

# The Bouine PRACTITIONER

THE OFFICIAL PUBLICATION OF THE AMERICAN ASSOCIATION OF BOVINE PRACTITIONERS



# 39th ANNUAL CONVENTION

American Association of Bovine Practitioners
Saint Paul, Minnesota
September 21-23, 2006

# -Strength-

To protect your cows. To protect your calves. To protect your future.



**Bovi-Shield GOLD** 

Gain everything. Sacrifice nothing.™

\*LABEL INDICATIONS: The Bovi-Shield GOLD line and PregGuard® GOLD FP 10 may be administered to pregnant cattle provided they were vaccinated, according to label directions, with any Bovi-Shield® FP or PregGuard FP® vaccine prior to breeding initially and within 12 months thereafter. The Bovi-Shield GOLD line of products may be administered to calves nursing pregnant cows provided their dams were vaccinated within the last 12 months as described above. Consistent with good vaccination practices, it is recommended that heifers receive at least 2 doses, with the second dose administered approximately 30 days prebreeding.

# Year-round fetal protection with Bovi-Shield GOLD FP.

- The first and only vaccine with the strength to deliver fetal protection from BVD persistent infection and IBR abortion for one full year.\*
   The convenience to vaccinate according to your schedule and still get fetal protection 24/7, 365 days a year.\*
   The demonstrated safety to vaccinate pregnant cows and calves nursing pregnant cows when used according to label directions.\*
   Protect your livelihood with the No. 1 veterinarian-recommended reproductive and respiratory vaccine, Bovi-Shield GOLD.¹
   For more information, visit www.bovi-shieldgold.com. - The first and only vaccine with the strength to deliver fetal





Pfizer Animal Health





trademarks and Gain everything. Sacrifice nothing, and Beef Friendly are trademarks of Pfizer Inc. ©2006 Pfizer Inc. All rights reserved. BSD06012

ISSN 0524-1685

Roger Saltman, DVM

1st District, 2008

Darcie J. Stolz, VMD

2nd District, 2006

Gainesville, Florida

3rd District, 2007

Richard Wiley, DVM

4th District, 2008

**EXHIBITS MANAGER:** 

**ADVERTISING AGENCY:** 

Wooster, Ohio

Art Donovan, DVM

Cazenovia, New York

Strasburg, Pennsylvania

The **Sovine** ITIONER

Vol. 40, No. 2 Summer, 2006

**EDITOR:** ROBERT A. SMITH, DVM 3404 Live Oak Lane Stillwater, Oklahoma 74075 Tel: (405) 372-8666 FAX (405) 743-8422

PRINTER: Frontier Printers, Inc. 205 W. 9th Stillwater, Oklahoma 74074

#### **OFFICERS**

President	John Ferry, DVM
	Belleville, New York
President-Elect	Charlie Hatcher, DVM
	College Grove, Tennessee
Vice President	Mike Bolton, DVM
	Greenville, Michigan
Past President	Rich Meiring, DVM
	Marysville, Ohio
Executive Vice President	M. Gatz Riddell, Jr., DVM
	Auburn, Alabama
Treasurer	Mark Wustenberg, DVM
	Bay City, Oregon
Parliamentarian	Rich Meiring, DVM
그 그 그 사람이 있는 이 사람이 되는 사람이 있다면 살아왔다면 다.	Marysville, Ohio

### **BOARD OF DIRECTORS**

Andy Johnson, DVM Seymour, Wisconsin 5th District, 2006 Bill Seglar, DVM

Johnston, Iowa 6th District, 2007 Shawn Blood, DVM

Guymon, Oklahoma 7th District, 2008

8th District, 2006 John Schnackel, DVM Fort Collins, Colorado 9th District, 2007

Scott Waltner, DVM Burlington, Washington 11th District, 2006 Charlie E. Deyhle, Jr., DVM Reny Lothrop, DVM Cambridge, Ontario, Canada Canyon, Texas

12th District, 2007 Sjoert Zuidhof, DVM

Lethbridge, Alberta, Canada 13th District, 2008

John Lee, DVM

Merced, California

10th District, 2008

### REPRESENTATIVE TO THE AVMA HOUSE OF DELEGATES:

Mark Spire, DVM Manhattan, Kansas Samuel Hutchins, III, DVM South Barre, Vermont J. T. O'Brien & Assoc. 12118 Nieman Road

Overland Park, Kansas 66213 913-402-8383 Fax: 913-897-9047

THE BOVINE PRACTITIONER is published by The American Association of Bovine Practitioners, Inc., at Frontier Printers, 205 W. 9th, Stillwater, OK 74074 (Tel: 405-372-8500; FAX 405-372-8523). 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 \$25.00 per copy, surface mail, or \$33.00, airmail (overseas). Contact editor for details.

@American Association of Bovine Practitioners, 2006 · All Rights Reserved · The Bovine Practitioner · ISSN 0524-1685

# **Thirty-ninth Annual Conference**

of the American Association of Bovine Practitioners Saint Paul, Minnesota



Courtesy of Saint Paul RiverCentre Convention & Visitors Authority

# Minnesota State Capitol

Perhaps the grandest of all Twin Cities' sites is the State Capitol, which was built on a hill overlooking downtown Saint Paul. The Capitol was designed by Cass Gilbert, a nationally renowned Saint Paul architect, and constructed in 1905. It is crowned by the largest unsupported marble dome in the world.

At the base of the enormous dome, modeled after Michelangelo's masterpiece, the Quadriga, a dramatic grouping of four prancing horses, symbolizing the power of nature, is held in check by two women, representing civilization. A charioteer, Prosperity, holds aloft a horn of plenty in one hand and in the other he grasps a banner bearing the inscription "Minnesota."

Free, guided tours acquaint visitors with the Capitol's equally impressive interior and its fine oil paintings. Art, as you'll soon discover, is as important to Saint Paulites as is dramatic architecture. The tours also outline the role of state government and describe Minnesota's history and its role in the Civil War.

This is just one of the interesting and exciting "things to see" while at the AABP Conference in Saint Paul. Come join us in September for the best and continuing education and to enjoy the sites in Minnesota.



# Schering-Plough Animal Health

Schering-Plough Animal Health Corporation 556 Morris Avenue Summit, New Jersey 07901 Telephone (908) 473-4000

#### Dear Doctor:

We have received information that Today\* (cephapirin sodium, a first-generation cephalosporin from the \( \beta\)-lactam chemical group) may be on backorder in the coming months. During that period, Schering-Plough Animal Health will implement a program to encourage the use of milk culture and prescription products for mastitis treatment.

We believe that Today customers will be attracted to Amoxi-Mast® (amoxicillin, an aminopenicillin from the β-lactam chemical group) intramammary infusion for lactating cows.

In addition to a competitive price, Amoxi-Mast mastitis tubes also offer several treatment advantages:

- High efficacy rates
- A short tip that helps minimize the threat of introducing micro-organisms into the teat cistern'
- A shorter (60 hours) milk hold time than Today and other mastitis tubes

Amoxi-Mast, therefore, offers a superior total treatment package.



To help producers make better informed decisions about mastitis treatment, Schering-Plough Animal Health will give them an incentive to seek advice from their veterinarians through an Amoxi-Mast/Diagnostic Services promotion.

When producers purchase 12 boxes of Amoxi-Mast tubes (144 tubes), they receive a coupon good for \$20 of free diagnostic services (milk culture/ susceptibility testing). In return, participating veterinarians receive one box of Amoxi-Mast tubes – absolutely free – for every producer coupon they redeem.

Doctor, we believe that these technical and promotional activities will encourage producers to ask for your advice on the use of antibiotics in their mastitis control program.

Contact your Schering-Plough Animal Health representative or call Customer Service (800-521-5767) to request a supply of coupons and Amoxi-Mast redemption forms. We sincerely thank you for your business.

Best regards,

Alexei Castro

Senior Product Manager

Rick Sibbel, DVM

Director, Global Technical Services - Ruminant

# Amoxi-Mast<sup>®</sup>

This product has the potential for causing allergic reactions. Full product information found on following page.

Wilson DJ et al. Comparison of seven antibiotic treatments with no treatment for bacteriological efficacy against bovine mastitis pathogens. J Dairy Sci 1999;82:1664-1670. Information and Resources: National Mastitis Council. Use these treatment procedures. http://amconline.org/treatment.html (March 2001).

Copyright © 2006, Schering-Plough Animal Health Corporation. All rights reserved. Amoxi-Mast is a registered trademarks of Schering-Plough Animal Health Corporation. Today is a registered trademark of Fort Dodge Animal Health. SPAH-MAS-17

# Amoxi-Mast<sup>\*</sup>

(amoxicillin)

# LACTATING COW FORMULA (FÓRMULA PARA VACAS LACTANTES)

## Intramammary Infusion (Infusión intramamaria)

**CAUTION:** Federal law restricts this drug to use by or on the order of a licensed veterinarian.

Amoxi-Mast (amoxicillin) is specially prepared for the treatment of bovine mastitis in lactating cows.

**DESCRIPTION:** Amoxi-Mast is a stable, nonirritating suspension of amoxicillin trihydrate containing the equivalent of 62.5 mg of amoxicillin per disposable syringe. Amoxi-Mast is manufactured by a nonsterilizing process.

Amoxicillin trihydrate is a semisynthetic penicillin derived from the penicillin nucleus, 6-amino-penicillanic acid. Chemically, it is  $\mathrm{p}(-1)-\alpha$ -amino-phydroxybenzyl penicillin trihydrate.

ACTION: Amoxicillin is bactericidal in action against susceptible organisms. It is a broad-spectrum antibiotic which is effective against common infectious mastitis pathogens, namely Streptococcus agalactiae and penicillin-sensitive Staphylococcus aureus.

In vitro studies have demonstrated the susceptibility of the following strains of bacteria: α- and β-haemolytic streptococci, nonpenicillinase-producing staphylococci, and Escherichia coli. Susceptibility has not been demonstrated against penicillinase-producing bacteria, particularly resistant staphylococci. Most strains of Pseudomonas, Klebsiella, and Enterobacter are resistant. The clinical or subclinical significance of these in vitro studies is not known.

INDICATIONS: Amoxi-Mast is indicated in the treatment of subclinical infectious bovine mastitis in lactating cows due to *Streptococcus agalactiae* and penicillin-sensitive *Staphylococcus aureus*. Early detection and treatment of mastitis is advised.

WARNINGS: Milk taken from animals during treatment and for 60 hours (5 milkings) after the last treatment must not be used for food. Treated animals must not be slaughtered for food purposes within 12 days after the last treatment.

PRECAUTION: Because it is a derivative of 6-amino-penicillanic acid, Amoxi-Mast has the potential for producing allergic reactions. Such reactions are rare; however, should they occur, the subject should be treated with the usual agents (antihistamines, pressor amines).

DOSAGE AND ADMINISTRATION: Milk out udder completely. Wash udder and teats thoroughly with warm water containing a suitable dairy antiseptic. Dry thoroughly. Clean and disinfect the teat with alcohol swabs provided in the carton. Remove the syringe tip cover and insert the tip of the syringe into the teat orifice. Express the suspension into the quarter with gentle and continuous pressure. Withdraw the syringe and grasp the end of the teat firmly. Massage the medication up into the milk

For optimum response, the drug should be administered by intramammary infusion in each infected quarter as described above. Treatment should be repeated at 12-hour intervals for a total of 3 doses. At the next routine milking after the last dose, the treated quarter should be milked out and the milk discarded.

Each carton contains 12 alcohol swabs to facilitate proper cleaning and disinfecting of the teat orifice.

HOW SUPPLIED: Amoxi-Mast is supplied in cartons of 12 single-dose syringes with 12 alcohol swabs. Each 10-mL, disposable syringe contains amoxicillin trihydrate equivalent to 62.5 mg of amoxicillin activity.

Do Not Store Above 24°C (75°F)

NADA #55-100, Approved by FDA 75-8128-02/September 1997 NAC Label Database No. 36900070



Distributed by Schering-Plough Animal Health Union, NJ 07083, USA

# **Table of Contents**

Surgical Removal of a Mummified Fetus via Colpotomy Richard Hopper, Douglas Hostetler, Jack Smith, David Christiansen
Effects of Feeding High Manganese Rice Straw on the Mineral Status of Beef Cattle  G.A. Nader, S.P. Doyle, J.M. Connor, J. Maas
Estimating the Effects of Animal Health on the Performance of Feedlot Cattle  Max Irsik, Michael Langemeier, Ted Schroeder, Mark Spire, Joseph Deen Roder
Field Evaluation of Prophylactic and Therapeutic Effects of a Vaccine against (Papillomatous) Digital Dermatitis in Dairy Cattle on Two California Dairies  *Ricardo A. Ertze, Deryck H. Read, David W. Hird, Steven L. Berry
Clinical Trial to Determine the Productivity Impact of Milk Urea Nitrogen Reports  P. Arunvipas, J.A. VanLeeuwen, I.R. Dohoo, G.P. Keefe, K.D. Lissemore
Comparison of 3-, 5-, and 7-Day Post-treatment Evaluation Periods for Measuring Therapeutic Response to Tilmicosin Treatment of Bovine Respiratory Disease  Brandon L. Carter, David G. McClary, Gerald D. Mechor, Rodney A. Christmas, Marilyn J. Corbin, Carl A. Guthrie
Food Animal Clinical Course Evaluations are Influenced by Student Career Goals  Jeff W. Tyler, Dusty W. Nagy, J Zac March, Loren Schultz
Impact of a Progesterone-Releasing Intravaginal Device on Plasma Progesterone Levels in Lactating Dairy Cattle Greg Keefe, E. James Squires, Rob Walsh, Jeffrey B Wilson, Ken E Leslie
Advertisers Index
Addison Biological Laboratory, Inc
Agri Laboratories, LTD
Bayer HealthCare LLC
Elanco Animal Health back of book, inside back cover
Fort Dodge Animal Health
Mountain Meadows
Pfizer Animal Health inside front cover, 112, back cover
Schering-Plough Animal Health Corporation

Cover photo courtesy of Saint Paul RiverCentre Convention & Visitors Authority

Abstracts were translated to French by Dr. Guy Beauchamp and reviewed 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.

# Bovine Viral Diarrhea Virus: Diagnosis, Management and Control

Edited By: Sagar M. Goyal and Julia F. Ridpath

Publication Date: September 2005

For almost 60 years, continual research of the subject of Bovine Viral Diarrhea (BVD) has raised as many questions as have been answered. This common disease continues to cause sickness, death, abortion, and fetal anomalies despite the millions of vaccinations administered each year to prevent its spread. Written by international experts, *Bovine Viral Diarrhea Virus: Diagnosis*, *Management and Control* includes the latest information on BVD and outlines methods of diagnosis, management and control. Researchers, academics, and large animal practitioners will find this book an irreplaceable resource for understanding and controlling outbreaks of BVD.

### Contents Include:

#### Preface

- 1. Introduction and history
- 2. Distribution and prevalence
- 3. Virus classification and molecular virology
- 4. Virus replication
- 5. Transmission
- 6. Clinical presentation
- 7. Pathogenesis
- 8. Reproductive disease and persistent infections
- 9. Immunity and immunosuppression
- 10. Interactions of viral and host
- 11. Host response to infection
- 12. Laboratory diagnosis
- 13. Vaccines
- 14. Management systems and control programs
- 15. Conclusions and future research

Index

#### About the Editors:

Sagar M. Goyl, DVM, Ph.D., professor, Department of Veterinary Population Medicine, College of Veterinary Medicine, University of Minnesota, St. Paul.

Julia F. Ridpath, DVM, Ph.D., Virus and Prion Diseases of Livestock, NADC/ARS/USDA, Ames, Iowa.

288 pp, Hardcover, 7 x 10, ISBN:0-8138-0478-7, \$129.99, Price subject to change without notice. Sixty-day examination copies available to U.S. instructors. Complimentary copies available to reviewers.

Visit www.blackwellprofessional.com or call 1-800-862-6657 to request a complete catalog of books in this area.