49th ANNUAL CONFERENCE
Charlotte, North Carolina
September 15-17, 2016
MAXI/GUARD Pinkeye Bacterin has earned the trust of bovine practitioners as the preferred pinkeye preventative when the disease is caused solely by M. bovis. However, the problem can be caused by the combination of M. bovis and M. bovoculi bacteria. Unfortunately, no commercial vaccines provide that coverage. When M. bovoculi is present, your best option is utilizing MAXI/GUARD along with the Addison Autogenous Program. We can assist you from diagnosing the problem to creating the solution!
OFFICERS

President ......................................................................................................................................................... K. Fred Gingrich II, DVM
Ashland, Ohio

President-Elect ................................................................................................................................... Mark J. Thomas, DVM
Lowville, New York

Vice President ........................................................................................................................................ Mike D. Apley, DVM
Manhattan, Kansas

Past President ........................................................................................................................................ John M. Davidson, DVM
Shiner, Texas

Executive Vice President ............................................................................................................................ M. Gatz Riddell, Jr., DVM
Auburn, Alabama

Treasurer ............................................................................................................................................... Bryan D. Halteman, DVM
Turlock, California

Parliamentarian ........................................................................................................................................ Christine B. Navarre, DVM

Carie Telgen, DVM
Greenwich, New York
1st District, 2017

Thomas B. Massie, Jr., DVM
Washington, Virginia
2nd District, 2018

James A. Brett, DVM
Starkville, Mississippi
3rd District, 2016

Garold H. Koester, DVM
Cadillac, Michigan
4th District, 2017

Hunter Lang, DVM
Prairie du Sac, Wisconsin
5th District, 2018

Sarah Overby, DVM
Freeport, Minnesota
6th District, 2016

Rodney K. Chapman, DVM
Versailles, Missouri
7th District, 2017

Joe M. Hillhouse, DVM
Panhandle, Texas
8th District, 2018

Dee Griffin, DVM
Clay Center, Nebraska
9th District, 2016

Gerard J. Koenig, DVM
Tulare, California
10th District, 2017

Dale A. Moore, DVM
Moscow, Idaho
11th District, 2018

Wayne S. Shewfelt, DVM
Tavistock, Ontario, Canada
12th District, 2016

Eric Behlke, DVM
Okotoks, Alberta, Canada
13th District, 2017

AVMA DELEGATE:
Brian J. Gerloff, DVM
Marengo, Illinois

EXHIBITS CHAIRMAN:
Charles W. Hatcher, DVM
College Grove, Tennessee

ADVERTISING AGENCY:
J. T. O’Brien & Assoc.
12118 Nieman Road
Overland Park, Kansas 66213
913-579-4084

THE BOVINE PRACTITIONER is published by The American Association of Bovine Practitioners, Inc., at VM Publishing Co., 205 W. 7th, Suite 201G, Stillwater, OK 74074 (Telephone and Fax: 405-533-1883). Over 6000 copies are mailed to veterinarians engaged in cattle practice and allied institutions. Send new address (please include old address) to:
AABP, P.O. Box 3610, Auburn, AL 36831-3610
Tel: 1-800-269-2227; FAX 334-821-9532
e-mail: aabphq@aabp.org
http://www.aabp.org

THE BOVINE PRACTITIONER is the official publication of The American Association of Bovine Practitioners, published in the spring and summer annually. It also serves as a communication medium between bovine practitioner organizations around the world. All manuscripts and communications must be presented in English.

Copies of THE BOVINE PRACTITIONER are available to non-members for $30.00 per copy for domestic destinations, or $35.00 for international addresses. Contact editor for details.

©American Association of Bovine Practitioners, 2016 • All Rights Reserved • The Bovine Practitioner • ISSN 0524-1685
Table of Contents

Alteration of activity variables relative to clinical diagnosis of bovine respiratory disease in newly received feedlot cattle
Joelle L. Pillen, Pablo J. Pinedo, Samuel E. Ives, Tanya L. Covey, Hemant K. Naikare, John T. Richeson .......................................................... 1

Efficacy and safety of a novel DNA immunostimulant in cattle
Jason S. Nickell, Daniel J. Keil, Terry L. Settje, Kelly F. Lechtenberg, Vijayakrishna Singu, Amelia R. Woolums .............................................. 9

Serological effect of two concurrent IBRV, BVDV, BRSV, PI3V, and Mannheimia haemolytica vaccination protocols and time interval between the first and second dose on the subsequent serological response to the BRSV and M. haemolytica fractions in suckling beef calves
G. L. Stokka, B. Neville, J. T. Seeger, V. S. Cortese, J. J. Gaspers ................................................................................................................. 21

Case report: Emergence of bovine viral diarrhea virus persistently infected calves in a semi-closed herd
Pamela J. Ferro, Malcomb G. Fearneyhough, Clint Calvert, John D. Neill, Julia F. Ridpath ........................................................................... 28

Comparison of ceftiofur crystalline free acid to tilmicosin for metaphylactic treatment of calves at risk for bovine respiratory disease
Jamie Hawley, Jeremy G. Powell, Elizabeth B. Kegley, Paul A. Beck ............................................................................................................. 33

Growth promotant implants in suckling calves and stocker cattle: Mode of action, performance response, and practical recommendations
Chris D. Reinhardt, Dan U. Thomson .......................................................................................................................................................... 40

Season-long effectiveness of stocker-calf treatment at turnout with eprinomectin extended-release injection or a combination of injectable doramectin and oral albendazole
Thomas Yazwinski, Paul Beck, Chris Tucker, Eva Wray, Christine Weingartz, Hannah Gray, Jeremy Powell, Andrew Fidler, Linda Jones, Alan Marchiondo, Hima Vanimisetti, Susan Holzmer, Adriano Vatta .................................................................................................................. 47

A survey to describe beef producer opinions on antibiotic use and consumer perceptions of antibiotics in the beef industry
T. L. Lee, D. U. Thomson ................................................................................................................................................................................. 58

Alternative ingredients in calf milk replacer — a review for bovine practitioners
R. M. Thornsberry, David Wood, A. F. Kertz, David Hutcheson .................................................................................................................. 65

Guidelines for Authors ..................................................................................................................................................................................... 89

New Officers/Directors ....................................................................................................................................................................................... 95

Welcoming Receptions and Opening Ceremony ............................................................................................................................................. 99

Sixth Annual Quiz Bowl .................................................................................................................................................................................. 104

AABP Foundation—Zoetis Scholarships and Auction ......................................................................................................................................... 107

Cattle Production Hall of Fame Inductees .................................................................................................................................................. 109

Alumni Receptions .................................................................................................................................................................................................................. 110

Annual Business Luncheon and Awards ....................................................................................................................................................... 114

President’s Reception and Closing Event ...................................................................................................................................................... 130

Advertisers Index

Addison Biological Laboratory, Inc. ........................................................................................................................................................................ inside front cover
BCF Technology .................................................................................................................................................................................................................. 64
Elanco Animal Health .................................................................................................................................................................................................. 31, 32
Merial, Inc. ............................................................................................................................................................................................................ 136, back cover
Norbrook Laboratories Limited .................................................................................................................................................................................................. 56, 57

Cover photo courtesy of Dr. Bob Smith. Conference photos courtesy of Geni Wren and Dr. Bob Smith.
The abstracts were translated to French by Dr. Guy Beauchamp and revised by Dr. Emile Bouchard.

Notice to Readers

All statements, opinions and conclusions contained in articles in The Bovine Practitioner are those of the author(s), and are not necessarily those of the American Association of Bovine Practitioners (AABP) unless specifically approved by the AABP Board of Directors.