

# Understanding Animal Breeding

*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*

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*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*

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*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*

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*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*

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*IAT (Institute of Animal Technology).  
Data Mining Applications in  
Engineering and Medicine targets to  
help data miners who wish to apply  
different data mining techniques. Data  
mining generally covers areas of  
statistics, machine learning, data  
management and databases, pattern  
recognition, artificial intelligence, etc.  
In this book, most of the areas are  
covered by describing different  
applications. This is why you will find  
here why and how Data Mining can  
also be applied to the improvement of  
project management. Since Data  
Mining has been widely used in a  
medical field, this book contains  
different chapters reffering to some  
aspects and importance of its use in the  
mentioned field: Incorporating Domain*

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*Knowledge into Medical Image Mining, Data Mining Techniques in Pharmacovigilance, Electronic Documentation of Clinical Pharmacy Interventions in Hospitals etc. We hope that this book will inspire readers to pursue education and research in this emerging field.*

*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*

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*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*

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*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.*

*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*



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*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*

*Animal Breeding and Infertility*

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*Selection Indices and Prediction of  
Genetic Merit in Animal Breeding  
Selected Articles from the World  
Animal Review*

*Advances in Animal Genomics*

*Text Book of Animal Breeding*

This new addition to the Veterinary Health Series provides comprehensive and up-to-date coverage of breeding and fertility in animals from both temperate and tropical environments. Taking a practical, problem-oriented approach to the theory and practice of animal breeding and infertility, it deals systematically with the typical approaches and problems encountered in the

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treatment of cattle, goats, horses, pigs and sheep in individual chapters, written by professionals in the field

The nations of Sub-Saharan Africa experienced declining levels of food production per capita throughout the 1970s and early 1980s, particularly in the area of livestock production.

Addressing that problem, the authors of this book assess in a systems context the environmental, biological, and social constraints on future African livestock development and consider prospects for improving productivity, They focus especially on changes needed

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in production and marketing systems, pointing to important policy considerations . The book is divided into four parts containing twenty-one chapters, each authored by one or more respective authorities in his or her field. Each section in its own way addresses the entire set of questions; topics include aspects of animal breeding and nutrition, anthropology, economics, ecology, farming systems, governmental policy, land tenure, marketing, modelling, and veterinary medicine.

How did animal breeding emerge as a movement? Who

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took part and for what reasons? How do the pedigree and market systems work? What light might the movement shed on the assumptions behind human eugenics? In *Bred for Perfection*, Margaret Derry provides the most comprehensive and accessible book yet published on the human quest to improve and develop livestock. Derry, herself a breeder and trained historian of science, explores the "triangle" of genetics, eugenics, and practical breeding, focusing on Shorthorn cattle, show dogs and working dogs, and one type of purebred horse, the

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Arabian. By examining specific breeders and the animals they produced, she illuminates the role of technology, genetics, culture, and economics in the system of purebred breeding. Bred for Perfection also provides the historical context in which this system arose, adding to our understanding of how domestication works and how our welfare—since the dawn of time—has been intertwined with the lives of animals. Intended as a learning text, rather than simply a reference, this work addresses the abstract concepts of animal breeding. It presents the necessary

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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.

Genetics and Breeding for  
Disease Resistance of  
Livestock

The Laboratory Mouse  
Animal Genetic and Breeding  
Understanding Animal  
Breeding and Genetics  
Linear Models for the  
Prediction of Animal  
Breeding Values

**An experienced animal breeder, Rick Bourdon designed this book to be a**

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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



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response to selection; breeding for uniformity; and biotechnology. For practicing animal breeders as well as those interested in breeding and agriculture. The sequencing of the mouse genome has placed the mouse front and center as the most important mammalian genetics model. However, no recent volume has detailed the genetic contributions the mouse has made across the spectrum of the life sciences; this book aims to fill that vacuum. Mouse genetics research has made enormous contributions to the understanding of basic genetics, human genetics, and livestock genetics and

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breeding. The wide-ranging topics in the book include the mouse genome sequencing effort, molecular dissection of quantitative traits, embryo biotechnology, ENU mutagenesis, and genetics of disease resistance, and have been written by experts in their respective fields.

**Animal Agriculture: Sustainability, Challenges and Innovations** discusses the land-based production of high-quality protein by livestock and poultry and how it plays an important role in improving human nutrition, growth and health. With exponential growth of the global population and marked rises

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in meat consumption per capita, demands for animal-source protein are expected to increase 72% between 2013 and 2050. This raises concerns about the sustainability and environmental impacts of animal agriculture. An attractive solution to meeting increasing needs for animal products and mitigating undesirable effects of agricultural practices is to enhance the efficiency of animal growth, reproduction, and lactation. Currently, there is no resource that offers specific knowledge of both animal science and technology, including

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**biotechnology for the sustainability of animal agriculture for the expanding global demand of food in the face of diminishing resources. This book fills that gap, giving readers all the necessary information on important issues facing modern animal agriculture, namely its sustainability, challenges and innovative solutions. Integrates new knowledge in animal breeding, biotechnology, nutrition, reproduction and management Addresses the urgent issue of sustainability in modern animal agriculture Provides practical solutions on how to solve the current and**

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future problems that face animal agriculture worldwide "The preent book has been written with the objective to cover the syllabus of Courses prescribed at country level by V.C.I. and I.C.A.R. for B.V.Sc. & A.H students and for B.Sc. (Ag.) students of Indian Universities on Animal Genetics, Population Genetics and Animal Breeding, particularly in Indian context. Hope this book will be of great help and great use in general to all interested in the subject and particularly to the under-graduate and post-graduate students, to the teachers and for those who

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appear in All India Competitive Examination of JRF, SRF, NET, SET, and others. This book has covered all the topics of the subject of animal genetics and breeding prescribed in the syllabus. The entire subject matter has been spread over 27 chapters. The first 10 chapters of the book have been devoted to principles of Animal Genetics, next 9 chapters to Population Genetics concerning with the genetic structure of population for qualitative and quantitative characters and last 8 chapters to Animal Breeding covering the methods of exploitation of

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**genetic variation for the  
genetic improvement of farm  
animals "**

**Physiology of Farm Animals  
Current Therapy in Large  
Animal Theriogenology - E-  
Book**

**Molecular and Quantitative  
Animal Genetics**

**Data Mining Applications in  
Engineering and Medicine  
Principles and Practice in  
the Philippine Context**

*The determination of when,  
how, how often and with whom  
an animal breeds is moving  
rapidly away from  
evolutionary pressures and  
towards human purposes:  
these include the breeding  
of around 50 billion mammals  
and birds for food*

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*production annually, the breeding of pedigree dogs and cats, racing dogs and horses, specialised laboratory animal strains and the use of reproductive science to conserve endangered species or breeds and to limit unwanted populations of pests and non-native species. But the ethics and sustainability of this takeover of animals' reproductive lives have been insufficiently examined by either professionals or the public. This book discusses the methods, the motivations and the consequences of human intervention in animal breeding in terms of animal health, behaviour and well-*



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*being. It explores where we are now and the choices ahead, and looks to a future where we have more respect for animals as sentient beings and where we could loosen the reins of reproductive control.*

*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*

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*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.*

*This book fills the gap between textbooks of quantitative genetic theory, and software manuals that provide details on analytical methods but little context or perspective on which methods may be most appropriate for a particular application. Accordingly this book is composed of two sections.*

*The first section (Chapters*

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1 to 8) covers topics of classical phenotypic data analysis for prediction of breeding values in animal and plant breeding programs. In the second section (Chapters 9 to 13) we provide the concept and overall review of available tools for using DNA markers for predictions of genetic merits in breeding populations. With advances in DNA sequencing technologies, genomic data, especially single nucleotide polymorphism (SNP) markers, have become available for animal and plant breeding programs in recent years. Analysis of DNA markers for prediction of genetic merit

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*is a relatively new and active research area. The algorithms and software to implement these algorithms are changing rapidly. This section represents state-of-the-art knowledge on the tools and technologies available for genetic analysis of plants and animals. However, readers should be aware that the methods or statistical packages covered here may not be available or they might be out of date in a few years. Ultimately the book is intended for professional breeders interested in utilizing these tools and approaches in their breeding programs.*

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*Lastly, we anticipate the usage of this volume for advanced level graduate courses in agricultural and breeding courses.*

*The field of whole genome selection has quickly developed into the breeding methodology of the future. As efforts to map a wide variety of animal genomes have matured and full animal genomes are now available for many animal scientists and breeders are looking to apply these techniques to livestock production. Providing a comprehensive, forward-looking review of animal genomics, Genomic Selection in Animals provides coverage of genomic*

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*selection in a variety of economically important species including cattle, swine, and poultry. The historical foundations of genomic selection are followed by chapters that review and assess current techniques. The final chapter looks toward the future and what lies ahead for field as application of genomic selection becomes more widespread. A concise, useful summary of the field by one of the world's leading researchers, Genomic Selection in Animals fills an important gap in the literature of animal breeding and genomics. Systems Biology and*

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*Livestock Science  
Bred for Perfection  
Animal Husbandry and  
Livestock Management  
The Mouse in Animal Genetics  
and Breeding Research  
Animal Breeding*

***This book describes the methodology for predicting the genetic merit of animals in the context of genetic improvement in an animal breeding program.***

***Information on an animal and its relatives, on either the characteristic to be improved or from other traits, can be used to predict the animal's genetic merit, taking account of the relationships between measurements and the***

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*economic values of traits. The methodology is developed from first principles, without unnecessary detail or complexity, and all the required statistical and mathematical concepts are fully described in the book. The text discusses the methods for combining different sources of information and illustrates their use with examples of breeding programs in cattle, sheep, pigs and poultry. A series of questions with detailed answers is included in the book, to help reinforce the ideas and provide some practical experience in the prediction of genetic merit. The text*



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*is aimed at final year undergraduate and first year postgraduate students of quantitative genetics and animal breeding.*

*This textbook provides a detailed view of the different ways in which reproduction in cattle, sheep, pigs and horses can be controlled and manipulated. It is primarily of interest to students of animal science and veterinary medicine, but will also be of use to those who are concerned with the practical aspects of reproduction control, whether in an advisory capacity or in applying techniques on the farm*

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*itself. A major objective of the book is to draw attention to information which may be used directly to increase the efficiency of the livestock industry. 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*

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*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*

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*to identify the various pathogens responsible for these diseases Includes advanced breeding techniques and practical applications The branch of biology that deals with the study of genes, heredity and genetic variation in living organisms is known as genetics. Animal breeding is the field of animal science that is concerned with the study of the estimated breeding value of livestock using methods like best linear unbiased prediction. It incorporates other disciplines such as quantitative statistics, molecular genetics and population genetics. This*

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*field can be majorly divided into two types of breeding practices. These are crossbreeding and purebred breeding. Crossbreeding is the mating of two different organisms to create an offspring that has traits of both the parents. Purebred breeding refers to the mating of similar organisms to maintain the stable traits of that particular organism. This book explores all the important aspects of animal genetics and breeding in the present day scenario. It is a valuable compilation of topics, ranging from the basic to the most complex theories and principles related to this field. As*

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*this discipline is emerging at a rapid pace, the contents of this book will help the readers understand the modern concepts and applications of the subject.*

*Livestock Development In  
Subsaharan Africa*

*Genomic Selection in Animals  
Understanding Animal*

*Breeding: Pearson New  
International Edition*

*Controlled Breeding in Farm  
Animals*

*Constraints, Prospects,  
Policy*

Reproductive Technologies in Animals provides the most updated and comprehensive knowledge on the various aspects and applications of reproductive technologies in production animals as well as companion, wild, exotic, and

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laboratory animals and birds. The text synthesizes historical information and recent discoveries, while dealing with economical and geographical issues related to the implementation of the same technologies. It also presents the effects of reproductive technology implementation on animal welfare and the possible threat of pathogen transmission. Reproductive Technologies in Animals is an important resource for academics, researchers, professionals in public and private animal business, and students at the undergraduate and graduate levels, as it gives a full and detailed first-hand analysis of all species subjected to the use of reproductive technologies. Provides research from a team of scientists and researchers whose expertise spans all aspects of animal reproductive technologies Addresses the use of reproductive technologies in a

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wide range of animal species Offers a complete description and historical background for each species described Discusses successes and failure as well as future challenges in reproductive technologies

First published in 1943, "Animal Breeding Plans" contains a detailed guide on animal breeding designed for students with experience of genetics, embryology, breeds, and stock judging. It aims to furnish the reader with a clear understanding of the means available for improving the heredity of farm animals, especially what each possible method will or will not do well. Highly recommended for modern farmers and animal breeders. Contents include: "Origin and Domestication of Farm Animals", "Consequences of Domestication", "Beginning of Pedigree Breeding Methods in the United States", "History



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of Animal Breeding Methods in the United States", "Relation of the Breed Association to Breed Improvement", "Genetic Principles in Animal Breeding", "Mendelian Basis of Inheritance", etc. Many vintage books such as this are increasingly scarce and expensive. It is with this in mind that we are republishing this volume now in an affordable, modern, high-quality edition complete with a specially-commissioned new introduction on farming.

Advances in Animal Genomics provides an outstanding collection of integrated strategies involving traditional and modern - omics (structural, functional, comparative and epigenomics) approaches and genomics-assisted breeding methods which animal biotechnologists can utilize to dissect and decode the molecular and gene regulatory networks involved in the

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complex quantitative yield and stress tolerance traits in livestock. Written by international experts on animal genomics, this book explores the recent advances in high-throughput, next-generation whole genome and transcriptome sequencing, array-based genotyping, and modern bioinformatics approaches which have enabled to produce huge genomic and transcriptomic resources globally on a genome-wide scale. This book is an important resource for researchers, students, educators and professionals in agriculture, veterinary and biotechnology sciences that enables them to solve problems regarding sustainable development with the help of current innovative biotechnologies. Integrates basic and advanced concepts of animal biotechnology and presents future developments Describes current high-

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throughput next-generation whole genome and transcriptome sequencing, array-based genotyping, and modern bioinformatics approaches for sustainable livestock production

Illustrates integrated strategies to dissect and decode the molecular and gene regulatory networks involved in complex quantitative yield and stress tolerance traits in livestock Ensures readers will gain a strong grasp of biotechnology for sustainable livestock production with its well-illustrated discussion

Systems Biology is an interdisciplinary approach to the study of life made possible through the explosion of molecular data made available through the genome revolution and the simultaneous development of computational technologies that allow us to interpret these large data sets. Systems Biology has changed the way biological

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science views and studies life and has been implemented in research efforts across the biological sciences. Systems Biology and Livestock Science will be the first book to review the latest advances using this research methodology in efforts to improve the efficiency, health, and quality of livestock production. Systems Biology and Livestock Science opens with useful introductory chapters explaining key systems biology principles. The chapters then progress to look at specific advances in fields across livestock science. Coverage includes, but is not limited to, chapters on systems biology approaches to animal nutrition, reproduction, health and disease, and animal physiology. Written by leading researchers in the field, Systems Biology and Livestock Science, will be an invaluable resource to researchers, professionals, and advance students

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working in this rapidly developing discipline.

Text Book Of Animal Breeding

Breeding Terrarium Animals

Amphibians and Reptiles Care --behavior  
-- Reproduction

Management of Animal Care and Use  
Programs in Research, Education, and  
Testing

Understanding Animal Breeding

**Understanding Animal Breeding  
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**

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**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**

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**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**

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**breeding, and research in animal reproduction. This book is an essential reference for scientists and researchers interested in animal science and animal reproduction. This work has been selected by scholars as being culturally important and is part of the knowledge base of civilization as we know it. This work is in the public domain in the United States of America, and possibly other nations. Within the United States, you may freely copy and distribute this work, as no entity (individual or corporate) has a copyright on the body of the work. Scholars believe, and we**



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**concur, that this work is important enough to be preserved, reproduced, and made generally available to the public. To ensure a quality reading experience, this work has been proofread and republished using a format that seamlessly blends the original graphical elements with text in an easy-to-read typeface. We appreciate your support of the preservation process, and thank you for being an important part of keeping this knowledge alive and relevant.**

**Animal husbandry is the branch of agriculture that is concerned with the selective**

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**breeding, caring and raising of livestock for meat, milk, leather, eggs, etc. A wide variety of animals are raised for their products. Some of the commonly raised animals include cow, sheep, goat and pig. Species such as llama, rabbit, horse, guinea pig, etc. are also raised as livestock in some parts of the world. Modern animal husbandry focuses on intensive farming practices for meeting market demand. Animal breeding strives to ensure higher growth rate, low feed consumption for each unit of growth, prolificness, higher yields, etc. Artificial**

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**insemination and embryo transfer are common practices that are used today. This textbook is a compilation of chapters that discuss the most vital concepts in the field of animal husbandry and livestock management. It elucidates the concepts and innovative models around prospective developments with respect to raising livestock. This book is a complete source of knowledge on the present status of this important field.**

**The prediction of producing desirable traits in offspring such as increased growth rate, or superior meat, milk and**

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**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. Pearson New International Edition**

**Reproductive Technologies in Animals**

**Sustainability, Challenges and Innovations**

## **Animal Breeding, Welfare and Society**

### **Animal Agriculture**

Recently developed genomic tools, like SNP-genotyping and whole genome sequencing, and their analysis, offer great opportunities for the conservation and utilisation of animal genetic diversity, both among and within breeds. These genomic tools can be used to detect potentially valuable rare alleles and haplotypes. They are important parts of the genetic diversity we need to conserve now for possible utilisation in the future. This book describes the use of genomic technology to define breeds, to measure diversity and to assess important features in the history of breeds affecting the present genetic diversity. The management of genetic diversity with genomic tools is outlined

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both in vivo: small populations of rare breeds or large populations with small effective population sizes and in vitro: genebanks. Special attention is given to the genomic management of populations of animals with high incidences of genetic defects. This book is intended for MSc and PhD students, scientists working with small populations in animal breeding and in conservation programmes for rare breeds.

This book explains current strategies for mapping genomes of higher organisms and explores applications of gene mapping to agriculturally important species of plants and animals. It also explores the experimental techniques used for genetic and physical mapping of genes.

For Animal Breeding and Genetics

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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. "Animal genetics is a central topic in upper-level animal science programs. Filling a void in existing literature on animal science, Animal Genetics

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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.

Genomic management of animal genetic diversity

3rd Edition

Practical Animal Husbandry

Genetic Data Analysis for Plant and Animal Breeding

Animal Breeding Plans