DEPARTMENT OF VETERINARY GYNAECOLOGY & OBSTETRICS
GADVASU, Ludhiana

Centre of Advanced Faculty Training in Veterinary Gynaecology & Reproduction
Brief Training Reports 2017-20

A. BRIEF REPORT 2017

1	Name of the training course	Selection of superior sires, pre-breeding evaluation, quality semen production and fertility optimization in dairy animals, an update
2	Duration and dates	21 days; October 24 to November 13, 2017
3	Total number of participants : i) From SAU's ii) From ICAR Institutes iii) Local participants iv) States represented	-- 17 -- 17 -- Nil -- 02 -- 10
4	Course Director	Dr Prahlad Singh, Professor and Head
5	Course Coordinators	1. Dr Ajeet Kumar, Associate Professor 2. Dr.Ashwani Kumar Singh, Assistant Professor
6	Faculty : i) From within the department ii) From other departments of the Institute / University iii) Guest Faculty	 -- 06 -- 06 -- 05
7	Number of practical and major techniques covered	Eighteen (18) Bull selection, Bull handling and management, Breeding soundness evaluation of bulls- general and specific; Semen collection in bulls and bucks by AV; Semen collection in bulls using electroejaculator; AI in goats; Ultrasonographic evaluation of male and female genitalia; Infrared thermography; Rump fat thickness using ultrasonography, Semen collection from dogs, Use of colour dopppler, Bull semen evaluation and its cryopreservation using biofreezer; Ovum pick technique in cow; COC quality evaluation; Assessment of sperm membrane integrity and migration capability.
8	a) Laboratory manual prepared b) If yes, title of the manual	a) No b) N.A.
9	No. of lectures delivered and major areas covered	Twenty six (33) Evaluation and selection of bulls for fertility; management of bulls for better fertility; Semen collection, evaluation and fertility optimization; Cryopreservation of semen and use of additives; Fertility biomarkers for bulls; Nutritional management of bulls, Pesticides in relation to fertility, Impact of climate change on fertility, Management of lameness, Immunocytochemistry of sperm, Pig semen production, Breeding soundness of equines, Use of biotechnological tools in small ruminants, Semen sexing, Oocyte quality assessment and maturation; Sexed semen production; Nutrition and its interaction with puberty and reproduction in bulls, Effective teaching methods by using animation tools. Stress management at work place and role of moral teaching in enhancing work

		efficiency.
10	Copies of lectures/notes given	PDF softcopies of lectures and compendium of lectures provided.
11	Any other reading material given	Articles (softcopies, pdf files) provided to participants according to their research areas. Compendia of previous trainings organized under CAFT
12	Name of the Director, CAFT	Dr Prahlad Singh
13	Address	Professor and Head-cum-Director of CAFT Deptt. of Veterinary Gynaecology & Obstetrics Guru Angad Dev Vety. & Animal Sciences University, Ludhiana
14	Telephone - Office - Resi.	91-161-2400917, 2414003 Mobile: 943104958
15	E-mail address	prahlad.gadvasu@gmail.com

B. <u>BREIF REPORT 2018</u>

1	Name of the training course	**"Current Reproduction Technologies vis-à-vis Fertility Augmentation in Farm Animals"**
2	Duration and dates	21 days from October 9-29, 2018
3	Total number of participants: i) From SAU's ii) From ICAR Institutes iii) Local participants iv) States represented	24 (Twenty Four) 24 (Twenty Four) Nil 03 (Three) 10 (Three)
4	Course Director	Dr Prahlad Singh, Professor and Head
5	Course Coordinators	1. Dr Ashwani Kumar Singh, Assistant Professor 2. Dr Mrigank Honparkhe, Gynaecologist
6	Faculty: i) From within the department ii) From other departments of the Institute / University iii) Guest Faculty	 11 (Eleven) 09 (Nine) 03 (Three)
7	Number of practical and major techniques covered	***15 (Fifteen)*** Cytobrush technique in evaluating uterine health, Ultrasononographic evaluation of male reproductive tract in farm animals, Infra-red thermography in male reproduction, Handling and treatment of clinical cases, Doppler ultrasound imaging of reproductive organs of farm animals, Semen collection and vaginal cytology in canines, Analysis of antisperm antibodies through ELISA, Detection of proteins through SDS-PAGE and Western Blotting, Ovum pick-up in cattle, Hands on practice in reproductive ultrasonography in dairy animals, Oocyte aspiration and IVM procedures in dairy animals, Demonstration of reproductive ultrasonography in dairy animals, Procedures of fetotomy, Mitigating stress at work place and tips to improve teaching skills, Histopathological procedures in farm animal reproduction
8	a) Laboratory manual prepared b) If yes, title of the manual	a) No b) N.A.
9	No. of lectures delivered and major areas covered	***29 (Twenty Nine)*** Climate change and its effect on reproduction in dairy animals, Antisperm antibodies: A boon to evaluate and identify potential fertile bulls, Role of seminal plasma proteins in semen fertility, Advances in uterine health evaluation and treatment strategies in large animals, Current updates on reproductive practices in swine, Ultrasonography a diagnostic tool for reproductive problems in farm animals, Field application of reproductive technologies, Role of nuclear magnetic resonance (NMR) technique in evaluating male infertility, Reproduction and nutrition interaction in dairy animals, Resumption of postpartum reproduction in

		dairy animals, Role of advanced reproductive technologies for augmenting reproductive efficiency of farm animals, Advances in animal nutrition for augmenting reproductive efficiency, Molecular mechanisms of semen cryopreservation in buffalo, Clinico-pathological observations in retention of foetal membranes, Approaches to enhance superovulatory response and transferable embryo production in cattle, Hormonal and nutritional strategies to hasten onset of puberty in dairy animals, Oocyte quality assessment and in vitro culture of bovine embryos, Lameness and its impact on reproduction in dairy buffalo, Advances in reproductive biotechnology of farm animals, Cryopreservation induced changes in sperm: Structural and molecular aspects, Current status of bovine embryo transfer technology, Strategies to prevent early embryonic mortality in farm animals, Libido and reproductive efficiency of breeding bulls, Improvement of postpartum reproduction in buffaloes, Estrous synchronization protocols and economic attributes, Augmentation of fertility in bovines, Pathological diagnostic approaches in reproductive disorders, Extension services in dissemination of reproductive technologies to end users, Melatonin implants and seasonal breeding in buffaloes.
10	Copies of lectures / notes given	1. Compendium of Lectures 2. Soft copies of lectures and PPTs (PDF)
11	Any other reading material given	1. Reference Articles – softcopies as PDF files. 2. Compendium of previous trainings as per need of the participants.
12	Name of the Director, CAFT	Dr Prahlad Singh, Professor and Head
13	Address	Department of Veterinary Gynaecology and Obstetrics Guru Angad Dev Veterinary and Animal Sciences University Ludhiana – 141004, Punjab, India
14	Telephone - Office - Residence - Mobile	+ 91-161-2414003 + 91-161-2972393 + 91-9463104958
15	E-mail	prahlad.gadvasu@gmail.com, hodvgo@gmail.com

C. BREIF REPORT 2019

1	Name of the training course	Current Knowledge and Future Challenges in Domestic Animal Theriogenology
2	Duration and dates	21 days; 03-23 Oct 2019
3	Total number of participants : i) From SAU's ii) From ICAR Institutes iii) Local participants iv) States represented	23 19 01 03 10
4	Course Director	Dr. Prahlad Singh Professor and Head-cum-Director of CAFT
5	Course Coordinators	1. Dr Ajeet Kumar, Associate Professor 2. Dr. S S Dhindsa , Assistant Professor
6	Faculty : (i) From within the department (ii) From other departments of the Institute / University (iii) Guest Faculty	 07 08 04
7	No. of practicals and major techniques covered.	20; Ultrasonography and Colour doppler of reproductive organs, Fetal monitoring with cardio-tocography, fetotomy operations, exfoliative vaginal cytology, use of electroejaculator, breeding soundness evaluation, Infrared thermography, Back fat analysis using ultrasonography, pelvimetry, OPU, USG guided follicular ablation, oocyte and embryo grading, Detorsion in large animals, Caesarean section, Ovariohysterectomy, Use of estrous detector. Visits to dairy and studs farms to weigh adoption of new techniques vis a vis entrepreneurship.
8	(a) Laboratory manual prepared (b) If yes, title of the manual	a) No b) N.A.
9	No. of lectures delivered and major areas covered	33; Bull fertility, semen technology, Semen cryopreservation, synchronization of estrus, post caesarean complications, uterine torsion and prolapse in bovine, Melatonin in augmenting reproduction, embryo production and in vitro fertilization, Infectious infertility, Semen additives, ROP in dairy animals, Reproductive disorders in equines and Hysteroscopy in bovines, Urovagina in cows and oocyte competence in repeat breeding cows, large and small animal anesthesia

		vis a vis care of critical patients. Breeding management in equines by Dr Mustaq Ahmad, Incharge Vet, ETT Unit, Dubai Camel Breeding centre, Dubai, UAE over video link.
10	Copies of lectures/notes given	Compendium of lectures given.
11	Any other reading material given	Compendium of lectures & PDF files of power point presentation, practical manual of UG courses. Study materials from previous years' compendium.
12	Name of the Director, CAFT	Dr Prahlad Singh
13	Address	Professor and Head-cum-Director of CAFT Deptt. of Veterinary Gynaecology & Obstetrics Guru Angad Dev Vety. & Animal Scs. University, Ludhiana.
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