

TABLE OF CONTENTS

Veterinary Reproduction and Obstetrics 10th Edition

- Cover image
- Title Page
- Table of Contents
- Copyright
- List of Contributors
- Preface
- Part 1 Basic Physiology
- Introduction
- 1 Reproductive Physiology of the Female
- The Oestrous Cycle and Its Phases
- The Horse
- The Cow
- The Sheep
- The Goat
- The Pig
- The Dog
- The Cat
- References
- 2 Reproductive Physiology of Male Animals
- Anatomy of the Male Reproductive System
- Development of the Male Reproductive System
- Physiology of the Testis
- Physiology of the Epididymis
- Physiology of the Accessory Glands
- The Penis
- Libido and Mating Behaviour
- References
- 3 Puberty and Seasonality
- Puberty and the Onset of Cyclic Activity
- Melatonin, Puberty and Seasonality
- The Role of Kisspeptin in the Onset of Puberty and Seasonality
- Other External Factors Influencing the Time of Onset of Puberty and Seasonality
- Puberty and Seasonality: A Species Overview
- Artificial Induction of Puberty and Seasonality
- References
- 4 Fertilisation and Development of the Conceptus
- Development of the Conceptus
- Relationship Between Fetal Membranes of Twins and Multiple Fetuses

- Fetal Movements During Pregnancy
- Fetal Growth and Size
- References
- 5 Pregnancy and Its Diagnosis
- Maternal Recognition of Pregnancy
- Pregnancy Diagnosis
- Pregnancy and Its Detection in the Horse
- Pregnancy and Its Detection in Cattle
- Pregnancy and Its Detection in the Pig
- Pregnancy and Its Detection in the Sheep and Goat
- Pregnancy and Its Detection in the Dog
- Pregnancy and Its Detection in the Cat
- Prevention and Termination of Pregnancy
- References
- 6 Parturition and the Care of Parturient Animals and the Newborn
- Parturition
- Care of the Newborn
- References
- 7 Physiology of the Puerperium
- Cattle
- Horse
- Sheep and Goat
- Pig
- Dog
- Cat
- References
- 8 Pharmacological Agents in the Control of Reproduction
- Non-Exogenous Hormone Methods
- Hormonal Control of the Oestrous Cycle
- Immunological Methods
- References
- Part 2 Gestation and Pathology of Gestation
- Introduction
- 9 Abnormalities of Development and Pregnancy
- Introduction
- Abnormal Development Due to Genetic Disorders: Mutations and Chromosome Abnormalities
- Abnormalities Due to Environmental Effects: Dietary and/or Toxic Disorders
- Abnormal Development Due to Infections
- Abnormalities Due to Uncertain Aetiologies, Including Fetal Monsters, Dropsies, Abortion, Maceration, and Mummification
- References
- 10 Prolapse of the Cervix and Vagina
- Sheep
- Cattle
- Pigs
- Dogs
- References
- Part 3 Obstetrics and Surgery of the Reproductive System
- Introduction

- 11 Approach to an Obstetrical Case
- Causes and Classification of Dystocia
- History and General Examination
- Obstetrical Equipment
- Consideration of Treatment
- References
- 12 Prevalence, Causes and Consequences of Dystocia
- Introduction
- Prevalence
- Aetiology
- Consequences of Dystocia
- Prevention
- References
- 13 Maternal Dystocia
- Defects of the Birth Canal
- Defects of Expulsive Forces
- References
- 14 Fetal Dystocia in Livestock
- Manipulative Delivery per vaginam
- Dystocia Due to Postural Defects: Anterior Presentation
- Dystocia Due to Postural Defects: Posterior Presentation
- Dystocia Due to Faulty Position
- Dystocia Due to Faults of Presentation
- Dystocia Due to Twins
- Dystocia Due to Fetomaternal Disproportion
- Dystocia Due to Fetal Monsters
- References
- 15 Defects of Presentation, Position and Posture in Livestock
- Indications
- Instrumentation
- Subcutaneous Fetotomy
- Percutaneous Fetotomy
- References
- 16 Defects of Presentation, Position and Posture in Livestock
- Cattle
- Sheep, Goats, and Deer
- Horse
- Pig
- Llamas and Alpacas
- References
- 17 Disorders of Parturition and the Puerperium in the Gilt and Sow
- Overview: Causes and Incidence Rates of Porcine Dystocia
- Dystocia Due to Obstructive Causes
- Inadequate Expulsive Force
- Management
- Obstetrical Examination
- Disturbed Parturition and the Neonatal Piglet
- Abnormal Parturition and Reproductive Health
- References
- 18 Manipulative Delivery per vaginum in Dogs and Cats

- Introduction
- Digital Manipulations
- The Use of Instruments
- Delivery by Forced Traction
- After Delivery
- References
- 19 Caesarean Hysterotomy in Dogs and Cats
- Introduction
- Pregnancy Length and Predicting Parturition
- Indication for Caesarean Hysterotomy
- References
- 20 Injuries and Diseases Consequent Upon Parturition
- Trauma to the Birth Canal and Neighbouring Structures
- Postparturient Prolapse of the Uterus
- Parturient Recumbency
- References
- 21 Castration and Cryptorchid Surgery
- Castration of the Male Horse
- Cryptorchid Surgery in the Horse
- Castration (Ovariectomy of the Female (Mare) Horse)
- References
- Part 4 Subfertility
- Introduction
- 22 Infertility in the Cow Due to Functional and Management Deficiencies
- General Considerations
- Prevalence and Cost of Infertility
- Overview of the Causes of Infertility
- Structural Causes of Infertility in the Individual Cow
- Functional Infertility
- Stockmanship and Management
- Other Factors Affecting Reproductive Performance
- References
- 23 The Metritis Complex in Cattle
- Introduction
- Defining the Diseases of the Postpartum Uterus
- The Postpartum Period
- Diseases of the Postpartum Uterus
- Conclusions and Outlook
- References
- 24 Specific Infectious Diseases Causing Infertility and Subfertility in Cattle
- Bacterial Agents
- Mycoplasma, Ureaplasma, Acholeplasma, and Chlamydia Infections
- Protozoal Agents
- Viral Agents
- Fungal Agents (Mycotic Abortion)
- Diseases of Unknown Aetiology
- References
- 25 Veterinary Control of Herd Fertility in Intensively Managed Dairy Herds
- Introduction
- Evaluation of Herd Fertility

- The Economics of Reproduction
- Veterinary Management of Reproduction
- References
- 26 Veterinary Control of Herd Fertility in Pastoral Dairy Herds
- Key Issues Affecting Reproductive Performance
- Monitoring Herd Fertility
- Autumn or Split Block Calving
- References
- 27 Veterinary Control of Reproduction in Beef Herds
- Basic Economics and Targets of Suckler Beef Calf Production
- Theory of Beef Cattle Reproduction
- Practical Management of a Compact Mating Period
- Other Factors Affecting Beef Suckler Herd Reproductive Performance
- Artificial Breeding Management of Beef Suckler Herds
- References
- 28 Fertility and Infertility in *Bos indicus*
- Introduction
- Physiological Differences in the Oestrous Cycle of *B. taurus* and *B. indicus*
- Nutritional and Metabolic Effects on Normal Reproductive Physiology and Reproductive Performance
- Influence of Dry Matter or Energy Intake Associated With High Plasma Insulin Concentrations on the Yield and Quality of Embryos
- Assisted Reproductive Technologies (ARTs) Applied to *B. indicus*
- References
- 29 Infertility and Abortion in Sheep and Goats
- Sheep
- Goats
- References
- 30 Management of Breeding in Small Poultry Production Units
- Anatomy of the Female Reproductive System
- Female Reproductive Physiology
- Male Reproductive Anatomy
- Male Reproductive Physiology
- Sperm Storage
- Fertilisation
- Sex Determination
- Egg Development
- Brooding/Broodiness
- Moulting
- Hatchery Management
- Sexing
- Failure to Lay/Egg Drop
- Fertility Issues
- Infectious Causes of Reproductive Disorders
- Abnormal Eggs/Seconds
- Late Fetal and Chick Pathology
- References
- 31 Equine Infertility and Stud Medicine Practice
- Causes of Infertility
- Infertility Classified by Anatomical Location

- References
- 32 Infertility in the Pig and the Control of Pig Herd Fertility
- Methods for Examining the Reproductive System of the Subfertile/Infertile Gilt/Sow
- Causes of Subfertility/Infertility
- Reproductive Management to Ensure Optimum Fertility
- References
- 33 Infertility in the Bitch and Queen
- The Bitch
- Function Abnormalities of the Bitch's Reproductive Tract
- Infectious Agents of the Bitch's Reproductive Tract
- Management Factors Affecting Fertility of the Bitch
- Cat
- Functional Abnormalities of the Queen's Reproductive Tract
- Infectious Agents Affecting the Queen's Reproductive Tract
- Cystic Endometrial Hyperplasia and Pyometra
- Management Factors Affecting Fertility of the Queen
- References
- 34 Pharmacological Control of Reproduction in the Dog and Cat
- Female
- Testing Reproductive Function
- Male
- References
- Part 5 Male Animal
- Introduction
- 35 Evaluation of the Fertility of Breeding Males
- Overall Approach
- How to Conduct a Breeding Soundness Examination
- Overall Determination of the Likely Fertility of a Breeding Male
- References
- 36 Abnormalities Affecting Reproductive Function of Male Animals
- Abnormalities of Coitus
- Conditions Causing Failure of Fertilisation
- References
- Part 6 Reproduction, Breeding, Reproductive Disease and Infertility in Less Common Domestic Species
- Introduction
- 37 Old and New World Camelids
- South American Camelidae
- Camels
- References
- 38 Buffalo and Related Species
- Reproduction in the Female
- Reproduction in the Male
- Fertility and Infertility
- References
- 39 Deer
- Distribution and Diversity of Cervids
- Seasonality versus Aseasonality
- Nonpregnant Female

- Pregnant Hind
- Reproduction in the Stag
- Assisted Reproductive Technologies
- Reproductive Productivity of Farmed Red Deer
- Conclusions
- References
- 40 Laboratory and Pet Rodents, and Lagomorphs
- Sexing
- Anatomy
- Normal Reproductive Cycles
- Reproductive Diagnostics for Small Mammals
- Noninfectious Diseases
- Disorders of the Oestrous Cycle
- Fetal Resorption, Abortion, and Stillbirth
- Periparturient Problems and Dystocia
- Neoplasia
- Miscellaneous Reproductive Disorders
- Infectious Disorders
- Drugs Used to Manipulate the Reproductive Cycle in Small Mammals
- References
- 41 Veterinary Control of Reproduction in Rodent Colonies
- Criteria for Successful Breeding in Small Rodents
- Macro and Micro Environment
- Nutrition
- Effective Management & Record Keeping
- Troubleshooting: Problems With Breeding
- Maximising Production for Commercial Breeding
- Conclusion
- References
- 42 Elephants
- Female Reproduction
- Male Reproduction
- Clinical Examination of the Reproductive System
- Reproductive Examination Tools
- Obstetrical Disorders
- Female Infertility
- Male Infertility
- Captive Breeding
- References
- Part 7 Assisted Reproduction
- Introduction
- 43 Artificial Insemination
- Advantages and Disadvantages of Artificial Insemination
- Preparation of Semen for Use in Artificial Insemination
- Spermatozoa Selection
- Diseases Transmissible in Semen
- Artificial Insemination of Cattle
- Artificial Insemination of Sheep
- Artificial Insemination of Goats
- Artificial Insemination of Pigs

- Artificial Insemination of Horses
- Artificial Insemination of Dogs
- Artificial Insemination of Cats
- References
- 44 Embryo Transfer and Other Assisted Reproductive Technologies
- Introduction
- Superovulation, Insemination and Recipient Synchronisation
- Embryo Collection and Transfer
- Oocyte Collection by Use of Ultrasound
- In vitro Embryo Production
- In vivo-derived versus In vitro-produced Embryos and Advanced Quality Measurements
- Cryopreservation of Oocytes and Embryos
- Additional Embryo Manipulations
- Consequences of In vitro Handling of Gametes
- Sex Determination and Genotyping of Embryos
- Biosecurity Precautions
- References
- Index.