વિસ્તરણ શિક્ષણ નિયામકની કચેરી
યુનિવર્સિટી ભવન
આણંદ કૃષિ યુનિવર્સિટી
આણંદ – ૩૮૮ ૧૧૦

વંચાણે લીધો : કુલસચીવશ્રીની કચેરી જા.નં. આકૃયુ/૨૦૦/એકેડેમીક(૧૪૭)/વા.અ..૧૭/૫૫૪૨-૫૫૫૫/૨૦૨૧, તા.૨૨/૦૪/૨૦૨૧ નો પત્ર.

પરિપત્ર

સમય મર્યાદા /તાત્કાલિક

જયભારત સહ ઉપરોક્ત વિષય અને સંદર્ભિત પત્ર અન્વયે જણાવવાનું કે આણંદ કૃષિ યુનિવર્સિટીનો સને ૨૦૨૦-૨૦૨૧ના વર્ષનો (તા.૦૧/૦૪/૨૦૨૦ થી ૩૧/૦૩/૨૦૨૧ સુધી) ૧૭મો વાર્ષિક અહેવાલ યુનિવર્સિટીના કોમન સ્ટેચ્યૂટની આઇટમ નંબર એસ.૧૧૨.૨ મુજબ તથા આ સાથે સામેલ **ચેપ્ટર-૫ પ્રમાણે** તૈયાર કરવાનો રહે છે. આપના હસ્તકના કેન્દ્રમાં વર્ષ ૨૦૨૦-૨૦૨૧ માં થયેલ વિસ્તરણની તમામ પ્રવૃત્તિઓને આવરી લેતો અહેવાલ અંગ્રેજીમાં નીચેની વિગતે માઈક્રોસોફ્ટ વર્ડમાં તૈયાર કરી આનુસંગિક ફોટોગ્રાફ્સ (હાઈ રીઝોલ્યૂશન) સાથે સોફ્ટ કોપી aaunews@aau.in ઉપર ઈ-મેઈલથી તથા હાર્ડ કોપી બે નકલમાં અત્રેની કચેરીને તા.૨૧/૦૫/૨૦૨૧ પહેલાં મોકલી આપશો. **વધુમાં સદર માહિતી આ સાથે સામેલ વર્ષ ૨૦૨૦-૨૦૨૧ ના વાર્ષિક અહેવાલના ચેપ્ટર-૫ પ્રમાણે જ ગોઠવી મોકલી આપવા જણાવવામાં આવે છે.** જેથી સદર માહિતી કમ્પાઈલ, એડીટીંગ તથા પ્રકાશિત કરવામાં સરળતા રહે, જેની ખાતરી જે તે કચેરીના યુનિટ અધિકારીશ્રીએ સ્વયં કરી ત્યાર બાદ જ આગળ મોકલવી.

(૧)	પેજ સેટ અપ	: પેપર સાઈઝ	: એ-૪
		મિરર માર્જીન	: ટોપ–૦.૧ ઈંચ, બોટમ–૦.૫ ઈંચ
			લેફ્ટ–૧.૫ ઈંચ, રાઈટ–૦.૫ ઈંચ
		હેડર એન્ડ ફૂટર	: ૦.૫ ઈંચ
(૨)	ફોન્ટ	: અંગ્રેજી અહેવાલ માટે	: ટાઈમ્સ ન્યુ રોમન
		ફોન્ટ સાઈઝ	: ૧૨
(૩)	ટાઈટલ એન્ડ સબ ટાઈટલ	: બોલ્ડ કરવા	
(૪)	પેજ નંબર	: પેજની જમણી બાજુએ ફૂટરમાં આપવા	

વિસ્તરણ શિક્ષણ નિયામક

જા.નં.આકૃયુ/વિશિનિ/પ્રકાશન/વા.અ.-૨૦૨૦-૨૧/ટે-૧/ ૨૪૮-૫૦/૨૦૨૧
તા.૦૫/૦૫/૨૦૨૧

નકલ સવિનય રવાના જાણ સારૂ

(૧) માન.કુલપતિશ્રીના રહસ્ય સચિવશ્રી, આકૃયુ, આણંદ

નકલ સવિનય રવાના જાણ તેમજ ઘટતુ થવા સારૂ

(૧) આણંદ કૃષિ યુનિવર્સિટીના તમામ યુનિટ/સબ યુનિટ અધિકારીશ્રીઓ/વિભાગીય વડાશ્રીઓ તરફ
(૨) નિયામકશ્રી, ઇન્ફોર્મેશન ટેકનોલોજી, આકૃયુ, આણંદ તરફ સદર પરિપત્ર વેબસાઈટ ઉપર મૂકવા સારૂ

Chapter - 5
EXTENSION EDUCATION

The Directorate of Extension Education has to plan, coordinate, organize and guide the extension education programmes in the University and to ensure efficient working of the extension education activities in close coordination with the development departments, voluntary and private organizations. Moreover, this Directorate encourages, guides and supports the extension education centers of the University to organize different extension education activities for the benefit of the farming community.

Extension Education Council

The Extension Education Council has been constituted to consider and recommend the extension education programmes/activities of the University. The twelth meeting of the Extension Education Council was held on 06/02/2019 at Yagnyavalkya Hall, AAU, Anand under the chairmanship of Dr. N. C. Patel, Ex. Vice-Chancellor, AAU, Anand. The thirteenth meeting of the Extension Education Council was postponed due to the COVID-19 pandemic. The following members of the Extension Education Council actively participated in the twelth meeting.

Sr. No.	Name, Designation & Address	Position
1	Dr. N. C. Patel, Vice-Chancellor, AAU, Anand	Chairman
2	Dr. K. B. Kathiria, Director of Research & Dean, PG Studies, AAU, Anand	Member
3	Dr. K. P. Patel, Dean, Faculty of Agriculture, AAU, Anand	Member
4	Dr. A. M. Thaker, Dean, Faculty of Vet. Science, AAU, Anand	Member
5	Dr. Y. C. Zala, Principal & Dean, International Agri-Business Management Institute, AAU, Anand	Member
6	Dr. J. B. Upadhyay, Representative of Dean, Faculty of Dairy Science, AAU, Anand	Member
7	Dr. K. P. Patel, Principal & Dean, College of Horticulture, AAU, Anand	Member
8	Dr. R. F. Sutar, Dean, Faculty of Food Processing Tech. & Bio-energy, AAU, Anand	Member
9	Dr. R. Swarnakar, Representative of Principal & Dean, College of Agricultural Engineering & Technology, AAU, Godhra	Member
10	Dr. D. R. Kathiriya, Principal & Dean, Agricultural Information Technology, AAU, Anand	Member
11	Dr. N. B. Chauhan, Professor & Head, Extension Education Dept. BACA, AAU, Anand	Member
12	Dr. Arun Patel, Director, Extension Education Institute, AAU, Anand	Member
13	Smt. Kamala Chhaiya, Representative of Director of Agriculture, Gujarat State, Gandhinagar	Member
14	Dr. H. B. Patel, Associate Director of Extension Education, DoEE, AAU, Anand	Member
15	Dr. B. M. Mehta, Senior Scientist, KVK, Mangalbharati, Dist.Chhotaudepur	Member
16	Shri P. K. Sharma, Senior Scientist & Head, KVK, Dethali, Dist.Kheda	Member
17	Dr. Girish G. Patel, Senior Scientist & Head, KVK, Devataj	Member

18	Dr. Girish J. Patel, Training Organiser, Tribal Research cum Training Centre, AAU, Devgadhbaria	Member
19	Dr. V. J. Patel, Asso. Professor, Polytechnic in Agri., AAU, Anand	Member
20	Sh. P. R. Dave, Dy. Director, Farmer Training Centre, Thasara, Dist. Kheda	Member
21	Shri Devesh Rameshbhai Patel, Progressive Farmer, Boriavi, Ta & Dist: Anand	Member
22	Shri Parmar Kamlsinh Chandrasinh, Progressive Farmer, Sardiya, Ta: Sankheda, Dist; Chhota Udepur	Member
23	Dr. Arun Patel, Director of Extension Education, DoEE, AAU, Anand	Member Secretary
24	Dr. M. N. Brahmbhatt, Registrar, AAU, Anand	Invitee Member
25	Dr. D. D. Patel, Technical officer, VC Office, AAU, Anand	Invitee Member
26	Shri. P. C. Patel, Assistant Professor, DoEE, AAU, Anand	Invitee Member
27	Shri. J. D. Desai, Assistant Professor, DoEE, AAU, Anand	Invitee Member

Zonal Research and Extension Advisory Committee (ZREAC)

The Committee consists of Director of Research, Deans of the faculty, representatives of line departments, centers of extension education, crop and subject matter specialists, co-operative sectors, industries and progressive farmers. Meetings are conducted regularly twice in a year (*kharif* and *rabi* season). The committee discusses in depth about the adoption and its feedbacks on research recommendations and existing transfer of technology programmemes. The approved recommendations are then passed on to the concerned. The ZREAC meeting was held for *Kharif* season on 26/09/2019 for and *Rabi* season on 16/01/2020.

Centers of Extension Education

Under the aegis of Directorate of Extension Education, following centers/ activities are functioning:

Sr. No.	Type	Name of Centre / Training	Location
1	Certificate Course	Training in Baking Technology	Anand
		Training in Commercial Poultry Farming / Advanced Training in Commercial Poultry Technology	
		Training in Gardening, Landscaping and Nursery Management	
2	Special training programmes	Training Programme on Food Processing Technology	
		Training Programme on Organic Farming	
		Training Programme on Weed Management	
		Training Programme on Integrated Pest Management	
		Training Programme on Medicinal and Aromatic Plants	
		Training Programme on Seed Production	
3	Training Centres for Extension Functionaries	Extension Education Institute (EEI)	Anand
		Training and Visit Training Centre (T&V)	
4	Training Centers for Farmers/ Farm Women/ Rural Youth	Sardar Smruti Kendra (SSK)	Anand
		Krushi Vigyan Kendra (KVK)	Arnej (Dist. Ahmedabad)
		Krushi Vigyan Kendra (KVK)	Dahod
		Krushi Vigyan Kendra (KVK)	Devataj (Dist. Anand)
		Tribal Training Centre (TTC)	Dahod
		Tribal Research cum Training Centre (TRTC)	Devgadh Baria Dist: Dahod
		Tribal Farm Women Training Centre (TFWTC)	
		Dairy Vigyan Kendra (DVK)	Vejalpur Dist: Panchamahals
		Pashu Vigyan Kendra (PVK)	Limkheda, Dist: Dahod
		Transfer of Technology Centre for Tribal (TOT)	Godhra Dist:Panchamahals
		Farm Technology Training Centre (FTTC)	Sansoli Dist: Kheda
		Training Center (TC)	Jabugam Dist: Chhotaudepur
		Demonstration cum Training Center for Inland Fish Culture (DTCIF)	Devataj Dist: Anand

Sr. No.	Type	Name of Centre / Training	Location
5	Advisory Services	Agricultural Technology Information Centre (ATIC)	Anand
		Transfer of Technology Centre (TOT)	Arnej Dist: Ahmedabad
		Agri Polyclinic Centre (APC)	Dahod
		Publication Unit (PU)	Anand
		Sardar Patel Agricultural Educational Museum (SPAEM)	Anand
6	Others	NARP Extension Scheme (MMRS)	Godhra Dist: Panchmahals
		NARP Extension Scheme (ARS)	Arnej Dist:Ahmedabad
		Krushi Mahotsav	Anand
		Kisan Call Centre (KCC)	
		Krushi Library	
		Mera Gaon Mera Gaurav (MGMG)	

Extension Education Schemes

Under the Directorate of Extension Education, Twenty-two plan schemes, seven non-plan schemes, five ICAR schemes and six other agencies schemes are running and the details are given in Annexure 5.1.

Front Line Demonstrations, On-Farm Trials and Case Studies Conducted by Extension Education Centers

(i) Front Line Demonstrations (FLDs)

The FLDs are aimed to demonstrate the production potentialities of newly released and pre-released production technologies on farmers' fields. The KVKs and other extension education centers had organized a total of 1007 FLDs on various crops, farm implements, livestock and fishery during Kharif, Rabi and Summer seasons. The details of FLDs conducted during the year 2019-20 are given in Tables 5.1 to 5.7.

Table 5.1 FLDs conducted by KVK, Arnej (Dist. Ahmedabad)

(A) Oilseeds/Pulses/Cereals/Horticulture Crops/Commercial Crops

Sr. No.	Crop	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Average yield of the demo. Plot (q/ha)	Local yield (q/ha)	Yield Increase (%)
1	Castor	Wilt resistant variety	GAC 11	10	4	24.30	19.50	24.62
2	Chilli	Introduction of improved variety-GAVC-112	GAVC-112	10	4	106.00	94.20	12.52
3	Chilli	Artificial defoliation	GAVC-112	10	4	99.00	92.10	7.49
4	Cumin	Azoxistrobin 23SC 0.23% 10 ml/lit water	GC 4	10	4	6.70	6.20	8.06
5	Cumin	Introduction of improved variety	GC 4	10	4	6.60	6.10	8.20
6	Desi Cotton	Introduction of improved variety	GADC 2	10	4	16.50	14.80	11.49
7	Dilseed	Introduction of new crop and variety	GAD 1	10	4	8.30	7.00	18.57
8	Gram	Seed treatment	GJG 3	10	4	11.80	10.10	14.41
9	Gram	Fertilizer and Biofertilizer	GJG 3	10	4	11.50	10.00	13.04
10	Gram	Bioagent	GJG 3	10	4	12.10	10.10	16.53
11	Okra	Introduction of new variety-GAO-5	GAO-5	10	4	95.00	83.00	14.45
12	Okra	For jassid Thiamithoxam 25WG	GAO-5	10	4	97.00	87.00	11.49
13	Paddy	Leaf color Chart	Mahisagar	10	4	55.50	49.40	12.34
14	Tomato	Introduction of a new variety	GT 5	10	4	284.00	270.00	5.18
15	Wheat	Use of Thiourea 500 ppm	GADW 3	10	4	14.00	12.50	12.00

Table 5.2 FLDs conducted at KVK, Dahod

(A) Pulses/ Cereals/ Horticulture Crops

Sr. No.	Crop/ Enterprise	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Average yield of the demo. Plot (q/ha)	Local yield (q/ha)	Yield increase (%)
1	Maize	Introduction of new hybrid Variety + Biofertilizer	GAYMH 1	57	20	16.10	14.25	12.98
2	Pigeon pea	Introduction of new Variety + Biofertilizer	AGT-2	25	10	9.10	7.20	26.39
3	Wheat	Introduction of new Variety + Biofertilizer	GW-451	25	10	27.85	23.50	18.51
4	Tomato	Introduction of new Variety + Bio	GAT 5	20	04	254.12	229.14	10.90
5	Chilli	Introduction of new Variety + Bio	GVCH 1	20	04	83.25	70.00	18.93
6	Brinjal	Introduction of new Variety + Bio	GAOB 2	20	04	153.30	131.96	16.17
7	Gram	Chlorantranilliprole	-	25	10	14.85	12.60	17.86
8	Gram	Trichoderma	-	25	10	13.90	12.15	12.58
9	Green Gram	Flubendiamide	-	10	04	7.56	7.13	6.03
10	Soybean	Chorantranilliprole	-	25	10	13.20	12.15	8.64

(B) Livestock

Sr. No.	Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units (Animal/ Poultry/ Birds, etc per farmer)	Major parameters			% change in major parameter	Other parameters		
						Name of Parameters	Demo	Check		Name of Parameters	Demo	Check
11	Cattle	Management of Disease	Deworming and Disinfeststion	50	1	Milk yield L/ ani./day	5.27	4.55	15.79	Fat corrected milk	15.79% higher Compare to check	-
12		Fertility in heifers	Mineral Mixture	20	1	Fertility rate %	13	0	-	Fertility	65%	-
13		Feeding management	Probiotic feeding	20	1	Unit of increase in body weight is gram/day/ animal	109.35	89.64	21.99	Incidence of calf scours	2	6
14	Buffalo	Fertility Management	Ovsynch Protocol	20	1	Fertility rate %	60%	10%	50.00	Fertility	60%	-

Table 5.3 FLDs Conducted at KVK, Devataj (Dist. Anand)

(i) Cereals / Oilseeds /Pulses

Sr. No.	Crop/ Enterprise	Technology demonstrated	Variety/Breed	No. of Demo.	Area (ha)	Production of demonstration plot (q/ha)	Local Production (q/ha)	Production increase (%)
1	Paddy	Varietal Introduction	GAR 14	10	4.0	52.0	44.80	16.07
2	Paddy	Management of Paddy leaf folder	Gurjari	10	4.0	56.00	52.00	7.69
3	Wheat	Varietal Introduction	GW-451	10	4.0	38.40	31.20	23.07
4	Castor (CFLD)	Seed + Trichoderma viridi + Bio fertilizers + Sulphur	GAC-11	75	30	28.00	24.00	16.60
5	Greengram (summer) CFLD	Varietal Introduction	GAM-5	75	30	11.20	9.60	16.70
6	Chickpea	Management of chickpea pod borer	GC 2	10	4.0	14.00	11.00	27.30
(ii) Horticultural Crops								
7	Brinjal	Management of brinjal shoot and fruit borer	Doli 5	10	4.0	295.00	240.00	22.92
(iii) Livestock & Fisheries								
8	Fodder	Sorghum	Sorghum COFS 29	20	-	740	480	35.13
9	Fodder	Guinea Grass (GG 3)	Guinea Grass (GG 3)	10	02	620	490	20.96
10	Anubhav Chelated Mineral Mixture	Buffalo	Anubhav Chelated Mineral Mixture	20	20	7.8 litre/day	7.0 litre/day	10.25
						7.0 % Fat	6.0 % Fat	14.28
11	Fishery	Fry to fingerling production	Carps	10	05	7.80	7.56	3.17

Table 5.4 FLDs Conducted at TRTC, Devgadh Baria

Sr. No.	Crop	Technology Demonstrated	Variety	No. of Demo.	Area (Ha)	Yield (kg/ha)		Yield increases(%)
						Demo	Local	
Kharif Season								
1	Soybean-Maize	Soybean-Maize intercrop	NRC-37 and Maize: GAYMH-1	04	02	22720/- ₹ (Profit in soybean-maize intercrop)	20930/- ₹ (Profit in sole soybean crop)	1790/- ₹ ha (Over sole soybean crop)
2	Soybean	Girdle beetle management	-	6	3	1230	930	24.39 %
3	Soybean	Sucking pest management		04	2	1090	840	22.94 %
4	Soybean	Improved variety	NRC 37	20	10	1260	890	29.36 %
5	Soybean	Weed management		04	2	1140	910	20.17 %
6	Soybean	Sowing distance		04	2	1180	900	20.17 %
7	Soybean	Seed rate		04	2	1310	980	23.72 %
8	Maize	Hybrid variety	GAYMH-1	04	2	3420	2410	29.53 %
9	Maize	Hybrid variety	GAWMH-2	02	1	3250	2380	26.77 %
10	Maize	Nutrient management	GAYMH-1	02	1	3720	2460	33.87 %
11	Maize	Nutrient management	GAWMH-2	02	1	3390	2420	28.61 %
Rabi Season								
12	Chickpea	Improved variety	JG-14	08	4	1930	1340	30.57 %
13	Wheat	Monocoat and dicot weeds management in an improved variety	GW-451	12	6	4990	3870	22.44 %
14	Maize	Hybrid variety	GAYMH-1	04	2	3770	2500	33.69 %
15	Maize	Hybrid variety	GAYMH-2	02	1	3510	2520	28.21 %
16	Maize	Hybrid variety	GAWMH-3	02	1	3495	2540	29.32 %
17	Maize	Nutrient management	GAYMH-1	02	1	4010	2550	36.41 %
18	Maize		GAYMH-2	02	1	3725	2610	29.93 %
Semi Rabi								
19	Mung bean	Improved variety	GAM-5:	04	1	1235	790	36.03 %

Table 5.5 FLDs Conducted at ARS, Sansoli

Sr. No.	Crop	Technology Demonstrated	Variety	No. of Demo.	Area (ha.)	Yield of Demo. (kg/ ha)	Yield of Check (kg/ ha)	% Increase
1	Castor	Varietal Introduction	GCH 10	15	03	3377	2750	22.80
2	Castor	Varietal Introduction	GAC 11	133	53	2897	2780	04.20
3	Wheat	Varietal Introduction	GW 451	12	04	4327	3460	25.08

Table 5.6 FLDs Conducted (Area-specific Mineral Mixture) at DVK, Anand

Sr. No.	No. of Demonstrations conducted (Area specific mineral mixture)				
	No. of demonstrations	No. of beneficiaries farmers	Kg mineral mixture allotted to the individual farmer	Average production of an animal before the demonstration	Average production of an animal after three months of demonstration
1	90	90	3 kg per farmer	2.85lit/day	3.02 lit/day

Table 5.7 FLDs conducted at Training Centre for Tribal Farmer, Dahod

Sr. No.	Crop & Variety	Technology Demonstrated	No. of Farmers	Average Demo. Yield (Kg ha^{-1})	Average Grain Yield of local check (Kg ha^{-1})	Grain Yield over local Variety (%)
1	Soybean (NRC-37)	New Variety	25	1650	1275	29.41
2	Maize (GAYMH-1)	Recommended Fertilizer (160:60:00 kg NPK ha-1) management in Maize	15	4850	3475	39.56
3	Maize (GAWMH-2)	Recommended Fertilizer (160:60:00 kg NPK ha-1) management in Maize	15	4525	3350	35.07
4	Green Gram (GAM-5)	New Variety	18	1295	975	32.82

(ii) On-Farm Trials (OFTs)

The aim of the On-Farm Trials (OFTs) was to conduct On-Farm Testing for identifying technologies in terms of location-specific sustainable land-use systems. The KVKs had organized a total of 145 OFTs on various crops/enterprises. The details of the OFTs conducted during the year 2019-20 are given in Table 5.8 to 5.10.

Table 5.8 OFTs conducted at KVK, Arnej (Dist. Ahmedabad)

(A) Cereals and Vegetable Crops

Sr. No	Crop / Enterprise	Title of OFT	Technology Assessed	No. of Trials	Yield kg/ha	Net Return (Profit) in ₹/unit	BC Ratio	Results of Assessment	Feedback from the Farmer
1	Paddy	Varietal assessment of Mahisagar paddy	T1.Cultivation of local variety of Paddy (Gurjari) (Farmers Practice)	05	5550	41,125	2.97	Mahisagar variety had higher yield compared to GAR 13 and Gurjari variety as no. of tillers were higher. The net return was also very high.	• High yielding variety • No lodging • Good quality of rice • Fetch more market price as good milling and cooking quality
			T2.Cultivation of Mahisagar variety		5675	46,148	3.14		
			T3.Cultivation of GAR – 13 variety		5570	41,840	3.07		
2	Wheat (Durum)	Assessment of recommended dose of fertilizer and micronutrient in GW-1	T1. Injudicious use of fertilizer and no use of micronutrient (Farmers Practice)	05	577	14425	2.81	Seed treatment with Azotobactor @ 10 ml/kg seed + 20 kg phosphorus + 25 kg Zinc Sulphate gives a higher yield, BCR, higher net return and more number of tillers	Seed treatment with Azotobactor @ 10 ml/kg seed + 20 kg phosphorus + 25 kg Zinc Sulphate in durum wheat gives higheryields
			T2. 20kg phosphorus + 20kg Zinc Sulphate (as a basal dose) + 20kg Nitrogen given at the 1st irrigation after 21 DAS + 2nd irrigation given at 40-45 DAS		632	15800	2.93		
			T3. Seed treatment with Azotobactor @ 30 gm/kg seed+ 20kg Phosphorus + 25kg Zinc Sulphate (as a basal Dose)		603	15075	2.87		

Sr. No	Crop / Enterprise	Title of OFT	Technology Assessed	No. of Trials	Yield kg/ha	Net Return (Profit) in ₹/unit	BC Ratio	Results of Assessment	Feedback from the Farmer
3	Wheat (Durum)	Assessment of seed treatment for control of Termite in wheat	T1. Farmers practice (No seed treatment)	05	558	14130	2.62	Seed Treatment with Chlorpyriphos 20 EC @ 4 ml / kg seed (0.8 gm ai / kg seed) or Fipronil 5 SC @ 5 ml / kg seed (0.025 gm ai/ kg seed) 24 hours before sowing with one irrigation at grain formation stage gives higher yield and higher net return and less percentage of the infected plant.	Seed treatment with Chlorpyriphos is feasible and easy to adopt for controlling the termite in goradu soil.
			T2. Seed Treatment with Chlorpyriphos 20 EC @ 4 ml / kg seed (0.8 gm ai / kg seed) or fipronil 5 SC @ 5 ml / kg seed (0.025 gm ai / kg seed) 24 hours before sowing		598	15230	2.67		
			T3. T2 + One irrigation is given at a grain ormation stage		617	15995	2.86		
4	Paddy (Kharif)	Assessment of recommended practices for control of Stem Borer in rice	T1. Farmers practice	05	4840	51,335	2.80	Pheromone trap @ 30 trap/ha kept in after 30 days of transplanting of paddy with equal distance gives higher production with net return and less percentage of the infected plant.	Use of pheromone trap in paddy is not feasible
			T2. Cartap Hydrochloride 4G 25 kg/ha (1 kg ai/ha)		5510	60,865	3.02		
			T3. Pheromone trap @ 30 trap/ha kept in after 30 days of transplanting of paddy with equal distance		5300	57,090	2.88		

Sr. No	Crop / Enterprise	Title of OFT	Technology Assessed	No. of Trials	Yield kg/ha	Net Return (Profit) in ₹/unit	BC Ratio	Results of Assessment	Feedback from the Farmer
5	Isubgul (Rabi)	Varietal assessment of isubgul cv.GI-4	T1. Cultivation of local variety of Isubgul (Farmers Practice)	05	960	4900	3.15	Cultiva Isubgul cv.GI-4 gave higher yield and it matures earlier than the local variety	No shedding was found in GI-4
			T2. Cultivation of Isubgul cv.GI-4		1032	53600	3.29		
6	Coriander (Rabi)	Varietal assessment of coriander cv. GC-3	T1.Cultivation of local variety (Farmers Practice)	05	880	41000	3.09	GC-3 coriander variety gave higher yield and higher profit	The aroma is good and resistant to
			T2.Varietal evaluation of coriander cv. GC-3		1250	66000	4.20		
7	Wheat (Rabi)	Assessment of seedbed preparation implements in the wheat crop in the *Bhal* region	T1. Farmers practices (2 Cultivator + 2 Bhal Kaliyu)	05	1240	-	-	Use of Zero-till drill for direct sowing of wheat after rice was found to be advantageous in terms of 50-60% saving in time and 35-40% saving in the cost of sowing as compared to the conventional practice of seedbed preparation and sowing with seed-cum-fertilizer drill. The machine saves about Rs. 1500-2000/ha	1. Good practice to reduce seedbed preparation operation cost in wheat crops. 2. Saves energy
			T2. Cultivator + Rotavator +Seed drill		1310	-	-		
			T3. Zero Till Drill		1235	-	-		

Sr. No	Crop / Enterprise	Title of OFT	Technology Assessed	No. of Trials	Yield kg/ha	Net Return (Profit) in ₹/unit	BC Ratio	Results of Assessment	Feedback from the Farmer
8	Tomato	Assessment of the different type of hand operated wheel hoe in tomato crop in Bhal region	T1. Use of Sickle (Farmers practice)	05	-	-	-	The maximum weeding efficiency with 'Sickle' was observed because of the capability of this hand tools to work between plant to plant spaces in a row. Push type cycle weeder and push and pull type wheel hoe cannot be used for closer plants. This may be the reason for low weeding efficiency. As weeding is a labor-consuming process and because of the minimum field capacity of 'Sickle' the cost of operation 'Sickle' for weeding was maximum.	1. Good practice to reduce weeding operation cost in tomato crops. 2. Save time 3. It is effective for inter-culturing and weeding. 4. Less time consuming during weeding operation 5. Suitable for men, farm women and rural youth. 6. Reduce drudgery.
			T2. Use of Wheel hoe (CIAE Bhopal)		-	-	-		
			T3. Use of push and pull-type wheel hoe (CAET-Godhra)		-	-	-		
9	Fruits and Vegetables	Shelf life assessment of fruits and vegetables using vegetable preservator	T1. Farmer's entrepreneur practice	05	-	-	-		

Table 5.9 OFTs conducted by KVK, Dahod

Sr. No.	Crop/ Enterprise	Title of OFT	No. of Trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Net Return (Profit) in ₹ / unit	BC Ratio	Results of Assessment	Feedback from the Farmer
1	Maize	Varietal Testing of Maize	04	T_1: Composite (GM-6) T_2: CO 6 T_3: GAYHM-1 (Assessment) T_4: GAWHM-2 (Assessment)	Cost of cultivation and yield	Cost of cultivation T_1: 16059 T_2: 17843 T_3: 18143 T_4: 18143 Grain yield (q/ha) T_1: 14.25 T_2: 16.85 T_3: 17.35 T_4: 17.85	T_1: 11229 T_2: 18637 T_3: 19419 T_4: 20502	T_1: 1.67 T_2: 2.04 T_3: 2.07 T_4: 2.13	The yield increased over control (T_1) was 18.24, 21.75 and 25.26 percent in T_2, T_3 and T_4 respectively.	White seeded GAWMH-2 variety is suitable for cultivation and fodder purposes.
2	Green gram	Varietal Testing of Green gram	03	T_1: Local-GM 4 (Farmers practices) T_2: Meha (Assessment) T_3: GAM-5 (Assessment)	Cost of cultivation and yield	Cost of cultivation T_1: 21936 T_2: 24088 T_3: 24263 Grain yield (q/ha) T_1: 5.47 T_2: 6.35 T_3: 7.75	T_1: 10884 T_2: 14012 T_3: 22237	T_1: 1.49 T_2: 1.58 T_3: 1.91	The yield increased over control (T_1) was 16.08 and 41.68 percent in T_2 and T_3 respectively	GAM-5 variety is suitable for cultivation purposes.

Sr. No.	Crop/ Enterprise	Title of OFT	No. of Trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Net Return (Profit) in ₹ / unit	BC Ratio	Results of Assessment	Feedback from the Farmer
3	Tomato	Varietal Testing of Tomato	03	T_1: Local (Farmers practices) T_2: GT-2 T_3: AT-3 T_4: Kashi Aman	Yield Cost of Cultivation	T_1: 131.96 T_2: 156.4 T_3: 163.82 T_4:161.24	T_1: 158352 T_2: 187680 T_3: 196584 T_4: 193488	T_1: 2.73 T_2: 3.10 T_3: 3.12 T4: 3.07	AT-3 Variety of Tomato gave higher yield and net realization	Less infestation of tomato leaf curl virus and early blight disease
4	Brinjal	Varietal Testing of Brinjal	03	T_1: Local (Farmers practices) T_2: GAOB-2 T_3: GABH-3 T_4: Kashi Sandesh	Yield Cost of Cultivation	T_1:153.25 T_2:157.3 T_3:182.12 T_4: T_4: 173.2	T_1: 123900 T_2: 125360 T_3: 152444 T_4: 141315	T_1: 3.06 T_2: 2.98 T_3: 3.30 T_4: 3.12	Higher production observed in GABH-3	High Yielding Variety, Less infestation of sucking pest.
5	Pigeon Pea	Management of wilt in Pigeon Pea	03	T_1: Farmer practices (No insecticide use) T_2: carboxin 37.5 % + thirum 37.5 %@3g/kg seed followed by seed treatment with Trichoderma viride @ 10g/kg seed T3: T2+ Trichoderma viride @ 1 kg/100 kg seed FYM at the time of sowing	Grain Yield and percent disease & Cost of cultivation	Grain yield T_1: 8.10 T_2: 8.65 T_3:9.10 Plant Damage (%) T_1: 6.4 T_2 : 4.4 T_3 : 3.1	T_1: 11540 T_2 : 13950 T_3: 15400	T_1: 1.39 T_2: 1.47 T_3: 1.51	T_3 encountered minimum disease incidence as well as given maximum yield	Carboxin37.5% + thirum 37.5% and seed treatment with *Trichoderma viride* helps in reducing wilt incidence

Sr. No.	Crop/ Enterprise	Title of OFT	No. of Trials	Technology Assessed	Parameters of Assessment	Data on the Parameter	Net Return (Profit) in ₹ / unit	BC Ratio	Results of Assessment	Feedback from the Farmer
6	Castor	Management of Spodoptera in castor	03	T_1: Farmer practices (No insecticide use) T_2: Quinalphos 25 EC @ 20 ml per 10 liters water T_3: Chlorantrani-lliprole 18.5 SC @ 3 ml per 10 litre water	Grain yield and larval population per plant	Grain yield T_1: 16.50 T_2: 17.80 T_3:18.70 Plant Damage (%) T_1: 4.2 T_2: 3.8 T_3: 2.1	T_1: 27150 T_2: 32600 T_3: 35550	T_1: 1.57 T_2: 1.68 T_3: 1.73	T_3 encountered minimum Spodoptera larval population as well as given maximum yield	Very good molecule to combat the pest.
7	Animal Science	Improving milk production in low producing buffaloes	30	T_1: Farmer's practices T_2: Mineral mixture (area-specific) supplementation @ 30 g/day T_3: Chelated Mineral mixture supplementation @ 30 g/day	Milk Production & Cost of Production	Milk yield in kg per day per animal T_1: 3.71 T_2: 4.35 T_3: 4.93	T_1: 5220 T_2: 6630 T_3: 8780	T_1: 1.37 T_2: 1.41 T_3: 1.51	Chelated Mineral mixture supplementation resulted in higher yield and income.	Chelated Mineral Mixture is costlier. Animal shows severe reluctance to consume the mineral mixture.
8	Animal Science	Poultry breed testing	30	T_1: Kadaknath poultry breed T_2: North Gujarat poultry breed T_3: South Gujarat poultry breed	Monthly body weight, Mortality and Economics	* Detailed results are presented in the table given below.				

Performance traits	Breed name			
	Kadaknath	North Gujarat	South Gujarat	Triple cross
No. of pullets	179.00	168.00	172.00	175.00
Age at first egg (days)	180.00	180.00	178.00	172.00
Body weight (g) at 16 weeks of age	690.00	730.00	710.00	790.00
Body weight (g) at 40 weeks of age	1180.00	1210.00	1240.00	1320.00
Eggs produced (nos.) up to 40 weeks of age	42.00	44.00	48.00	58.00
Mortality (%)	22.00	36.00	32.00	31.00
No. of eggs sat on by the broody hen	1008.000 (72)	2100.000 (100)	1900.000 (100)	2600.000 (100)
Hatchability (%) TES	64.290	80.950	78.950	84.620
Total cost	76920.00	76920.00	76920.00	76920.00
Sold (Egg + Birds) (₹)	83440.00	52320.00	64280.00	73040.00
Valuation of remaining birds, chicks	50000.00	40000.00	40000.00	40000.00
Total income	133440.00	92320.00	104280.00	113040.00
Net income	56520.00	15400.00	27360.00	36120.00
BCR	1.73	1.20	1.36	1.47

Table 5.10 OFTs Conducted at KVK, Devataj (Dist. Anand)

Sr. No	Crop/ Enterprise	Title of OFT	Technology Assessed	No. of Trials	Production (q/ha)	Net Return in ₹/unit	B:C Ratio	Result of Assessment	Feedback from the Farmer
1	Wheat	Assessment of different Weedicides effects in Wheat (GW-451)	Farmers' practices (Pendimethaline 30 EC, PE)	03	36.00	45120	2.94	Weed population was found lower *i.e.* 27 and 21 per meter square in T_2 and T_3 respectively as compared to farmers practice having weed population 118/m^2	T3 gave higher yield than other treatments and more control of monocot and dicot weeds in the field.
			Sulfosulfuron (75%) + Metsulfuron methyl 5% WG PoE)		37.60	47540	2.99		
			Clodinafop propargyl 15 % + Metsulfuron methyl 1% WP) PoE		40.00	52100	3.18		
2	Wheat	Management of Termite in wheat crop (GW-496)	T1: Farmer's practice	5	31.0	32700	2.63	The assessed technology T2 had recorded the highest yield (39 q/ha), BC ratio 3.08 and gave 25.81 % higher yield over T1 with higher net returns (Rs 44800) as compared to farmer practices.	With the use of recommended practices for Management of termite 25.81 % increase in yield and 21 % reduction in termite infestation of was found
			T2: Soil application of Neem cake 1 ton/ha + Seed treatment of Fipronil 5 SC 500 m/ 100 kg seed		35.5	38850	2.81		

Sr. No	Crop/ Enterprise	Title of OFT	Technology Assessed	No. of Trials	Production (q/ha)		Net Return in ₹/unit	B:C Ratio	Result of Assessment	Feedback from the Farmer
3	Buffalo	Improvement of reproductive status of buffalo by feeding bypass fat after deworming	4 to 5 kg concentrate mixture + 10-15 kg dry fodder	10	7.00		94260	3.13	Milk yield and conception rate are used as an indicator of improvement in reproductive status. Milk yield is increased (17.14%) over farmers' practice and the animal was conceived in three inseminations over the five farmers practice.	Progressive livestock farmers are convinced to use bypass fat feeding after deworming due to improvement in milk yield and conception rate in bypass fat-fed animals.
			Concentrate mixture + By pass fat @ 100gm+ after de-worming		8.2		152564	3.54		
4	Fisheries	Assessment of Hapa system for spwan to fry production in village ponds	Direct Stoking in the pondw	03	Survival (%)	30	5850	1.35	The survival of fry was better (46%) in the Hapa method over farmers' practice and the biomass of rohu fry was also found higher in the Hapa method with a higher net return of farmers.	Stocking of rohu spawn in the hapa system gives higher survival and more biomass than stocking directly in the village pond.
					Total Biomass (g/m^3)	60				
			Stocking in Hapa @750 no.s /m^3		Survival (%)	46	28675	2.60		
					Total Biomass (g/m^3)	114				

(iii) Production of seeds and planting material and by-products

The details of seeds and planting materials produced by KVKs of AAU during 2019-20 are given in Table 5.11 and 5.12.

Table 5.11 Production of seeds by the KVKs of AAU during 2019-20

Name of KVK	Crop	Name of the Variety	Quantity of Seed (q)	Value (₹)
KVK, Arnej (Ahmedabad)	Wheat	GADW 3	8720.00	551104
	Gram	GJG 3	5260.00	483920
	Dilseed	GAD 1	320.00	25600
	Cumin	GC 4	360.00	104400
KVK, Dahod	Soybean (breeder)	NRC -37	16.00	186000
	Soybean (Certified)	NRC -37	18.00	108000
	Gram	GJG - 3	17.50	143500
	Wheat	GW - 451	20.80	73320
KVK, Deavataj (Anand)	Paddy	GR-7	41.50	139440
	Paddy	Gurjari	82.75	266455
	Wheat	GW-451	38.00	73340
TRTC, Devgadha Baria	Maize (*Rabi*)	GM-4	08.00	28000
	Wheat (*Rabi*)	GW-451	34.00	119850
	Gram (*Rabi*)	JG-14	09.50	57000
	Soybean (*Kharif*)	NRC-37	12.20	141825

Table 5.12 Production of planting materials by KVKs of AAU during 2019-20

Crop	Name of the Crop	Name of the Variety	Name of the Hybrid	Number of Seedlings	Value (₹)	Number of Farmers
Vegetable seedlings	Chilli	GVC-111	-	3200	1280	5
		AVNPC-131	-			
	Brinjal	-	GAOB-2	2300	1000	4
	Drumstick	-	-	14	20	3
Fruit	Aonla	--	-	02	20	2

(iv) Impact of KVKs of AAU

The details of the impact of KVKs of AAU during 2019-20 are given in Table 5.13.

Table 5.13 Impact of KVKs of AAU on specific technology/skill transferred during 2019-20

Sr. No.	Name of specific technology/skill transferred	No. of participants	Production increase %	Change in income (₹/ha)	
				Check	Demo
(A) KVK, Arnej (Ahmedabad)					
Cereals					
1	Use of Thiourea 500 ppm in wheat GADW 3	10	12.00	24100	26800
2	Use of leaf colour Chart in paddy	10	12.34	48300	67400
Pulses					
3	Seed treatment in gram	95	14.41	24700	27200
4	Use of Fertilizer and Biofertilizer in gram	95	13.04	24200	28100
5	Use of Bio-agent in gram	95	16.53	25500	27600
Oil Seed					
6	Wilt resistant variety, castor GAC 11	35	24.62	63400	81200
Horticultural crops					
7	Introduction of improved variety-GAVC-112,chilli	10	12.52	115300	133200
8	Artificial defoliation, chili	10	7.49	110000	113500
9	Azoxistrobin 23SC 0.23% 10 ml/lit water, cumin	10	8.06	46400	48900
10	Introduction of improved variety, cumin GC 4	10	8.20	45250	49675
11	Introduction of new crop and variety, Dilseed GAD 1	10	18.57	43245	35325
12	Introduction of new variety-GAO-5, okra	10	14.45	104050	125000
13	Introduction of a new variety, tomato GT 5	10	5.18	188750	208000
14	For jassid Thiamithoxam 25WG in okra	10	11.49	105350	121400
Commercial crop					
15	Introduction of improved variety, desi cotton GADC 2	10	11.49	67500	76850

Sr. No.	Name of specific technology/skill transferred	No. of participants	Production increase %	Change in income (₹/ha)	
				Check	Demo
(B) KVK, Dahod					
1	Varietal replacement- Maize	57	12.98	7489	18145
2	Varietal replacement -Wheat	25	19.48	25252	31381
3	Varietal replacement – Pigeon pea	25	26.39	14043	21353
4	Varietal replacement -Green gram	70	17.92	7572	9164
5	Varietal replacement -Gram	50	33.16	19972	22808
6	Varietal replacement –Soybean	50	19.00	29186	37345
7	Varietal replacement –Chilli, Okra, Tomato	60	15.33	98600	127735
8	Dairy management - Buffalo/ **Cow**	20	21.99	89.64	109.35
9	Nutrition and Health management in Heifer(Cow)	20	60 unit success rate		
(C) KVK, Devataj (Anand)					
1	Varietal Introduction GAR-13	75	11.92	18600	24600
2	Varietal Introduction GW-366	80	11.33	8900	12500
3	Varietal Introduction Mustard NRCHB-101	60	17.22	8866	24756
4	Production technology of Mung bean	70	32.67	36000	48600
5	Use of biofertilizers	80	13.73	48000	51500
6	Use of mineral mixture	80	15.00	4700	5900
7	Composite fish culture in village ponds	60	25.00	41500	72500

NB : The data were based on the actual study, questionnaire/group discussion, etc. with exparticipants.

Extension Education Programmes

15 days certificate course on "Integrated Nutrient Management" for Fertilizers Dealers was held during November 5-21, 2019

1. Certificate Courses for Farm Youths/ Farmers/Input Dealers

Anand Agricultural University conducts 7 certificate courses on various subjects. Under these courses, a total of 268 farm youths/ farmers/input dealers completed the courses during the year 2019-20 the details are given in Table 5.14.

Table 5.14 Details of the Students/Farmers/Input Dealers who Completed the Certificate Course during 2019-20

Sr. No.	Name of Certificate Course	Center	Duration	No. of Training (batch per year)	No. of Farm Youths/ Farmers/Input Dealers Completed the Course
1	Training in Baking Technology	College of FPT & BE, AAU, Anand	20 Weeks	02	53
2	Training in Commercial Poultry Farming / Advanced Training in Commercial Poultry Technology	Poultry Research Station, AAU Anand	10 Weeks	03	58
3	Training in Gardening, Landscaping and Nursery Management	Dept. of Horticulture BACA, AAU, Anand	6 Months	01	22
5	Certificate Course on Soil and Water Testing for Agriculture for farmers	Dept. Agril. Chem. & Soil Sci., BACA, AAU, Anand	3 Weeks	03	48
6	Certificate in Agricultural Extension Services for Input Dealers	SSK, DoEE Anand	6 Months	01	39
7	Diploma in Agricultural Extension Services for Input Dealers	IDEA, AAU Anand	1 Year	01	48

2. Special Training Programmes for Farmers/ Rural Youth

Special training programmes on various subjects for farmers and rural youth were organized by AAU. The details of 67 special training programmes carried out under these schemes are given in Table 5.15.

Table 5.15 Special Training Programmes Conducted by Various Training Centers

Sr. No.	The subject of Training Programmes	Center/Place	No. of Trainings	No. of Beneficiaries
1	Food Processing Technology(FPT)	College of Food Processing and Bio-Energy, AAU, Anand	07	291
2	Organic Farming(OF)	Department of Agronomy, BACA, AAU, Anand	13	475
3	Weed Management(WM)	AICRP-Weed Management, BACA, AAU, Anand	09	417
4	Integrated Pest Management(IPM)	Department of Agricultural Entomology, BACA, AAU, Anand	17	586
5	Medicinal and Aromatic Plants (MAP)	Medicinal and Aromatic Plants Research Station, AAU, Anand	08	256
6	Seed Production(SP)	Department of Seed Science & Technology, BACA, AAU, Anand	08	256
7	Importance of farm mechanization in maize crop	College of Agricultural Engineering & Technology, AAU, Godhara	01	90
8	Food Nutrition, Quality and Safety		01	76
9	10 days ICAR Short Course Training Programme on “Renewable Energy for Environmental Protection and Energy Conservation”		01	17
10	Importance and Utilization of Biogas		01	60
11	Role of Renewable Energy in Agriculture		01	50

3. Training Programmes for Extension Functionaries

(a) Extension Education Institute

The Extension Education Institute, Anand caters to the extension training needs of middle-level functionaries of various line departments of Western Zone States viz; Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Maharashtra, Goa and UTs of Diu, Daman and Dadra Nagar Haveli. The aim is to improve their job performance, wherever, they are working in different capacities. The Management Committee of EEI approves the action plan and reviews the progress of EEI activities. A total of 109 training courses were conducted for 2888 trainees by the EEI, Anand during the year as shown in Table 5.16.

Table 5.16 Training Programmes Conducted during the Year 2019-20

Sr. No.	Type of Courses/Workshops	No. of Courses	No. of Participants
1	On-Campus	38	794
2	Peripatetic (Off-Campus)	39	1400
3	Consultancy/ Sponsored (On-Campus)	28	626
4	Skill Training Programme	04	68
	Total	**109**	**2888**

(b) Training & Visit Scheme

The Anand Agricultural University has taken up the task of training for the extension personnel of the Department of Agriculture through the Training and Visit Scheme at Anand. The details about bi-monthly workshops, pre-seasonal training and special training programmes organized for the extension personnel of the Department of Agriculture and the number of SMSs/AEOs attended the programmes during 2019-20 is given in Table 5.17.

Table 5.17 Training Programmes Organized by T&V during the Year 2019-20

Sr. No.	Type of Programmes	No. of Training Programmes	No. of Extension Personel
1	Bi-Monthly Workshops	04	141
2	Pre-seasonal Training	02	63
3	Greenhouse/Nethouse Training	02	93

4 Training Programmes for Farmers / Farm Women / Farm Youths/Extension Workers and Others

Training is essential to increase the efficiency of the farmers, farm women and farm youths and extension workers. On-campus, as well as off-campus training programmes, are organized based on the needs and interests of the stakeholders through the Front Line Transfer of Technology (TOT) Centres. Total 584 (On-campus-399 and Off-campus-185) training programmes were organized by extension education centers of AAU for 19709 beneficiary farmers and extension workers during 2019-20. The center wise details of the training programmes and their beneficiaries are given in Table 5.18.

Table 5.18 Training Programmes Organized by TOT Centers during 2019-20

Sr. No.	Name of TOT Center	No. of Training Programmes	Farmers	Farm Women	Extension Workers/ Other	Total
1	SSK, Anand	A 52	1133	966	104	2203
2	KVK, Arnej (Dist.Ahmedabad)	A 43	552	278	-	830
		B 64	1333	654	44	2031
3	KVK, Dahod	A 27	373	219	-	569
		B 50	753	605	-	1358
4	KVK, Devataj (Dist.Anand)	A 73	1255	202	162	1619
5	TRTC, Devgadhbaria	A 14	328	281	-	609
		B 03	20	45	-	65
6	TFWTC, Devgadhbaria	A 17	98	570	-	668
		B 10	13	227	-	240
7	DVK, Vejalpur	A 09	461	-	-	461
		B 24	1399	-	-	1399
8	PVK, Limkheda	A 19	289	457	-	746
		B 08	69	143	-	212
9	FTTC, Sansoli	A 12	856	-	-	856
		B 06	228	-	-	228
10	TC, Jabugam	A 15	651	-	-	651
11	ATIC, Anand	A 24	780	348	48	1176
		B 03	86	-	06	92
12	APC, Dahod	A 18	797	-	-	797
		B 11	249	-	-	249
13	TTF, Dahod	A 05				
		B 05				
13	NARP Extension Scheme MMRS, Godhra	A 13	639	-	-	639
		A 07	396	-	-	396
14	School of Baking, Anand	A 50	1443	-	-	1443
		B 01	114		-	114
15	KCC, Anand	A 01			58	58
	Total A	**A 399**	**10051**	**3321**	**372**	**13721**
	Total B	**B 185**	**4264**	**1674**	**50**	**5988**
	Grand Total (A+B)	**584**	**14315**	**4995**	**422**	**19709**

A = On-campus B = Off-campus

5. Extension Education Activities

The KVKs, TOT centers as well as the Advisory service centers and other centers had also planned and organized extension education activities. More than 1,49,811 beneficiary farmers were benefited through various extension education activities conducted by various extension, education and research centers of AAU whereas, 2,24,293 beneficiary farmers were benefitted by providing mobile advisory services (Voice and Text both) through KVKs of AAU during 2019-20. The details of the extension education activities organized under various centers/schemes are given in Tables 5.19 to 5.22.


ખેડૂત તાલીમ


SARDAR PATEL
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Table 5.19 Extension Education Activities carried out by KVKs of AAU during 2019-20

Activities	No. of Programmemes	No. of Farmers	No. of Extension Personnel
Advisory services	129	79045	05
Kisan Mela	01	100	18
Diagnostic visits	201	559	05
Field days	28	541	05
Group discussions	100	1675	-
Kisan ghosthis	60	2868	53
Film shows	138	3771	00
Self Help Groups (SHGs)	01	35	-
Exhibition	01	425	04
Ex-trainees *Sammelan*	01	33	-
Lectures delivered	168	25990	05
Method demonstrations	58	1317	-
Celebration of important days	06	321	243
Farmers visit the KVK	227	2553	16

Table 5.20 Mobile Advisory Services provided by KVKs of AAU during 2019-20

Name of KVK	Message Type	Type of Messages					
		Crop	Livestock	Marketing	Awareness	Other Enterprise	Total Beneficiaries
Arnej (Dist.Ahmedabad)	Text only	42	58	6	247	53	**406**
Dahod	Text only	4	2	1	3	2	**107225**
Devataj (Dist.Anand)	Text only	00	00	03	02	02	**116662**
	Total	**46**	**60**	**10**	**252**	**57**	**224293**

Table 5.21 Extension Education Activities Carried Out in Tribal Area by TOT Centers during 2019-20

Sr. No.	Activities	TTF Dahod	APC Dahod	TRTC Devgadhbaria	TFWTC Devgadhbaria	PVK Limkheda	TOT Godhra	TC Jabugam	DVK Vejalpur
1	**Khedut shibirs/Pashupalan shibirs/ Krushi gosthis/Group discussion**	-	-	02 (400)	01 (267)	03 (667)	07 (393)	02 (60)	-
2	**Guidance to farmers**	206	255	05	10	289	584	107 (1487)	-
3	**Films/Video shows**	-		10 (793)	07 (285)	20 (797)	25 (1196)	12 (485)	-
4	**Guidance through letters/ Telephone/SMS**	228	250	339	185	200	207	123 (205)	-
5	**Field visit/ Crop diagnostic services**	12	07 (94)	03 (57)	00	03 (107)	09 (09)	52 (233)	22 (220)
6	**Cattle health camps**	-	-	-		-	-	-	10 (688)
7	**Lectures delivered for new Technology**	-	-	00	00	36 (1287)	13 (Mass)	1 (600)	-
8	**Pressnote**	-	-	-	-	02	03	-	-
9	**Educational tour**	-	01 (51)	-	-	-	-	-	-
10	**Tick Control Programme**	-	-	-	-	-	-	-	
11	**Deworming Programme**	-	-	-	-	-	-	-	10 (361)
12	**Crop Demo/Int.Demo**	-	-	94	00	260	-	-	90

Note: Figures in parentheses indicate numbers of participants/beneficiaries

Table 5.22 Extension Education Activities Carried Out by TOT Centers during 2019-20

Sr. No.	Activities	SSK Anand	SPAEM Anand	ATIC Anand	PUB Anand	TOT Arnej	FTTC Sansoli
1	**Trainings/*Khedut shibirs/Pashupalan shibirs/ Krushi gosthis***	52 (2203)	-	27 (1268)	-	2 (80)	18 (1084)
2	**Group discussions**	46 (3158)	-	21 (314)	-	39 (639)	05 (111)
3	**Guidance to farmers**	3906	-	1501	2520	1027	181
4	**Films/Video/TV/Radio shows**	73 (3154)	-	-	-	-	3 (Mass)
5	**Guidance through letters/ Telephone/SMS**	498	-	269	2460	719	197
6	**Field visit/ Crop diagnostic services**	81 (3389)	-	09 (330)	-	75 (885)	61 (112)
7	**Newspaper coverage/Press Note**	--	-	-	157		03
8	**Lectures delivered for new Technology**	47 (2027)	-	-	-	17 (478)	8 (250)
9	**Escorting the visitors**	3833	17919	-	93	280	364
10	**Crop Demo / Interactive Demo**	-	-	-	-	10	160

Note: Figures in parentheses indicate numbers of participants/beneficiaries

6. Workshop on Subhash Palekar Natural Farming for Master Trainers

AAU has organized one day workshop on SPNF for master trainers under the guidance of the Department of Agriculture, Farmers' Welfare and Co-operation in collaboration with ATMA and Anand Agricultural University, Anand on 13 February 2020. The programme was inaugurated by Hon. Governershri Acharya Devvratji. In this programme, Hon. Governershri of Gujarat, Officials from state Government, Scientists from Anand Agricultural University, Officials from Agricultural Technology and Management Agency (ATMA) and more than 5000 Master Trainers from different districts of Gujarat were remained present and share their views regarding SPNF.

7. Publications

(i) Farm Magazine

The publication unit publishes the monthly farm magazine *'Krushigovidya'* regularly since May 1948. The main objective of this farm magazine is to disseminate and to popularise improved and scientific methods of agricultural and allied subjects in a very digestible and easily understandable manner for the farming community. There were 2,01,691 copies of krushigovidya distributed during the year 2019-20.

Best Article Award

The AAU gives the Uttam Lekh Awards (Best Articles Awards) for authors whose articles publishes in Krushigovidya farm magazine since 2004-05. These awards were given to 39 authors for their published 13 articles in 12 issues of the 71st volume of Krushigovidya farm magazine. Among them, 39 AAU scientists (55.07 %) received the Uttam Lekh Awards. The detail is given in Annexure 5.2

(ii) AAU Newsletter

The Directorate of Extension Education publishes a quarterly 'AAU Newsletter' regularly. The AAU newsletter gives research highlights, technical events/ news, extension activities and noteworthy work done by the scientists of AAU.

(iii) Books

The publication unit has published 04 books during 2019-20 for sale on various subjects for the benefit of the farming community. The details of literature published & distributed during 2019-20 is given in Table 5.23 & 5.24.

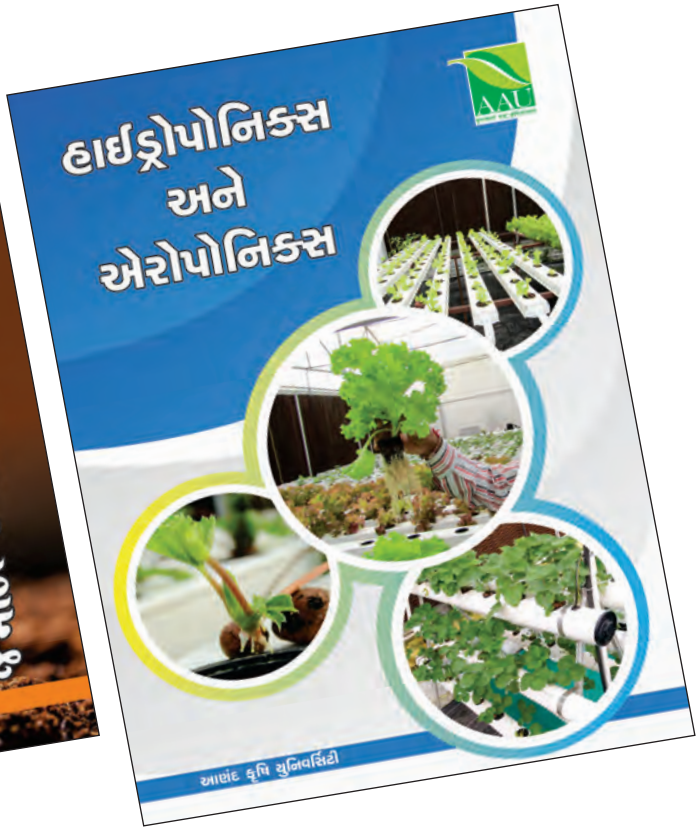

Table 5.23 Books published and sold by Publication Unit, DoEE, AAU, Anand during 2019-20

Sr. No.	Name of Book	No. of Copy Sold
1	*Krushi Margdarshika*	726
2	*Jamin Swasthy ane krushi*	1761
3	*Hydroponics and Aeroponics*	16
4	*Pashupaalan: Bamni Aavakano Strot*	2584
	Total	**5087**

Table 5.24 Farm Literature Published and Distributed by Publication Unit, DoEE, AAU, Anand during 2019-20

Sr. No.	Name of Publication	Type of Publication	No. of Copy Published	No. of Copy Distributed
1	*Khedutopayogi Sansodhan Bhalamano - 2019*	Booklet	2000	2000
2	AAU Newsletter (Quarterly)	Newsletter	3000	3000
3	*Krushigovidya Farm Magazine (Monthly)*	Farm Magazine	201691	201691
	Total		**206691**	**206691**

A total of 2,06,691 copies of different farm literature were distributed by publication unit to farming and scientific community during 2019-20.

(iv) Agricultural Literature

The books, booklets, folders, broachers, reports, directory, worksheets, training and practical manuals, diary, etc. on various subjects were published by different extension, education and research centers of AAU during the year under report. More than, 14,750 copies of books, 20,280 copies of booklets, 66,100 copies of folders, 2,02,441 copies of magazines and more than 10,700 copies of other literature were published and distributed to beneficiaries by AAU in all, list of 87 publications are given in Annexure 5.3

8. Mass Media

(v) Radio Talks

During the year, 15 scientists of AAU has delivered 24 radio talks on different topics related to agriculture, horticulture, animal husbandry on all India Radio, Vadodara and Godhra. The details of radio talks are given in Annexure 5.4

(i) TV Programmes

30 TV talks on different aspects covering agriculture, horticulture, animal husbandry, home science, etc. and 7 phone-in-live programmes were telecast through Doordarshan Kendra, Ahmedabad. The details of TV programmes are given in Annexure 5.5.

(ii) Kisan Call Centre

The Kisan Call Centre (free call Service-1800-180-1551) for the State of Gujarat and U.T. of Dadra and Nagar Haveli has been functioning effectively from 1.11.2004 at Ahmedabad. Since 10th June 2004, the Call Centre service has been made available right from 6 a.m. to 10 p.m.

Directorate of Extension Education, AAU, Anand acts as a nodal agency for KCC of the Gujarat State. The Director of Extension Education looks after and monitors the system in the entire Gujarat State. The Directorate of Extension Education imparts training to Level- I and Level - II officers of KCC.

9. Coordination with line Departments

The AAU has planned and organized various extension education programmes/activities in close coordination with line departments of the state. The structural linkages exist under the Training and Visit scheme by way of constituting technical committees at the district, zonal and state levels.

The functional linkages also exist under the T&V Scheme through bi-monthly workshops, pre-seasonal trainings, diagnostic team, and state-level crop seminars/ workshops etc. The coordination exists in a follow-up programme as well as planning of farm trials. In AGRESCO, the officers of the line departments are the members and they generously contribute to the formulation of technical programmes as well as in finalizing recommendations for the farmers.

The interface of AAU scientists with functionaries of the departments of the state, NGOs and other agencies was organized at state as well as at campus levels during the year of the report.

The agricultural programmes of All India Radio, as well as Doordarshan, were finalized by coordinated efforts. For transfer of technologies to the farmers at large, farmers' day, *Krushi Mela*, farmer-scientist interactions, group discussions etc. were organized through collaborative efforts.

10. *Krishi Kalyan Mahotsav* Programme

Krishi Kalyan Mahotsav is a knowledge sharing rendezvous event for the farming community of Gujarat. Looking to the grand success of the previous year's *Krushi Mahotsav*

in the transfer of agricultural technologies, developing awareness among farmers, planning for ensuing Kharif crops and to make familiar with various government schemes for the benefit of the farming community, a state-level *Krishi Kalyan Mahotsav* was organized on 16th June 2019 by the Government of Gujarat. Under this programme, a Seminar – cum – Exhibition and State Level Programme was organized at Morva(H.) town of Panchmahals District.

Hon. Chief Minister of Gujarat, Shri Vijaybhai Rupani, inaugurated the State Level Programme. Several State and Cabinet Ministers of Gujarat, Legislative Assembly Members, District Panchayat/Taluka Panchayat Presidents, Directors of various Dept. of Gujarat State; Ex. Vice-Chancellor of AAU, Dr. N. C. Patel and many other dignitaries remained present and graced the occasion.

Table 5.26 Brief description of *Krishi Kalyan Mahotsav* 2019-20

Sr. No.	District	No. of Scientists attended the programme	No. of officers/ delegates attended the programme	No. of farmers
1	Ahmedabad	56	27	9194
2	Mahisagar	12	35	2329
3	Botad	09	10	2484
4	Anand	52	28	8401
5	Panchmahal	37	65	9786
6	Vadoadara	45	26	9321
7	Dahod	20	27	6233
8	Kheda	16	23	3247
9	Chhotaudepur	12	20	2350
	Total	**259**	**261**	**53345**

Impacts/Benefits of Krushi Mahotsav

- Direct interaction of farmers with Agricultural scientists/Officers and intimacy between the farmers and Agricultural Scientists/Officers increased
- Farmers started their interaction with

Agricultural Scientists/Officers without any hesitation for their questions/information/ technology.

- Farmers started adopting the new techniques that in turn increased their income.
- Due to systematic cultivation and use of proper inputs, their cultivation cost reduced and hence their income increased.
- Water accumulation/storage, the water level came up due to which the irrigation area increased.
- Farmers started growing new crops so, the loss due to the growing of routine types of crops, risk reduced.
- State border level farmers also adopted the New Agriculture Technology system.
- Due to the easy availability of information of State/Central Govt. schemes, farmers came forward to take benefits of Assistance Schemes

Subhash Palekar Natural Farming Training Cum Shibir

A 7 day Subhash Palekar Natural Farming (SPNF) Training cum Shibir Programme was organized under the guidance of the Department of Agriculture, Farmers' Welfare and Co-operation in collaboration with ATMA and Anand Agricultural University, Anand at Vadtal Swaminarayan Temple, Vadtal, Ta. Nadiad, Dist. Kheda from 5 December 2019 to 11 December 2019. The programme was inaugurated by Hon. Governershri Acharya Devvratji. In this programme, Hon.Governershri of Gujarat, Hon. Cheif Minister of Gujarat, Shri Vijaybhai Rupani, the originator of SPNF farming Shri Subhash Palekarji, Officials from state Government, Scientists from Anand Agricultural University, Official from Agricultural Technology and Management Agency (ATMA) and more than 5000 farmers from different districts of Gujarat remained present. In this programme, Hon. Governershri of Gujarat, Shri Acharya Devvratji highlighted the importance of the SPNF model of farming and change their life. Hon. Cheif Minister of Gujarat, Shri Vijaybhai Rupani pinpointed out the efforts carried out by the Government of Gujarat to encourage SPNF and motivated the farmers to step out towards SPNF and improve their health as well as their family. He also urged that farmers of Gujarat make the state as "Role model" in India by adopting Subhash Palekar Natural Farming. The entire programme was ended with great success.

Annexure 5.1

Extension Education Schemes

Sr.No.	Scheme	Center
A	**Plan Schemes**	
1	Training Programmeme on Food Processing Technology	Anand
2	Training Programmeme on Organic Farming	
3	Training Programmeme on Weed Management	
4	Training Programmeme on Integrated Pest Management	
5	Training Programmeme on Seed Production	
6	Training Programmeme on Medicinal and Aromatic Plants	
7	Training in Gardening, Landscaping and Nursery Management	
8	Training in Baking Technology	
9	Training in Commercial Poultry Farming / Advanced Training in Commercial Poultry Technology	
10	Strengthening of Directorate of Extension Education	
11	Agricultural Technology Information Centre	
12	Upgrading of existing Sardar Smruti Kendra	
13	Establishment of Technological Resource Centre and Educational Museum	
14	Establishment of Transfer of Technology Centre	Arnej
15	Establishment of Agri Poly Clinic for Tribal Farmers	Dahod
16	Strengthening of Demonstration cum Training Centre for Fish Culture	Devataj
17	Establishment of Tribal Farm Women Training Centre	Devgadhbaria
18	Transfer of Technology Centre	Godhra
19	Training Centre	Jabugam
20	Pashu Vigyan Kendra	Limkheda
21	Farm Technology Training Centre	Sansoli
22	Dairy Vigyan Kendra	Vejalpur
B	**Non-Plan Schemes**	
1	Directorate of Extension Education	Anand
2	Publication Scheme	
3	Establishment of Sardar Smruti Kendra Museum	
4	Farm Advisory Scheme	
6	Tribal Training Centre	Dahod
7	Tribal Research cum Training Centre	Devgadhbaria
C	**ICAR Schemes**	
1	Overseeing of KVKs through Directorate of Extension Education	Anand
2	Krushi Vigyan Kendra	Arnej
3	Krushi Vigyan Kendra	Dahod
4	Krushi Vigyan Kendra	Devataj
5	*Mera Gaon Mera Gaurav Programme*	
D	**Other Agency Schemes**	
1	*Krushi Mahotsav*	Anand
2	Training and Visit Scheme (Plan)	
3	NARP Extension Scheme	Arnej
4	NARP Extension Scheme	Godhra
5	*Krushi Library*	Anand

Annexure 5.2

Details of AAU Scientist Receiving Best Article Award

Sr. No.	Name of Scientist	Designation & Address	Year	Issue No.	Month-Year	Page No.
1	Dr. R. K. Thumar	Associate Professor, Entomology Department, BACA, AAU, Anand	71	1	May-2018	19-20
2	Dr. C. C. Patel	Associate Professor, Entomology Department, BACA, AAU, Anand	71	1	May-2018	19-20
3	Dr. P. K. Borad	Professor and Head, Entomology Department, BACA, AAU, Anand	71	1	May-2018	19-20
4	Dr. A. B. Brahmbhatt	Professor and Head, Plant Pathology Department. BACA, AAU, Anand	71	1	May-2018	32-33
5	Dr. N. M. Gohel	Associate Professor, Plant Pathology Department. BACA, AAU, Anand	71	1	May-2018	32-33
6	Shri Keyurkumar A. Patel	Food Processing Technology & Bio-Energy College, AAU, Anand	71	2	June-2018	24-25
8	Dr. R. A. Mathakiya	Assistant Professor, Microbiology Department, Veterinary College, AAU, Anand	71	2	June-2018	32-34
11	Dr. F. P. Sawaliya	Principal Scientist & Head, Poultry Complex, AAU, Anand	71	7	Nov-2018	35-41
12	Dr. R. M. Rajpura	Assistant Professor, Animal Science,	71	7	Nov-2018	35-41
13	Dr. D. B. Sisodiya	Associate Professor, Entomology Department, BACA, AAU, Anand	71	7	Nov-2018	42-43
14	Dr. Raghunandan B. L.	Assistant Research Scientist, Biocontrol Department, AAU, Anand	71	7	Nov-2018	42-43
17	Dr. P. K. Borad	Professor and Head, Entomology Department, BACA, AAU, Anand	71	7	Nov-2018	42-43
18	Shri M. J. Vasani	Research Associate, Agriculture Meteorology Department, BACA, AAU, Anand	71	8	Dec-2018	11-14

Sr. No.	Name of Scientist	Designation & Address	Year	Issue No.	Month-Year	Page No.
19	Dr. N. D. Patel	Assistant Professor, Basic Science & Humanities Department, BACA, AAU, Anand	71	8	Dec-2018	11-14
21	Dr. R. R. Gajera	Associate Professor & Head, Post-Harvest Technology Department, Horticulture College, AAU, Anand	71	8	Dec-2018	18-22
22	Dr. K. D. Mevada	Associate Professor, Agronomy Department, BACA, AAU, Anand	71	11	March-2019	17-23
25	Dr. Jitendrakumar Chaudhary	Veterinary Public, Health & Epidemiology, Veterinary College, AAU, Anand	71	11	March-2019	31-33
26	Dr. S. G. Vohra	Research Scientist, Animal Nutrition Research Station, Veterinary College, AAU, Anand	71	11	March-2019	41-43
27	Dr. B. R. Devalia	Assistant Research Scientist, Animal Nutrition Research Station, Veterinary College, AAU, Anand	71	11	March-2019	41-43
28	Dr. P. R. Pandya	Research Scientist and Head, Animal Nutrition Research Station, Veterinary College, AAU, Anand	71	11	March-2019	41-43
29	Smt. Meeral D. Suthar	Assistant Professor, Entomology Department, BACA, AAU, Anand	71	12	April-2019	29-34
30	Dr. P. K. Borad	Professor and Head, Entomology Department, BACA, AAU, Anand	71	12	April-2019	29-34
31	Minaxi R. Prajapati	Assistant Professor, Polytechnic in Food Science and Home Economics, AAU, Anand	71	12	April-2019	43-45
32	Dr. K. B. Kamaliya	Principal, Polytechnic in Food Science and Home Economics, AAU, Anand	71	12	April-2019	43-45
33	Dr. D. H. Patel	I/C. Director of Student Welfare, AAU, Anand	71	12	April-2019	43-45

Annexure 5.3

Publication of Agricultural Literature during 2019-20

Sr. No.	Name of Publication	Publication Series No./ ISBN/ ISSN No.
	Books	
1	Growth and Prospects of Export	EDU-1:26:2020:500
2	*Ksetriya Pakoma Sankalit Jivat Vyavasthapan*	EDU-1:29:2020:1000
3	Activities and Achievements Diploma in Agricultural Extension Services for Input Dealers	EDU-8:20:2019:250
4	*Jamin Swasthya ane Krushi*	EXT-1:25:2020:2000
5	*Hydroponics ane Aeroponics*	EXT-5:34:2019:1000
6	*Falo ane Shakbhajinu Parirakshan*	EXT-5:35:2019:1000
7	*Pashupaalan: Bamni Aavakano Strot*	EXT-5:36:2019:5000
8	*Vaigyanik Dhabe Pashupaalan: Bamani Aavakano Upay*	EXT-6:2:2020:1000
9	*Khedut Mitra Handbook: Yojanao ane Karyakram Varsh 2019-20 (Online)*	EXT-17:1:2019:0000
10	*Poshanlakshi Suraksha mate Kitchen Garden*	EXT-21:3:2020:1000
11	*Aadarsh Pashupaalan: Pashupaalakoni Aavak Vadharavaano ek Prayas*	EXT-22:28:2020:2000
	Booklets	
12	*Jivatnashak Rashayano*	EDU-1:25:2019:5000
13	An Overview of Processes/Technologies Developed	EDU-6:31:2019:500
14	An Overview of Machines Developed	EDU-6:32:2019:500
15	FPTBE Annual Report 2019-20	EDU-6:33:2019:50
16	AAU Regulations for Post Graduate Programmes through Distance Mode	EDU-8:21:2019:500
17	*Gujaratani Khetima Gaun tatha Sukshma Tatvonu Mahatva ane Prabandhan*	RES-1:13:2019:3000
18	Research Accomplishment and Recommendations (2019)	RES-1:14:2019:500
19	Booklet on "Agri – Startup during 2019-20"	RES-1:15:2019:200
20	Package of Practices for Paddy in Gujarat	RES-27:8:2020:2000
21	*Beej Masala Pakoni Vaigyanik Kheti Paddhati*	RES-47:5:2020:2000
22	*Khedutopayogi Sansodhan Bhalamano 2019*	EXT-3:17:2019:2000
23	*Karya Matsyabeejno Uccher*	EXT-22:27:2019:30
24	16th Convocation: Programme & Procedure	GEN-1:25:2020:1000
25	16th Convocation: Welcome Address	GEN-1:26:2020:1000
26	16th Convocation: Atithi Visheshanu Mangalik Pravachan	GEN-1:27:2020:1000
27	16th Convocation: Convocation Address	GEN-1:28:2020:1000
	Practical Manuals	
28	"GPB 1.1: Introductory Biology"	EDU-1:22:2019:350
29	Ground Water wells and Pumps	EDU-4:29:2019:200
30	E.E.2.3.9 Electrical Machines and Power Utilization Subject	EDU-4:30:2019:100
31	Watershed Hydrology (SWCE-2.4.6)	EDU-4:31:2019:200
32	Soil and Water Conservation Engineering (SWCE-3.5.5)	EDU-4:32:2019:200

Sr. No.	Name of Publication	Publication Series No./ ISBN/ ISSN No.
33	Watershed Planning and Management	EDU-4:34:2019:200
34	Water Harvesting and Soil Conservation Structures	EDU-4:35:2019:200
35	Practical Manual for FPT123 – Post Harvest Engineering	EDU-6:35:2019:200
36	Practical Manual of FPT 243 – Processing Technology of Legumes and Oilseed (As per ICAR 5th Deans' Committee Recommendations)	EDU-6:36:2019:200
	Training Manuals	
37	Animal Husbandry in Respect to WTO	EDU-1:30:2020:500
38	15 Divasiy Training Manual "Integrated Nutrient Management for Fertilizer Dealers"	EXT-22:26:2019:60
39	Training Manual "Integrated Nutrient Management for Fertilizer Dealers"	EXT-23:15:2019:60
	Modules	
40	*Khetima Havaman ane Jaminani Bhumika*	EDU-8:22:2019:50
41	*Pak Utpadan*	EDU-8:23:2019:50
42	*Beej Utpadan*	EDU-8:24:2019:50
43	*Sankalit Poshan Vyavasthapan (IMN)*	EDU-8:25:2019:50
44	*Piyat Vyavasthapan (*Water Management*)*	EDU-8:26:2019:50
45	*Pak Sanrakshan*	EDU-8:27:2019:50
46	*Farm Yantrikaran ane Kapani Pachhini Tantrikatao*	EDU-8:28:2019:50
47	*Vistran Vyavastha ane Vyaktitva Vikas*	EDU-8:29:2019:50
48	Input dealer course Module-1	EXT-2:2:2019:50
49	Input dealer course Module-2	EXT-2:3:2019:50
50	Input dealer course Module-3	EXT-2:4:2019:50
51	Input dealer course Module-4	EXT-2:5:2019:50
52	Input dealer course Module-5	EXT-2:6:2019:50
53	Input dealer course Module-6	EXT-2:7:2019:50
54	Input dealer course Module-7	EXT-2:8:2019:50
55	Input dealer course Module-8	EXT-2:9:2019:50
	Folders	
56	*BT Kapasani Gulabi Iyal ane tenu Sankalit Vyavasthapan*	EDU-1:20:2019:10000
57	*Sangrahit Anajama Jivat Vyavasthapan*	EDU-1:21:2019:5000
58	*Titighoda ane Rantidni Samasya ane tenu Sankalit Vyavasthapan*	EDU-1:23:2019:5000
59	*Krushi Kshetre Nikasani Tako ane Karyavahi*	EDU-1:27:2020:2000
60	Agri-Export from India: Prospects and Procedure	EDU-1:28:2020:2000
61	Departmental Profile Processing and Food Engineering	EDU-4:26:2019:100
62	Pravahi Jaivik Khatar : Color	RES-12:12:2020:10000
63	Pravahi Jaivik Khatar : Black & White	RES-12:13:2020:10000
64	G. A. R. 14: Sugandhit ane Madhyam Patlo Dano Dharavati Dangarani Sudhaareli Jat	RES-27:7:2019:2000
65	*Sendriy Khetima Pak Paddhatio*	RES-41:7:2020:2000
66	*Badalata Vatavaranani Jivato par Thati Asaro*	RES-41:8:2020:2000
67	*Anand Krushi University Dvara Sendriy Poshan Vyavasthaa Anvaye Thayel Bhalamano*	RES-41:9:2020:2000

Sr. No.	Name of Publication	Publication Series No./ ISBN/ ISSN No.
68	*Jaivik Krushi Upajani Reet ane Pramanani Jaruriyato*	RES-41:10:2020:2000
69	*Sendriy Kheti Mateni Sahay Yojanao*	RES-41:11:2020:2000
70	*Gujarat Rajyama Sendriy Kheti Karta Kheduto Farmani Sampark Yadi*	RES-41:12:2020:2000
71	*Sendriy Kheti Karata Khedutoni Safalya Gatha*	RES-41:13:2020:2000
72	*Diwelani Vaigyanik Kheti Paddhati*	RES-45:12:2019:1500
73	*Ghauni Vaigyanik Kheti Paddhati*	RES-45:13:2019:1500
74	*Deshi Kapasani Navi Jato ane Kheti Paddhati*	RES-47:4:2020:3000
	Leaflets	
75	*Goldfishnu Prajanan ane Bacchano Uchher*	EXT-34:2:2019:1000
	Souvenir	
76	Souvenir of Agrivision 2019 Programme	EDU-1:24:2019:50
	Brochure	
77	Placement Brochure 2020	EDU-4:33:2019:150
78	Placement Brochure 2019 (For College)	EDU-6:34:2019:200
	Magazine	
79	*"Krushigovidhya" Magazine (Monthly)*	Year:71:No.12:Vol.852:21000 Year:72:No.01:Vol.853:20700 Year:72:No.02:Vol.854:20700 Year:72:No.03:Vol.855:20500 Year:72:No.04:Vol.856:18500 Year:72:No.05:Vol.857:17000 Year:72:No.06:Vol.858:16500 Year:72:No.07:Vol.859:16800 Year:72:No.08:Vol.860:14991 Year:72:No.09:Vol.861:12500 Year:72:No.10:Vol.862:11000 Year:72:No.11:Vol.863:11500
80	Rivista-2019 A magazine from SRC- CAET, Godhra	EDU-4:25:2019:300
81	Food Technica (College Magazine)	EDU-6:30:2019:300
82	AIT College Magazine	EDU-7:1:2020:150
	Newsletter	
83	AAU Newsletter (Quarterly)	Vol.15 No.4: 1000 Vol.16 No.1: 1000 Vol.16 No.2:1000 Vol.16 No.3: 1000
	Reports	
84	Annual Progress Report-2018-19 (Volume-9)	EDU-4:27:2019:200
85	15th AAU Annual Report 2018-19	GEN-1:24:2020:300
	Technical Bulletin	
86	Renewable Energy for Environment Protection & Energy Conservation	EDU-4:28:2019:30
	Handout	
87	Diwelani Navi Jaat (GAC 11)	RES-45:14:2019:1500

Annexure 5.4

Radio Talks Delivered during 2019-20

Sr. No.	Name of Scientist	Topic	Date
1	Dr. M. B. Patel	*Chomasu Makaini Kheti Paddhati*	29/04/2019
2	Dr. R. R. Gajera	*Soyabinma Mulya Vardhan*	14/05/2019
3	Dr. R. R. Acharya	*Shakbhaji Pakoni Vaigyanik Kheti Paddhati*	17/05/2019
4	Dr. K. V. Patel	*Mag ane Tuverani Kheti Paddhati*	21/05/2019
5	Dr. S. K. Raval	*Pashuoma Jivanu Vishanu thi Thata Rogo, Nidan ane Sarvar*	11/06/2019
6	Dr. G. J. Patel	*Soyabinni Vaigyanik Kheti Paddhati*	05/07/2019
7	Dr. K. C. Patel	*Khetima Sukshm Tatvoni Upyogita*	06/08/2019
8	Dr. S. D. Patel	*Kathol Pakoma Sankalit Jivat Niyantran*	13/08/2019
9	Dr. G. G. Patel	*Kheti Kharch Gatadava ane Gunvatta Sabhar Utpadan Melavava Sajiv Kheti*	20/08/2019
10	Dr. N. I. Shah	*Falo Upar Kothali Chadavavana Fayda*	23/08/2019
11	Dr. R. J. Modi	*Adarsh Pashu Rahethan*	13/09/2019
12	Dr. M. B. Patel	*Siyalu Makaini Vaigyanik Kheti*	14/10/2019
13	Dr. D. B. Sisodiya	*Makaini Navi Jivat: Tapkavali Lashkari Iyal ane Tenu Vyavasthapan*	21/10/2019
14	Dr. K. V. Patel	*Chana Ni Vaigyanik Kheti*	28/10/2019
15	Dr. R. R. Acharya	*Shakbhaji Pakoni Vaigyanik Kheti*	08/10/2019
16	Dr. S. D. Patel	*Chanana Pakma Sankalit Jivat Vyavasthapan*	29/10/2019
12	Dr. M. B. Patel	*Siyalu Makaini Vaigyanik Kheti*	11/11/2019
13	Dr. D. B. Sisodiya	*Makaini Navi Jivat: Tapkavali Lashkari Iyal ane Tenu Vyavasthapan*	18/11/2019
14	Dr. K. V. Patel	*Chana Ni Vaigyanik Kheti*	25/11/2019
15	Dr. R. K. Thumar	*Kapasama Gulabi Iyal ane Tenu Sankalit Vyavasthapan*	26/11/2019
16	Er. Rajesh S. Godhani	*Greenhouse Technology na Prakaro ane Upayogita*	02/12/2019
17	Dr. R. J. Modi	*Pashu Vyandhtva ane Tenu Niyantran*	16/12/2019
18	Dr. K. L. Dabhi	*Krushima Yantrikikaran ane tena Fayda*	23/01/2020
19	Dr. K. C. Patel	*Jamin-Chhod-Poshan Vyavasthama Sukshm Tatvonu Mahatva*	04/02/2019
20	Er. Khyati Vyas	*Varsadi Paninu Vyavasthapan*	04/02/2020
21	Dr. R. R. Gajera	*Bagyati Pakoma Processing ane Mulyavardhan*	07/02/2020
22	Dr. R. R. Acharya	*Velavala Shakbhajini Kheti Paddhati*	18/02/2020
23	Sh. K. V. Vala	*Khadya Padarthoni Vikiran (Iradiation) Prakriya*	17/03/2020
24	Dr. P. M. Lunagariya	*Pashu Prajanan Samsya ane Tenu Niavaran*	27/03/2020

Annexure 5.5

Television Programmes Telecasted during 2019-20

Sr. No.	Name of Scientist	Topic	Date
1	Dr. H. L. Dhaduk	*Aushadhiya ane Sugadhit Pakoni Kheti*	22/04/2019
2	Dr. M. B. Patel	*Chomasu Makaini Vaigyanik Kheti Paddhati*	30/04/2019
3	Dr. M. B. Parmar	*Chomasu Dangarni Kheti Paddhati*	30/04/2019
4	Dr. R. R. Gajera	*Soyabinma Mulya Vardhan*	11/06/2019
5	Dr. R. R. Acharya	*Shakbhaji Pakoni Vaigyanik Kheti Paddhati*	17/04/2019
6	Dr. K. V. Patel	*Mag ane Tuverani Kheti Paddhati*	08/05/2019
7	Dr. D. P. Gohil	*Ghascharani Kheti*	22/05/2019
8	Dr. D. D. Chaudhari	*Kharif Pakoma Sankalit Nindan Vyavastthapan*	12/06/2019
9	Dr. S. K. Raval	*Pashuoma Jivanu Vishanu thi Thata Rogo, Nidan ane Sarvar*	19/06/2019
10	Dr. Manoj Lunagariya	*Chomasu Alnino ane Khetima Aaksmik Ayojan*	26/06/2019
11	Dr. P. K. Borad	*Kapasama Gulabi Iyal ane Makaima Fallarmyworm Jivatonu Sankalit Niyantran*	10/05/2019 (Phone in Live)
12	Dr. Dhaval R. Kathiriya	*Krushikshetre Information Technology no Upyog*	14/06/2019 (Phone in Live)
13	Dr. G. J. Patel	*Soyabinni Ganishth Kheti Paddhati*	01/07/2019
14	Sh. K. V. Vala	*Fal-Shakbhajini Eco Friendly Lari*	16/09/2019
15	Dr. S. D. Patel	*Kathol Pakoma Sankalit Jivat Niyantran*	16/07/2019
16	Dr. N. I. Shah	*Falvadima Falo Upar Kothali Chadavavana Fayda*	06/08/2019
17	Dr. R. J. Modi	*Adarsh Pashu Rahethan*	21/08/2019
18	Dr. K. C. Patel	*Khetima Sukshm Tatvoni Upyogita*	04/09/2019
19	Dr. A. B. Brahmbhatt & Dr. R. K. Thumar	*Dangarma Pak Sanvrakshan*	26/07/2019 (Phone in Live)

Sr. No.	Name of Scientist	Topic	Date
20	Dr. B. D. Patel & Dr. R. A. Patel	*Ravi Pakoma Piyat ane Nindan Vyavasthapan*	06/09/2019
21	Dr. D. B. Sisodiya	*Makaini Tapkavali Lashkari Iyal (Fall Armyworm)*	22/10/2019
22	Dr. P. M. Patel	*Sajivkhetima Poshan Vyavasthapan*	12/11/2019
23	Dr. K. V. Patel	*Chana Ni Vaigyanik Kheti*	17/12/2019
24	Dr. R. R. Acharya	*Shakbhaji Pakoni Vaigyanik Kheti*	16/10/2019
25	Dr. M. B. Patel	*Siyalu Makaini Vaigyanik Kheti*	06/11/2019
26	Dr. D. D. Chaudhari	*Ravi Pakoma Sankalit Nindan Vyavastthapan*	27/11/2019
27	Dr. K. D. Parmar	*Jantunashak Avasheshoni Aadasar*	18/12/2019
28	Dr. R. K. Thumar & Dr. D. B. Sisodiya	*Kapasani Gulabi Iyal tatha Makaima Fallarmywormnu Sankalit Vyavsthapan*	04/10/2019 (Phone in Live)
29	Dr. K. K. Hadiya & Dr. R. J. Modi	*Pashu Vyandhtva ane Tenu Niyantran*	13/12/2019 (Phone in Live)
30	Dr. R. R. Gajera	*Bagyati Pakoma Processing ane Mulyavardhan*	21/01/2020
31	Dr. K. C. Patel	*Jamin-Chhod-Poshan Vyavasthama Sukshm Tatvonu Mahatva*	24/03/2020
32	Dr. S. D. Patel	*Ravi Pakoma Sankalit Jivat Vyavasthapan*	22/01/2020
33	Sh. K. V. Vala	*Khadya Padarthoni Vikiran (Iradiation) Prakriya*	05/02/2020
34	Dr. J. H. Chudhari	*Pashuomathi Manavima Prasarata Rogo ane Teni Savcheti*	26/02/2020
35	Dr. R. R. Acharya	*Velavala Shakbhajini Kheti Paddhati*	18/03/2020
36	Dr. R. K. Thumar & Dr. R. G. Parmar	*Ravi Pakoma Sankalit Rog-Jivat Vyavasthapan*	17/01/2020 (Phone in Live)
37	Dr. K. K. Hadiya & Dr. P. M. Lunagariya	*Pashu Prajanan Samsya ane Tenu Niavaran*	13/03/2020 (Phone in Live)