

Understanding Animal Breeding 2nd Edition

A comprehensive and thoroughly revised text on dairy science that contains information on the most recent developments. The fully updated third edition of *Understanding the Dairy Cow* explores the scientific principles that provide a foundation for understanding the animal's body system. The comprehensive text also reveals how to properly manage dairy cattle with economic efficiency whilst taking into consideration the cow's welfare. The revised new edition contains expanded coverage on topics including insight into cow behaviour and welfare, genetic selection indices, new strategies for control of mastitis and lameness and information on the overworked cow. It also contains the most recent developments in breeding, nutrition and management. Is an authoritative text on the dairy cow that covers a wide-ranging subject area including the science, disease and husbandry. Presents the information and knowledge necessary for the efficient and humane management of cows. Includes expanded coverage on a variety of topics such as cow behaviour and welfare, and genetic selection indices. Highlights major new developments in the field. Covering both the basics and recent developments in dairy science, *Understanding the Dairy Cow 3rd Edition* is ideal for students in agriculture and veterinary science and for professionals working in the complex business of dairy farming.

Bringing together the experience of three top academic experts in breeding procedure, this up-to-date second edition of *Managing Breeds for a Secure Future* examines breeding and genetics at a level accessible to all. This new edition has been revised to cover emerging debates in animal breeding and includes domestic species such as dogs and horses. The authors skilfully use a clear discussion of theoretical genetics to explain its practical applications to a wide audience of livestock and domestic animal breeders. Specific examples are provided throughout to illustrate how decisions regarding breeding and management relate back to genetic theory. Advice is given on all areas pertaining to the process of responsible breed management from selecting pairs and mating systems to registry functions and long-term management. Current topics of interest covered include: breeding for robustness and disease resistance, international movement of livestock, and preserving endangered breeds. Breed associations are also discussed in depth with particular emphasis on how reducing common conflicts can secure the future of breeds for generations to come. This practical book offers a comprehensive examination of breeding practices aimed at livestock and dog breeders of all abilities and experience levels. The first edition was published by The Livestock Conservancy.

The aim of this manual is to improve the welfare of dairy cattle in tropical developing countries, and by doing so, optimise cow and herd performance. It gives the stockmen and farmers directly concerned with the cattle a better understanding of animal behaviour and the ways cattle communicate their comfort or distress. The book discusses normal cattle behaviour

and shows how domestication and breeding can affect behaviour to achieve high levels of production of milk, live weight gain and fertility. Animal welfare is important for producers because it can affect the health, production and contentment of cows. Animal welfare practices which adversely affect cow and herd performance on tropical small holder dairy farms are identified. Advice is then given to change the animal's environment or modify a handler's technique to ensure cattle have the degree of comfort needed to achieve more profitable and sustainable systems of livestock farming. Cow Talk will be a beneficial resource for farmers who want to improve animal welfare, farm advisers who can assist farmers to improve their welfare practices, educators who develop training programs for farmers and dairy advisers, and other stakeholders in tropical dairy production such as local agribusiness, policy makers and research scientists.

An experienced animal breeder, Rick Bourdon designed this book to be a modern, technologically up-to-date approach to animal breeding. Understanding Animal Breeding addresses the abstract concepts of animal breeding, presenting the necessary mathematics, but previous experience in genetics and statistics is not assumed. Well organized and readable, the book stresses application, then explains theory for an overall understanding of the material. Coverage explores the latest material on interactions and breeding objectives; performance testing; probabilities and inheritance; the Hardy-Weinberg equilibrium with multiple alleles; realized response to selection; breeding for uniformity; and biotechnology. For practicing animal breeders as well as those interested in breeding and agriculture.

The Laboratory Mouse, Second Edition is a comprehensive book written by international experts. With inclusions of the newly revised European standards on laboratory animals, this will be the most current, global authority on the care of mice in laboratory research. This well-illustrated edition offers new and updated chapters including immunology, viruses and parasites, behavior, enrichment and care standards of laboratory mice across the life sciences, medical and veterinary fields. Features four-color illustrations with complete instruction on mouse surgery, anatomy, behavior and care of the mouse in laboratory research Offers additional chapters on new mouse strains, phenotyping of strains, bacteria and parasites, and immunology Includes the newly revised EU standards on care, as well as, comparisons to standards and regulations in the US and other countries

Now in full color, Manual of Equine Reproduction, 3rd Edition provides a comprehensive look at the reproductive management of horses, including management of stallions, pregnant mares, and neonatal foals. Expert authors use a concise, practical approach in discussing improved therapies and treatments in equine breeding. You'll enhance your skills and knowledge with this book's detailed coverage of techniques used in reproductive examination, breeding procedures, pregnancy diagnosis, foaling, and reproductive tract surgery. A clinical emphasis includes a step-by-step format of possible scenarios from conception to breeding management. Practical information includes topics such as

breeding with transported cooled or frozen semen, and caring for the broodmare and newborn foal. The organization of material corresponds to the course of study in veterinary school, so you can find topics easily. Chapter objectives and study questions at the beginning of each chapter guide you through the material and provide clear learning goals. Evaluation of Breeding Records chapter covers the importance of breeding records, and how to use them to evaluate stallion performance and optimize fertility. References are listed at the end of each chapter for further research and study. Full-color photographs and illustrations clearly depict procedures, and all drawings have been redrawn and improved. NEW Assisted Reproductive Technology chapter goes beyond embryo transfer. Updated content includes the latest advances in therapies and treatments. New content is added to two chapters, Reproductive Physiology of the Nonpregnant Mare and Manipulation of Estrus in the Mare. Thorough coverage of every aspect of equine reproduction provides a strong foundation for success in veterinary practice, including a discussion of the use of GnRH-analog deslorelin (Ovuplant) to hasten ovulation; aseptic technique for endometrial biopsy; use of transabdominal ultrasonography, especially in early pregnancy; determination of fetal gender by transrectal ultrasonography; aspiration testicular biopsy using a spring-loaded biopsy instrument; and procedure for surgical embryo transfer.

"Animal genetics is a central topic in upper-level animal science programs. Filling a void in existing literature on animal science, Animal Genetics introduces genetic principles and presents their application in production and companion animals. The book details population and quantitative genetics, epigenetics, biotechnology, and breeding among other topics. Useful in upper-level studies, Animal Genetics is an irreplaceable educational resource"--Provided by publisher. Genetics and Breeding for Disease Resistance of Livestock is a solid resource that combines important information on the underlying genetic causes and governing factors for disease resistance in food animals and applications for breeding purposes. It describes genomics at each species level to help researchers and students understand disease resistance and immunology using genomics and its application in breeding for disease resistance. This useful reference makes it easy for readers to understand and undergo further research in immunology and disease resistance for livestock. It includes novel applications and research material that is ideal for students, teachers, academicians and researchers. Presents basic principles and protocols to describe research methodologies through diagrammatic illustrations with figures, flow charts, examples, and references Covers various disease occurrences in livestock and the methodologies available to identify the various pathogens responsible for these diseases Includes advanced breeding techniques and practical applications

New Technologies in Animal Breeding looks at new reproductive technologies in breeding domestic animals, such as sex selection, frozen storage of oocytes and embryos, in vitro fertilization and embryo culture, amphibian nuclear transplantation, parthenogenesis, identical twins

and cloning in mammals, and gene transfer in mammalian cells. It summarizes the state-of-the art and offers perspectives on future directions for several animal industries of great importance in food production, including artificial insemination, embryo transfer, poultry breeding, and aquaculture. Organized into five sections encompassing 14 chapters, this book begins with an overview of animals in society and perspectives on animal breeding. It then discusses the animal industries that are heavily dependent on reproductive technology, including those engaged in cloning, selfing, aquaculture, artificial insemination, and embryo transfer. It also explains the developing technologies as well as their potential applications and impacts on animal production, along with special economic considerations, such as the benefits of reproductive management, synchronization of estrus, and artificial insemination of beef cattle and sheep. The final chapter considers biomedical and agricultural research, implementation of new technologies in animal breeding, and research in animal reproduction. This book is an essential reference for scientists and researchers interested in animal science and animal reproduction.

Zoos, aquaria, and wildlife parks are vital centers of animal conservation and management. For nearly fifteen years, these institutions have relied on *Wild Mammals in Captivity* as the essential reference for their work. Now the book reemerges in a completely updated second edition. *Wild Mammals in Captivity* presents the most current thinking and practice in the care and management of wild mammals in zoos and other institutions. In one comprehensive volume, the editors have gathered the most current information from studies of animal behavior; advances in captive breeding; research in physiology, genetics, and nutrition; and new thinking in animal management and welfare. In this edition, more than three-quarters of the text is new, and information from more than seventy-five contributors is thoroughly updated. The standard text for all courses in zoo biology, *Wild Mammals in Captivity* will, in its new incarnation, continue to be used by zoo managers, animal caretakers, researchers, and anyone with an interest in how to manage animals in captive conditions.

The revised edition of the bestselling textbook, covering both classical and molecular plant breeding *Principles of Plant Genetics and Breeding* integrates theory and practice to provide an insightful examination of the fundamental principles and advanced techniques of modern plant breeding. Combining both classical and molecular tools, this comprehensive textbook describes the multidisciplinary strategies used to produce new varieties of crops and plants, particularly in response to the increasing demands of growing populations. Illustrated chapters cover a wide range of topics, including plant reproductive systems, germplasm for breeding, molecular breeding, the common objectives of plant breeders, marketing and societal issues, and more. Now in its third edition, this essential textbook contains extensively revised content that reflects recent advances and current practices. Substantial updates have been made to its molecular genetics and breeding sections, including discussions of new breeding techniques such as zinc finger nuclease, oligonucleotide directed mutagenesis, RNA-dependent DNA methylation, reverse breeding, genome editing, and others. A new table enables efficient comparison of an expanded list of molecular markers, including Allozyme, RFLPs, RAPD, SSR, ISSR, DAMD, AFLP, SNPs and ESTs. Also, new and updated "Industry Highlights" sections provide examples of the practical application of plant breeding methods to real-world problems. This new edition:

- Organizes topics to reflect the stages of an actual breeding project
- Incorporates the most recent technologies in the field, such as CRISPR genome editing and grafting on GM stock
- Includes numerous illustrations and end-of-chapter self-assessment questions, key references, suggested readings, and links to relevant websites
- Features a companion website containing additional artwork and instructor resources

Principles of Plant Genetics and Breeding offers researchers and professionals an invaluable resource and remains the ideal textbook for advanced undergraduates and graduates in plant science, particularly those studying plant breeding, biotechnology, and genetics.

PRINT/ONLINE PRICING OPTIONS AVAILABLE UPON REQUEST AT e-reference@taylorandfrancis.com Containing case studies that

complement material presented in the text, the vast range of this definitive Encyclopedia encompasses animal physiology, animal growth and development, animal behavior, animal reproduction and breeding, alternative approaches to animal maintenance, meat science and muscle biology, farmed animal welfare and bioethics, and food safety. With contributions from top researchers in their discipline, the book addresses new research and advancements in this burgeoning field and provides quick and reader-friendly descriptions of technologies critical to professionals in animal and food science, food production and processing, livestock management, and nutrition.

The Laboratory Rat, Volume I: Biology and Diseases focuses on the use of rats in specific areas of research, ranging from dental research to toxicology. The first part of this book retraces the biomedical history of early events and personalities involved in the establishment of rats as a leading laboratory animal. The taxonomy, genetics and inbred strains of rats are also elaborated. The next chapters illustrate the hematology, clinical biochemistry, and anatomical and physiological features of the laboratory rat. This text concludes with a description of infectious diseases that may be contracted from laboratory and/or wild rats. This volume is a good source for commercial and institutional organizations involved in producing rats for research use, specialists in laboratory animal, animal care and research technicians, as well as students in graduate and professional curricula.

Animal Behavior, Second Edition, covers the broad sweep of animal behavior from its neurological underpinnings to the importance of behavior in conservation. The authors, Michael Breed and Janice Moore, bring almost 60 years of combined experience as university professors to this textbook, much of that teaching animal behavior. An entire chapter is devoted to the vibrant new field of behavior and conservation, including topics such as social behavior and the relationship between parasites, pathogens, and behavior. Thoughtful coverage has also been given to foraging behavior, mating and parenting behavior, anti-predator behavior, and learning. This text addresses the physiological foundations of behavior in a way that is both accessible and inviting, with each chapter beginning with learning objectives and ending with thought-provoking questions. Additionally, special terms and definitions are highlighted throughout. Animal Behavior provides a rich resource for students (and professors) from a wide range of life science disciplines. Provides a rich resource for students and professors from a wide range of life science disciplines Updated and revised chapters, with at least 50% new case studies and the addition of contemporary in-text examples Expanded and updated coverage of animal welfare topics Includes behavior and homeostatic mechanisms, behavior and conservation, and behavioral aspects of disease Available lab manual with fully developed and tested laboratory exercises Companion website includes newly developed slide sets/templates (PowerPoints) coordinated with the book

The prediction of producing desirable traits in offspring such as increased growth rate, or superior meat, milk and wool production is a vital economic tool to the animal scientist. Summarising the latest developments in genomics relating to animal breeding values and design of breeding programmes, this new edition includes models of survival analysis, social interaction and sire and dam models, as well as advancements in the use of SNPs in the computation of genomic breeding values.

Growing awareness of environmental issues has led to increasing demand for goods produced from natural products, including natural fibres. The two-volume Handbook of natural fibres is an indispensable tool in understanding the diverse properties and applications of these important materials. Volume 1: Types, properties and factors affecting breeding and cultivation is an essential guide to a wide range of natural fibres, and highlights key techniques for their improvement. Part one reviews key types and fundamental properties of natural textile fibres. The production, identification and testing of a range of cotton, bast, silk and wool fibres are discussed, alongside bioengineered natural textile fibres. Part two goes on to explore the improvement of natural fibre properties and production through breeding and cultivation, beginning

with a discussion of fibrous flax and cotton. Improved natural fibre production through the prevention of fungal growth is explored, along with the use of genetic engineering and biotechnology to enhance desirable characteristics. Finally, the wider impact of natural textile production is discussed, using wild silk enterprise programs as an example. With its distinguished editor and international team of expert contributors, the two volumes of the Handbook of natural fibres are essential texts for professionals and academics in textile science and technology. Provides an essential guide to a wide range of natural fibres and highlights key techniques for their improvement Reviews key types and fundamental properties of natural textile fibres, addressing the production, identification and testing of a range of cotton, bast, silk and wool fibres Explores the improvement of natural fibre properties and production through breeding and cultivation, beginning with a discussion of fibrous flax and cotton

Parasites are the third leading cause of death in reptiles - use this timely guide to understand the symptoms of external parasites (like ticks and mites) and internal ones. Full of helpful lists and charts for the responsible herp keeper.

The Encyclopedia of Meat Sciences is an impressive and important body of work. Prepared by an international team of experts, this reference work covers all important aspects of meat science from stable to table, including animal breeding, physiology and slaughter, meat preparation, packaging, welfare, and food safety, to name a few. This Encyclopedia further covers important topics such as food microbiology, meat in human nutrition, biotechnological advances in breeding and many more. The Encyclopedia of Meat Sciences is an invaluable resource to practitioners of meat science and students alike. Also available online via ScienceDirect - featuring extensive browsing, searching, and internal cross-referencing between articles in the work, plus dynamic linking to journal articles and abstract databases, making navigation flexible and easy. For more information, pricing options and availability visit www.info.sciencedirect.com.

Foreword written by Rt. Hon. Helen Clark, Prime Minister of New Zealand Over 200 articles covering all aspects of meat science Reading lists at the end of each article provide further information into primary literature Various figures and tables illustrating the text and a color plate section in each volume Appeals to students, academics researchers and professionals working not only in meat science, but also food science, veterinary sciences, agricultural engineering and livestock management Extensive cross-referencing

This has been the indispensable companion of chicken breeders since its introduction in 1949. Chapters include the genetics of plumage, egg production, body size, disease resistance, and much more. (Animals/Pets)

AAP Prose Award Finalist 2018/19 Management of Animal Care and Use Programs in Research, Education, and Testing, Second Edition is the extensively expanded revision of the popular Management of Laboratory Animal Care and Use Programs book published earlier this century. Following in the footsteps of the first edition, this revision serves as a first line management resource, providing for strong advocacy for advancing quality animal welfare and science worldwide, and continues as a valuable seminal reference for those engaged in all types of programs involving animal care and use. The new edition has more than doubled the number of chapters in the original volume to present a more comprehensive overview of the current breadth and depth of the field with applicability to an international audience. Readers are provided with the latest information and resource and reference material from authors who are noted experts in their field. The book: - Emphasizes the importance of developing a collaborative culture of care within an animal care and use program and provides information about how behavioral management through animal training can play an integral role in a veterinary health program - Provides a new section on Environment and Housing, containing chapters that focus on management considerations of housing and enrichment delineated by species - Expands coverage of regulatory oversight and compliance, assessment, and assurance issues and processes, including a greater

discussion of globalization and harmonizing cultural and regulatory issues - Includes more in-depth treatment throughout the book of critical topics in program management, physical plant, animal health, and husbandry. Biomedical research using animals requires administrators and managers who are knowledgeable and highly skilled. They must adapt to the complexity of rapidly-changing technologies, balance research goals with a thorough understanding of regulatory requirements and guidelines, and know how to work with a multi-generational, multi-cultural workforce. This book is the ideal resource for these professionals. It also serves as an indispensable resource text for certification exams and credentialing boards for a multitude of professional societies Co-publishers on the second edition are: ACLAM (American College of Laboratory Animal Medicine); ECLAM (European College of Laboratory Animal Medicine); IACLAM (International Colleges of Laboratory Animal Medicine); JCLAM (Japanese College of Laboratory Animal Medicine); KCLAM (Korean College of Laboratory Animal Medicine); CALAS (Canadian Association of Laboratory Animal Medicine); LAMA (Laboratory Animal Management Association); and IAT (Institute of Animal Technology).

Behavior is shaped by both genetics and experience--nature and nurture. This book synthesizes research from behavioral genetics and animal and veterinary science, bridging the gap between these fields. The objective is to show that principles of behavioral genetics have practical applications to agricultural and companion animals. The continuing domestication of animals is a complex process whose myriad impacts on animal behavior are commonly under-appreciated. Genetic factors play a significant role in both species-specific behaviors and behavioral differences exhibited by individuals in the same species. Leading authorities explore the impact of increased intensities of selection on domestic animal behavior. Rodents, cattle, pigs, sheep, horses, herding and guard dogs, and poultry are all included in these discussions of genetics and behavior, making this book useful to veterinarians, livestock producers, laboratory animal researchers and technicians, animal trainers and breeders, and any researcher interested in animal behavior. Includes four new chapters on dog and fox behavior, pig behavior, the effects of domestication and horse behavior Synthesizes research from behavioral genetics, animal science, and veterinary literature Broaches fields of behavior genetics and behavioral research Includes practical applications of principles discovered by behavioral genetics researchers Covers many species ranging from pigs, dogs, foxes, rodents, cattle, horses, and cats

Updated to include two new chapters, a modified Part II structure, more recent empirical examples, and online spreadsheet simulations. The most comprehensive single volume dedicated to horses, Original Horse Bible, 2nd Edition is a celebration of the long relationship that humans and horses enjoy, written by two highly regarded horsewomen, the late Moira C. Allen and Sharon Biggs. Covering an array of topics that span the world of horses, including evolution, domestication, horseback riding, training, competing, breeding, and so much more, making this complete guide is a must-have for any avid horse-lover! An extensive breed chapter offers portraits of approximately 175 breeds, alphabetically arranged, from the Abaco Barb to the Welsh Pony, plus many rare and handsome breeds from around the world as well as favorites like the American Quarter Horse, the Shetland Pony, and the Thoroughbred. With over 100 training and behavior tips, more than 50 riding, grooming, and health takeaways, and so much more, the Original Horse Bible belongs on the shelves of anyone who admires these magnificent creatures. This second edition includes new sections on advances in imaging technology and medications, as well as updated information on saddles, bits, poisonous plants, deworming practices, and natural horsemanship.

The concepts of veterinary genetics are crucial to understanding and controlling many diseases and disorders in animals. They are also crucial to enhancing animal production. Accessible and clearly presented, Introduction to Veterinary Genetics provides a succinct introduction to the aspects of genetics relevant to animal diseases and production. Now in its third edition, this is the only introductory level textbook on

genetics that has been written specifically for veterinary and animal science students. Coverage includes: basic genetics, molecular biology, genomics, cytogenetics, immunogenetics, population genetics, quantitative genetics, biotechnology, and the use of molecular tools in the control of inherited disorders. This book describes in detail how genetics is being applied to artificial selection in animal production. It also covers the conservation of genetic diversity in both domesticated and wild animals. New for the Third Edition: End-of-chapter summaries provide quick recaps. Covers new topics: epigenetics, genomics and bioinformatics. Thoroughly revised according to recent advances in genetics. Introduction to Veterinary Genetics is still the only introductory genetics textbook for students of veterinary and animal science and will continue to be an indispensable reference tool for veterinary students and practitioners alike.

Conservation and the Genetics of Populations gives a comprehensive overview of the essential background, concepts, and tools needed to understand how genetic information can be used to develop conservation plans for species threatened with extinction. Provides a thorough understanding of the genetic basis of biological problems in conservation. Uses a balance of data and theory, and basic and applied research, with examples taken from both the animal and plant kingdoms. An associated website contains example data sets and software programs to illustrate population genetic processes and methods of data analysis. Discussion questions and problems are included at the end of each chapter to aid understanding. Features Guest Boxes written by leading people in the field including James F. Crow, Nancy FitzSimmons, Robert C. Lacy, Michael W. Nachman, Michael E. Soule, Andrea Taylor, Loren H. Rieseberg, R.C. Vrijenhoek, Lisette Waits, Robin S. Waples and Andrew Young. Supplementary information designed to support Conservation and the Genetics of Populations including: Downloadable sample chapter Answers to questions and problems Data sets illustrating problems from the book Data analysis software programs Website links An Instructor manual CD-ROM for this title is available. Please contact our Higher Education team at HigherEducation@wiley.com for more information.

This volume and its companion Nonhuman Primates in Biomedical Research: Biology and Management represent the most comprehensive publications of their type on nonhuman primates. This volume addresses the diseases of nonhuman primates with an emphasis on the etiological factors, clinical signs, diagnostic pathology, therapy, and management. Its companion volume serves as a general reference for those who provide care for these animals and for those who use them in biomedical research.

Practical information on the reproductive management of both thoroughbred and warmblood breeding operations prepares horse breeders to effectively breed even problem mares and stallions.

A concise, clear writing style and a detailed and rich coverage of topics are the reasons that students found the first edition of the book so engaging and useful. Riding on this wave, all chapters within the second edition of this popular book have been thoroughly updated and expanded, especially the human and animal materials. A wider range of animals is

covered, including dogs and cats as well as farm animals. The use of cord blood for therapy, pre-implantation genetic diagnosis and animal cloning are also explored and dealt with./a

Understanding Animal Breeding Pearson College Division

As ancient as agriculture itself, plant breeding is one of civilization's oldest activities. Today, world food production is more dependent than ever on the successful cultivation of only a handful of major crops, while continuing advances in agriculture rely on successfully breeding new varieties that are well-adapted to their human-influenced ecological circumstances. Plant breeding involves elements of both natural and cultural selection—a process which operates on individual plants and on plant populations. This book offers the most recent detailed knowledge of plant reproduction and their environmental interaction, which can help guide new breeding programs and help insure continuing progress in providing more food for growing populations produced with better care of the environment.

The seminal reference on the care of laboratory and captive animals, *The UFAW Handbook on the Care and Management of Laboratory and Other Research Animals* is a must-have for anyone working in this field. The UFAW Handbook has been the definitive text since 1947. Written for an international audience, it contains contributions from experts from around the world. The book focuses on best practice principles throughout, providing comprehensive coverage, with all chapters being peer reviewed by anonymous referees. As well as addressing the husbandry of laboratory animals, the content is also of great value to zoos and aquaria. Changes for the eighth edition: Revised and updated to reflect developments since publication of the previous edition. New chapters on areas of growing concern, including: the 3Rs; phenotyping; statistics and experimental design; welfare assessment; legislation; training of people caring for lab animals; and euthanasia. All material combined into one volume for ease of reference. This book is published on behalf of UFAW (The Universities Federation for Animal Welfare), with whom we also publish the UFAW/Wiley-Blackwell Animal Welfare Book Series. This major series of books provides an authoritative source of information on worldwide developments, current thinking and best practice in the field of animal welfare science and technology. For details of all of the titles in the series see <http://www.wiley.com/go/ufaw>. This introductory level textbook covers the welfare and environmental implications of producing cattle as well as traditional subjects such as nutrition, reproduction and housing. Its broad, international coverage includes feedlot systems, transport, subsistence farming systems and the contribution of cattle production systems to land, air and water pollution. It is an invaluable resource for undergraduate students of animal science, veterinary medicine and agriculture, as well as diploma and certificate courses and industry personnel.

The leopard gecko has fast become the reptilian version of the parakeet or goldfish. Considered to be the first domesticated

species of lizard, the leopard gecko is attractive, perfectly sized, and easy to breed. Leopard Gecko Manual takes a close look at all the characteristics that have made these attractive lizards so amazingly popular in the pet world. Written by a team of herpetoculture experts and gecko specialists, this up-to-date and authoritative guide provides reliable guidelines for keepers who wish to add a gecko to their vivarium and maintain their pet in excellent health and condition. This second edition is revised and expanded to include new sections on Gecko nutrition and feeding, housing, breeding, and banded Geckos. Inside the Leopard Gecko Manual: How to select leopard geckos as pets or for breeding Understanding the anatomy and behavior of these fascinating lizards Feeding your leopard gecko a nutritionally sound diet, with the latest insights on feeder insects and prepared foods How to design and maintain the ideal naturalistic habitat for your leopard gecko Detailed information on all aspects of breeding, egg-laying, and incubation What you need to know about skin shedding cycles and tail loss Recognizing signs of disease and how to handle health issues Special chapters on African fat-tailed geckos and other eublepharids

The understanding of pig genetics and genomics has advanced significantly in recent years, creating fresh insights into biological processes. This comprehensive reference work discusses pig genetics and its integration with livestock management and production technology to improve performance. Fully updated throughout to reflect advances in the subject, this new edition also includes new information on genetic aspects of domestication, colour variation, genomics and pig breeds, with contributions from international experts active in the field.

Now in a much-anticipated two-volume new edition, this gold-standard reference stands as the most comprehensive and authoritative text on equine reproduction. Serving theriogenologists, practitioners and breeders worldwide as a one-stop resource for the reproductive assessment and management of equine patients, Equine Reproduction, Second Edition provides detailed information on examination techniques, breeding procedures, pregnancy diagnosis and management, reproductive tract diseases and surgery, and foaling. A companion CD offers hundreds of images from the book in color. For the Second Edition, the stallion, mare and foal sections have been thoroughly updated and revised to include the latest information on every subject. New topics include discussion of nutritional and behavioral factors in the broodmare and stallion, parentage testing, fetal sexing and the health and management of older foals, weanlings and yearlings. Additionally, this outstanding Second Edition features a new section on assisted reproductive techniques, including detailed information on artificial insemination, in-vitro fertilization, embryo transfer and technology.

An essential resource for both students and practitioners, this comprehensive text provides practical, up-to-date information about normal reproduction and reproductive disorders in horses, cattle, small ruminants, swine, llamas, and other livestock. Featuring contributions from experts in the field, each section is devoted to a different large animal species and begins with a review of the clinically relevant aspects of the reproductive anatomy and physiology of both males and females. Key topics include the evaluation of breeding soundness, pregnancy diagnosis, diagnosis and treatment of infertility, abortion, obstetrics, surgery of the reproductive tract, care of neonates, and the latest reproductive technology. Includes coverage of all large animal species. All

sections provide a review of clinically pertinent reproductive physiology and anatomy of males and females of each species. Complete coverage of the most current reproductive technology, including embryo transfer, estrous synchronization, and artificial insemination. A new section on alternative farming that addresses reproduction in bison, elk, and deer. New to the equine section: stallion management, infertility, and breeding soundness evaluation. New to the bovine section: estrous cycle synchronization, reproductive biotechnology, ultrasonographic determination of fetal gender, heifer development, and diagnosis of abortion. New to the porcine section: artificial insemination, boar/stud management, diseases of postpartum period, and infectious disease control. New to the llama section: infectious disease and nutrition.

For Animal Breeding and Genetics courses. An experienced educator in animal breeding, Rick Bourdon designed this book to be a modern, technologically up-to-date approach to animal breeding that is less intimidating to students than competing texts. The book is meant to be a learning text or guide as opposed to simply a reference. Understanding Animal Breeding addresses the abstract concepts of animal breeding, presenting the necessary mathematics, but previous experience in genetics and statistics is not assumed. Well organized and readable, the book stresses application, then explains theory for an overall understanding of the material.

Intended as a learning text, rather than simply a reference, this work addresses the abstract concepts of animal breeding. It presents the necessary mathematics, but assumes no previous experience in genetics and statistics. Well organized and readable, the book stresses application, then explains theory for an overall understanding of the material.

Completely updated and revised, the third edition of this essential textbook describes the basic genetics of the horse including coat colour, parentage, medical and population genetics, cytogenetics, performance, breeding systems and genetic conservation, as well as the many recent advances in genomics.

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