

Contents

List of Contributors ix

Preface xv

Acknowledgment xvii

Section 1 Goat Reproductive Health 1

- 1 Anatomy of the Reproductive System in the Buck and Doe 3**
Abhinav Verma, Mahendra P.S. Tomar, and Vikas Sachan
- 2 Puberty and Sexual Maturity in the Buck and Doe 13**
Ashok Baindha, Mohan Lal, Vipin Chandra, and Rashmi Singh
- 3 Reproductive Biology of the Buck and Doe 23**
Ashok Baindha, Mohan Lal, Rashmi Singh, and Vipin Chandra
- 4 Selection Criteria for the Buck and Doe 35**
Ashok Baindha, Mohan Lal, and Nirmal Singh Rajawat
- 5 Impact of Nutrition on Reproduction in Goats 45**
Sanjay Kumar, Kaushalendra Kumar, Rajni Kumari, Amitava Roy, and Tanmoy Rana
- 6 Effect of Parasitic Infection on Reproductive Health 59**
Bhupamani Das, Abhinav N. Suthar, Ankit S. Prajapati, and Ramesh M. Patel
- 7 Seasonal Perspectives on Reproduction of the Buck and Doe 71**
Felix Uchenna Samuel, Khumran Mada, Peter Ibrahim Rekwot, and Aliyu Abdullahi Mohammed
- 8 The Buck Effect: A Management Tool for Improving Reproductive Efficiency in Goats 81**
Mohammad M. Islam and Chirag P. Parmar
- 9 Estrus Synchronization and Mating Systems in Goats 95**
Ravi Ranjan, Rajesh Kumar, Chetana Gangwar, and Pramod Kumar
- 10 Preparation for the Breeding Season 109**
Ashok Baindha, Vipin Chandra, Rashmi Singh, and Mohan Lal
- 11 Gestation and Parturition 121**
Pramod Kumar, Rajesh Kumar, Satyavrat V. Singh, and Sarita Devi

12 Lactation 133*Manoj Kumar Kalita, Simson Soren, Jitumoni Das, and Prerona Patowary***13 Reproductive Techniques 149***Felix Uchenna Samuel and Peter Ibrahim Rekwot***14 Reproductive Failure in Does 163***Felix Uchenna Samuel, Pauline Chiezey Ngozi, Adeniyi Njideka, Kolawole Jonathan Bamidele, and Hycinth Ndabatsado Kolo***15 Postpartum Care of the Doe 175***Felix Uchenna Samuel, Ama Adadzewa Eshun, Bashir Maryam Darma, Mada A. Khumran, Allam Lushaikyaa, Hycinth Ndabatsado Kolo, and Mojetoluwa S. Afolabi***Section 2 Disorders of the Male Reproductive System 181****16 Diseases of the Glans Penis and Prepuce 183***Felix Uchenna Samuel, Ogunkunle Nathaniel, Adeniyi Njideka, Idris Sherif, Hycinth Ndabatsado Kolo, and Aliyu Abdullahi Mohammed***17 Diseases of the Urethra 197***Felix Uchenna Samuel, Ogunkunle Nathaniel, Kolawole Jonathan Bamidele, Idris Sherif, and Hycinth Ndabatsado Kolo***18 Diseases of the Inguinal Lymph Nodes 207***Felix Uchenna Samuel, Mojetoluwa S. Afolabi, Kolawole Jonathan Bamidele, and Hycinth Ndabatsado Kolo***19 Diseases of the Prostate 217***Felix Uchenna Samuel, Ogunkunle Nathaniel, Kolawole Jonathan Bamidele, Idris Sherif, Hycinth Ndabatsado Kolo, Bashir Maryam Darma, and Mada A. Khumran***20 Diseases of the Scrotum 225***Felix Uchenna Samuel, Mojetoluwa S. Afolabi, Adeniyi Njideka, Ogunkunle Nathaniel, Kolawole Jonathan Bamidele, and Hycinth Ndabatsado Kolo***21 Diseases of the Testes 235***Felix Uchenna Samuel, Peter Ibrahim Rekwot, Lushaikyaa Allam, Hycinth Ndabatsado Kolo, and Aliyu Abdullahi Mohammed***Section 3 Diseases of Pregnancy 247****22 Abortion: General Considerations 249***Neeti Lakhani, Abhijeet Fernandes, and Gitesh Saini***23 Infectious Abortive Diseases: Chlamydiosis 265***Chinmoy Maji, Kruti Debnath Mandal, and Suman Biswas***24 Infectious Abortive Diseases: Toxoplasmosis 279***K. Justin Davis and K. Athira***25 Infective Abortive Diseases: Q Fever 297***Bhavanam Sudhakara Reddy and Sirigireddy Sivajothi*

26 Infectious Abortive Diseases: Brucellosis 307*Shivangi Udainiya, Amita Tiwari, Brejesh Singh, and Manoj Kumar Ahirwar***27 Infectious Abortive Diseases: Campylobacteriosis 319***Ashok Baindha, Rashmi Singh, Perna Yadav, Akanksha Choudhary, Amitava Roy, and Tanmoy Rana***28 Noninfectious Abortive Diseases: Toxic Plants, Nutritional, and Genetic 327***Manoj Kumar Kalita, Himangshu Baruah, Laishram Sanathoi Khuman, and Prerona Patowary***29 Management of Abortive Diseases 343***Jigar Raval, Sunant Raval, and Tanmoy Rana***Section 4 Metabolic Diseases 353****30 Ketosis/Pregnancy Toxemia 355***Amita Tiwari, Shivangi Udainiya, Varsha Mishra, and Aditya Pratap***31 Hypocalcemia 367***Gowdaiahnadoddi K. Chetan Kumar, Ashok Ashwini, and Rayala S. Sagar***Section 5 Postpartum Disorders 379****32 Uterine and Rectal Prolapse 381***Prakash M. Chauhan, Ankit S. Prajapati, Rajesh Kumar, and Ravi D. Prajapati***33 Retained Placenta and Fetal Membranes 393***Jeetendra S. Rajoriya, Rajesh Kumar, Abhiyuday P. Singh, and Prakash M. Chauhan***34 Metritis 401***Annadurai Thangamani, Abdul Reshma, Sakthivel Manokaran, Ramasamy Rajkumar, Tulasiraman Sarath, and Ayyasamy Elango***35 Pyometra 405***Jitumoni Das, Manoj Kumar Kalita, Prerona Patowary, Parimita Dutta, and Tanmoy Rana***36 Mastitis 415***Anil Kumar, Pardeep Sharma, Ankesh Kumar, and Tanmoy Rana***37 General Preparations for the Newborn Kid 427***Rohit Kumar, Meesam Raza, and Ankaj Thakur***38 Feeding of Kids 435***Rohit Kumar and Meesam Raza***Section 6 Early Diseases of Kids 443****39 Stillborn, Weak or Dead Kid 445***Amitava Roy and Tanmoy Rana***40 Hypothermia and Hypoglycemia 457***Ankit S. Prajapati, Kashyap Patel, Prakash M. Chauhan, and Sarita Devi*

41 Bacteria and Toxins 463*Ranjani Rajasekaran and Saahithya Rajamohan***42 Pneumonia 473***Shashi Pradhan, Aditya Pratap, Salil Kumar Pathak, and Akanksha Agnihotri***43 Scours (Diarrhea) 485***Ranjani Rajasekaran, Hridya Susan Varughese, Saahithya Rajamohan, and Krishnan Padmanath***44 Navel and Joint Ill 495***Saahithya Rajamohan, Ranjani Rajasekaran, Padmanath Krishnan, and Richard Jagatheesan Pitchai Navlon***Section 7 Late Diseases of Kids 501****45 Coccidiosis 503***Bhupamani Das, Sirigireddy Sivajothi, Husen R. Parsani, and Abhinav N. Suthar***46 White Muscle Disease 517***Somu Yogeshpriya, Amitava Roy, and Tanmoy Rana***47 Enterotoxemia 525***Saahithya Rajamohan and Ranjani Rajasekaran***48 Acidosis 537***Ankit S. Prajapati, Prakash M. Chauhan, Abhinav N. Suthar, and Bhupamani Das***49 Urolithiasis 545***Antonio Carlos Lopes Câmara and Benito Soto-Blanco***50 Polioencephalomalacia 553***Benito Soto-Blanco and Antonio Carlos Lopes Câmara***51 Salmonellosis 563***Anil Kumar, Pardeep Sharma, Bhoomika Sirsant, Sonam Bhatt, and Tanmoy Rana***52 Rectal Prolapse in Kids 571***Priyanka Duggal and Ram Niwas***53 Copper Deficiency 577***Abhishek Pathak, Kritika Dhial, Varun Asediya, and Amaan Ghaazi***Index 587**