jan. 18-25, 2010		22
<b>Total</b>				<b>39</b>

#### State Level Training

Sr. No.	Name of the Course	Period	Sponsored Authority	No. of Participants
1.	Horticulture Extension Management Horticulture Extension	Oct. 27-31, 2009	National Institute of Agricultural Extension Management (MANAGE), Hyderabad	35
2.	Management	March 8-12, 2010		34
Total				69



### (III) Training / Extension Education Programmes for Farmers / Farm Women

#### (A) Training Programmes

Training is essential to increase the efficiency of farmers, farm women, rural youths *etc.* On-campus as well as off-campus training programmes were organized based

on the need and interest of the farming community.

Through the Transfer of Technology (TOT) Centres, 180 on-campus and 267 off-campus training programmes were organized, wherein 17397 participants received training. The details are depicted in Table 5.1.

**Table 5.1: Training programmes organized by the Transfer of Technology Centres for farmers/farm women during the year 2009-10**

Sr. No.	TOT Centre		No. of Trg Prog.	No. of Participants				Total
				Male	Female	Rural Youth	Other	
(i)	KVK, Jamnagar	A	32	495	155	86	43	779
		B	48	833	346	153	77	1409
(ii)	KVK, Targhadia	A	38	555	378	105	13	1051
		B	39	823	307	116	29	1275
(iii)	KVK, Amreli	A	39	1049	163	-	-	1212
		B	72	6287	687	-	190	7164
(iv)	KVK, Khapat	A	38	708	177	50	76	1011
		B	53	1113	361	30	-	1504
(v)	KVK, Nana Kandhasar	A	33	390	195	110	-	695
		B	55	1022	187	88	-	1297
	Total	A	180	3197	1068	351	132	4748
		B	267	10078	1888	387	296	12649
	Grand Total		447	13275	2956	738	428	17397
A= On-campus      B=Off-campus								

#### (B) Extension Activities

The TOT centres also planned and organized extension activities like seminar /workshop/symposium, field/farmer's day, agriculture fair/exhibition, film/slide/video show, field visit, cattle camp, farmers' group /demonstration meeting *etc.* by which total

33230 beneficiaries benefited. The details of the extension activities organized and number of participants are given in Table 5.2.

KVKs play an important role to provide an opportunity for income generation to the farmers by imparting skill oriented trainings. Besides, the KVKs conduct variety of extension activities, on farm testing *etc.*



The KVKs are also collecting feedback on farmers' problems, which are sent to the concerned scientists as these feedbacks provide guideline in reforming further research.

### (C) Frontline Demonstrations

The frontline demonstration aims to demonstrate the production potentialities of newly released and pre-released production technologies of crops on farmer's fields.

**Table 5.2: Extension activities carried out by TOT centres during 2009-10**

Sr. No.	Name of Activity	KVK					Total
		Jamnagar	Targhadia	Amreli	Khapat	Nana Kandhesar	
1 )	Farmers'/	19	7	1	11	4	42
	Field Day	(648)	(317)	(10)	(250)	(1048)	(2273)
2 )	Agril. Fair/	5	1	-	5	-	11
	Exhibition	(2400)	-	-	(836)	-	(3236)
3 )	<i>Khedut Shibir/</i>	38	30	-	9	10	87
	Group Discussion	(1276)	(2068)	-	(239)	(271)	(3854)
4 )	Agril. Tour/	-	21	186	307	18	532
	Field Visit	-	(186)	(226)	(307)	(84)	(803)
5 )	Seminar/Workshop/	15	3	6	14	9	47
	<i>Kisan Goshli</i>	(1835)	(350)	(125)	(213)	(153)	(2676)
6 )	Cattle camp	-	8	-	-	-	8
		-	(443)	-	-	-	(443)
7 )	Film/Slide/Video	-	20	-	5	1	26
	Show/ Radio	-	(806)	-	(108)	(37)	(915)
	Talk / TV Prog. etc.						
8 )	Guidance through	-	-	-	-	-	-
	Letters/Personal	(2347)	(98)	(80)	(520)	(92)	(3128)
	Contact						
9 )	Publication and	13	-	1	11	-	25
	Distribution of	(8848)	-	(200)	(2515)	-	(11363)
	Farm Literature						
10)	Press Notes	-	-	-	-	-	-
	Released	(5)	(14)	(3)	(2)	-	(24)



Sr. No.	Name of Activity	KVK					Total
		Jamnagar	Targhadia	Amreli	Khapat	Nana Kandhesar	
11)	Demonstrations	-	16	-	4	-	20
		-	-	-	(111)	-	(111)
12)	Krushi-Go-Vidya	-	-	-	-	-	-
	Subscriber	-	-	-	(23)	-	(23)
	Registered	-					
13)	Escorting the Visitors	33	1028	28	821	29	1939
		(33)	(2567)	(28)	(821)	(539)	(3988)
14)	On farmer Trial	-	21	6	-	-	27
		-	(186)	(6)	-	-	(192)
Total							2764 (33230)

Figures in parentheses indicate no. of beneficiaries/copies

In all, 636 FLDs were conducted on various crops viz., castor, mustard, groundnut, sesamum, cotton, gram, wheat, pearl millet

and cumin in 300.7 ha during *kharif* and *rabi* seasons through KVKs. The results are appended in Table 5.3.

**Table 5.3: Performance of frontline demonstrations organized during 2009-10**

Sr. No.	Center	Crop	Variety/ Treatment	No. of FLDs	Area (ha)	Av. yield (q/ha)		Increase in yield (%)
						Demo.	Local check	
1)	KVK, Targhadia	<b>Kharif</b>						
		Groundnut	TG-38	20	8.00	3.80	3.70	2.70
		Groundnut	CG-10	10	4.00	2.84	2.70	5.19
		Green gram	GM-4	10	4.00	4.88	4.50	8.44
		Black gram	GU-1	10	4.00	4.20	4.00	5.00
		Sesamum	GT-2	5	2.00	3.50	3.05	14.75
		Cotton	Bt. Cotton	75	23.00	27.6	25.30	9.09
		Groundnut	CG-20	12	4.80	3.70	3.50	5.71
		<b>Rabi</b>						
		Gram	CG-1	12	4.80	20.10	16.80	19.64





Sr. No.	Center	Crop	Variety/ Treatment	No. of FLDs	Area (ha)	Av. yield (q/ha)		Increase in yield(%)
						Demo.	Local check	
2)	KVK, Jamnagar	<i>Kharif</i>						
		Cumin	GC-4	12	4.80	7.00	6.30	11.11
		Wheat	GW-366	12	4.80	46.3	40.50	14.32
		<i>Kharif</i>						
		Groundnut	GG-5	20	10.00	15.00	12.5	20.00
		Cotton	Bt. Cotton	10	5.00	20.62	18.75	9.97
		Castor	GCH-4	10	5.00	38.75	35.20	10.09
		Groundnut	GG-20	10	5.00	14.37	13.12	9.53
		Greengram	GG-4	10	5.00	7.18	6.50	10.46
		<i>Rabi</i>						
3)	KVK, Amreli	Chickpea	GM-3	10	5.00	16.87	15.00	12.47
		<i>Kharif</i>						
		Groundnut	Pesticides	5	5.00	6.12	5.72	6.99
		Sesame	Fertilizer	5	5.00	4.50	4.32	4.17
		Cotton	NPV	10	5.00	11.25	10.12	11.17
		Cotton	IPM	50	20.00	12.20	10.50	16.19
		Groundnut	Trichoderma	5	5.00	6.21	5.78	7.44
		Bajra	GHB-588	4	2.00	21.26	18.83	12.90
		<i>Rabi</i>						
		Wheat	GW-496	10	10.00	44.72	39.20	14.08
4)	KVK, Khapat	Cumin	GC-4	5	5.00	4.92	4.45	10.56
		Gram	GG-3	5	10.00	23.55	21.50	9.53
		<i>Kharif</i>						
		Groundnut	GG-20	20	10.00	14.81	13.25	11.17
		Pigeon pea	BDN-2	10	5.00	16.50	14.86	11.04
		Cotton	Bt. Cotton	25	10.00	27.35	23.91	14.39
		Cotton	Deshi Cotton	25	10.00	11.1	9.91	12.92



Sr. No.	Center	Crop	Variety/ Treatment	No. of FLDs	Area (ha)	Av. yield (q/ha)		Increase in yield (%)
						Demo.	Local check	
5)		<i>Rabi</i>						
		Wheat	GW-366	10	5.00	37.44	30.30	23.56
		Gram	GG-3	15	7.50	12.25	15.32	-20.04
		Cumin	GC-4	10	5.00	9.09	7.45	22.07
	KVK, Nana Kandhasar	<i>Kharif</i>						
		Groundnut	GG-20	20	10.00	13.45	11.50	16.96
		Sesam	GT-2	10	5.00	6.40	5.60	14.29
		Green gram	GG-4	10	5.00	8.70	7.40	17.57
		Moth bean	GM-2	10	5.00	7.90	6.60	19.70
		Cotton	Bt	50	20.00	23.78	20.14	18.07
		Bio-agent	<i>Trichoderma</i>	4	2.00	14.63	12.80	14.30
		<i>Rabi</i>						
		Mustard	GM-3	20	10.00	21.25	18.40	15.49
		Gram	Gram-3	20	10.00	19.4	16.75	15.82
		Cumin	GC-4	10	5.00	7.80	6.55	19.08
		Wheat	GW-366	20	10.00	39.70	35.10	13.11
Total				636	300.70			

### (D) Farm Advisory Service Scheme / SSK, Junagadh

The Farm Advisory Service Scheme has been continued at SSK, Junagadh with a view to provide guidance and the latest information to the farmers on scientific farming. The farmers were advised regarding their farm

problems through correspondence and field visit. This centre acted as a link among research scientists, extension workers and farmers. During the year under report, various extension activities carried out by the centre are given below.





Sr. No.	Name of activity	No. of activities	No. of Participants
1.	Agril. Fair	6	3155300
2.	Agril. Exhibitions (participation)	18	19921
3.	Khedut/Mahila Shibir/Group Meeting/Crop Seminar	50	44025
4.	Spot Guidance/Guidance through Letters	288	-
5.	Agril. Literature Exhibition	42	20630
Total		404	3240096

### (E) Extension Activities under Centre of Communication (COC) Scheme

#### Objectives of COC Scheme

- To establish the *Gram Kisan Samities* (GKS) in the rural areas.
- To train the members of *Gram Kisan Samities* in leadership communication and cooperation for transfer of technologies.
- To disseminate the latest agricultural and allied technologies through *Gram Kisan Samities* in rural areas.
- To carry out extension activities through GKS in different villages.
- To know the feedbacks from the farmers.

#### Formulation of *Gram Kisan Samities* during the year 2009-10

Sr. No.	District	Taluka	No. of GKS
1	Rajkot	Gondal	7
2	Rajkot	Jasdan	4
3	Rajkot	Jetpur	2
4	Rajkot	Kotda Sangani	1
5	Rajkot	Jam Kanderana	4
6	Rajkot	Dhoraji	1
7	Amreli	Kunkavav	5
8	Amreli	Bagasara	3
9	Amreli	Dhari	2
10	Amreli	Lathi	2
11	Amreli	Amreli	7
12	Amreli	Babara	2
13	Junagadh	Bhesan	2
14	Junagadh	Kodinar	1
15	Porbandar	Porbandar	1
16	Bhavnagar	Gariyadhar	4
17	Surendranagar	Halvad	2
18	Jammagar	Kalavad	1
Total			51

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### Khedut Shibirs organized during the year 2009-10 under COC scheme

Sr. No.	Name of the Taluka	No. of Shibirs	No. of Participants	Subject covered
1	Gondal (Rajkot)	6	870	Agriculture, horticulture, animal husbandry and efficient use of water through adoption of drip, sprinkler or micro irrigation systems.
2	Jasdan (Rajkot)	3	230	
3	Jetpur (Rajkot)	1	69	
4	Jam Kanderana (Rajkot)	3	255	
5	Dhoraji (Rajkot)	1	90	
6	Kunkavav (Amreli)	4	280	
7	Bagasara (Amreli)	2	210	
8	Amreli (Amreli)	3	2260	
9	Savar Kundla (Amreli)	1	90	
10	Junagadh (Junagadh)	2	310	
11	Bhesan (Junagadh)	2	285	
12	Talala (Junagadh)	1	90	
13	Kodinar (Junagadh)	1	145	
14	Una (Junagadh)	1	101	
15	Gariyadhhar (Bhavnagar)	5	354	
<b>Total</b>		<b>36</b>	<b>5639</b>	

### Bakery Trainings organized during the year 2009-10 under COC scheme

Sr. No.	Name of the Taluka	No. of Shibirs	No. of Participants	Subject covered
1	Gondal (Rajkot)	1	80	Making bakery items at home.
2	Dhoraji (Rajkot)	1	35	
3	Junagadh (Junagadh)	1	60	
4	Talala (Junagadh)	1	60	
5	Una (Junagadh)	1	35	
6	Kodinar (Junagadh)	1	48	
7	Kunkavav (Amreli)	1	60	
8	Savar Kundla (Amreli)	1	75	
<b>Total</b>		<b>8</b>	<b>453</b>	





- (F) **Extension Activities carried out by various Extension Education Centres during the year are as under :**
- Extension activities carried out by

Sr. No.	Name of Activity	LITC, Junagadh	School of Baking Junagadh	Fisheries res. Station, Okha	Total
1	Diagnostic and Treatment Services through Mobile Ambulatory Clinic	(4646)	-	-	(4646)
2	Farmers/ Animal Owners Visit	-	-	-	19
3	Farmers' Meeting/ Shibir/ Seminar, etc.	19 (1500)	-	-	(1500)
4	Guidance on Farm				
5	Guidance through Letters	(267)	-	(83)	(350)
6	Literature Published	18	-	-	18
7	Literature Distribution	(4592)	-	(67)	(4659)
8	On Campus Training:				
a	B.V.Sc. Internship	1(53)	-	-	1(53)
b	BRS Internship (1 month)	6 (19)	-	-	6 (19)
c	LITC-II Representatives	10 (98)	-	-	10 (98)
9	One Day Camp		9 (431)	-	9 (431)
10	TV Programmes	13	-	-	13
11	Radio Talk	1	-	1	2
12	Guidance to Visitors	20 (1266)	49 (2207)	28	97 (3473)
<b>Total</b>		<b>90 (12441)</b>	<b>58 (2638)</b>	<b>29 (150)</b>	<b>177 (15229)</b>

Figures in parentheses indicate no. of beneficiaries.

### 5.5 Radio Talks and TV Programmes

The scientists of the University delivered radio talks from time to time on various agricultural and allied subjects from All India Radio, Rajkot. Moreover, the agricultural messages were also broadcasted

from All India Radio, Rajkot. During the year under report, nearly six such talks were delivered on different topics related to agriculture, horticulture, agricultural engineering, fisheries, animal husbandry, etc.



In all, 15 television programmes covering various aspects of agriculture, animal husbandry, agricultural engineering, horticulture, fisheries, home science, etc. were telecasted through *Doordarshan Kendra*, Rajkot in “*Gram Jagat*” programme for the benefit of farming community.

### 5.6 Publication of Extension Education Literature

During the year report, total 30 publications (24 folders and 6 books) were published by following departments.

Sr. No.	Name of Office	Type of Publication		Total
		Folder	Books	
1	Directorate of Ext. Edu., JAU, Junagadh	10	-	10
2	<i>Sardar Smriti Kendra</i> , JAU, Junagadh	2	2	4
3	Cattle Breeding Farm JAU, Junagadh	1	-	1
4	Vegetable Research Station, JAU, Junagadh	3	-	3
5	<i>Krishi Vigyan Kendra</i> , JAU, Targhadia	7	-	7
6	Farm Power and Machinery Dept., College of Agril. Engg., JAU, Junagadh	1	2	3
7	<i>Krishi Vigyan Kendra</i> , JAU, Khapat	-	1	1
8	Cotton Research Station, JAU, Junagadh	-	1	1
Total		24	6	30

University News Bulletin named as “JAU News Letter” is being published regularly by Directorate of Extension Education.

### 5.7 Agriculture Fair/ Exhibition

During the year under report, 11 agricultural literature exhibitions were availed for farmers and extension workers. Total 3236 farmers and farm women

participated in agricultural literature exhibition.

### 5.8 Coordination of Extension Activities with Department of Agriculture, Horticulture, Animal Husbandry and Other Line Departments

Junagadh Agricultural University planned and organized various extension





education programmes/activities in coordination with different line departments of the state. The structural linkages exist under T & V system by constituting the technical committee at district, zonal and state level. The agricultural programmes of All India Radio as well as Doordarshan were finalized by such coordinated efforts. In ZREAC and AGRESO, the officers of other departments are the members and they contribute in formulation of technical programmes as well as in finalizing the recommendations for the farmers. The functional linkages also exist under T & V system through bi-monthly workshops, pre-seasonal workshops, fortnightly training, diagnostic team, state level crop seminars/workshops, etc. The coordination exists in follow-up programmes as well as in planning of farm trials. For transfer of technologies to the farmers, the

farmer's day, *krushi mela*, group discussion, film show, etc. were organized through collaborative efforts.

### 5.9 Orientation Training Programme

During the year under report, 20 scientists/teachers of the University were deputed for orientation training outside the Gujarat state to upgrade knowledge and skill for improving their faculty competence in respective disciplines.

### 5.10 *Krushi Mahotsav-2009*

Government of Gujarat celebrating *Krushi Mahotsav* since 2005-06. In the *Krushi Mahotsav-2009*, Junagadh Agricultural University spared services of about 700 scientists/technical staff to advise the farming community about the latest agricultural recommendations. *Krushi Mahotsav-2009* was celebrated in different ways like *Shibir*, *Parisanvad* and Mega Agricultural fair.

### *Shibir, Parisanvad, Group Discussion*

Sr. No.	Contain	No. of <i>Shibirs/Parisanvad</i>	No. of Beneficiaries
1	<i>Shibir</i>	73	52226
2	<i>Parisanvad</i>	11	3842
3	Mega Agril. Fair	1 (Three days)	184098



