Dr. A.K.GOEL

Principal Scientist (Animal Reproduction)

Physiology, Reproduction & Shelter Management Division

Permanent Address : Kishore Sadan, Tappal Road,

Khair Distt. (Aligarh) UP India

5. Date of Joining in ICAR Service : 10.12.1984

6. EDUCATIONAL QUALIFICATIONS:

Sl. No.	Institution/ University	Certificate/Degree Awarded	Year	Division/Award/Prize/ Certificate
i)	College of Vet. Sci. & A.H. Mathura (UP) India	B.V. Sc. & A.H.	1980	Ist,*Certificate & Book Prize for securing highest marks in Animal Management and Hygiene. *Certificate & Book Prize in Hay and Silage Judging Competition.
ii)	College of Vet. Sci. & A.H. Mathura (UP) India	M.V.Sc. (Veterinary Obstetrics & Gynaecology)	1982	Ist,*Junior Research Fellowship of ICAR, New Delhi for PG study.
	Topic: REPRODUCTIVE PERFORMANCE OF CROSSBRED(HF X HARIYANA) CATTLE WITH SPECIAL REFERENCE TO OESTROUS CYCLE			
iii)	Embryo Tech. Inc. Hughson, California (USA)	Training in Techniques of Embryo Transfer	1989	Certificate of Course Completion
iv)	Texas A&M Univ. College Station, Texas (USA)	Embryo Transplants in Goats	1989	Certificate of Course Completion
v)	Dr. B.R. Ambedkar Univ. Agra (Form. Agra Univ. Agra)	Ph.D. (Animal Science) - Animal Reproduction	1998	Degree awarded
	Topic: AUGMENTATION OF REPRODUCTIVE EFFICIENCY IN JAKHRANA GOATS			
vi)	ET&T, New Delhi	Certificate Course in Computer Applications (CCA)	1998	Certificate of Course Completion
vii)	P.A.U., Ludhiana (Punjab)	Diagnostic Tech. For Reprod. Problems in Bovines	2000	Certificate of Course Completion
viii)	Dr. P.D.K.V. Akola (Maharasthra)	Clinical Diagnostic Technique for Infertility in Male Animals	2001	Certificate of Course Completion
ix)	H.A.U. Hisar (Haryana)	Use of Ultrasonography in Veterinary Practices	2004	Certificate of Course Completion

7. FIELD OF SPECIALIZATION:

ANIMAL REPRODUCTION, EMBRYO TECHNOLOGY, IVEP and ULTRASONOGRAPHY

8. CONTRIBUTION IN REPRODUCTION RESEARCH:

I entered in scientific service of Indian Council of Agricultural Research, New Delhi (ICAR) - an apex body which plans, conducts and promotes research, teaching, education, training and extension for advancement of agricultural and allied sciences (Veterinary & Fisheries) in India. During my twenty five years of service in ICAR, I have been actively involved in conducting research, teaching, and extension related to goat reproduction and published more than 150 research, review, invited, popular articles, technical bulletins and presented 65 research papers on caprine and large ruminant's reproduction. My research experience on different facets of goat reproduction includes:-

*Puberty and Oestrus characteristics
*Oestrous cycle Profile and Breeding behavior
*Ovulation profile & Ovarian characteristics
*Induction & Synchronization of oestrus
*Superovulation, Embryo collection & Transfer
* Embryo Transfer Technology (ETT)
* Use of Ultrasonography in Goat Reproduction
* Parhhenogenetic Embryo Production
* Gamete Transport in female genitalia
* Preg. Monitoring by Ultrasonography
* Induction of Parturition
* Growth, Placenta & Post partum oestrus
* Gynaecological Disorders & Infertility
* Dystocia and Caesarean Section
* In-vitro Embryo Production
* In-vivo Embryo Production

8. ASSOCIATION / INVOLVEMENT IN RESEARCH PROJECTS:

Sl. No.	Project Title	Funding Agency	Duration: From – To	Level of Association
i)	Studies on certain aspects of reproduction in Jamunapari goats	ICAR New Delhi	1985-1986	Principal Investigator
ii)	Studies on embryo transfer technology in goats	ICAR New Delhi & USAID	1986-1992	Co-investigator
iii)	Studies on embryo transfer technology in goats	ICAR New Delhi, India	1992 – 93 to 1996 -97	Co-investigator
iv)	Cryo-preservation of caprine oocytes / embryos	ICAR, New Delhi & Deptt. of Biotech. Govt. of India	1992 – 93 to 1995 - 96	Co-investigator
v)	Studies on Infertility in goats	ICAR, New Delhi, India	1996 – 97 to 1999-2000	Principal Investigator
vi)	Automization of semen freezing protocol for higher post thaw motility and fertility in goats	ICAR, New Delhi, India	1997-98	Co-investigator
vii)	Augmentation of Reproduction in goats through reproductive management and exteroceptive stimuli	ICAR, New Delhi, India	1998-2003	Co-investigator
viii)	Multiplication of superior germ plasm of Jamunapari goats through embryo transfer technology	ICAR, New Delhi, India	2000 - 04	Principal Investigator
ix)	Development of non-invasive technique of embryo collection & transfer for	NATP, New Delhi	2001 - 04	Principal Investigator

	enhancing goat production			
x)	In-vitro production of caprine embryos and their survival following fresh and frozen embryo transfer	ICAR, New Delhi, India	2002 - 2006	Co-investigator
xi)	Use of ultrasonography for ascertaining pregnancy related profiles in goats	ICAR, New Delhi, India	2004 - 2007	Principal Investigator
xii	Multi-disciplinary Project on Transfer of Technology for Sustainable Goat Production System	ICAR, New Delhi, India	2005-2009	Co-Principal Investigator
xiii	Augmentation of Prolificacy By Using Biotechnological Tools in Goats	ICAR, New Delhi, India	2007 - 2012	Co-Investigator
xvi	Studies on Refinement of Frozen Semen Technology and Strengthening of Goat Semen Bank	ICAR, New Delhi, India	2007 - 2012	Co-Investigator
xv	Goat Husbandry Based Integrated Approach for Livelihood Security in Disadvantaged Districts of Bundelkhand Region	NAIP of ICAR, New Delhi	2008 - 2012	Co-Principal Investigator
xvi	Developmental Potency of Parthenogenetic Goat Embryos	NAIP of ICAR, New Delhi	2009 - 2012	Co-Principal Investigator
xvii	Sustainable Livelihood Through Goat Garming by Disseminating the Improved GoatProduction Technologies	ICAR, New Delhi, India	2009 - 2012	Co-Principal Investigator

9. SYMPOSIA/SEMINARS/CONFERENCES/WORKSHOPS/CONGRESSES ATTENDED:

(a) National – 24 (b) International - 07

10. RESEARCH, TEACHING EXPERIENCE AND STUDENT GUIDANCE: 25 YEARS

PUBLICATIONS:

(i) Research papers : 57
(ii) Lead/Status papers : 04
(iii) Technical Bulletins/ Monographs : 05
iv) Chapters in Books : 12
v) Review Articles : 02
vi) Clinical Articles : 06
vii) Popular articles : 25 (Hindi: 17, English: 08)
viii) Research paper presentation: 75
ix) Lectures delivered in training programmes: 35 (Hindi: 24, English: 11)
x) Scientific Reports: 24
xi) Miscellaneous (Radio Talk):17 Studio: 12, Institute: 05
xii) Student Guided :04

11. MEMBERSHIP OF SCIENTIFIC/ PROFESSIONAL SOCIETIES: 14

(A) INTERNATIONAL:

1. International Goat Association (IGA), USA.
2. International Embryo Transfer Society (IETS) USA.

(B) NATIONAL:

1. Life member of Society of Animal Physiologists of India (SAPI).
2. Life member of Indian Society for the Study of Animal Reproduction (ISSAR).
3. Life member of Indian Society for the Study of Reproduction and Fertility (ISSRF).
4. Life member & Vice President of Indian Society for Sheep and Goat Production and Utilization (ISSGPU).
5. Life member of Indian Association for Advancement of Veterinary Research (IAAVR).
6. Life member of Indian Association of Veterinary Scientists (IAVS).
7. Life member of Indian Science Congress Association (ISCA) Kolkata.
8. Life member of Association of Physiologists and Pharmacologists of India (APPI).
9. Life member of Agricultural Research Service Scientists Forum (ARSSF) India.
10. Life member of Mobilization-Society for Community Mobilization for Sustainable Development,New Delhi.

(C) PROFESSIONAL:

1. U.P. State Veterinary Council, Lucknow (India) UPVC-282.
2. Veterinary Council of India, New Delhi (India) VCI/000545.

SIGNIFICANT ACHIEVEMENTS

1. RESEARCH:

- ☞ Completed 10 Institute/External Research Projects as Principal Investigator /Co. P. I.
- ☞ Completed 1 Externally Funded Research Project as Principal Investigator.
- ☞ Involved in 6 Research Projects (Institute / Externally funded).
- ☞ Published 55 Research Papers and 6 Clinical Articles under 10 Research Projects.
- ☞ Presented/Submitted 65 Research Papers in 32 National/International Scientific Conferences.
- ☞ Invited Speaker for presenting Research Papers in Scientific Conferences.
- ☞ Published 25 Popular Articles (Hindi and English) on Goat Reproduction.
- ☞ Worked in the area of ETT through Surgical /Non - surgical techniques (oestrus synchronization, Multiple ovulation, embryo collection and transfer), Ultrasono-graphy for early pregnancy Diagnosis and fetal counts, IVEP IVF-ET, Infertility, Breeding Behavior, and Ovulation pattern.
- ☞ Recovery of oocytes from abattoir ovaries (2 -3), maturation rate(30 -40%) and cleavage rate (20 - 40%) under Oviductal epithelial / Granulosa cells up to morula stage achieved.
- ☞ Early Pregnancy monitoring and other pregnancy related screening by Ultrasonography.

2. RESEARCH GUIDANCE, TEACHING, TRAINING & DEMONSTRATIONS:

- ☞ Guided three students for their Master's and one for Doctorate Degree dissertation/thesis work.
- ☞ Guided one student for summer training in Biotechnology.
- ☞ Imparted 12 specialized trainings on Goat Reproduction to Indian and Foreign Participants.
- ☞ Delivered 22 lectures and 16 practical demonstrations under specialized training programmes.
- ☞ Delivered 42 lectures under Institute 20 National Training Programme on Commercial Goat Rearing and 9 NGOs., NABARD and IFFCO sponsored trainings on Improved Goat Rearing.

- External Examiner for Theses Evaluation (Master's and Doctorate) and Paper setter for UG, PG, and Ph. D. Courses of Various Universities.
- Time to time demonstrations of Reproduction related technologies viz. ETT, Pregnancy Monitoring by Ultrasonography and AI etc. to media personnel's (ETV, ATN), Krishi Darshan of Delhi Doordarshan, and AIR, Mathura for Telecasting and Broadcasting.

3. INSTITUTE BUILDING ACTIVITIES:

- Edited Annual Reports (Hindi) of the Institute from 1999-2000 to2004-05(6 consecutive years).
- Edited and compiled Annual Reports of Institute for 2007-08 to 2008-09.
- Edited and compiled 2 editions (2000, 2003) of Commercial Goat Rearing (Books in Hindi).
- Edited and compiled Institute's Publication – CIRG at A Glance -2009.
- Edited and compiled Institute's Publication (Book) – Goat Enterprise -2009.
- Edited and compiled Institute's Publication (Book)- Goat Production: Processing of Milk & Meat.-2009.
- Edited and compiled Institute's Publication (Book)–Advances in Production and Reproduction in Goats -2009.
- Editor of Institute's News Letter – 'Goat News' in English (Quarterly) since2007.
- Co-edited Scientific Conference Proceedings.
- Assistant Editor of the Indian Journal of Small Ruminants (on line available on Internet).
- Convener for organizing monthly Scientific Seminars in the Institute.
- Co-coordinator for organizing an International Training on ETT and Semen Biology.

4. FIELD OUT REACH ACTIVITIES:

- Successfully handled more than 100 cases of Dystocia and 80 Caesarean Sections in goats Under Farm and Field oriented Research projects.
- Recording and Broadcasting of 12 Radio talks on various aspects of Goat Production from All India Radio, Mathura (UP).
- Demonstrated (Farm and Field) several reproduction technologies to media personnel's, Doordarshan and AIR, Mathura for the benefits of ultimate users.
- Participated in Bakri Vigyan Melas, Farmers Interactive Meets and several field camps.

(A.K.Goel)