

Department of Gynaecology & Obstetrics

Profile:

ICAR, New Delhi sanctioned a scheme for the study of Infertility in Cattle at the College of Veterinary Science and AH in 1965. The object of this scheme was to initiate and improve upon teaching and research in Animal Reproduction including Veterinary Obstetrics, Gynaecology and Artificial Insemination. The department of Veterinary Obstetrics and Gynaecology was fully established in 1968. The theoretical and practical training in the fields of applied reproduction and gynaecology are imparted to undergraduate and post-graduate students of Veterinary Science. Under Cattle Infertility Scheme, the department of Obstetrics and Gynaecology had treated more than 1.5 lac cases which include AI and sexual health control cases. The staff members of the department have also participated in more than 150 Gynaecological Camps organized in the state. Total 88 students at M.V.Sc. level and 10 students at Ph.D. level have been trained at this department. A total of 345 research papers and text books on Farm Animal Reproduction have been published so far through this department. The staff members of this department have bagged many awards and laurels, and have also attended large number of Symposia and Conferences of National and International repute.

Faculties:

Sr. No.	Name with photograph	Designation	Phone (O)	Cell No	Intercom No.	E-Mail
1	Dr. A. J Dhami	Prof. & Head	261871	9898262498	950	ajdhami@aau.in
2	Dr. M.T. Panchal	Professor	261871	9427403841	949	mtpanchal@aau.in
3	Dr. J. A. Patel	Professor	261871	9537913811	952	japatel@aau.in
4	Dr. K. K.Hadiya	Assistant Professor	261871	9825484047	952	kamleshhadiya@aau.in
5	Dr. D.V. Chaudhari	Assistant Professor	261871	9427649653	952	dvc@aau.in

Major Activities:

I. Teaching

A.UG Courses

Sr. No.	Title of the Course	Course No.	CREDITS (T+P=Total)
1	Veterinary Gynaecology	VOG-411	2 + 1 = 3
2	Veterinary Obstetrics	VOG-421	1 + 1 = 2
3	Veterinary Andrology and Reproductive Techniques	VOG-511	1 + 1 = 2
Total			4 + 3 = 7

B. PG Courses

CODE	COURSE TITLE	CREDITS (T+P=Total)
M. V.Sc.		
VOG-601	General Gynaecology	3+1 = 4
VOG-602	Female Infertility	3+1 = 4
VOG-603	Veterinary Obstetrics	2+2 = 4
VOG-604	Andrology & Male Infertility	3+1 = 4
VOG-605	Semen Preservation and Artificial Insemination	2+1 = 3
VOG-606	Reproductive Biotechnology	2+1 = 3
VOG-607	Clinical Practice I	0+3 = 3
VOG-608	Clinical Practice II	0+3 = 3
VOG-691	Master's Seminar	1+0 = 1
VOG-699	Master's Research	0+20=20
Total		16+33 = 49
Ph.D.		
VOG-701	Advances in Gynaecology	2+1 = 3
VOG-702	Advances in Obstetrics	2+1 = 3
VOG-703	Advances in Andrology	2+1 = 3
VOG-704	Advances in Reproductive Biotechnology	1+1 = 2
VOG-705	Advances in Semen Preservation	1+1 = 2
VOG-706	Clinical Practice I	0+3 = 3
VOG-707	Clinical Practice II	0+3 = 3
VOG-790	Special Problem	0+2 = 2
VOG-791	Doctoral Seminar I	1+0 = 1
VOG-792	Doctoral Seminar II	1+0 = 1
VOG-799	Doctoral Research	0 +45=45
Total		10+58=68

II. Research

A. Research Projects Completed:

Sr. No.	Title of Research Projects	Agency	Period	Budget Out lay (Rs. Lac)	PI/Co-I
1	Repeat Breeding in Bovine Due to Tubal Factors (Adhoc; 9991)	GOG	1999-2001 3 Years	3.00	Dr H.J. Derashri
2	NATP on "Improving Reproductive Efficiency of Cattle and Buffaloes" (2073-56)	ICAR & GOG	2000-2005 5 Years	44.00	Dr. F.S. Kavani
3	Establishment of Frozen Semen Station and Breeding of Animals at Anand under GLDB	GOG	2006-11	950.00	Dr. F.S. Kavani
4	Research and Development of Technology for Sorting X- and Y-bearing Spermatozoa in Bovines. 12963-04	GOG, XII FYP	Discountin ued	1011.00	Dr. A.J. Dhami Dr. M.T. Panchal Dr. J.A. Patel Dr. R.G. Shah Dr. K.K. Hadiya

B. Research Projects On going:

Sr. No.	Title of Research Projects	Agency	Period	Budget Out lay (Rs. Lac)	PI/Co-I
1	Cattle Infertility Scheme; Non Planned (B.H. No.: 5301)	AAU, GOG	1969	-	Dr. A.J. Dharni Dr. M.T. Panchal Dr. R.G. Shah Dr. J.A. Patel Dr. K.K. Hadiya
2	Imparting Education on Semenology and Frozen Semen Technology to Students and Field Veterinarians (B.H. No.: 12303-8)	AAU, GOG	1996	-	Dr. A.J. Dharni Dr. M.T. Panchal Dr. R.G. Shah Dr. J.A. Patel Dr. K.K. Hadiya
3	Augmenting Reproductive Efficiency in Dairy Animals of Tribal Areas using Controlled Breeding Technologies and Ultrasonography (BH 12993-14)	AAU, GOG	2012	169.00	Dr. A.J. Dharni Dr. M.T. Panchal Dr. R.G. Shah Dr. J.A. Patel Dr. K.K. Hadiya
4	AICRP on "Nutritional and Physiological Approaches for Enhancing Reproductive Performance of Animals", Anand (B. H. 2028)	ICAR, GOI	2013-14 ICAR XII FYP	104.00	Dr. A.J. Dharni Dr. M.T. Panchal Dr. J.A. Patel Dr. A. Killedar Dr. D.N. Rank Dr. D.C. Patel

C. Post-graduate Degrees Awarded

a. No. of M.V.Sc. degrees awarded : 88

b. No. Ph.D. degrees awarded : 10

D. Research Publications : 343**E. Research Recommendations****Year: 2000-01 (For Scientific Community)**

Repeat breeding animals should be flushed using three way (Foley) catheter with broad spectrum antibiotic and mucolytic agent to clear the tubal blockage causing tubal impatency.

Year: 2004-05 (Recommendation for Farmers)

Dairy farmers are advised to breed the bovines by 7th week postpartum to optimize the intercalving period. Animals not observed in oestrus, by this time are required to be examined gynaeco-clinically by veterinarians for inducing estrus and the subsequent breeding.

Year: 2010 (For Scientific Community)

Para-veterinarians and inseminators involved in the breeding activities at the field level should exercise extreme care in location of the external os while performing

inseminations, intra-uterine medications and handling of distocia problems to minimize cervical lacerations leading to distortion of cervix.

Year: 2013-14 (3) (For Scientific Community)

- a. It is recommended that the **true anoestrus** crossbred dairy cows and buffaloes having average body condition under field conditions can be treated/managed by the field veterinarians, using estrus synchronization protocols, viz., (i) intra/vaginal insertion of progesterone releasing device (CIDR/PRID) for 7 days, followed by Inj. PGF₂α, 25 mg, i/m, on day 7, while removing the device and Inj. Busereline acetate (GnRH), 20 mcg, i.m., on day 9 with fixed time double inseminations performed at 0 and 24 hrs later; and (ii) Ovsynch treatment protocol, comprising Inj. Busereline acetate (GnRH), 20 mcg, i/m on day 0; followed by Inj. PGF₂α, 25 mg, i/m, on day 7; and second Inj. GnRH, 10 mcg, i/m, on day 9 followed by fixed time insemination 16-24 hrs later, with nearly cent per cent induction of ovulatory estrus and, 40 to 50 and 70 to 80 per cent conception rates of induced and three post-treatment cycles, respectively.
- b. It is recommended that under field conditions, the **repeating** crossbred cows and buffaloes, having average body condition and no any palpable or visible genital abnormalities, can be treated/managed by the field veterinarians, using mid-cycle Inj. PGF₂α, 25 mg, i/m, to induce ovulatory estrus nearly cent per cent, with 40 to 50, and 70 to 80 per cent conception rates of induced and three post-treatment cycles, respectively.
- c. It is recommended that under field conditions, the **repeating** crossbred cows and buffaloes, having average body condition and no any palpable or visible genital abnormalities, can be treated/managed by the field veterinarians, using Inj. GnRH, 10 mcg, i/m, at the time of AI with an improvement of conception rate up to 30 to 40 per cent at first service and overall up to 60 to 70 per cent.

Year: 2015-16 (2) (For Scientific Community)

1. "Inclusion of taurine @ 4 mg/ml or cysteine @ 1 mg/ml in standard Tris Fructose Yolk Glycerol (TFYG) extender is recommended to the semen banks as a routine suitable antioxidant additive for improved cryopreservation and/or refrigeration preservation of buffalo semen as it significantly (P<0.01) enhanced sperm progressive motility, viability, and membrane integrity with reduced sperm/acrosome abnormalities at all stages of refrigeration preservation as well as cryopreservation of buffalo semen when compared with control TFGY extender and other levels of additives (0.5 mg/ml cysteine and 6 mg/ml taurine)".
2. "Three estrus/ovulation synchronization protocols, viz., Ovsynch, Heatsynch and Triu-B used in true anoestrus crossbred cows resulted into equally good estrus induction response (80-100%) and conception rates (45-58%) in both winter and summer seasons. In anoestrus buffaloes, both estrus induction response and conception rates were better during winter (83-92% and 50-58%) than in summer (73-84% and 21-33%) season, suggesting better scope for their use in cows round the year and in buffaloes only during winter season".

III. Extension

A. Refresher Training Courses / Summer-Winter Schools conducted Training Programmes:

No	Title	Period	Participant	Sponsoring Agency
1	Training programme for field veterinarians and livestock inspectors.	1976 to 1980	Vets: 50 LIs: 150	Dept. of Anim. Hus., Gujarat State
2	Infertility Problems in Bovines (1997-98)	02-06.12.1997 05-09.01.1998	07(07) 08(04)	Dept. of Anim. Hus., Guj. State
3	Infertility Problems in Bovines (1998-99)	30.11 to 04.12.1998 07-11.12.1998 04-08.01.1999 18-22.01.1999	08(07) 08(07) 07(03) 07(05)	Dept. of Animal Husbandry, Gujarat State
4	Infertility Problems in Bovines (1999-2000)	15-19.11.1999 29.11 to 03.12.1999 20-24.12.1999 27-31.12.1999	08(04) 08(05) 08(06) 08(06)	Dept. of Animal Husbandry, Gujarat State
5	Infertility Problems in Bovines (1999-2000)	03-08.01.2000	06(06)	"Sabar" Dairy, H'nagar
6	Infertility Problems in Bovines (2000-2001)	04-08.12.2000 01-05.01.2001 21.01 to 02.02.2001	10(07) 10(06) 10(05)	Dept. of Anim. Hus., Gujarat State
7	Infertility Problems in Bovines (2001-2002)	04-08.02.2002	10(09)	Dept. of A.H. Guj. State
8	Infertility Problems in Bovines (2002-2003)	27-31.01.2003 11-15.02.2003	10(06) 10(08)	Dept. of Anim. Hus., Guj. State
9	Infertility Problems in Bovines (2003-2004)	03-07.02.2004 01-05.03.2004	10(10) 10(05)	Dept. of Anim. Hus., Guj. State
10	Advanced training in AI, Andrology and Frozen Semen Technology for "Existing AI Workers" (2004-05)	11-15.10.2004	10(10)	Gujarat Livestock Development Board (GLDB), Gandhinagar
		25-29.10.2004	10(05)	
		01-05.11.2004	10(07)	
		22-26.11.2004	10(07)	
		29.11 to 03.12.2004	10(07)	
11	Advanced Training in Animal Reproduction and Obstetrics including Sonography and other Modern Techniques (2004-05)	07-16.02.2005	10(10)	Assistance to States for Control of Animal Diseases (ASCAD)
		07-16.03.2005	10(05)	
12	Professional Training for Senior Veterinarians in Frozen semen Technology including Sonography and other Modern Techniques. (2005.06)	07-16.11.2005	10(09)	Gujarat Livestock Development Board (GLDB), Gandhinagar
13	Advanced Training in Artificial Insemination for Existing AI Workers (Veterinarians). (2005.06)	19-23.12.2005	10(09)	
		26-30.12.2005	10(06)	
		16-20.01.2006	10(05)	
		23-27.01.2006	10(04)	
		30.01. to 03.02.2006	10(06)	
		06-10.02.2006	10(05)	

		13-17.02.2006	10(07)	
		20-24.02.2006	10(10)	
		27.02 to 03.03.2006	10(10)	
		06-10.03.2006	10(10)	
14	Basic AI Training for New AI Workers (For Rural Youth)	Feb., 2005 (One Month)	25	Gujarat Livestock Development Board (GLDB) , Gandhinagar
		March, 2005 (One Month)	25	
		Sept., 2005 (One Month)	30	
		13.2-12.03.2005(Month)	30	
15	Advanced Training in Anim. Reprod. & Obstetrics including Sonography and other Modern Techniques (2005.06)	13.03.2006 to 22.03.2006	10(03)	GLDB
16	Advanced training in Animal reproduction, Gynaecology & Obstetrics	11.01.2007 to 20.01.2007	13	ASCAD
17	Recent Trends in Use of Ultrasonography, Laparoscopy and Heat Detector in Animal Reproduction	09.10.2007 to 18.10.2007	09	ASCAD
		22.10.2007 to 31.10.2007	06	
18	Advanced training in Animal reproduction, Gynaecology & Obstetrics	31.12.2007 to 09.01.2008	03	ASCAD
19	Training Programme for Veterinary Consultants under Fertility Improvement Programme Under GCCMF, Anand sponsorships	Batch: I; 29-31 July 2008 Batch: II; 5-7 August 2008	60	GCCMF
20	Reproductive Health Management in Bovines"	27-30 Jan 09 9-12 Feb 09	35	Under VCI, New Delhi, CVE
21	Refresher Training Programme on "Fertility Improvement Programme for Dairy Veterinarians	2-4 Feb 09 5-7 Feb 09 25-27 Feb 09 18-20 Feb 09	110	GCCMF
22	Refresher Training for state Veterinarians on "Gynaecological Aspects including Sonography & AI Techniques	15/09/2010 to 24/09/2010	4	ASCAD
23	Refresher Training for state Veterinarians on "Gynaecological Aspects including Obstetrics, Sonography & AI Techniques	19-24 Sept., 2011	8	ASCAD
24	Refresher Training for state Veterinarians on "Gynaecological & Obstetrical Aspects including Sonography & AI Techniques	16-21 January., 2012	8	ASCAD

25	ASCAD Training for State Veterinarians of Gujarat on "Gynaecology & Obstetrical Aspects including Sonography & AI Techniques	Sept 2013 and Oct, 2013	12 +11	ASCAD, Dept. of AH, GOI
26	National Workshop on "Veterinary Emergency Response during Drought & Heat Waves"	20 th March 2014	250	WSPA and NDMA, New Delhi
27	"Laboratory Techniques of Semen Processing for Laboratory Technicians"	24.02.2014 to 1.03.2014	08	NDP-1
28	"Laboratory Techniques for Evaluation and Quality Control of Bovine Frozen Semen for Quality Control Officers"	10.03.2014 to 22.03.2014	08	NDP-1
29	Refresher training "Management of Animal Health, Surgical and Gynaecological Disorders in Dairy Animals" for Amul Vets	July, 2014	15 15	AMUL, Anand
30	Specialized Refresher training on "Fertility Improvement in Dairy Animals" for FIP Consultants Vets of GCMMF	7-9 July 10-12 July & 8-10 Sept, 2014	44, 42, 42 (total 128)	GCMMF, Anand
31	ASCAD Training for State Veterinarians of Gujarat on "Gynaecology & Obstetrical Aspects including Sonography & AI Techniques	August 2014 and Sept, 2014	12 11	ASCAD, Dept. of AH, GOI
32	Specialized training on "Laboratory Techniques of Semen Processing for Laboratory Technicians" of Semen Stations"	21-26 July & 17-22 Nov 2014	09 08 (Total 17)	NDP-1
33	Specialized training on "Breeding Soundness/ Andrological Examination for Veterinary Officers and QCOs" working on Semen Stations	6-18 October 2014	08	NDP-1
34	Specialized training on "Modern Cryopreservation Technology of Bovine Semen for Veterinary Officers and Quality Control Officers" working on Semen Stations	1-13 Dec 2014	08	NDP-1
35	"Fresh AI Technicians training" (6 wks) for establishing 2000 new AI centres in the state under RKVY scheme of GCMMF	5 Jan to 14 Feb 2014 and 16 Feb to 28 Mar 2014	33 21 (Total 54)	GoG / GCMMF
36	ASCAD Training for State Veterinarians of Gujarat on "Gynaecology & Obstetrical Aspects including	Oct 5-10, 2015 Nov 2-7, 2015	10 07 (total 17)	ASCAD, DADF, GOI through State AH

	Sonography AI & FS Techniques			
37	Specialized training on “Laboratory Techniques of Semen Processing for Laboratory Technicians” of Semen Stations”	12-17 Oct, 2015: and 18-23 Jan, 2016	08 08 (Total 16)	NDP-1
38	Specialized training on “Laboratory Techniques for Evaluation and Quality Control of Bovine Frozen Semen for Quality Control Officers” of Semen Stations	7-19 Dec, 2015	06	NDP-1
39	“Fresh AI Technicians training” (6 wks) for establishing 2000 new AI centres in the state under RKVY scheme of GCMMF	July 6 to Aug 15, 2015	25	GoG / GCMMF
40	ASCAD-AAVCA National Seminar on “Sustainable Livestock Productivity through Better Health & Management”	11 th March 2016	325	AAVCA and GOI under ASCAD

B. Seminar/Symposia/Conference/Workshop organized

Sr. No.	Name of Seminar/Symposia/Conference etc.	Name of the Organizing Institute
1	Seminar on “Bovine Infertility Problems” of ISSAR Gujarat Chapter, 13 May 1984	ISSAR & Guj Vet Assoc, Ah'd
2	Seminar on “Frozen Semen Technology” of ISSAR Gujarat Chapter, 18 Nov., 1984	ISSAR & Guj Vet Assoc, Ah'd
3	Seminar on “Recent Advances in Cryopreservation of Bovine Semen” 25 June 1994	ISSAR Guj Chap & GVC, Anand
4	Seminar on “Improving Bovine Reproductive Efficiency” organized by ISSAR Gujarat Chapter, 19 December, 1999	ISSAR & GVC, Anand
5	Workshop on “Improving Reproductive Efficiency of Cattle and Buffaloes” by ISSAR Gujarat Chapter, 11 March, 2001	ISSAR & Panchamrut Dairy, Godhra,
6	National Seminar under ASCAD on “Growing Concern for Improved Health Status of Livestock, Drug Residues in Animal Products and Animal Diseases Affecting Human Health” 5-7 August, 2005	ASCAD and Vet. College, AAU, Anand,
7	National Seminar on “Augmenting Reproductive Efficiency in Dairy Animals” 10-12 Dec, 2005	GLDB and Vet. College, AAU, Anand
8	State Level Seminar on “Fertility Management in Bovine: Challenges and Future Prospects” February 20, 2009	ISSAR Guj Chapter, Vet. Coll., and GLDB, at AAU, Anand
9	National Seminar on “Advances in Animal Health and Application of Biotechnology and 1 st Annual Convention of SVSBT” Anand, March 9, 2013	ASCAD, SVSBT, Veterinary College, AAU, Anand
10	National Seminar on “Sustainable Livestock Productivity through Better Health and Management” 11 th March 2016	AVVCA and ASCAD, Vet College, AAU, Anand

C. Diagnostic Services / Clinical Camps/Farmers' advisory services/Ambulatory Clinics/Vaccination camps

Clinical Camps	>150
A.I. Clinic	01
Ambulatory Services	Daily
Extension Lectures in NSS camps, EEI and other organizations	>200
Expertise services to various organizations	>50
Training Course: -Refresher course on Bovine Infertility for State Government and District Co-op Dairies -Equine Management Course at Junagadh	16 Titles (50 Batches)

D. NSS Camps/ / Pashupalan Shibirs/Radio-TV Talks Delivered/Exhibitions/Farmers' meet-day/Kisan Call Center/Field Visits

E.

Author	Lecture Topic	Name of Media (TV/ Radio/ Farmers Meet)	Place	Date
Dr. A.J. Dhami and Dr. M.T. Panchal	Current concepts in use of CBTs for enhancing fertility in dairy animals	Field and FIP Veterinarians Meets	Sabar Dairy, Himmatnagar	July, 2014
Dr. A.J. Dhami	Estrous cycle, estrus, AI & PD	Farmers Meet	WTO cell at BACA	15-11-2014
Dr. K.K. Hadiya	Infertility in dairy animals	Farmers Meet	Sojitra	27-01-2015
Dr. R.G. Shah	Importance of AI and economics of infertility	Farmers Meet	Amod, Petlad	4-02-2014
Dr. J.A. Patel	Pregnancy & Causes and Treatment of Infertility problems	Farmers Meet	WTO cell at BACA	21-02-2015
Dr. M.T. Panchal	Improving skill and confidence in AI at field level	Inseminators' Meet for encouraging their performance	Dudhsagar Dairy, Mehsana	7-02-2015
Dr. A.J. Dhami	"Pashupalan and Pashuprajanan na prashno"	Doordarshan Phone-in Live program	Ahmedabad	5 th June 2015
Dr. A.J. Dhami	"Pashprajana kshamata vadhari dudh utpadan vadharo"	Doordarshan Phone-in Live program	Ahmedabad	10 th June 2016

F. Expert services to State Government/Co-op. dairies/Other agencies /NGOs Assignments as Subject Expert / Member (Selection Committee/Advisory Board)

Sr. No.	Name of Faculty	Title of Business Meet	Place	Date	Purpose
1	Dr. M.T. Panchal	Accompanied Delegation from Alberta University, Canada	Anand, NDDB, IRMA, SAG, Ahmedab	4-6 March 2013	Collaboration and MOUs with various organization for Joint Degree Programmes in the field of agric

			ad		sciences
2	Dr. M.T. Panchal	On line evaluation of Research Project	Dept. of Biotechnology, Govt. of India	July 2013	Screening of the project proposal submitted by Research Scientist, IVRIM Izatnagar under DBT, Govt of India
3	Dr. A.J. Dhami	Selection committee member	SAG, Bidaj	8 June 2013	Selection of Asstt. Manager (AH)
3	Dr. A.J. Dhami and Dr. M.T. Panchal	Selection committee member	JAU, Junagadh & SDAU, SK Nagar	June 2013	Selection of Asstt. Professors in the subject of ARGO
4	Dr. A.J. Dhami	Meeting of CMU for evaluation of AITIs	Krishi Bhawan, GOI, New Delhi	July 23, 2013	To discuss procedure, plan & score card of evaluation of AITIs
5	Dr. M.T. Panchal	Selection committee member	NDDB, Anand	29 July 2013	To select Dy. Manager (INAPH) and Dy Manager (PT)
6	Dr. M.T. Panchal	Member, Central Monitoring Committee (CMU)	Nabha & Palampur	29.9.2013 to 6.10.2013	Monitoring of Semen Stations Nabha & Palampur as per MSP
7	Dr. A.J. Dhami	Member CMU for evaluation of AITIs	Patan, Palanpur & Morbi	6-11 Feb, 2014	To evaluate AITIs of concern stations
8.	Dr. A.J. Dhami and Dr. M.T. Panchal	Selection committee member	JAU, Junagadh & SDAU, SK Nagar	Feb 2014	Selection of Asstt. Professors in the subject of ARGO
9	Dr. A.J. Dhami	Selection committee member	SAG, Bidaj	4 March 2014	Selection of Animal Health Officers & PTP Operators
10	Dr. A.J. Dhami	Planning of refresher trainings of Vets & Para-Vets under ASCAD	Krusha Bhavan, G'nagar	13th June 2014	Planning of ASCAD Training and related work plan
11	Dr. A.J. Dhami	Planning AI technicians training for establishment of 2000 new AI Centre in Gujarat under RKVY	Krusha Bhavan, G'nagar	15th July 2014	Planning of training programme and related work plan
12	Dr. A.J. Dhami	Core committee meet to	GCMMF, Anand	8th August 2014	Preparation of module & manual of AI technicians

		Prepare module & manual of AI training under RKVY scheme in Gujarat			training related work plan for 2000 centres
13	Dr. A.J. Dhami and Dr. R.G. Shah	Brainstorming Sessions for Project feasibility reports on (i) Embryo Transfer (ii) Semen Sexing Technology for bovines in Gujarat	AAU, Anand	5th July and 5th Nov, 2014	To discuss technical & financial feasibility of using Embryo Transfer and Sexing of Semen of indigenous cattle & buffaloes in Gujarat
14	Dr. A.J. Dhami	Project Management Committee meeting for Strengthening of Semen Stations of DURDA, Jagudan, Mehsana under NDP-1	DURDA, Mehsana	5th Nov, 2014	To discuss the progress in development and utilization of funds
15	Dr. A.J. Dhami	Project Management Committee meeting for Strengthening of Semen Stations of ARDA Amul, Ode under NDP-1	ARDA, Ode	June 2015 and 28 Jan 2015	To discuss the progress in development and utilization of funds
16	Dr. A.J. Dhami	Member CMU for evaluation of AITIs	BAIF, Pune	17 Jan, 2015	To evaluate AITIs of BAIF, Urlikanchan
17	Dr. A.J. Dhami	Brainstorming Session on "Establishment of Cows Sanctuary in Gujarat"	Circuit House, G'agar	28th Feb 2015	To discuss technical & financial feasibility of this project
18	Dr. A.J. Dhami and Dr. M.T. Panchal	Selection committee member	JAU, Junagadh	8th March, 2015	Selection of Asstt. Prof & Assoc. Professor in the subject of ARGO
19	Dr M.T. Panchal	Selection Committee Member for SAG, Bidaj	Semen Bank, Bidaj	30th January, 2015	Selection of Manager (Veterinarian) for Semen bank at Bidaj managed by SAG,

					Ahmedabad
20	Dr M.T. Panchal	Selection Committee Member for SAG, Bidaj	NCDFI Office, Anand	4th March, 2015	Selection of Manager (Veterinarian) for Semen bank at Bidaj managed by SAG, Ahmedabad
21	Dr. M.T. Panchal	Member, Central Monitoring Committee (CMU)	Banavasi and Vizag (AP)	29-30 March, 2014 AND 31 March to 01 April, 2015	Monitoring of Semen Stations Banavasi and Vizag (AP) as a member of CMU constituted by DADF, Govt. of India, New Delhi.
22	Dr. A.J. Dhami & Dr. M.T. Panchal	11th Combined Joint AGRESCO of all SAUs	AAU, Anand	7-9 April 2015	To review the research recommendations & new technical program
23	Dr. A.J. Dhami	2nd GPDFA Inter-national Dairy Expo	Chikhodra , Anand	10-12 April, 2015	Acted as Dairy cattle Judge
24	Dr. A.J. Dhami	Annual Review Meeting of "AICRP on Nutritional & Physiological Interventions for Enhancing Reproductive Performance in 24Animals	RAJUVAS , Bikaner	18-19 April, 2015	Annual Review of project work done and future planning
25	Dr. A.J. Dhami	Selection Committee meeting	AAU, Anand	27 May, 2015	Selection of Asstt Prof (Direct) and Professor (CAS) in Gynaecology Discipline in AAU
26	Dr. A.J. Dhami	Planning ASCAD training for Vets and Para-Vets of State AH Dept.	Krusha Bhavan, G'nagar	6th June, 2015	Planning of training programme and related work plan
27	Dr. A.J. Dhami & Dr. M.T. Panchal	Research Council Meeting of AAU	AAU, Anand	12th Jan, 2016	Review of Research activities of AAU
28	Dr. A.J. Dhami	Selection Committee meeting	SAG, Bidaj	23rd Feb, 2016	Selection of Manager (Vet) for SAG Semen bank, Bidaj managed by NDDB
29	Dr. A.J. Dhami	Project Management Committee meeting for Strengthening	DURDA, Mehsana	15 Mar, 2016	To discuss the progress in development and utilization of funds

		of Semen Stations of DURDA, Jagudan, Mehsana under NDP-1			
30	Dr. A.J. Dhami	Project Management Committee meeting for Strengthening of Semen Stations of ARDA Amul, Ode under NDP-1	ARDA, Ode	23 Mar, 2016	To discuss the progress in development and utilization of funds
31	Dr M.T. Panchal	GLDB Board Meeting	GLDB, G'nagar	2 June & 30 Oct, 2016	To discuss agenda items of board
32	Dr M.T. Panchal	Selection Committee meeting	JAU, Junagadh	16 Aug, 2015	Selection of Asstt Prof in Gynaecology Discipline in JAU
33	Dr M.T. Panchal	Selection Committee Member for SAG, Bidaj	SAG, Bidaj	14 Sept, 2015	Selection of Manager (Vet) for SAG Semen bank, Bidaj managed by NDDB
34	Dr M.T. Panchal	Project Management Committee meeting for Strengthening of Semen Stations, Bidaj	SAG, Ah'd	23 Nov, 2015 & 6th Jan, 2016	To discuss the progress in development and utilization of funds
35	Dr M.T. Panchal	Project Management Committee meeting for Strengthening of Semen Stations at Patan	State FSTI, Patan	21st Jan, 2016	To discuss the progress in development and utilization of funds

G. No. of Publications of Popular articles /Books /Booklets /Pamphlets /Leaflets/ Souvenir/Compendium/ chapters/ Lab Manuals / Training Manuals etc.

- a. Clinical Publications and Review Articles : 41
- b. Books/Bulletin/Popular Articles Published : 39
- c. Popular Articles in Vernacular Language (*Gujarati*) : 46
- d. Bulletin /Class Notes / Training Manual : 32

H. Visitors:

I. Any other items

1. A technical discussion was held on “Bovine Infertility” with District Animal Husbandry Veterinarians at Bhanvad. (Date: 13.01.2008; Dr. H.J. Derashri)
2. A technical discussion was held at Bhanvad with District A.H. Veterinarians on “Recent trends in bovine infertility” to veterinarians of Jamnagar District (Date: 01.06.2008; Dr. F.S. Kavani)
3. Two technical discussions were held on “Bovine Infertility” with District Animal Husbandry Veterinarians at Bhanvad on 13.06.2010 and 28.11.2010 (Dr. J.A. Patel and Dr. R.G. Shah).
4. Participated actively in “ખેડૂત પરિસંવાદ” at Village level during “**Krusha Mahotsav-2010**” (Dr. M.T. Panchal, Dr. J.A. Patel, Dr. K.K. Hadiya & Dr. A.P. Parmar).
5. Theory and practical classes were conducted by all the staff members of the department for the Refresher Training for State Veterinarians under ASCAD on “Gynaecological Aspects including Sonography & AI Techniques” during 15/09/2010 to 24/09/2010.
6. Delivered a **LIVE TELECAST** guest lecturer with POWERPOINT PRESENTATION as SMS on “પશુ વ્યવસ્થાને મુખ્યત્વે પ્રશ્નો” in SATCOM programme on ANIMAL HUSBANDRY in collaboration with Department of Animal Husbandry (Extension), Govt. of Gujarat and Bhaskaracharya Institute For Space Applications and Geo-Informatics (BISAG), Gandhinagar on during 21.08.2010 (Dr. M.T. Panchal).
7. The staff of the department participated actively in the exhibition held at Petlad on 21.11.2010 during the state level Inauguration Function of “**Pashu Arogya Mela**” by the State Animal Husbandry Department. A **special LIVE demonstration programme** was also organized for “Use of Ultrasonography for early pregnancy diagnosis in large and small domestic animal females and for spermatozoa motility” to the **Hon’ble Chief Minister** of the state.
8. Delivered guest lecturers in the training programme organized by EEI, AAU, Anand in collaboration with SEVA, Ahmedabad on “પ્રાથમિક પશુ સારવાર” during 06.12.2010 to 11.12.2010 (Dr. A.J. Dhami and Dr. M.T. Panchal).
9. Pashupalan and Pashuprajanan na prashno in Phone in Live TV program by Door Darshan, Ahmedabad Door Darshan, Ahmedabad (Dr. A.J. Dhami and Dr. M.M. Trivedi) on 5th June, 2015.
10. Reproductive efficiency and its measures to Farmers of Chhattisgarh at EEI, Anand on 16 Sept, 2015 (Dr. J.A. Patel and Dr. K.K. Hadiya)

Achievements: Awards/Honours/Recognitions/Appreciations: 63

No.	Award Title	Awardees	Agency
1	FAO Fellowship, 1965	Dr. S.B. Kodagali	FAO
2.	Bhaikaka Inter-University Award for Research in Veterinary Science; Twice-1972 & 1987		S.P. University, VVNagar
3	Prof. J.P. Trivedi Gold Medal for Research in Cattle Infertility-1975	Dr. S.B. Kodagali	Guj. Asso. for Agric. Sciences
4	All India Clinical Contest-1975	Dr. S.B. Kodagali	Indian Herbs
5	Two silver medals and One Gold Medal in M.V.Sc. 1976 & 1978	Dr. S.B. Kodagali	Bombay Vet. College, KKV, Bombay

6	Nils Lagerlof Memorial Award in recognition of Best Research work in Animal Reproduction 1980 & 1990	Dr. S.B. Kodagali	ISSAR, Bombay
7	ISSAR Fellowship Award-1983for meritorious contribution in the field of animal reproduction.	Dr. S.B. Kodagali	ISSAR, Bombay
8	Hari Om Ashram Award –1987 for Best Research work in Veterinary Science.	Dr. S.B. Kodagali	Hariom Ashram Nadiad
9	Nils Lagerlof Memorial Award in recognition of Best Research work in Animal Reproduction: Year 2003	Dr. F.S. Kavani	ISSAR, Bombay
10	ISSAR Fellowship Award-1997 for meritorious contribution in the field of animal reproduction.	Dr. F. S. Kavani	ISSAR, Bombay
11	Chaturdas Kalidas Desai GOLD MEDAL for standing First in the B V Sc & A H Degree Exam of GAU in 1982-83.	Dr.A.J. Dhami	Gujarat Agric. Univ., S.K. Nagar
12	Bombay Gaw-Rakshak Mandali GOLD MEDAL for standing First in the subject of Animal Husbandry at BVSc & AH level in 1983.	Dr.A.J. Dhami	Gujarat Agric. Univ., S.K. Nagar
13	Vidyalabh Avasatthi CASH PRIZE for standing First in the Pre-Clinical Subjects of Veterinary Science degree course in 1981-82	Dr.A.J. Dhami	Gujarat Agric. Univ., S.K. Nagar
14	Late Dr. V. A. J. Pinto Memorial Award-CASH PRIZE for standing First in the Clinical Subject Veterinary Medicine at UG level in 1982-83.	Dr. A.J. Dhami	Gujarat Agric. Univ., S.K. Nagar
15	Doshi and Sons Education Award- CASH PRIZE for standing First in BVSc & AH Degree Exam in 1983.	Dr.A.J. Dhami	Lions Club of Anand
16	Jawahar Lal Nehru Memorial Fund Award {New Delhi} for securing University First Rank at Graduate level in 1983.	Dr.A.J. Dhami	Jawahar Lal Nehru Memorial Fund, New Delhi
17	Dr. G.B. Singh Memorial Young Scientist Award for meritorious contribution to Research in Animal Reproduction in 1987.	Dr.A.J. Dhami	ISSAR
18	Late Prof. Nils' Lagerlof Memorial Award - Medal (TWICE) for meritorious contribution to research in Animal Reproduction in 1990 and 2002.	Dr.A.J. Dhami	ISSAR
19	Hari Ohm Ashram Award for the best research publication in Veterinary Sciences in 1987.	Dr.A.J. Dhami	Bhaikaka Inter-Univ. Smarak Trust, VV Nagar
20	Senior Research Fellowship Award for 3.5 years under open competition from 1988 to 1992, for undergoing Doctorate Studies at IVRI, Izatnagar, India.	Dr.A.J. Dhami	ICAR, New Delhi
21	Young Scientist Awards (TWICE) for the best presentation of Research Papers in ISSAR National Symposia held at Anand in 1989 and at Madras in 1992.	Dr.A.J. Dhami	ISSAR
22	Best Popular Article Awards (4 times) for publication of best articles (Gujarati) in Godarshan Monthly.	Dr.A.J. Dhami	Shri Gopalak Sahakari Sangh Ltd., Ahmedabad

23	Nils' Lagerlof Memorial Award – 98 -MEDAL of Indian Veterinary Association for the best research article in field of Animal Reprodn published in IVJ during the year 1998.	Drs.A.J. Dhami, R.G. Shah, F.S. Kavani	Indian Veterinary Association
24	Best Teacher Award of B.A. College of Agric., GAU, Anand for the yr 1998-99.	Dr.A.J. Dhami	B.A. C.A., GAU, Anand
25	Fellow of Indian Society for the Study of Animal Reproduction (2000) in appreciation of the meritorious services rendered to the field of Animal Reproduction.	Dr.A.J. Dhami	ISSAR
26	Best Article Award for article "Freezability, Enzyme Leakage and Fertility of Bovine Spermatozoa" presented in XVI Annual Convention and National Symposium of ISSAR at BAU, Ranchi, November 2000.	Dr.A.J. Dhami	ISSAR
27	Best Chapter Award (2000) to ISSAR Gujarat for meritorious extra-ordinary activities done in the Field of Animal Reproduction under my secretarial control.	Dr.A.J. Dhami	ISSAR
28	Best Paper Award - 2003 of Indian Dairy Association for article "Effect of Sephadex Gel Filtration on Motility, Morphology and Viability of Bull Spermatozoa at Initial, Post-Thaw and Post-Refrigeration Stages" published in Indian Journal of Dairy Science, 2003.	Dr.A.J. Dhami	Indian Dairy Association
29	Best Paper Award - 2004 of Indian Dairy Association for article "Epidemiological surveillance on the effect of housing, hygiene and nutritional status on periparturient disorders in buffaloes" published in Indian Journal of Dairy Science, 2004.	Dr.A.J. Dhami	Indian Dairy Association
30	"Outstanding Young Scientist" Award –1995 & 1996	Dr. M.T. Panchal	ISSAR
31	Award of Senior Research Fellowship (SRF) for three years from December 1991 to December 1994	Dr. M.T. Panchal	CSIR, New Delhi
32	"The Best Article" for year 1995-96	Drs. M.T. Panchal, F.S. Kavani	DEE, GAU, Anand-388001
33	Chancellor's Gold Medal for Best Ph.D. Thesis; Year:2004-05	Drs. M.K. Awasthi, F.S. Kavani	GAU, S.K. Nagar
34	Best Popular Article Award for publication of best article " <i>Pashu prajanan ni samashyao (Vyandhyatwa): Karnoni samiksha ane chavirup ukel</i> " Godarshan, 6 (7): 23-28. 1993	Dr. A.J. Dhami	Shri Gir-Kankrej Gopalak Sangh, Ahmedabad
35	Dr. G.B. Singh Memorial Award of ISSAR for the publication of Best Research Paper. " <i>Biochemical attributes of cervico-vaginal mucus of repeat breeding buffaloes in relation to its physical, physiological & immunological properties</i> " Indian J. Anim. Sci., 64 (8):830-833, 1994	Dr. M.T. Panchal Dr. A.J. Dhami, Dr. H.J. Derashri, and Dr. S.B.Kodagali	ISSAR, Bombay
36	Best Popular Article Award for publication of best article " <i>Padimaan blood cancer (lymphosarcoma) no ek ananya kisso</i> " Godarshan, 8 (7): 210-214. 1995	Dr. A.J. Dhami	Shri Gir-Kankrej Gopalak Sangh, Ahmedabad

37	Young Scientist Awards for the best presentation of Research Paper in ISSAR National Symposia held at Akola, 1995	Dr. M.T. Panchal	ISSAR, Bombay
38	Young Scientist Awards for the best presentation of Research Paper in ISSAR National Symposia held at Pantnagar, 1996	Dr. M.T. Panchal	ISSAR, Bombay
39	Best Popular Article Award of publication of article " <i>Gaayo-bhensoman Prajanan Kshamata Vadharana Upayo</i> " <i>Krushki Govidya Monthly</i> , Sept. 1995 . (In 1996)	Dr. M.T. Panchal & Dr. F.S. Kavani	DEE, GAU, Anand
40	ISSAR Fellowship Award-1997 for meritorious contribution in the field of Animal Reproduction. 1997	Dr. F.S. Kavani	ISSAR, Bombay
41	Nils' Lagerlof Memorial Award- MEDAL of IVA for the best research article published in field of Animal Reproduction " <i>Studies on palpable genital abnormalities and oestrous cycle pattern in repeat breeding bovines</i> " <i>Indian Vet. J.</i> , 75(5):426-29. 1998	Dr. C.T.Khasatiya, Dr. A.J. Dhami, Dr. R.G. Shah, & Dr. F.S. Kavani	Indian Vet. Assoc., Madras
42	Best Teacher Award of B.A. College of Agric., GAU, Anand. 1999.	Dr. A.J. Dhami	BACA, GAU, Anand
43	ISSAR Fellowship Award - 2000 in appreciation of the meritorious services rendered to ISSAR and the field of Animal Reproduction. 2000	Dr. A.J. Dhami	ISSAR, Bombay
44	Best Article Award for article " <i>Freezability, Enzyme Leakage and Fertility of Bovine Spermatozoa</i> " presented in XVI Annual Convention and National Symposium of ISSAR at BAU, Ranch.2000	Dr. A.J. Dhami	ISSAR, Bombay
45	Best Chapter Award of ISSAR Gujarat for meritorious extra-ordinary activities done in the Field of Animal Reprodn under secretarial control. 2000	Dr. A.J. Dhami	ISSAR, Bombay
46	Dr. K.K. Shulka Award for Best MVSc Thesis Research in Veterinary & Animal Sciences " <i>Investigative andrology of Gir (Bos indicus) and Jafrabadi (Bubalus bubalis) bulls</i> " in GAU. 2001	Dr. V.B. Shelke & Dr. A.J. Dhami	GAU., S.K. Nagar
47	Prof. Nils Lagerlof Memorial Award for the best research paper published in Animal Reproduction " <i>Effect of gonadotrophin releasing hormone on reproductive performance and steroid profile of postpartum suckled Surti buffaloes</i> " <i>Indian J. Anim. Sci.</i> , 72 (12): 1076-1082.2003	Dr. R.G. Shah, Dr. V.B. Kharadi, Dr. A.J. Dhami, Dr. P.M. Desai, & Dr. F.S. Kavani	ISSAR, Bombay
48	Best Paper Award of IDA for article " <i>Effect of Sephadex Gel Filtration on Motility, Morphology and Viability of Bull Spermatozoa at Initial, Post-Thaw and Post-Refrigeration Stages</i> " <i>Indian Journal of Dairy Science</i> , 56 (4) : 190-197, 2003	Dr. C.M. Rana and Dr. A.J. Dhami	IDA, New Delhi

49	Best Paper Award of IDA for article <i>"Epidemiological surveillance on the effect of housing, hygiene and nutritional status on periparturient disorders in buffaloes"</i> Indian Journal of Dairy Science, 57 (2): 132-136. 2004	Dr.G.C. Mandali, Dr. P.R. Patel, Dr. A.J. Dhami & Dr. S.K. Raval	IDA, New Delhi
50	Sardar Patel Research Award of Chandubhai Patel (Vakil) Foundation, USA for Best Research Paper published by the Agric Scientist during the year 2005-06 <i>"Effect of hormonal therapies at breeding on plasma progesterone profile and fertility in repeat breeding HF cows"</i> International J. of Cow Sci., 1 (1): 52-59..2008	Dr. J.A. Patel, Dr. A.J. Dhami, Dr. F.S. Kavani, & Dr. N.P.Sarvaiya	SP University, VV Nagar
51	Young Scientist Award for the Best Paper Presentation at 24 th Annual Convention of ISSAR at Bangalore.2009	Dr. V.S. Suthar (student of Dr. R.G.Shah)	ISSAR, Bombay
52	Award certificate: VC, AAU, Anand: 2 nd Rank; BEST presentation-cum-exhibition of research findings and information for the farmers during "ક્રુશિ મેળો-૯- ક્રુશિ પ્રદર્શન" in "Krushi Mahotsav-2009"	Dr. M.T. Panchal	AAU, Anand
53	Best Research Article Award of Intas Polivet for article <i>"Therapeutic management of repeat breeding buffaloes with hormones and antibiotic under field condition"</i> Intas Polyvet, 10 (1): 39-44. 2009	Dr.A.J. Dhami Dr. M.G. Butani & Dr. S.K. Sharma	Intas Pharma, Ahmedabad
54	Prof. Nils Lagerlof Memorial Award of ISSAR for the Best Research Paper published in IJAR during Year 2009	Dr(s). G.K. Mishra, H.J. Derashri, J.A. Patel and V.P. Belsare	ISSAR
55	Hari Om Ashram Prerit Dr. J.P. Trivedi Award of GAAS for the year 2009 for meritorious research contribution made over 5 years under the title <i>"Studies on repeat breeding buffaloes with reference to laboratory diagnosis and therapeutic management under field conditions"</i> . 2010	Dr.A.J. Dhami Dr. S.K. Sharma Dr. M.G. Butani	Guj. Assoc. for Agri.Sciences, Ahmedabad
56	ISSAR Fellowship Award - 2010 in appreciation of the meritorious services rendered to ISSAR and the field of Animal Reproduction. 2010	Dr. M.T. Panchal	ISSAR, Bombay
57	Vice Chancellor's Gold Medal for Best PG Thesis <i>"Studies on anatomical causes of bovine infertility in genital organs of she-buffaloes"</i> of AAU. 2010	Dr. K.B. Vala & Dr. M.T. Panchal	AAU, Anand
58	Best Poster Award in National Seminar on 9 th March at Anand for paper <i>"Monthly pattern of inseminations and reproductive health disorders in dairy bovines of middle Gujarat"</i> 2013	Dr. K.K. Hadiya, Dr. J.A. Patel, Dr. R.G. Shah, Dr.M.T.Panchal & Dr. A.J. Dhami	SVSBT, Indore

59	Appreciation Certificate for meritorious contribution made in establishment of SVSBT and organizing its 1 st Annual Convention in Anand on March 9, 2013	Dr. A.J. Dhami	President, SVSBT, Indore
60	Dr. A.S. Kaikini Award-2013 of Indian Society for Study of Animal Reproduction for life time achievements in the field of Veterinary Andrology & AI, received at 29 th Annual convention of ISSAR at MAFSU, Nagpur on 8 th January 2014.	Dr. A.J. Dhami	ISSAR, Bombay
61	Best Oral Paper Presentation Award of ISAPM during their Silver Jubilee Conference held at Veterinary College, NAU, Navsari in October 2014.	Dr. A.J. Dhami	ISAPM Confr
62	Best Paper Awards 2013, 2014 and 2015 of SVSBT consecutively for 3 years at Bikaner on 7 th Oct 2015 for the Best research papers published in the quarterly journal "The Indian Journal Veterinary Sciences & Biotechnology" Volume 8, 9 and 10.	Dr. A.J. Dhami Dr. J.A. Patel Dr. K.K. Hadiya	SVSBT, Indore
63	Best paper Award in Godarshan for 2015-16 "Pashuoma rutukalni olakh, tenu mahatva ane paddhatio"	Dr. S.C. Parmar Dr. A.J. Dhami Dr. J.A. Patel	AAU, Anand

A. Advanced Instrumentation / Lab Facilities

Facilities Available: (Instruments/Operation Theater/Farm)

1	UG Lab
2	AI Centre
3	Semen Processing Laboratory
4	Bull sheds
5	Ultrasonography
6	Laparoscope

B. Patents filed / Technology Developed: Nil

D. Other Recognitions (SRC/NSS/AGRESCO Convener/Hostel Rector etc.)

- Dr. F.S. Kavani, acted as Convener, Agresco on Animal Health for TWO years (2007-9 and 2009-10).
- Dr. M.T. Panchal acted as Convener, Agresco on Animal Health for TWO years (2014-15 and 2015-16).
- Dr. M.T Panchal acted as Hostel Rector for THREE years (August, 2012 to July, 2015) as well as as an assistant rector for twice.

Future Thrust Areas:

- Standardizing and validating of Controlled Breeding Technologies
- Frozn Semen Technology
- Semen sexing in bovines