

EXTENSION EDUCATION

5.1 Directorate of Extension Education

The Directorate of Extension Education has been established according to the Chapter-3 Part-IX vide Section 14-1(3) of the Gujarat Agricultural Universities Act-2004, for dissemination of the findings of research 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. D. B. Kuchhadiya was incharge Director of Extension Education. He supervised and guided the extension education activities.

5.2 Extension Education Council

The Extension Education Council has been constituted according to the provision of the Gujarat Agricultural Universities Act-2004 in exercise of the power vested under Sec. No. 62(1) in pursuance of section 17(5).

5.3 Extension Education and Training Programmes

(I) Diploma/Certificate Courses for Farm Youths

The Junagadh Agricultural University has conducted various diploma/ certificate courses during the year under report as per the details given in Table 5.1.

All these courses are aiming to impart skill oriented practical training for farmer's son/daughter in order to provide an opportunity for self-employment and employment in different organizations. There is a provision of monthly stipend in all the courses.

Table 5.1

Sr. No.	Name of Diploma / Certificate Course	Duration	Location of the School/Centre	No. of Students Completed the Course
1)	Agricultural Diploma	2 years	Halvad, Junagadh, Dhari	79
2)	Bakery Training <ul style="list-style-type: none"> • Basic Course in Baking Science • Special Training to Women 	20 weeks 1 week	Junagadh Junagadh	31 (2 Batches) 168 (7 Batches)
3)	Mali Training	6 months	Junagadh	5 (1 Batch)

(II) Training Programmes for Extension Workers

(a) Training and Visit System

The Junagadh Agricultural University has taken up the task of training for the extension personnel of the Department of Agriculture and Horticulture through the Training & Visit 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 number of SMSs/AEOs attended the programmes are as under.

Sr. No.	Type of programme	No.	No. of SMSs attended the programme
1)	Bimonthly workshop	6	87
2)	Pre-seasonal training programme	2	79
3)	Short duration course	5	55
Total		13	221

(b) Centre of Excellence for Training (Oilseeds)

The centre has continued to provide better training to the extension personnel to improve their technical competency in the area of oilseeds production. This centre organizes the national workshop-cum-seminar on oilseeds production technology. The centre also plans the training programmes for the Master trainers and SMSs.

(c) State Level Training Programmes Sponsored by Central Government and Other Agencies

Two state level training programmes of 3 days were organized at respective main crop research station on cotton and sugarcane under the project of Central Sector Scheme, State level training programmes, wherein 55 extension workers participated.

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

(a) Training Programmes

Training is essential to increase the efficiency of the farmers, farm women, rural youths etc. On-campus as well as off-campus training programmes are being organized based on the needs and interests of the farming community.



Through the Transfer of Technology (TOT) centres, 35 on-campus and 38 off-campus training programmes were organized, wherein 2922 participants received training. The details are depicted in Table-5.2

Table 5.2 : Training programmes organized by the Transfer of Technology Centres for farmers/farm women during the year 2004-2005

Sr. No.	TOT Centre	No. of training programmes	No. of participants	Male	Female	Ext. Wor.	Total
1.	KVK						
(i)	Jamnagar	On-campus	5	42	-	81	123
		Off campus	18	555	24	-	579
(ii)	Targhadia	On-campus	5	136	-	-	136
		Off campus	11	623	64	-	687
2.	SSK						
(i)	Junagadh	On-campus	25	698	185	-	883
		Off campus	09	134	380	-	514
		Total	35+38=73	2188	653	81	2922

(b) Extension Activities

The TOT centres have 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 totally 1,12,567 beneficiaries benefitted. The details of the extension activities organized and number of participants are given in Table-5.3.

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 feed back on farmers problems, which are sent to the concerned scientists and these feed back provides guideline in reforming further research.

(c) Frontline Demonstrations

The frontline demon-stration aims to demon-strate the production potentialities of newly released and pre-released varieties and production technologies of pulses and oilseeds on farmer's fields.

In all, 351 FLDs were conducted on various oilseed and pulse crops viz., castor, mustard, groundnut, gram, wheat, pearl millet and cumin in 155.80 ha during *kharif* and *rabi* seasons through KVKs. The results are appended in Table-5.4.

Table 5.4 : Extension education activities serried out by School of Baking, Junagadh

Sr. No.	Name of Activity	No. of Activity	No. of Participants benefited						Total
			Farmers	Farmer women	Youngster	Ext. Workers	Scientist	Other	
1	One Day Camp	6	-	620	-	-	-	-	620
2	Field visit	2	-	-	31	4	-	-	35
3	Guidance/visitors	45	-	1459	-	-	-	-	1459
Total		53	-	2079	31	4	-	-	2114

Table 5.3 : Extension activities carried out by TOT centres during 2004-2005

Sr. No.	Name of activity	TOT Centres Krushi Vigyan Kendra	Sardar Smruti Kendra		Total
		Jamnagar	Targhadia	Junagadh	
1)	Farmers/Field day	6 (172)*	15 (2001)	-	21 (2173)
2)	Agril. Fair/Exhibition	4 (5020)	1(1585)	16 (18835)	21 (25440)
3)	Khedut/Women Shibir/ Meeting/ Group Discussion	11 (1121)	12 (1652)	19 (16795)	42 (19568)
4)	Agril. Tour/Field Visit	4 (56)	-	-	4 (56)
5)	Seminar/Workshop/ Kisan Gosti	15 (190)	21 (3583)	19 (16795)	55 (20568)
6)	Cattle Camp	-	-	-	
7)	Film/Slide/Video Show / Radio Talk/ TV Programme etc.	1+1	10 (1299)	4 (254)	16 (1553)
8)	Guidance through letters/ personal contact	(67)	(499)	(168)	(734)
9)	Publication and distribution of farm literature	4	17	9	30
10)	Press note released	8	22	-	30
11)	Demonstrations	200	39	-	239
12)	Krushi-Go-Vidya subscriber registered	-	-	394	394
13)	Visitors guided	-	-	(3575)	(3575)
				Total	852 (112567)

*Figures in parenthesis indicate no. of beneficiaries/copies.

Table 5.5 : Performance of frontline demonstrations organized during 2004-05

Sr. Centre	Crop	Variety	No. of FLDS	Area (ha)	Av. Yield (Q/ha) Demo	Local	Increase in yield (%)
1) KVK,	Kharif						
Targhadia	Groundnut	GG-7	8	3.2	7.72	6.20	24.50
	Pearl millet	GHB-577	10	4.0	14.10	9.27	34.25
	Rabi						
	Gram	GG-1	4	1.6	9.10	7.45	18.13
	Wheat	GW-322	5	2.0	44.86	35.88	20.02
	Cumin	GC-3	5	-	4.28	3.24	24.30
	Cumin	GC-4	8	-	6.73	3.99	68.34
2) KVK,	Kharif						
Jamnagar	Groundnut	GG -5	50	25.0	11.87	9.92	19.66
	Pearl millet	GHB 577	25	10.0	21.25	17.24	26.15
	Castor	GCH-6	40	20.0	42.00	34.65	21.21
	Til	GT-2	34	17.0	4.78	3.54	35.03
	Rabi						
	Wheat	GW-322	12	5.0	52.08	44.38	17.36
	Cumin	GC-4	12	5.0	7.92	5.42	46.13
	mustard	GM-2	17	8.5	18.60	15.22	22.23
	Chick pea	GG-1	9	4.5	16.80	12.36	35.92
3) Main Oilseed	Kharif						
Res. Station,	Groundnut	Different	55	23.5	1448	1151	25.92
Junagadh		variety					
	Castor	GCH-6	15	7.5	3483	2662	31.00
	Rabi						
	Mustard	GM-2	10	5.0	1638	1394	17.49
	Summer	GG-6	12	6.0	2394	2149	11.00
	groundnut						
4) Pulse Res. St.	Gram	GG-1	17	6.8	2049	1853	10.42
Junagadh		GG-2	3	1.2	2467	1683	46.33
Total			351	155.80			

Feedbacks received though implemen-tation of the front line demonstrations are as under:

- 1) Need for effective control measure for Sclerotium rot fungi in groundnut.
- 2) Effective measure for control of boll worm of cotton crop.
- 3) Control of blight and wilt in cumin.
- 4) To develop drought resistant varieties of various crops.
- 5) Control measures for varieties susceptible to insect-pest & disease.
- 6) Remedies for seed damages during seed preparation.
- 7) There is a need of aphids resistant variety in mustard.

(d) Farm Advisory Service Scheme

The 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 are advised regarding their farm problems through correspondence and field visit. This centre acts as a link among research scientist, extension workers and farmers.



During the year under report, various extension activities carried out by the centre are given here in

Sr. No.	Name of activity	No. of activity	No. of participants
1)	Agril. Fair/Agril./ Exhibitions (participation)	39	21100
2)	Khedut, Mahila Shibir/ Group Meeting/ Crop Seminar	42	18960
3)	Spot guidance/ Guidance through letters	168	-
4)	Agril. Literature Exhibition	41	21660

1) GAUSATKRU

Different Agricultural Universities of Gujarat have launched a 'GAUSATKRU' Programme from Gandhinagar. Sardar Smruti Kendra, JAU, Junagadh has been given one of the Direct-Receptive Centres (DRC) under this programme. During the year under report, four programmes were telecasted and 254 farmers, farm women, scientists, extension workers and students took the benefit of programmes.

2) Agricultural Fair

During the year under report, Agricultural Fair was organized in which University has participated. The farmers and farm women were provided the information of agricultural and allied research results, agricultural inputs & equipment etc.

The information of beneficiaries in Krushi fair organized at Unja Marketing Yard, Unja is given on next page.



Sr. No.	Name	Male	Beneficiary Female	Total
1	Unja Market Yard, Unja	225000	75000	300000

3) One-day Programme

In coordination with Fertilizer Association of India, Mumbai, the Farm Advisory Service Scheme, SSK, JAU, Junagadh, organized one-day programme on "Krusha Rasayan Anne Khatar Vikreta Refreshan" on 19th August-2004 at Sardar Smruti Kendra, JAU, Junagadh. About 54 farmers had participated in this programme. Subject experts from University and Fertilizer Company, have given talk on proper and balance use of chemical fertilizers and its importance in crop production.

(e) Livestock Inspector's Training Centre (LITC)

The centre has organized various extension education activities. (Table 5.5)

Table 5.5 : Activities carried out at LITC, IND

Sr. No.	Name of activity	No. of activity	No. of participants/beneficiaries
1)	Refresher training to Livestock Inspector	1	22
2)	Diagnostic and treatment services through mobile ambulatory clinics	Two days in a week	447
3)	Exhibitions on animal husbandry/ Agril. mela	2	-
4)	Farmers/animal owners visit	58	1636
5)	Lectures delivered in training on animal health/nutrition	1	16
6)	Farmer's meeting/ shibirs/seminar, etc.	3	450
7)	Guidance through letters	10	-
8)	Literature published	2	-
9)	On campus Training Programme	1	25
10)	Off campus Training Programme	81	250
11)	Animals Diagnosis Camp	1	100

(f) **Extension programme for Fishermen**

Extension programme for fisheries was started at the Fisheries Research Station, Okha to convey the latest know-how/information about research outcome to the fishermen to obtain self-employment and to uplift their living standard by means of different extension programmes. Following programmes were organized during the year:

Sr. No.	Name of activity	No. of activity	No. of participants/ benefited
1)	Training programme	1	20
2)	Exhibition	2	3000
3)	Workshop	2	94
4)	Film/slide/ video show	1	40
5)	Guidance through letters	18	385
6)	Distribution of literatures	20	148
7)	Guidance/ Information to visitors	10	1667
8)	Field training for UG students	1	17
9)	Demonstration	2	15
Total		57	5390

5.4 Radio Talk and T.V. programme

The scientists of the university delivered radio talks 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 50 such talks were delivered on different topics related to agriculture, horticulture, agricultural engineering, fisheries, animal husbandry, etc.

In all, 26 television programmes covering various aspects on 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 Krushi-Go-Vidya and Extension Literature

A) Publication

During the year under report, 394 farmers were enrolled as subscriber for the 'KRUSHI GO VIDYA' monthly magazine published by AAU, Anand.

i) Annual members - 365

ii) Five year members - 029

To disseminate the useful information/ latest technology through print media like folders/ pamphlets/ booklets etc. covering various aspects of agricultural & allied fields were published by SSK during the year under report. The details of which are given Table 5.6.

Table 5.6 : Publication of Extension Literature

Sr. No.	Name of publication	Budget head	Type	Copies
1)	Gher Betha Bekary Vangi Banavo	5116	Folder / 3 fold	3000
2)	Fal anne Shakhajinu Parirakshan	5116	Folder / 3 fold	3000
3)	Telibiyani Pakoni Kheti	19200	Book / 152 page	5000
4)	Pragatishil Kheti	19200	Book / 216 page	4000
5)	Pak Sanrakshan	19200	Book / 280 page	3000
6)	Vadhela Khorakni Vangio	5116	Folder / 3 fold	3000
7)	Fangavela Katholani Vangio	5116	Folder / 3 fold	3000
8)	Poshak Ahar	5116	Folder / 3 fold	3000
9)	Rasodu Ek Aushdhalaya	5116	Folder / 3 fold	3000

Under the scheme 'Use of Print Media in Technology Transfer', the Junagadh Agricultural University has published 8 folders/ leaflets/posters in Gujarati on different subjects/crops. Moreover, the technological messages for different Agro-climatic Zones were selected and published in the form of nine advertisements in important newspapers having more circulation in the rural areas.

B) Agricultural Literature Exhibition

During the year under report, 17 Agricultural literature exhibitions were organized in different villages in various extension literatures published on agriculture and allied subjects were exhibited/sold/ distributed. Thus, 17372 farmers and 1640 farm women took benefit of it.

- 1) Pragatishil Kheti
- 2) Pak Sannrkshan
- 3) Fal anne Ful
- 4) Shakhaji
- 5) Telibiyani Pakoni Kheti
- 6) Aapana Aushadho
- 7) Krushiman Urja
- 8) Dungali Lasan

University News bulletin "Krishi Vishva" is being published by the JAU, regularly under the guidance of Directorate of Extension Education.

5.6 Coordination of Extension Activities with Department of Agriculture, Horticulture, Animal Husbandry and other Development Departments

The Junagadh Agricultural University has planned and organized various extension education programmes/activities in coordination with different development departments of the state. The structural linkages exist under Training & Visit System by constituting the technical committee at district, zonal and state level. The agricultural programmes of All India Radio as well as Doordarshan are finalized by such coordinated efforts. In AGRESCO, 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 exists under T & V system through bi-monthly workshops, pre-seasonal workshops, fortnightly training, diagnostic team, state level

crop seminars/workshops etc. The coordination does exist in follow-up programmes as well as in planning of farm trials.

For transfer of technologies to the farmers at large, farmers' day, krushi mela, group discussion, film show etc. are organized by collaborative efforts.

5.7 Orientation Training Programme for Junagadh Agricultural University Staff

During the year under report, 21 scientists/teachers of Junagadh Agricultural University were deputed outside the Gujarat State for upgrading their knowledge and skill for improving their faculty competence in respective disciplines.

Extension Education and Training Programmes Undertaken by the Junagadh Agricultural University

I. Diploma/Certificate Courses for Farm Youths			
1	Agricultural School	3	Halvad, Junagadh, Dhari.
2	Livestock Inspectors Training Centre	1	Junagadh.
3	School of Baking	1	Junagadh.
4	Mali Training Centre	1	Junagadh.
II. Training Programmes for Extension Workers			
1	Training & Visit System Training Centre	2	Junagadh, Targhadia
2	Centre of Excellence for Training (Oilseeds)	1	Junagadh
III. Training Programmes for Farmers/Farm Women			
1	Krushi Vigyan Kendra	2	Jamnagar, Targhadia.
2	Sardar Smruti Kendra	1	Junagadh.
IV. Extension Education Programmes for Rural People			
1	Farm Advisory Service Centre	1	Junagadh.
2	Extension Programme for Fisheries	1	Okha