

## Understanding Animal Breeding 2nd Edition

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

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-

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implantation genetic diagnosis and animal cloning are also explored and dealt with./a Practical information on the reproductive management of both thoroughbred and warmblood breeding operations prepares horse breeders to effectively breed even problem mares and stallions.

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.

Understanding Animal Breeding Pearson College Division

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 to 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

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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 edition 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.

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

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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).

Get practical answers from the only guide on the care of sheep, goats, and cervids!

Authoritative yet easy to read, *Sheep, Goat and Cervid Medicine, 3rd Edition* covers all the

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latest advances in the field, including diseases and medical treatment, surgery, pain management, theriogenology, and nutrition. Clear instructions and hundreds of full-color photographs guide you step by step through common procedures including restraint for examination, administration of drugs, blood collection, and grooming. New to this edition is coverage of deer and elk medicine, reflecting the growing interest in these ruminants. Written by an expert team led by Dr. D.G. Pugh, this comprehensive reference is ideal for veterinarians and also for owners of sheep and goats. Clear writing style and consistent organization makes the book easy to understand and use, with disease chapters including pathogenesis, clinical signs, diagnosis, treatment, and prevention. Coverage of both surgery and medicine in each body systems chapter makes it easier to choose between treatment options for specific disorders. Superbly illustrated surgical procedures clearly demonstrate the steps to follow in performing medical and reproductive surgery. Diverse, expert contributors include the most experienced authorities, each providing current information on the care of valuable breeding stock as well as pets. Useful appendixes, now including veterinary feed directives, offer convenient access to information on drugs and drug dosages, fluid therapy, and normal values and conversions. Consistent, logical format in each body systems chapter makes information easy to find by beginning with physical examination and diagnostic procedures, followed by discussions of common diseases that involve the system. Comprehensive Feeding and Nutrition chapter covers diet evaluation, method of balancing rations, total parenteral nutrition, and examples of nutritious diets. Explanation of the differences in normal behavior between sheep and goats shows how they are not the same, and require different methods of treatment. NEW! Coverage of cervids has been added to chapters throughout the book,

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reflecting the growing popularity of deer and elk. NEW! Thorough content updates are made throughout the book and reflect the latest research evidence. NEW! 170 new clinical photos have been added. NEW! Anesthesia and Pain Management chapter includes a new section on pain management strategies, reflecting the emphasis on controlling pain in small ruminants. NEW! Expert Consult website offers an online version of the book, making it easy to search the entire book electronically. NEW! Two new authors are respected and well-known veterinary medicine experts and educators: Dr. Misty Edmondson and Dr. Thomas Passler.

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.

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

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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.

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

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welfare science and technology. For details of all of the titles in the series see <http://www.wiley.com/go/ufaw> [www.wiley.com/go/ufaw/a](http://www.wiley.com/go/ufaw/a).

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.

*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

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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

Combining cat breeds, behavior, and training tips in one easy volume, The Complete Cat Breed Book is an essential reference to the basics of choosing and looking after a cat. Includes practical advice on cat maintenance, from handling and grooming to nutrition, exercise, and health, current and prospective cat owners will discover the best cat breed for their lifestyle. Including charts and a photographed catalog of more than fifty cat breeds, each profile outlining the breed's history, appearance, and temperament, as well as coat color variations and breed-specific facts, this is the perfect e-guide for anyone wanting to raise and nurture a contented cat.

Growing awareness of environmental issues has led to increasing demand for goods produced from natural products, including natural fibres. The two-volume Handbook of

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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

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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 aim of this manual is to improve the welfare of dairy cattle in tropical developing

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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.

Looking for the ideal, perfectly compatible canine companion for your family? Your search ends here. From spaniels to sheepdogs, The Complete Dog Breed Book is all you need to find the perfect pet for your family. Fully illustrated and featuring over 400 of the world's best-loved breeds, this comprehensive guide offers expert advice on keeping, training, and caring for your beloved dog. The book's special Q&A selector

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charts help you make the right choice as per your lifestyle and convenience. Clear and practical instructions on care cover the essential aspects of looking after a dog, including handling, grooming, nutrition, health, and exercise. The visual training program features step-by-step photographic sequences, explaining the specifics of basic obedience. Tried-and-tested notes on how to identify and prevent common behavioral problems provide a fascinating insight into the behavior of dogs and how we interact with them. The Complete Dog Breed Book is a one-stop manual to help you become the owner of a happy, healthy, and well-behaved dog.

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:

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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.

Completely revised, updated and with four new chapters on sustainability, new technologies, precision agriculture and the future of animal welfare. This book is edited by an outstanding world expert on animal welfare, it emphasizes throughout the importance of measuring conditions that compromise welfare, such as lameness, heat stress, body condition, and bruises during transport. The book combines scientific information with practical recommendations for use on commercial operations and reviews practical information on livestock handling, euthanasia, slaughter, pain relief, and assessments of abnormal behavior.

PRINT/ONLINE PRICING OPTIONS AVAILABLE UPON REQUEST AT [e-reference@taylorandfrancis.com](mailto: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

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descriptions of technologies critical to professionals in animal and food science, food production and processing, livestock management, and nutrition.

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.

*History, Wild Mice, and Genetics*, the first volume in the four volume set, *The Mouse in Biomedical Research*, provides information about the history, biology and genomics of the laboratory mouse (*Mus musculus*), as well as basic information on maintenance and use of mouse stocks. Mouse origins and relationships are covered in chapters on history, evolutionary taxonomy and wild mice. Genetics and genomics of the mouse are

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covered in chapters on genetic nomenclature, gene mapping, cytogenetics and the molecular organization of the mouse genome. Maintenance of laboratory mice is described in chapters on breeding systems for various types of strains and stocks and genetic monitoring. Use of the mouse as a model system for basic biomedical research is described in chapters on chemical mutagenesis, gene trapping, pharmacogenetics and embryo manipulation. The information in Volume 1 serves as a primer for scientists new to the field of mouse research.

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

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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

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

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management, diseases of postpartum period, and infectious disease control. New to the llama section: infectious disease and nutrition.

Practical Animal Husbandry presents a contemporary framework of the main subject divisions of animal husbandry. Chapters are devoted to the discussion of handling of animals; the breeding of domestic livestock; the growth and development of animals; reproduction processes such as egg-laying in poultry, milk production in cows, sheep and goats; the right amount and the right quality of food; confinement and shelter for all types of domesticated livestock; and preventive medicine and animal welfare. Husbandsmen, veterinarians, and livestock producers will find the book highly informative.

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

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

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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.

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.

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

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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.

*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.

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Discover how raising your own meat goats can be a fun and profitable endeavor. Offering plenty of tips for creating an economically viable operation and identifying niche markets for your products, Storey's Guide to Raising Meat Goats shows you how to care for a thriving and productive herd full of healthy and happy animals.

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.

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

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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 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.

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

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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.

Genetics for Cat Breeders, Second Edition covers the considerable advances in the practical application of genetics to cat breeding. This book is divided into nine chapters and begins with a discussion of the elementary principles of heredity. The subsequent chapters deal with the practical aspects of feline reproduction and development and the main factors in the practice of cat breeding. Other chapters examine the genetics of feline color and coat variation and breeds. These topics are followed by a review on the problem of genetic defects in cats. The last chapters considers the importance of record keeping in animal breeding, including providing an accurate record of familial relationship, information upon the phenotype characteristics and breeding performance, and a source of data

