



MG 551 – Reuben Mapletoft

Dates: 1963-2013

Extent: 1.3m total: 0.7 m textual 5,419 35mm slides; 7 3 1/2" floppy disks; 2 CD-R, 3 artifacts

Biography: Reuben Mapletoft was born on Little Pipestone Ranch near Fort Pitt, Saskatchewan. His father, Edgar Mapletoft was among the earliest importers of Simmental cattle in Canada. Reuben received his DVM from the University of Guelph before interning at the University of Saskatchewan in 1967-1968—the first student to intern at the college. In 1970 he accepted a position in Reproduction at the Veterinary School at Onderstepoort in Pretoria, South Africa, where he worked for three years. He went on to obtain his MS (1975) and PhD (1977) at the University of Wisconsin, and returned to the WCVM as a professor in the Department of Clinical Studies. He became the Head of the Department of Herd Medicine and Theriogeneology in 1998, and in 2002 he became a consultant to the pharmaceutical industry (Bioniche).

His main area of research and innovation is in bovine reproduction, and more specifically, embryo transfer, superovulation, and in-vitro fertilization. In response to a demand in Western Canada for “on-farm” embryo transfer, Dr. Mapletoft established the Reproduction Research Trust at the University of Saskatchewan. He has lectured in more than 30 countries and conducts an annual embryo transfer workshop for students, practitioners and scientists. In 2000 Mapletoft was presented with a Distinguished Service Award by the International Embryo Transfer Society, in 2003 he received the University of Saskatchewan’s Distinguished Researcher Award, and in 2007 he was invested with the Saskatchewan Order of Merit. Through the course of his career, he has been involved in many collaborative efforts with universities around the world, most notably in South America, and Japan. Dr. Reuben J. Mapletoft is now a professor emeritus in the Western College of Veterinary Medicine’s Department of Large Animal Clinical Sciences.

Scope and Content: This accrual includes a broad array of teaching slides on the subject of large animal reproduction, conference and workshop proceedings from around the world, information on international courses taught by Mapletoft, an array of papers written by Mapletoft, and a small selection of relevant ephemera.

Arrangement and Description:

Original order has been maintained within files, however series have been imposed as follows:

Series I: Slides

Series II: Conferences, Workshops, and Courses

Series III: Publications

Series IV: Other

Restrictions: Restrictions exist as outlined by Canadian privacy legislation. Please consult with archivist.

Prepared by Stevie Horn 2017.

Box 1

Series I: Slides

1. [Reproduction and semen handling slides] – 884 35 mm slides – 2 folders
Lecture notes on reproduction primarily in bovine, but also equine and boars, images of sperm, experimental work, and embryos.
2. Introduction to Abortion/Parturition - 235 25mm slides
Lecture notes on bovine birth and abortion.
3. Import/Export – 155 35mm slides
Lecture notes regarding the import and export of animals and animal embryos.
4. Cattle – 369 35mm slides
5. [Treatments for Livestock] – 1,257 35mm slides – 3 folders
Follicle treatments; Supervulation; embryo transfer, freezing and storage; artificial insemination; estrus synchrony; viruses; images of work in the lab; in-vitro fertilization; pregnancy; post-partum;

Box 2

5. [Treatments for Livestock] – 1,257 35mm slides – 3 folders
Follicle treatments; Supervulation; embryo transfer, freezing and storage; artificial insemination; estrus synchrony; viruses; images of work in the lab; in-vitro fertilization; pregnancy; post-partum;
6. [Western College of Veterinary Medicine – History] – 20 slides
7. [Reproduction slides] – 956 35mm slides – 3 folders
Slides for many lectures including: Fixed-time insemination, embryo transfer, estrus synchronization program, timed breeding, calculating fertility, Heatwatch™, controlled breeding program, heifer puberty and first pregnancy, “Use of Prostaglandins in Bovine Embryo Transfer” (this was a major study by Mapletoft), puberty induction, swine embryo transfer, images of veterinary work, surgical and non-surgical collection of embryos, Biological sera.

8. [Embryo Pictures] – 7 3 1/2” Floppy disks
2 disks unmarked
9. [Veterinary Slides] – 394 35mm slides
Slides showing veterinary work , microscopic slides of canine, brucellosis, reproductive diseases, vaginitis, fetal death, abortion, vibriosis, leptospirosis

Box 3

10. Micromanipulation – 221 35mm slides
Lecture slides on cloning and other topics.
11. [Genetic Mutations] – 120 35mm slides
Primarily images of calves suffering from various malformations
12. Factors and Results [Embryo Transfer] - 215 35mm slides
13. South America - [ca. 1992] – 344 35mm slides
Images of cattle ranches in South America, group photos including Mapletoft, some personal tourism images, conference images, landscapes, monuments.
- 14.[Reproduction Slides] – 464 35mm slides
Estrus, insemination, superovulation, follicle wave, hormone treatments and methodologies, embryo evaluation, Prostaglandins.

Series II: Conferences, Workshops and International Courses

1. SAVSEG Congress – 2001
2. New Zealand Embryo Transfer Workshop – 1994
3. Australian Association of Animal Artificial Breeders : Proceedings of the Second Annual Meeting – 1989
4. The Compendium on Continuing Education for the Practicing Veterinarian: Proceedings from a Symposium on Reproductive Management in Food Animals – 1984

5. Bovine Reproduction : Proceedings of a Symposium – 1987
6. Embryo Transfer Workshops – 2013 – 1 CD-R
7. Proceedings: Beef Industry Workshop – 1995
8. 30th Congres A.M.V.P.Q. – 2006
9. Proceedings of the Saskatchewan Beef Symposium – 1997

Box 4

10. Manitoba Animal Industry Conference Proceedings – 1984
11. Simposio Internacional de Reproduccion Animal
Animal reproduction conference in Argentina
12. Relaciones Emrio-Maternas Y Biotecnologias Reproductivas
Conference in Chile
13. Seminario Internacional de Transferencia de Embriones Biotecnologia y
Tecnologias Avanzadas
Seminar on Embryo Transfer Biotechnology and Advanced Technologies. ‘
14. Alberta North Eastern Veterinary Group – 1980
15. Reproductive Herd Health Update : Symposium Proceedings – 1990
16. WCVN/SVMA June Conference Proceedings – 2006
17. International Embryo Movement: Proceedings of a Symposium – 1987
18. Advances in Large Animal Reproduction: a Coopers Agropharm Educational
Program – 1992

The following courses were collaborative efforts between the WCVN, various universities in South America, and Japan. The final in the list was the result of Mapletoft's work with Bioniche (see Series IV below).

19. Universidad Austral de Chile: Instituto de Reproduccion Animal, Curso Postgrado Relaciones Materno Fetales Y transferencia de Embriones – 1984
Postgraduate course at the University of Chile’s institute of animal reproduction in Maternal Fetal Relationships and Embryo Transfer.
20. IX Curso Internacional en Reproduccion del Bovino- 1994
An international course on cattle reproduction
21. I Curso Internacional: Sobre Transferencia y Congelacion de Embriones Bovinos
An International course on freezing embryos
22. I Curso Internacional de Tranferencia de Embriones y Ecografia en Vacuno – 1997
23. Curso de Tranferencia de Embriones Bovinos
24. Curso Internacional de Transferencia de Embriones -1985
25. Bioniche Animal Health Continuing Education Program – 2007

Box 5

Series III : Publications

The majority of these were authored by, or contributed to by R. Mapletoft. Others were simply collected by him.

1. Role of Luteal Regression in Early Embryonic Loss in Cattle – 1992
2. Controlled Breeding in the Beef Herd with Bulls
3. WCABP Newsletter – 2012-2013
4. [Simmental Publications] – 2000-2007
Frank Mapletoft was the western sales rep for the publication Simmental Country.
5. Pipestone Ranch Sale Presentation – 1986
Includes article by Mapletoft: “Embryo Transfer in the Cow”

6. Veterinary Magazines – 2004-2007
7. Western College of Veterinary Medicine Annual Research Reports – 2003-2006
8. Shaver Beefblend News – 1989-1990
9. [Research Reports] – 2006
 - “Fixed-time AI trials in beef heifers and lactating beef-cows”;
 - “Development of Synthetic Extenders for Cryopreservation of Boar and Bull Semen”
10. New Directions in Animal Production Systems – 1998
11. Manual of the International Embryo Transfer Society: A Procedural Guide and General Information for the Use of Embryo Transfer Technology Emphasizing Sanitary Procedures – 1998
12. [Offprints by Mapletoft, mostly to do with GnRH and Immunization] – 1983-2008
 - 2 folders

Folder 12a

- *“Superovulation Treatment of ‘Problem’ Donor Cows”*
- *“Methods of Thawing Bovine Embryos”*
- *“Preservation of Mammalian Germ Cells with Plant Stress Proteins”*
- *“Control and Predictability for Superovulation and Estrous Synchronization in Embryo Transfer”*
- *“The Effect of LH Content in a Porcine Pituitary Extract on Superovulatory Response to a Single Subcutaneous Injection in Beef Heifers”*
- *“Control of Ovarian Function for Fixed-Timed AI and Embryo Transfer without Estrus Detection”*
- *“Media and Equipment: Sterilization, Toxicity and Quality Control Measures in an Embryo Laboratory”*
- *Bioniche Animal Reproduction Newsletter*
- *“Round Table Meeting on Sanitary Problems Related to Embryo Transfers”*
- *“Bovine Embryo Transfer”*

- *“Gabriel Bo, Investiga en Canada: Tranferencia de los embriones en ruminates domesticos”*
- *“Embryo Transfer Technology for the Enhancement of Animal Reproduction”*
- *“The Application of New Reproductive Technologies to South American Camelids”*
- *“Ultrasound Image Characteristics of Ovarian Follicles in Relation to Oocyte Competence and Follicular Status in Cattle”*
- *“Induction of Luteal Regression, Ovulation and Development of New Luteal Tissue During Early Pregnancy in Heifers.”*
- *“Role of Luteal Regression in Embryo death in Cattle”*
- *“Induction of Parturition in the Cow Using Cloprostenol and Dexamethasone in Combination”*
- *“The Effects of Treatment With Cloprostenol or Dinoprost Within One Hour of Induced Parturition on the Incidence of Retained Placenta in Cattle”*
- *“Reduced Incidence of Retained Placenta With Induction of Parturition in the Cow”*
- *“Induction of Follicular Wave Emergence for Estrus Synchronization and Artificial Insemination in Heifers”*
- *“Resynchronization of Estrus in Beef Cattle”*
- *“Effects of Estradiol Cypionate on Ovarian Follicular Dynamics, Synchrony of Ovulation and Fertility in CIDR-based, fixed-time AI Programs in Beef Heifers”*
- *“Effects of Prostaglandin”*
- *“The Use of GnRH or Estradiol to Facilitate the Fixed-time Insemination in an MGA-based Synchronization Regimen in Beef Cattle”*
- *“Synchronization of Estrus in Beef Cattle with Norgestomet and Estradiol Valerate”*
- *“Estrus Synchronization and Pregnancy Rates in Beef Cattle Given CIDR-B Prostaglandin and Estradiol or GnRH”*
- *“Melengestrol Acetate, Estradiol and GnRH for synchronization of Estrus and Ovulation in Beef Cows”*
- *“Ovarian Follicular Responses in Dairy Cows Treated with GnRH and Cloprestenol”*
- *“Effects of dose and route of administration of cloprostenol on luteolysis, estrus and ovulation in beef heifers”*

- *“The Ischiorectal Fossa: an alternative route for the administration of prostaglandin in cattle”*
- *“The Effect of Estradiol Cypionate (ECP) on Ovarian Follicular Development and Ovulation in Dairy Cattle”*
- *“Local versus Systemic Effects of Exogenous Estradiol on Ovarian Follicular Dynamics in Heifers with Progestogen Implants”*
- *“Effect of Estradiol Valerate on Ovarian Follicles, Emergence of Follicular Waves and Circulating Gonadotropins in Heifers”*
- *“Exogenous Control of Follicular Wave Emergence in Cattle”*
- *“The Effect of 3 Gonadorelin Products on Luteinizing Hormone Release, Ovulation, and Wave Emergence in Cattle”*
- *“Follicular Wave Dynamics After Estradiol Treatment of Heifers With or Without a Progestogen Implant”*
- *“Ovarian Follicular Wave Emergence After Treatment with Progestogen and Estradiol in Cattle”*
- *“Effect of LH or GnRH on the Dominant Follicle of the First Follicular Wave in Beef Heifers”*
- *“Effects of Oestradiol and Some of its Esters on Gonadotrophin Release and Ovarian Follicular Dynamics in CIDR-Treated Beef Cattle”*
- *“In Vitro Fertilization and Development of Llama Oocytes Using Epididymal Spermatozoa and Oviductal Cell Co-culture”*
- *“Morphology and Location of Attached Follicular Cumulus-Oocyte Complexes in Horses, Cattle and Llamas”*
- *“Survival Rates and Sex Ratio of Bovine IVF Embryos Frozen at Different Developmental Stages on Day 7”*
- *“Morphology and Developmental Competence of Bovine Oocytes Relative to Follicular Status”*
- *“Superovulation of Beef Heifers with Pergonal”*
- *“Superovulation of Beef Heifers With Follotropin”*
- *“Superovulation in the cow with pregnant mare serum gonadotrophin”*
- *“Superovulatory Response to a Single Subcutaneous Injection of Follotropin-V in Beef Cattle”*
- *“Superovulatory and Endocrine Responses in Heifers Treated with FSH-P at Different Stages of the Estrous Cycle”*
- *“Effect of Progestogen Plus Estradiol Treatment on Superovulatory Response in Beef Cattle”*

- *“Increased Ovulation Rates in PMSG-Stimulated Beef Heifers Treated with a Monoclonal PMSG Antibody”*
- *“Effect of Estradiol Valerate on Ovarian Follicle Dynamics and Superovulatory Response in Progestin-Treated Cattle”*

Folder 12b

- *“The Effect of Estradiol Preparation on Follicular Wave Emergence and Superovulatory Response in Norgestomet-Implanted Cattle”*
- *“Recent Advances in the Superovulation in Cattle”*
- *“Superovulation in the Cow Using Estradiol or GnRH in Conjunction with FSH-P”*
- *“Superovulatory Response Following Ablation-Induced Follicular Wave Emergence at Random Stages of the Oestrous Cycle in Cattle”*
- *“Ovarian Superstimulatory Response Relative to Follicular Wave Emergence in Heifers”*
- *“Cryopreservation of Mammalian Embryos and Oocytes”*
- *“The Effect of Macromolecular Supplementation on the Surface Tension of TCM-199 and the Utilization of Growth Factors by Bovine Oocytes and Embryos in Culture”*
- *“Effect of Reduced Concentrations of Glycerol and Various Macromolecules on the Cryopreservation of Mouse and Cattle Embryos”*
- *“In Vitro Culture of Preimplantation Mouse Embryos and Day 12 Limb-Buds”*
- *“Media Alternatives for the Collection, Culture and Freezing of Mouse and Cattle Embryos”*
- *“Factors Affecting Survival of Deep Frozen Bovine Embryos in Vitro: The Effect of Freezing Container and Method of Removing Cryoprotectant”*
- *“The Use of Sodium Hyaluronate in Freezing Media for Bovine and Murine Embryos”*
- *“Plasma Membrane and Acrosomal Integrity in Bovine Spermatozoa with the Knobbed Acrosome Defect”*
- *“The Relationship Between Scrotal Circumference and Quantitative Testicular Traits in Yearling Beef Bulls”*
- *“In Vitro Fertilizing Characteristics of Bovine Spermatozoa With MultiOple Nuclear Vacuoles”*
- *“An Investigation of the Fertilizing Characteristics of Pyriform-shaped Bovine Spermatozoa”*

- *“The Use of in Vitro Fertilization Techniques to Investigate the Fertilizing Ability of Bovine Sperm with Proximal Cytoplasmic Droplets”*
- *“Fertilizing Characteristics of Bovine Sperm with Flattened or Indented Acrosomes”*
- *“Infertility in a Bull with a Nuclear Sperm Defect”*
- *“Relationship Between the Proportion of Capacitated Spermatozoa Present in Frozen-Thawed Bull Semen and Fertility with Artificial Insemination”*
- *“Die Perinatale Periode by Honde”*
- *“Effects of Prostaglandin on Corpora Lutea Formation and Function in Mated Bitches”*
- *“Effect of Zeranol Implants on Age at Onset of Puberty, Fertility and Embryo Fetal Mortality in Beef Heifers”*
- *“Increased Ovulation Rates in PMSG-Stimulated Beef Heifers treated with a Monoclonal PMSG Antibody”*
- *“Assisted Reproductive Technologies in Cattle”*
- *“Endocrine Profiles and Functional Characteristics of Corpora Lutea Following Onset of Postpartum Ovarian Activity in Beef Cows”*
- *“Fertility Following Fixed-Time AI in CIDR – treated beef heifers given GnRH or estradiol cypionate and fed diets supplemented with flax seed or sunflower seed”*
- *“The Economic Benefits of Feedlot Abortion”*
- *“Induction of Abortion in Feedlot Heifers”*
- *“Induction of Parturition in Cattle: Effect of Triamcinolone pretreatment on the incidence of retained placenta”*
- *“Resynchronization of previously timed-inseminated beef heifers with progestins”*
- *“Fertility in Beef Cattle Given a New or Previously Used CIDR Insert and Estradiol, with or without progesterone”*
- *“The Use of Estradiol and/or GnRH in a two-dose PGF Protocol for Breeding Management of Beef Heifers”*
- *“Fertility and Reproductive Management in High Producing Dairy Cows” (Hokkaido-Alberta Dairy Science and Technique Exchange Association, Japan)*
- *“The Use of Controlled Internal Drug Release Devices for the Regulation of Bovine Reproduction”*

- *“Sincronizacion Y Superovulacion de Vacas Donantes de Embriones”*
- *“Control del Desarrollo Foliculary su Uso en Programmas de Inseminacion Artificial a Tiempo Fijo en Ganado de Carne”*
- *“Synchronization of Estrus in Cattle”*
- *“Use of Prostaglandins in Bovine Embryo Transfer”*
- *“Sincronizacao do estro em bovinos Hereford-Angus com Crestar”*
- *“The Ovarian Artery as the Final Component of the Local Luteotropic Pathway Between a Gravid Uterine Horn and Ovary in Ewes”*
- *“Local Venoarterial Pathway for Uterine-Induced Luteolysis in Cows”*
- *“Changes in the Cumulus-oocyte complex of subordinate follicles relative to follicular wave status in cattle”*
- *“Reproduction in Domestic Animals”*
- *Controlled Breeding Facts publication*
- *“Incidence of Chromosomal Anomalies Among Western Canadian Beef Cattle”*
- *“Embryonic Loss in Superovulated Cattle Caused by the 1:29 Robertsonian Translocation”*
- *“Congenital Defects in Cattle”*
- *“A Study of the Inheritance of a Bleeding Disorder in Simmental Cattle”*
- *“Immunization of sheep against modified peptides of gonadotropin releasing hormone conjugated to carriers”*
- *“A synthetic luteinizing hormone releasing hormone vaccine”*
- *“Immunization of Cattle against Modified Peptides of Gonadotropin Releasing Hormone Conjugated to Carriers Effectiveness of Freund’s and Alternative Adjuvants”*
- *“Immunological Approaches to Contraception in Dogs”*
- *“Livestock Reproduction in Latin America”*

13. Recommended Embryo Record Systems

14. Manual of the International Embryo Transfer Society: A Procedural Guideline and General Information for the Use of Embryo Transfer Technology Emphasizing Sanitary Procedures – 1987

15. Consolidating Calving Pattern: Evaluation of 48-Hour Weaning and/or Syncromate-B or Estrumate Hormone Treatments in Controlled Breeding of Beef Cows

16. Dairy Journal [Japanese] – 2005
Including “voice” articles about Mapletoft
17. Real-Time Ultrasonography for the Study of Reproductive Events in the Cow – 1998
Signed by the author, Antonio Garcia

Box 6

18. The Merck Veterinary Manual. 7th ed.
Authored by Reuben Mapletoft.
19. Fifty Years of Artificial Insemination in Canada – 1984
Signed by the author, Roy Snyder.
20. Of Their Own Free Will: The Amazing Story of the Volunteers for Morris Animal Foundation

Series IV: Other

1. [Genetica Simmental]
Sale booklet with photos of Simmental cattle in Spanish.
2. [Partnership with South American Universities] – 1994-1996
Correspondence relating thereto.
3. Bovine Registration Papers – 1997-2004
4. Certificates – 1963-2013 – **RESTRICTED**
Including several significant career documents, starting with a certificate of internship, several veterinary licenses, Mapletoft’s identification card for the WCVM, a certificate from a fraternity, and documentation to do with his lectures and promotions. Department of Large Animal Clinical Services WCVM Four Year Plan (2001). Certificates from symposiums in Italy, Chile, Japan, South America, Uruguay, Costa Rica, Brazil. Cattlemen’s certificates and Canadian Veterinary Association, Bovine Practitioners, Society for Cryobiology.
5. [University of Saskatchewan] – 2003 – 2010
Largely related to the work Mapletoft was undertaking with Bioniche.

6. Business Cards – 2 folders
7. Universidad Nacional de La Pampa : Facultad de Ciencias Veterinarias
Pennant from the National University de la Pampa for the Faculty of Veterinary Sciences.
8. Lasso
Long lasso in Argentinian style of braided leather, with a metal hoop at one end.
9. Image of Ghengis Khan on leather