





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 organi-

zations, other officers and scientists of the university. Dr. A.M. Parakhia 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 2010-11, Extension Education Council meeting was organized on 10.08.2010. The members of Extension Education Council during 2010-11 were as under.

No.	Name	Designation
1	Dr. N.C. Patel	Vice Chancellor (Chairman)
2	Dr. H.J. Vyas Dr. C.J. Dangaria	Director of Research & Dean PG Studies
3	Dr. R.L. Savalia Dr. A.M. Parakhia	Director of Extension Education (Secretary)
4	Dr. P.G. Butani Dr. A.V. Barad	Principal & Dean, Agricultural Faculty
5	Prof. A.H. Memon Prof. J.B. Savani	Principal & Dean, Agril. Engg. & Tech. Faculty
6	Dr. A.Y. Desai	Principal & Dean, Fisheries Science Faculty
7	Dr. P.U. Gajbhiye Dr. R.R. Shah	Principal & Dean, Veterinary Science and Animal Husbandary Faculty
8	Dr. D.B. Kuchhadiya Dr. K.A. Khunt	Principal & Dean, Agri-Business Institute
9	Dr. K.L. Dobarra	Research Scientist (Groundnut)
10	Dr. M.D. Khanpara	Research Scientist (Cotton)
11	Dr. P.H. Vatalia Dr. P.U. Gajbhiye	Research Scientist (AGB), CBF
12	Dr. L.B. Ranaparia	Principal, Horticulture Polytechnic
13	Dr. M.N. Popat Dr. P.R. Kanani	Professor & Head, Agril. Ext. Edu.
14	Dr. S.M. Upadhyay	Professor & Head, Agril. Statistics
15	Dr. M.N. Kapadia	Professor & Head, Agril. Entomology
16	Dr. P.N. Sarasavadia	Professor, RERE, CAET
17	Prof. D.M. Vyas	Principal, Agro-Processing Polytechnic
18	Dr. B.B. Kunjadia	Principal, Home Sci., Training Organizer, KVK, Amreli
19	Dr. B.R. Karkar Prof. G.G. Marakana	Asstt. Ext. Edu., SSK
20	Dr. A.V. Barad Dr. R. S. Chovatia	Professor & Head, Horticulture
21	Shri Babubhai Jasoliya	Farmers' Representative, To: Ambala, Ta. Shihor, Dist. Bhavnagar



5.3 Extension Education and Training Centres

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

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.



SAC meeting at Nana Kandhasar



Dr. A.M. Parakhia, IAS, addressing the SAC meeting at Amreli

Sr. No.	Name of Course	Duration	Location	No. of Students Completed the Course
1)	Agriculture Diploma	2 Year	Halvad	30
2)	Livestock Inspector Training	1 Year	Junagadh	33 First Sem, 33 Second Sem.
3)	Bakery Training			
	❖ Basic Course in Baking Science	20 Week	Junagadh	16 (2 Batches)
	❖ Special Training to Women	1 Week	Junagadh	123 (7 Batches)
4)	Mali Training	6 Months	Junagadh	05 (1 Batch)

All these courses are aiming to impart skill oriented practical training to farmer's son / daughter in order to provide an opportunity for self-employment and employment in different organizations.

(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 are given below.

Sr. No.	Type of programme	Programmes	No of Participants
1.	Bimonthly Workshop	2	94
2.	Pre-seasonal Training Programme	4	156
	Total	6	250



Dr. N.C. Patel Hon'ble VC addressing the officers T & V Scheme



Pre-seasonal Training under T & V Scheme

(B) Other Training Programmes

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

Khedut Shibir

technical competency. The details about numbers of the attended the programmes are given below.

Sr. No.	Subject	No. of Activities	No. of Scientists allotted (Approx.)	Beneficiaries
1.	<i>Khedut Shibir</i>	63	3	55845
2.	Demonstration (Diagnostic Team)	10	3	10

Other trainings

Sr. No.	Name of Training	No. of Trainings	No. of Trainees
1.	Language skill and Technical Writing	3	114
2.	Seed production technology	6	297

Table 5.1: Training programmes organized by the Transfer of Technology Centres for farmers/farm women during the year 2010-11

Sr. No.	TOT Centre	No. of Trg Prog.	No. of Participants				Total	
			Male	Female	Rural Youth	Other		
1.	KVK, Jamnagar	A	18	607	71	-	03	681
		B	57	1659	407	-	-	2066
2.	KVK, Targhadia	A	44	776	248	89	100	1213
		B	51	1168	237	54	50	1509
3.	KVK, Amreli	A	55	985	534	-	-	1519
		B	89	3030	265	-	-	3295
4.	KVK, Khapat	A	37	618	166	57	14	855
		B	63	1317	309	43	21	1690
5.	KVK, Nanakandhasar	A	37	589	83	27	-	699
		B	44	573	157	35	-	765
Sub Total		A	191	3575	1102	173	117	4967
		B	304	7747	1375	132	71	9325
Grand Total			495	11322	2477	305	188	14292

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 153936 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 guidance for income generation to the farmers by imparting skill oriented trainings. Besides, the KVKs conducted variety of extension activities, on farm testing, etc.



Dr. N.C.Patel Hon'ble VC at the SAC meeting at Rajkot

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

Table 5.2: Extension activities carried out by TOT centres during 2010-11

Sr. No.	Name of Activity	KVK					Total
		Jamnagar	Targhadia	Amreli	Khapat	Nana Kandhesar	
1	Krushhi Mela	-	2 (100000)	-	1 (466)	12 (4230)	15 (104693)
2	Field day	5 (156)	4 (154)	-	14 (245)	32 (509)	55 (1064)



Table 5.2: Extension activities carried out by TOT centres during 2010-11

Sr. No.	Name of Activity	KVK					Total
		Jamnagar	Targhadia	Amreli	Khapat	Nana Kandhesar	
3	Guidance on farm	72 (420)	16 (2068)	85 (405)	237 (414)	18 (84)	428 (1527)
4	Guidance to visitors	167 (167)	276 (2370)	44 (96)	806 (806)	462 (1282)	1755 (4721)
5	Press note	2	9	3	2	-	16
6	<i>Khedut shibir</i> / Night shibir/ Group discussion	2 (88)	27 (2348)	7 (190)	7 (235)	10 (271)	53 (3132)
7	Guidance through Telephone	- (765)	- (1682)	- (631)	- (981)	- (97)	- (4156)
8	Guidance through Letter	-	3	-	-	-	3
9	Demonstrations	-	92 (2102)	13 (75)	-	-	105 (2177)
10	<i>Krushgi gosthi</i> / Seminar	12 (244)	8 (710)	18 (144)	12 (200)	6 (404)	56 (1702)
11	<i>Khedut</i> meeting	12 (310)	2 (31)	-	15 (289)	7 (724)	36 (1354)
12	T.V. Programme	-	7	5	-	2	14
13	Radio talk	2	12	-	3	2	19
14	Popular articles	1	4	-	8	-	13
15	Video show/ Film show	8 (300)	43 (646)	-	7 (255)	12 (438)	70 (1639)
16	Cattle camp	-	9 (1537)	-	-	4 (50)	13 (1587)
17	Extension prog./ Training	5 (88)	7	-	-	-	12 (88)
18	Literature distribution	20 (2101)	- (6209)	10 (3500)	14 (4128)	-	44 (15938)
19	Literature published	-	11	20	3	-	34
20	Lectures	11 (1023)	-	34 (800)	-	407 (3292)	452 (5115)
21	Field diagnostic	-	-	57 (133)	-	-	57 (133)



Sr. No.	Name of Activity	KVK					Total
		Jamnagar	Targhadia	Amreli	Khapat	Nana Kandhesar	
22	Scientist's farm visit	14 (84)	-	-	-	25 (97)	39 (181)
23	Vocational training	3 (50)	-	-	5 (97)	3 (74)	11 (221)
24	Crop demonstration	-	11 (182)	-	-	-	11 (182)
25	Sponsored training	16 (694)	-	-	13 (697)	4 (329)	33 (1720)
26	Collaboration training	6 (152)	-	-	-	1 (60)	7 (212)
27	<i>Krushi-Go-Vidya</i> subscriber Registered	(5)	(29)	-	(40)	-	(74)
28	Diagnostic team	74 (172)	16 (316)	107 (155)	202 (298)	15 (284)	414 (1225)
29	Graduate student	-	2 (35)	-	-	-	2 (35)
30	Celebration of technology week	-	1 (349)	1 (317)	-	1 (250)	3 (916)
31	Child day	-	-	-	-	1 (45)	1 (45)
Total							3672 (153936)

Figures in parentheses indicate no. of beneficiaries/copies

(C) Frontline Demonstrations

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

In all, 624 FLDs were conducted on various oilseeds and pulses *viz.*, castor, mustard, groundnut, sesamum, cotton, gram, wheat, pearl millet and cumin in 270.9 ha during *kharif* and *rabi* seasons through KVKs. The results are presented in Table 5.3.

Table 5.3: Performance of frontline demonstrations organized during 2010-11

Sr. No.	Center	Crop	Variety/ Treatment	No. of FLDs	Area (ha)	Av. yield (q/ha)		Increase in yield (%)
						Demo.	Local check	
1.	KVK, Targhadia	Groundnut	GG-5	20	8.0	11.57	10.76	7.52
		Sesamum	GT-3	10	4.0	4.03	3.82	5.49
		Green gram	GM-4	9	3.6	5.45	4.20	5.60



Table 5.3: Performance of frontline demonstrations organized during 2010-11

Sr. No.	Center	Crop	Variety/ Treatment	No. of FLDs	Area (ha)	Av. yield (q/ha)		Increase in yield (%)
						Demo.	Local check	
		Black gram	GU-1	5	2.0	8.12	7.59	6.98
		Soybean	JS-335	5	2.0	8.76	8.26	6.05
		Groundnut	GG-20	20	8.0	16.70	15.80	5.69
		Cotton	Bt.	50	20.0	32.60	31.25	4.32
		Wheat	GW-366	12	4.8	45.31	42.10	7.58
		Cumin	GC-4	15	6.0	8.25	6.70	7.28
		Animal Husbandry		10				
2.	KVK, Jamnagar	Groundnut	<i>Trichoderma</i>	5	2.0	18.12	15.00	17.24
		Groundnut	GG-20	5	2.0	17.81	16.25	8.77
		Chickpea	GG-3	15	8.0	16.25	13.12	19.23
		Green Gram	GM-4	10	5.0	7.18	6.50	9.56
		Wheat	GW-366	40	20.0	53.75	45.00	16.27
		Cumin	GC-4	10	4.0	10.44	8.75	16.16
		Pearl millet	GHB-744	20	8.0	30.62	26.25	14.28
3.	KVK, Amreli	Groundnut	TG-37	20	8.0	22.02	18.53	18.90
		Soybean	JS-335	10	4.0	17.70	16.20	9.12
		Groundnut	TG-37	10	4.0	22.30	19.25	15.72
		Groundnut	<i>Trichoderma</i>	10	4.0	7.23	6.50	11.23
		Sesame	GT-3	10	4.0	10.90	9.95	9.15
		Cotton	INM	25	10.0	27.68	24.16	14.57
		Ajwain	GA-1	10	5.0	11.55	10.15	13.77
		Gram	GG-3	20	10.0	23.55	21.50	9.53
		Cumin	GC-4	10	5.0	4.92	4.45	10.56
		Wheat	GW-366	25	10.0	44.72	39.20	14.08
		Sesame	GT-3	10	5.0	8.04	7.23	11.12
		Bajra	GHB-744	3	3.0	33.00	30.00	10.00
		4.	KVK, Khapat	Wheat	GW-366	10	5.0	37.44
Cumin	GC-4			10	5.0	9.09	7.95	14.20
Sesame	GT-3			10	5.0	11.39	9.60	18.70
Gram	GG-3			15	7.5	12.25	10.48	16.90
Cotton	Bt.			25	10.0	29.51	26.14	12.90
5.	KVK, Nana kandhasar	Groundnut	GG-20	10	4.0	19.10	16.80	13.69
		Sesame	Guj. Til-3	10	4.0	6.05	5.35	13.08
		Green Gram	GM-4	10	4.0	9.20	7.90	16.46
		Cotton	Bt.	25	10.0	26.75	22.89	16.86
		Bio-agent	<i>Trichoderma harzianum</i>	5	2.0	18.80	16.70	12.57
		Mustard	GM-3	20	10.0	21.25	18.40	15.50
		Gram	GG-3	20	10.0	19.20	16.75	14.63
		Cumin	GC-4	20	5.0	7.80	6.55	19.08
		Wheat	GW-366	20	10.0	39.70	35.10	13.11
Total				624	270.90			



(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	3	1069000
2	Agril. Exhibitions (participation)	9	485
3	Khedut/Mahila Shibir/Group Meeting/Crop Seminar	4	4660
4	Spot Guidance/Guidance through Letters	183	774
5	Agril. Literature Exhibition	9	493
Total		208	1075412

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

Objectives of COC Scheme

- To establish the *Gram Kisan Samittees* (GKS) in the rural areas.
- To train the members of *Gram Kisan Samittees* in leadership, communication and cooperation for transfer of technologies.

- To disseminate the latest agricultural and allied technologies through *Gram Kisan Samittees* in rural areas.
- To carry out different extension activities through GKS in different villages.
- To know the feedbacks from the farmers.

Formulation of *Gram Kisan Samittees* during the year 2010-11

Sr. No.	District	Taluka	No. of GKS
1	Rajkot	Upleta	1
2	Rajkot	Jetpur	1
3	Amreli	Amreli	2
4	Junagadh	Malia Hatina	1
5	Junagadh	Bhesan	4
6	Junagadh	Mendarada	10
7	Junagadh	Vanthali	1
8	Junagadh	Visavadar	7
9	Junagadh	Junagadh	4
10	Junagadh	Keshod	1
11	Jamnagar	Lalpur	1
Total			33

Three days on campus training programme under Centre of Communication (COC)

Sr. No.	Subject	No. of Training Programme	No. of Beneficiaries
1.	Seed Production technology for farmers/ farm women	04	109



Khedut Shibirs organized during the year 2010-11 under COC scheme

Sr. No.	Name of the Taluka	No. of Shibirs	No. of Participants	Subject covered
1	Upleta (Rajkot)	1	52	Agriculture, Horticulture, Animal Husbandry and Efficient use of water to adoption in drip, sprinkler or micro irrigation systems.
2	Junagadh (Junagadh)	2	110	
3	Keshod (Junagadh)	1	101	
4	Malia Hatina (Junagadh)	1	38	
5	Mendarada (Junagadh)	6	272	
6	Visavadar (Junagadh)	2	137	
7	Vanthali (Junagadh)	1	47	
8	Bhesan (Junagadh)	4	214	
Total		18	971	

Bakery Talim organized during the year 2010-11 under COC scheme

Sr. No.	Name of the Taluka	No. of Shibirs	No. of Participants	Subject covered
1	Junagadh (Junagadh)	1	25	Making Bakery items in home.
2	Mendarada (Junagadh)	2	94	
Total		3	119	

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

Extension activities carried out by

Sr. No.	Name of activity	Sardar Smruti Kendra, Junagadh	Fisheries Res. Station, Okha	LITC, Junagadh	School of Baking, Junagadh	Total
1	Krusha Mela	3 (1069000)	1 (5174)	1 (70000)	-	5 (1144174)
2	Guidance on farm	591	-	-	-	591
3	Guidance to visitors	5581	22 (603)	51 (2015)	31 (1030)	104 (9229)
4	Press note	-	2	-	-	2
5	Khedut shibir/ Night shibir/ Group discussion	4 (4660)	3 (77)	-	-	7 (4737)
6	Guidance through Telephone	183	-	343	-	526
7	Guidance through Letter	17	21	2	-	40
8	Demonstrations	-	14 (93)	-	-	14 (93)



Sr. No.	Name of activity	Sardar Smruti Kendra, Junagadh	Fisheries Res. Station, Okha	LITC, Junagadh	School of Baking, Junagadh	Total
9	Krushgi gosthi/ Seminar	-	2 (12)	-	-	2 (12)
10	T.V. Programme	-	-	9	-	9
11	Radio talk	-	1	-	-	1
12	Video show/ Film show	-	14 (224)	-	-	14 (224)
13	Literatur distribution	-	-	1 (74)	-	1 (74)
14	Literature published	21	-	-	-	21
15	Lectures	-	-	25 (921)	-	25 (921)
16	Krushgi-Go-Vidya subscriber Registered	89	-	-	-	89
17	Bakery Training	-	-	-	10 (613)	10 (613)
18	Agril. Fair	14 (765)	-	-	-	14 (765)
19	Literature Fair	13 (729)	-	-	-	13 (729)
20	Graduate student	-	5 (50)	7 (39)	-	12 (89)

Figures in parentheses indicate no. of beneficiaries/copies

5.4 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 22 such talks were delivered on different topics related to agriculture, horticulture, agricultural engineering, fisheries, animal husbandry, etc.

In all, 29 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 regularly for the benefit of farming community.

5.5 Publication of Extension Education Literature

During the year, total 30 publications (20 folders and 10 books / booklets) were published by different departments.



Sr. No.	Name of Office	Type of Publication		Total
		Folder	Books / Booklets	
1.	Sardar Smruti Kendra, JAU, Junagadh	16	7	23
2.	Vegetable Research Station, JAU, Junagadh	3	2	5
3.	Deptt. of Soil & Water Engg., College of Agril. Engg. & Tech., JAU, Junagadh	1	1	2
	Total	20	10	30

University news bulletin named as "JAU News letter" is being published regularly by Directorate of Extension Education.

5.6 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 AGRESKO, 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 /workshop, 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.

5.7 Orientation Training Programme

During the year under report, 37 scientists/teachers of the university were deputed for orientation training programme out of Gujarat to upgrade knowledge and skill for improving their faculty competence in respective disciplines.

Krushi Mahotsav-2010

Government of Gujarat has started to celebrate *Krushi Mahotsav* from 2005-06. In the *Krushi Mahotsav-2010*, Junagadh Agricultural University has spared services of about 700 scientists/ officers to advise the farming community about the latest Agricultural recommendation. *Khedut shibirs* were organized through APMC in different districts, the details are given below.



Sr. No.	District	Taluka	Date	No. of beneficiaries
1.	Junagadh	Una	20.05.2010	250
		Manavadar	28.05.2010	75
		Keshod	02.06.2010	53
		Visavadar	04.06.2010	375
		Bhesan	11.06.2010	94
		Kodinar	12.06.2010	185
		Talala (Gir)	13.06.2010	85
		Junagadh	13.06.2010	950
		Goladhar (Junagadh)	27.06.2010	506
2.	Rajkot	Gondal	14.06.2010	650
3.	Amreli	Amreli	20.05.2010	115
		Bagasara	01.06.2010	38
4.	Bhavnagar	Shihor	21.05.2010	475
		Botad	05.06.2010	280
		Gadhada	06.06.2010	1150
		Mahuva	13.06.2010	2500
		Palitana	13.06.2010	550



Dr. A.M.Parakhia, DEE, addressing the SAC meeting at Jamnagar



Dr. N.C.Patel Hon'ble VC inaugurating the SAC meeting at Khapat



Dr. N.C.Patel Hon'ble VC inaugurating the training Programme organized by GLDC



Dr. A.M.Parakhia, DEE, welcoming the guest of Training Prog. on Language Skill & Technical Writing



Dr. N.C.Patel Hon'ble VC inaugurating the training Programme on Language Skill & Technical Writing



Dr. A.M.Parakhia, DEB, addressing the Farmers under Seed Village Programme



Dr. N.C.Patel Hon'ble VC inaugurating the Farm Women training under Seed Village Programme.



Dr. N.C.Patel Hon'ble VC inaugurating the Workshop on Human Resource Development



Bakery Training under COC Scheme at Chandrayadi



Farm Women Training under Seed Village Programme at wheat farm