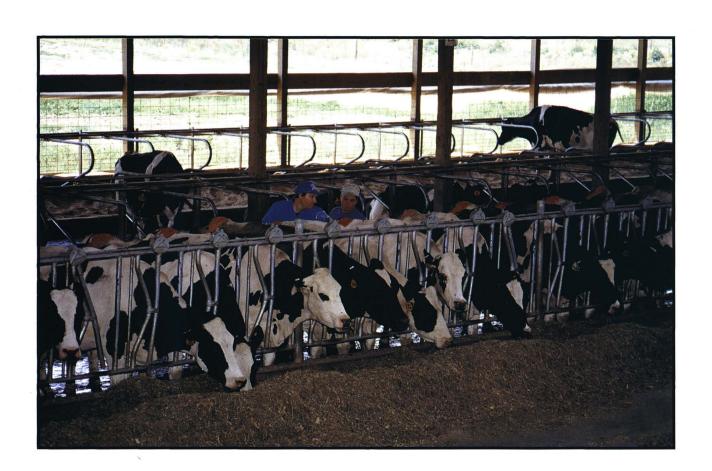


# The Bouine PRACTITIONER

THE OFFICIAL PUBLICATION OF THE AMERICAN ASSOCIATION OF BOVINE PRACTITIONERS



### 35th ANNUAL CONVENTION

American Association of Bovine Practitioners Madison, Wisconsin September 26-28, 2002



## Repeated Misery Is For Country Songs, Not BRD Treatment.

If your treatment regimen for BRD keeps putting you in the same miserable situation again and again, it's time to try Baytril® 100 (enrofloxacin) as your first line treatment. Baytril 100 works in a unique way that kills infectious bacteria, while most other leading antibiotics only inhibit them. This leads to fast response and quick recovery after treatment. You save time, money, labor and reduce stress because you're not constantly pulling and treating the same cattle. So get it right the first time with

Baytril 100. Your job will no longer be the stuff of a sad country song.

Extra-label use of this product in food producing animals is prohibited. For more information, contact your veterinarian, Bayer representative, call 1-800-633-3796 or visit www.baytril100.com.



Beyiril® 100 (enrofloxacin) RIGHT THE FIRST TIME.

Bayer Corporation, Agriculture Division, Animal Health, Shawnee Mission, Kansas 66201 © 2001 Bayer Corporation



ISSN 0524-1685



Vol. 36, No. 1 February, 2002



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	Kent Ames, DVM
	East Lansing, Michigan
President-Elect	Patty Scharko, DVM
	Lexington, Kentucky
Vice President	Mark Spire, DVM
	Manhattan, Kansas
Past President	Rod Sydenham, DVM
	Millet, Alberta, Canada
Executive Vice President	James A. Jarrett, DVM
	Rome, Georgia
Treasurer	Mark Wustenberg, DVM
	Bay City, Oregon
Parliamentarian	M. Gatz Riddell, DVM
	Auburn, Alabama

#### **BOARD OF DIRECTORS**

Andy Johnson, DVM Seymour, Wisconsin 5th District, 2003

Steve Stewart, DVM Woodbury, Minnesota 6th District, 2004 Wade Taylor, DVM Oakley, Kansas

7th District, 2002 Charlie E. Deyhle, Jr., DVM

Canyon, Texas 8th District, 2003

Jim Wasson, DVM Armour, South Dakota 9th District, 2004 Alan Herring, DVM
Litchfield Park, Arizona
10th District, 2002

Gregory A. Ledbetter, DVM Jerome, Idaho

11th District, 2003 Jim Fairles, DVM

> Mount Forest, Ontario, Canada 12th District, 2004

David Hamilton, DVM Morden, Manitoba, Canada 13th District, 2002

#### REPRESENTATIVE TO THE AVMA HOUSE OF DELEGATES:

**Darrel E. Johnson**, DVM Weyauwega, Wisconsin

James A. Jarrett, DVM (alternate)

**EXHIBITS MANAGER:** 

Jim Ehrlich, DVM

Argyle, New York

1st District, 2002

Darcie J. Stolz, DVM

2nd District, 2003

Charlie Hatcher, DVM

3rd District, 2004

4th District, 2002

Fort Recovery, Ohio

Rich Meiring, DVM

Strasburg, Pennsylvania

College Grove, Tennessee

Samuel Hutchins, III, DVM
South Barre, Vermont
J. T. O'Brien & Assoc.
12118 Nieman Road
Overland Park, KS 66213
913-402-8383 Fax: 913-897-9047

ADVERTISING AGENCY:

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:

Dr. James A. Jarrett, Exec. Vice President, AABP, P.O. Box 1755, Rome, GA 30162-1755 Tel: 1-800-269-2227; FAX 706-232-2232

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 February and June 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, 2002 • All Rights Reserved • The Bovine Practitioner • ISSN 0524-1685



## The **BOVINE** PRACTITIONER

#### Guidelines for Authors

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

A section of the journal is peer-reviewed or refereed. Papers submitted for publication in the peer-reviewed section are anonymously reviewed by three members of the editorial board. In some cases, papers may be reviewed by an outside expert(s) who is not a regular member of the editorial board. Papers published in the peer-reviewed section of the journal will be identified with a "Peer-Reviewed" banner at the top of the first page. Papers rejected by the editorial board for publication as peer-reviewed articles do not automatically qualify for publication in the non-peer-reviewed sections.

Articles published in *The Bovine Practitioner* are intended to address the needs of bovine practitioners. Types of articles considered appropriate for the journal include research reports, case reports, review articles, retrospective studies and articles describing new techniques.

All papers should begin with a summary or abstract. Research reports should follow with an introduction, methods and materials (including experimental design and statistical analysis), results, discussion and conclusions. At the author's discretion, results and discussion may be combined.

Case reports should be written to include an introduction, history, clinical findings, appropriate laboratory data, surgical/therapeutic management, discussion and conclusions.

Review articles covering topics important to the practitioner are welcome. They should address more recent advances and bring the reader cutting edge information related to bovine practice or to beef or dairy production.

Papers reporting retrospective studies should include an introduction, clinical implications or objectives of the study, the methodology used to evaluate the data, a section that details the significance of the findings to the practitioner and conclusions.

Two manuscripts and a diskette should be submitted to the editor through the mail or via a parcel delivery service. Manuscripts should be double-spaced, using 12-point Times type and 1-inch margins. When possible Microsoft Word should be used.

Figures, tables and photographs are welcome. Figures should be numbered on the back: legends for figures should be submitted on a separate sheet of paper. When photographs are submitted, prints are preferred over 2x2 slides.

English units of measure should be used for weights, measures and temperature. If the author desires, it is acceptable to follow English units with metric units in parenthesis, i.e....440 pound (200kg) steer had a rectal temperature of 101.5°F (38.6°C). When the use of brand names is necessary, they should be listed in footnotes, including the name of product, manufacturer, and manufacturer's city and state.

References to literature cited in the paper should be identified in the text by the use of superscripts. References should be listed in alphabetical order. Suggested style for citations in the reference section is as follows:

- 1. Allen WM, Sansom BF: Parturient paresis (milk fever) and hypocalcemia (cows, ewes, and goats), in Howard JL (ed): Current Veterinary Therapy III. Food Animal Practice. Philadelphia, WB Saunders Co, 1993, pp 304-308.
- 2. Barth AD, Cates WF, Harland RJ: The effect of body fat and loss of fat on breeding soundness classification of beef bulls.  $Can\ Vet\ J\ 36:758-764,\ 1995.$
- 3. Nutrient Requirements of Beef Cattle, ed 7. Washington DC, National Academy Press, 1996.
- 4. Syvrud R: Vaccination for bovine respiratory syncytial virus: Benefits for both cow/calf and feedlot cattle. *Proc Am Assoc Bov Prac* 21:204-206, 1989.

All correspondence and manuscripts should be addressed to:

The Bovine Practitioner Dr. Bob Smith, Editor 3404 Live Oak Lane Stillwater, OK 74075 405-372-8666 Office 405-743-8422 Fax

Rev June 01

## Table of Contents

An Evaluation of Three Methods to Clean Feedlot Water Tanks — David R. Smith, Terry Klopfenstein, Rodney Moxley, C. Todd Milton, Laura Hungerford, Jeffrey T. Gray	1
Behavior of Cattle Towards Devices to Detect Food-Safety Pathogens in Feedlot Pens — Katherine E. Irwin,	. 1
David R. Smith, Jeff T. Gray, Terry J. Klopfenstein	5
Salmonella Contamination of Rubber Boots Worn on Dairies — John H. Kirk, William M. Sischo,	. 0
Staci C. Barnett, Carol Collar, Jerry Higginbotham, Thomas Shultz	11
Evaluation of Salmonella Shedding in Cattle Fed Recycled Poultry Bedding — Dawn J. Capucille,	
Matthew H. Poore, Craig Altier, Glenn M. Rogers	15
Case Report - Urethrovaginal Fistula in a Llama — Tulio M Prado, Gregor L. Morgan, Maria E. Prado,	
Robert J. Bahr, Robert N. Streeter, Gregory Emmett	22
Comparison of Serum Steroidal Hormone Concentrations in Buller Steers, Riders, and Uninterested Penmates.	
Investigation of Sickness, Body Weight, Feed Bunk Status, and Implant Condition During Buller	
Occurrence. — Brent D. Meyer, Michael D. Apley, Paula M. Imerman	27
Conception Rate in Lactating Dairy Cows using Ovsynch after Presynchronization with Prostaglandin $F_{2a}$	
$(PGF_{2a})$ or Gonadotropin Releasing Hormone $(GnRH)$ — $Bartolome\ JA$ , $Sheerin\ P$ , $Luznar\ S$ , $Melendez\ P$ , $Kelbert\ D$ , $Risco\ CA$ , $Thatcher\ WW$ , $Archbald\ LF$	25
Milk Quality and Mastitis Tests — Pamela L. Ruegg, Douglas J. Reinemann	
Reticuloruminal Disturbances in the Bovine — Jennifer M. Ivany, D. Michael Rings, David E. Anderson	
The Association Between Forage Particle Size at Initial Feeding and the Weigh-Back and Chewing Activity in	90
Dairy Cattle — Pedro Melendez, Oswaldo Rodriguez, Sergio Madrid, Art Donovan	66
Sudden Death of Three Calves Within Two Weeks of Vaccination and Castration—A Practitioner Case Report —	00
Sarah M. (Reynolds) Mills	71
Selenium Status in Cattle: Interpretation of Laboratory Results — D. Villar, J. R. Arthur, J. M. Gonzalez,	11
F. J. Pallares, T. L. Carson	73
1. 0. 1 and es, 1. D. Ourson	10
AABP Convention News and Highlights	xix

### **Advertisers Index**

Bayer Corporation	inside front cover, front of book
Biocor	
Fort Dodge Labs	
Grand Labs	
Pfizer	65
Pharmacia	back of book, outside back cover
TREK Diagnostic Systems	

#### 100 mg/mL Antimicrobial Injectable Solution

For Subcutaneous Use In Cattle Only

Not For Use In Cattle Intended For Dairy Production Or In Calves To Be Processed For Veal

#### **BRIEF SUMMARY:**

Before using Baytril 100 (enrofloxacin) Injectable Solution, please consult the product insert, a summary of which

Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.

Federal (U.S.A.) law prohibits the extra-label use of this drug in food producing animals.

Baytril® 100 (enrofloxacin) injectable solution is indicated for the treatment of bovine respiratory disease (BRD) associated with Pasteurella haemolytica, Pasteurella multocida and Haemophilus somnus.

#### WARNING:



Animals intended for human consumption must not be slaughtered within 28 days from the last treatment.

Do not use in cattle intended for dairy

A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal.

#### **HUMAN WARNINGS:**

For use in animals only. Keep out of the reach of children. Avoid contact with eyes. In case of contact, immediately flush eyes with copious amounts of water for 15 minutes. In case of dermal contact, wash skin with soap and water. Consult a physician if irritation persists following ocular or dermal exposures. Individuals with a history of hypersensitivity to quinolones should avoid this product. In humans, there is a risk of user photosensitization within a few hours after excessive exposure to quinolones. If excessive accidental exposure occurs, avoid direct sunlight. To report adverse reactions or to obtain a copy of the Material Safety Data Sheet, call 1-800-633-3796.

#### PRECAUTIONS:

The effects of enrofloxacin on bovine reproductive performance, pregnancy, and lactation have not been adequately determined.

Subcutaneous injection can cause a transient local tissue reaction that may result in trim loss of edible tissue at

Baytril® 100 contains different excipients than other Baytril® products. The safety and efficacy of this formulation in species other than cattle have not been determined.

Quinolone-class drugs should be used with caution in animals with known or suspected Central Nervous System (CNS) disorders. In such animals, quinolones have, in rare instances, been associated with CNS stimulation which may

lead to convulsive seizures.

Quinolone-class drugs have been shown to produce erosions of cartilage of weight-bearing joints and other signs of arthropathy in immature animals of various species. No articular cartilage lesions were observed in the stifle joints of 23-day-old calves at 2 days and 9 days following treatment with enrofloxacin at doses up to 25 mg/kg for 15 consecu-

#### DOSAGE ADMINISTRATION:

Single-Dose Therapy: Administer once, a subcutaneous dose of 7.5 -12.5 mg/kg of body weight (3.4 - 5.7 mL/100 lb).

Multiple-Day Therapy: Administer daily, a subcutaneous dose of 2.5 - 5.0 mg/kg of body weight (1.1 - 2.3 mL/100 lb). Treatment should be repeated at 24-hour intervals for three days. Additional treatments may be given on days 4 and 5 to animals which have shown clinical improvement but not total recovery.

#### STORAGE CONDITIONS:

Protect from direct sunlight. Do not refrigerate, freeze or store at or above 40° C (104° F). Precipitation may occur due to cold temperature. To redissolve, warm and then shake

#### **HOW SUPPLIED:**

Baytril® 100 (enrofloxacin) Antimicrobial Injectable Solution: 100 mg/mL 100 mg/mL 100 mL Bottle 250 mL Bottle Code: 0236 Code: 0321

For customer service, to obtain product information, including the Material Safety Data Sheet, or to report adverse reactions call (800) 633-3796.

November, 2000 80002360, R.8

0236



