

Preface

Barnyard Epidemiology  
and Performance Assessment



Pamela L. Ruegg, DVM, MPVM  
*Guest Editor*

Veterinarians who serve animal agriculture are working in an exciting environment that is experiencing rapid change. Over the past 2 decades, livestock farms have evolved from small, isolated units where animal health was provided based on reactive care of individual animals to larger, consolidated units where most animal health care is proactively provided based on management of animal groups. In this environment, it is vitally important that veterinarians possess strong quantitative skills that are based on sound epidemiologic principles. The objective of this issue of the *Veterinary Clinics of North America: Food Animal Practice* is to provide a concise volume that describes the practical application of veterinary epidemiology across the spectrum of livestock enterprises.

The authors of the articles included in this issue are veterinarians who combine a broad background of practical experience within specific livestock commodity areas with well-recognized scholarship in veterinary epidemiology. Many practical examples of the uses of epidemiology are included within this volume. Several commodity-specific articles review the use of essential epidemiologic concepts in monitoring animal health and performance. Other articles are more broadly written on specific topics such as on-farm trials, investigation of disease outbreaks, evaluation of diagnostic test outcomes, economic assessment of performance, determination of causality, and the use of simple statistical tools. Newer concepts such as the use

of process control to evaluate performance and the uses of molecular epidemiology in veterinary practice are included.

Throughout the editorial process, I have been continually impressed with the enthusiasm that the authors brought to this project and am indebted to them for their excellent work. It has been my privilege to have the honor of reading these articles first and I hope that the readers will gain as much from this volume as I have.

Pamela L. Ruegg, DVM, MPVM  
*Department of Dairy Science*  
*College of Agricultural & Life Sciences*  
*University of Wisconsin*  
*281 Animal Science Building*  
*1675 Observatory Drive*  
*Madison, WI 53706-1284, USA*  
*E-mail address: [plruegg@wisc.edu](mailto:plruegg@wisc.edu)*