DISEASES OF SWINNERSON

10th EDITION

Jeffrey J. Zimmerman, Locke A. Karriker, Alejandro Ramirez, Kent J. Schwartz, and Gregory W. Stevenson EDITORS



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EDITED BY

Jeffrey J. Zimmerman Locke A. Karriker Alejandro Ramirez Kent J. Schwartz Gregory W. Stevenson





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Editors' Note

Howard Dunn envisioned *Diseases of Swine* to be a "complete and up-to-date reference on swine" when he and Iowa State University Press released the first edition in 1958. The eight subsequent editions followed the course set by Dunn and provided the definitive resource on swine health for generations of veterinarians and animal health professionals. Our hope is to continue this tradition in the 10th edition of *Diseases of Swine*.

Our mission has been to provide a comprehensive yet concise reference on infectious and noninfectious diseases of swine for use by our colleagues—the veterinarians, veterinary students, swine health researchers, and other health specialists engaged in improving swine health. We have sought to fulfill this mission by bringing together recognized scientific authorities from around the world to provide expert knowledge on the many "-ologies" that converge on the complex topic of swine health and disease. In an era characterized by the exponential growth of data, our challenge has been to

distill an overabundance of information into a concise and useful body of knowledge that fits into one volume. Our conscious choice has been to exclude generalist information that is readily accessible on the Internet or other formats, for example, animal husbandry, nutrition, postharvest food safety, and others. To help the reader navigate the plethora of information in the book, the contents have been extensively indexed, the Table of Contents has been expanded, and the topics organized consistently within each section.

We hope the 10th edition of *Diseases of Swine* continues in the spirit of excellence and relevance Howard Dunn originally envisioned.

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DISEASES OF SWINE 10TH EDITION

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- 1 Herd Evaluation
- 2 Differential Diagnosis of Diseases
- 3 Behavior and Welfare
- 4 Longevity in Breeding Animals
- 5 Effect of the Environment on Health
- 6 Optimizing Diagnostic Value and Sample Collection
- 7 Diagnostic Tests, Test Performance, and Considerations for Interpretation
- 8 Analysis and Use of Diagnostic Data
- 9 Drug Pharmacology, Therapy, and Prophylaxis
- 10 Anesthesia and Surgical Procedures in Swine
- 11 Disease Transmission and Biosecurity
- 12 Preharvest Food Safety, Zoonotic Diseases, and the Human Health Interface
- 13 Special Considerations for Show and Pet Pigs