

# **Modern Approaches in Animal Reproductive Health**



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## Preface

The field of animal reproductive health has undergone remarkable transformation in recent decades, driven by advances in biotechnology, diagnostics, and precision management. This book, *Modern Approaches in Animal Reproductive Health*, aims to present a comprehensive and up-to-date account of these innovations and their practical applications across livestock and companion animals.

Efficient reproduction is central to sustainable animal production, genetic improvement, and economic viability. However, reproductive inefficiencies, infertility, and emerging health challenges continue to pose significant constraints worldwide. Addressing these issues requires an integrated understanding of physiology, pathology, nutrition, genetics, and emerging technologies.

This volume brings together contributions from researchers, clinicians, and academicians to explore contemporary strategies in reproductive management. Topics covered include assisted reproductive technologies, hormonal interventions, genomic selection, disease control, and advancements in diagnostic imaging and molecular tools. Emphasis is placed not only on scientific principles but also on their translation into field-level practices.

The editors hope that this book will serve as a valuable resource for veterinarians, researchers, students, and professionals engaged in animal health and production. By bridging the gap between traditional knowledge and modern innovations, it seeks to contribute to improved reproductive efficiency, animal welfare, and sustainable livestock development.

We extend our sincere gratitude to all contributors and reviewers whose expertise and dedication made this work possible. It is our aspiration that this book will inspire further research and innovation in the ever-evolving field of animal reproductive health.

**Dr. Deepak Kumar Chaurasia**  
**Dr. Shuvranshu Shekhar Biswal**  
**Dr. Suman Kumari Joshi**

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