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# PROCEEDINGS

American Association of Bovine Practitioners


Saint Paul, Minnesota
September 21-23, 2006

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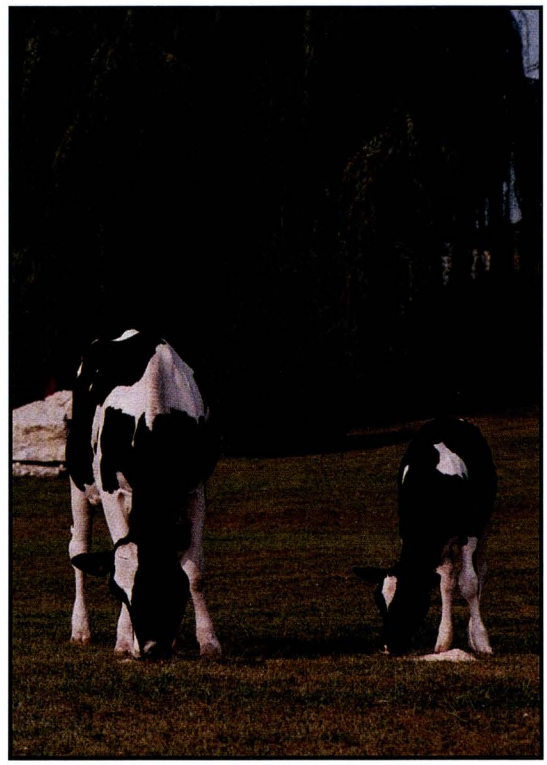

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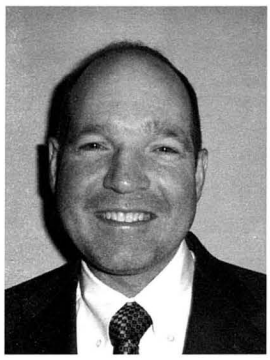

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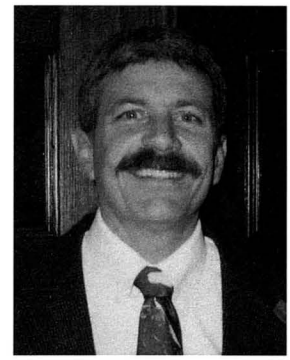

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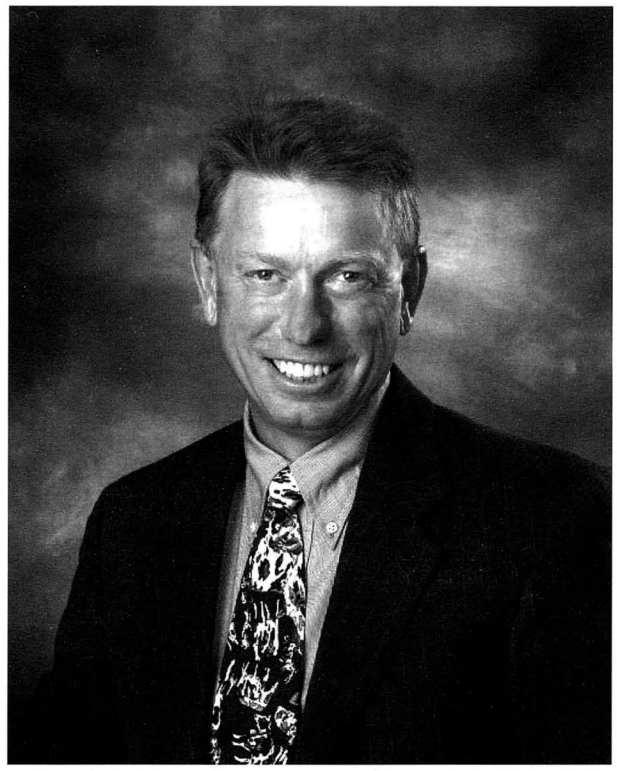

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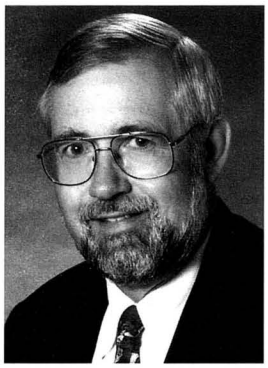

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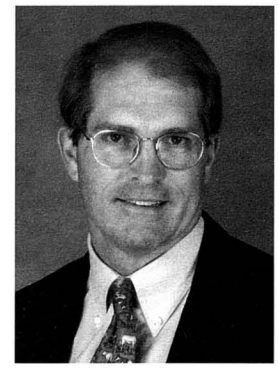

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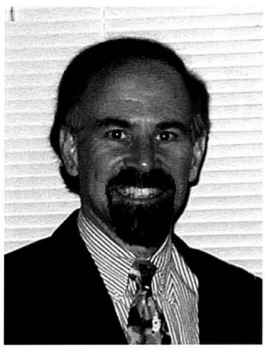

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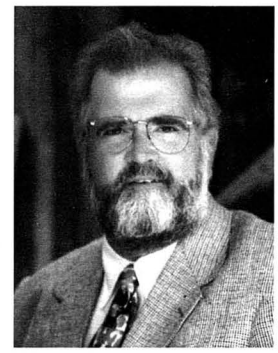

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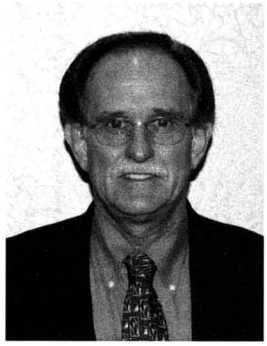

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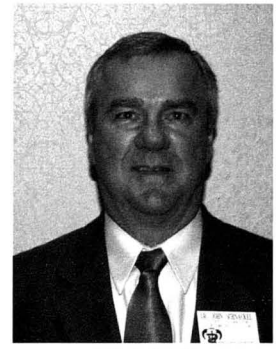

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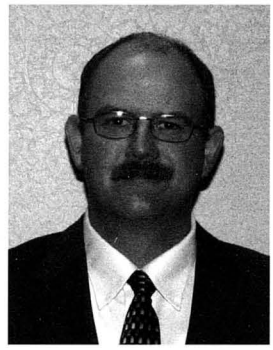

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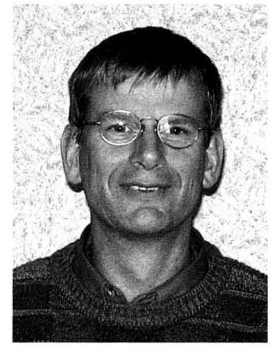

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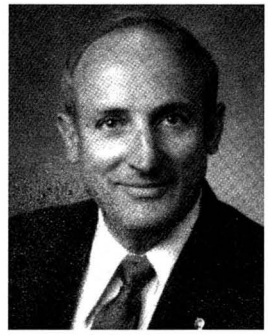

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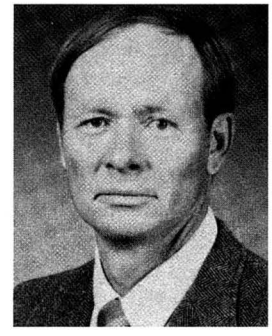

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**BRIEF SUMMARY**
(For full Prescribing Information, see package insert.)

NADA #141-063, Approved by FDA.

# Nuflor®
## (FLORFENICOL)
## Injectable Solution 300 mg/mL

**For Intramuscular and Subcutaneous Use in Cattle Only.**
**CAUTION:** Federal law restricts this drug to use by or on the order of a licensed veterinarian.

**DESCRIPTION:** NUFLOR is a solution of the synthetic antibiotic florfenicol. Each milliliter of sterile NUFLOR Injectable Solution contains 300 mg of florfenicol, 250 mg n-methyl-2-pyrrolidone, 150 mg propylene glycol, and polyethylene glycol q.s.

**INDICATIONS:** NUFLOR Injectable Solution is indicated for treatment of bovine respiratory disease (BRD) associated with *Mannheimia (Pasteurella) haemolytica, Pasteurella multocida*, and *Haemophilus somnus*, and for the treatment of bovine interdigital phlegmon (foot rot, acute interdigital necrobacillosis, infectious pododermatitis) associated with *Fusobacterium necrophorum* and *Bacteroides melaninogenicus*. Also, it is indicated for the control of respiratory disease in cattle at high risk of developing BRD associated with *Mannheimia (Pasteurella) haemolytica, Pasteurella multocida*, and *Haemophilus somnus*.

**RESIDUE WARNINGS:** Animals intended for human consumption must not be slaughtered within 28 days of the last intramuscular treatment. Animals intended for human consumption must not be slaughtered within 38 days of subcutaneous treatment. Do not use in female dairy cattle 20 months of age or older. Use of florfenicol in this class of cattle may cause milk residues. A withdrawal period has not been established in preruminating calves. Do not use in calves to be processed for veal.

**WARNINGS: NOT FOR HUMAN USE. KEEP OUT OF REACH OF CHILDREN.** This product contains materials that can be irritating to skin and eyes. Avoid direct contact with skin, eyes, and clothing. In case of accidental eye exposure, flush with water for 15 minutes. In case of accidental skin exposure, wash with soap and water. Remove contaminated clothing. Consult a physician if irritation persists. Accidental injection of this product may cause local irritation. Consult a physician immediately. The Material Safety Data Sheet (MSDS) contains more detailed occupational safety information.

For customer service, adverse effects reporting, and/or a copy of the MSDS, call 1-800-211-3573.

**CAUTION:** Not for use in cattle of breeding age. The effects of florfenicol on bovine reproductive performance, pregnancy, and lactation have not been determined. Intramuscular injection may result in local tissue reaction that persists beyond 28 days. This may result in trim loss of edible tissue at slaughter. Tissue reaction at injection sites other than the neck is likely to be more severe.

**ADVERSE EFFECTS:** Inappetence, decreased water consumption, or diarrhea may occur transiently following treatment.

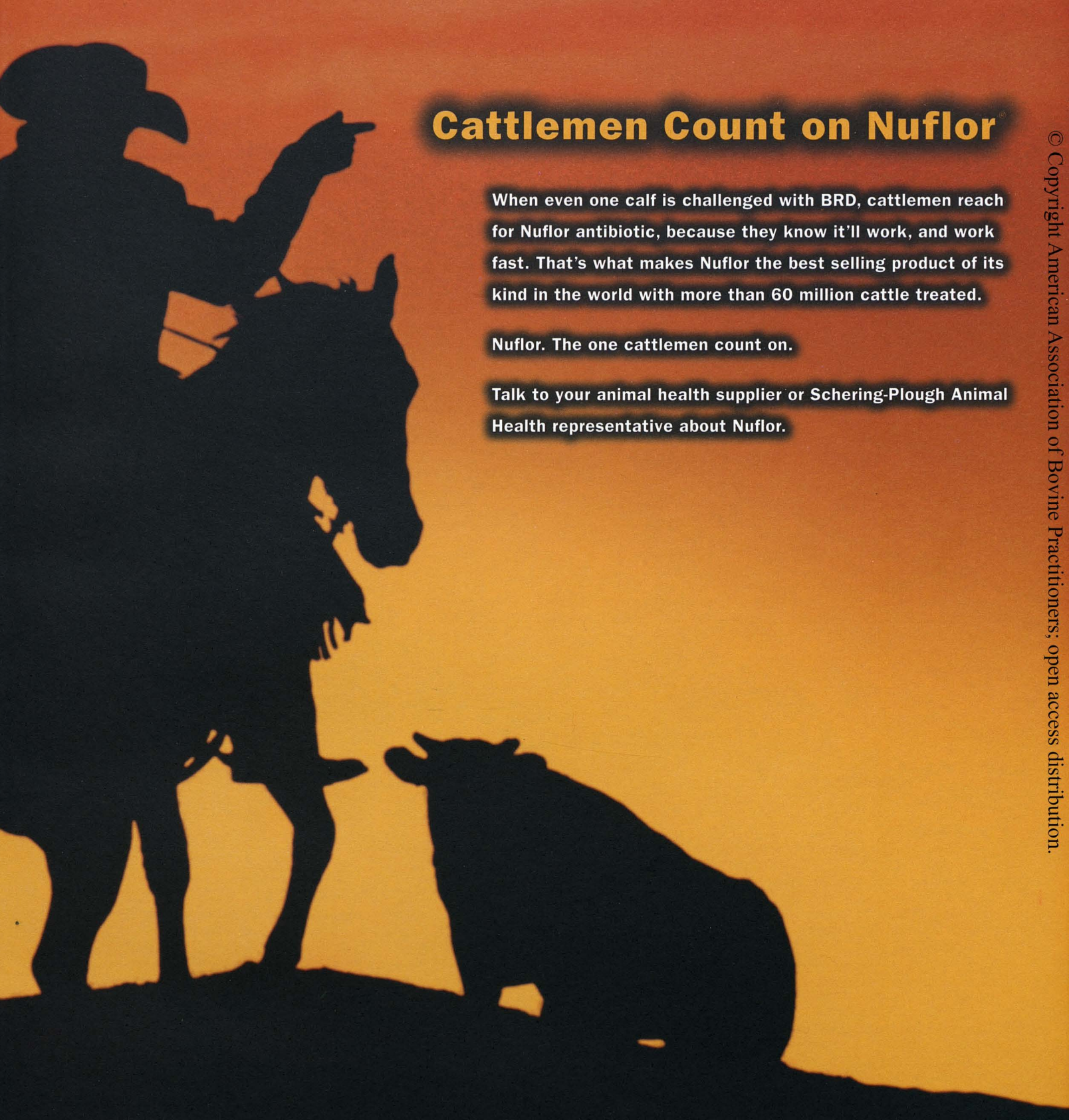
**DOSAGE AND ADMINISTRATION: For treatment of bovine respiratory disease (BRD) and bovine interdigital phlegmon (foot rot):** NUFLOR Injectable Solution should be administered by intramuscular injection to cattle at a dose rate of 20 mg/kg body weight (3 mL/100 lbs). A second dose should be administered 48 hours later. Alternatively, NUFLOR Injectable Solution can be administered by a single subcutaneous injection to cattle at a dose rate of 40 mg/kg body weight (6mL/100 lbs). Do not administer more than 10 mL at each site. **The injection should be given only in the neck.**

NOTE: Intramuscular injection may result in local tissue reaction that persists beyond 28 days. This may result in trim loss of edible tissue at slaughter. Tissue reaction at injection sites other than the neck is likely to be more severe.

**For control of respiratory disease in cattle at high-risk of developing BRD:** NUFLOR Injectable Solution should be administered by a single subcutaneous injection to cattle at a dose rate of 40 mg/kg body weight (6 mL/100 lbs). Do not administer more than 10 mL at each site. **The injection should be given only in the neck.**

Clinical improvement should be evident in most treated subjects within 24 hours of initiation of treatment. If a positive response is not noted within 72 hours of initiation of treatment, the diagnosis should be reevaluated.

Made in Germany



# Cattlemen Count on Nuflor®

When even one calf is challenged with BRD, cattlemen reach for Nuflor antibiotic, because they know it'll work, and work fast. That's what makes Nuflor the best selling product of its kind in the world with more than 60 million cattle treated.

Nuflor. The one cattlemen count on.

Talk to your animal health supplier or Schering-Plough Animal Health representative about Nuflor.



Beef Quality Assurance

Schering-Plough Animal Health Corp.

***Do not use in female dairy cattle 20 months of age or older, as use in lactating dairy cattle may cause milk residues. Not for use in cattle of breeding age. Do not use for calves to be processed for veal. Full product information found on facing page.***



**Nuflor®**
**(FLORFENICOL)**

*The One Cattlemen Count On*

# Table of Contents

## Advertisers' Index



French translations by Mr. Guy Beauchamp and Mr. Hubert Brochard. Revisions by Dr. Emile Bouchard.

## Notice to Readers

Articles published in the Proceedings of the American Association of Bovine Practitioners are not peer-reviewed or refereed. All statements, opinions and conclusions contained in articles in the Proceedings 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.

ISSN 0524-1685

The Bovine PRACTITIONER

# Guidelines for Authors

Two issues of *The Bovine Practitioner* are published annually, one in the spring and one in the summer. It also serves as a communication medium between bovine practitioner organizations around the world. All manuscripts and communications must be presented in English.

**Most articles in the journal are 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 an abstract.** Research reports should follow with an introduction, materials and methods (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. Both lines and pages should be numbered. 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 lb (200 kg) 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 must 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:**

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Rev 06/03

## American Association of Bovine Practitioners

## Prudent Drug Usage Guidelines



The production of safe and wholesome animal products for human consumption is a primary goal of members of the AABP. In reaching that goal, the AABP is committed to the practice of preventive immune system management through the use of vaccines, parasiticides, stress reduction and proper nutritional management. The AABP recognizes that proper and timely management practices can reduce the incidence of disease and therefore reduce the need for antimicrobials; however, antimicrobials remain a necessary tool to manage infectious disease in beef and dairy herds. In order to reduce animal pain and suffering, to protect the economic livelihood of beef and dairy producers, to ensure the continued production of foods of animal origin, and to minimize the shedding of zoonotic bacteria into the environment and potentially the food chain, prudent use of antimicrobials is encouraged. Following are general guidelines for the prudent therapeutic use of antimicrobials in beef and dairy cattle.

1. The veterinarian's primary responsibility to the client is to help design management, immunization, housing and nutritional programs that will reduce the incidence of disease and the need for antimicrobials.

2. Antimicrobials should be used only within the confines of a valid veterinarian-client-patient relationship; this includes both dispensing and issuance of prescriptions.

3. Veterinarians should properly select and use antimicrobial drugs.
   a. Veterinarians should participate in continuing education programs that include therapeutics and emerging and/or development of antimicrobial resistance.
   b. The veterinarian should have strong clinical evidence of the identity of the pathogen causing the disease, based upon clinical signs, history, necropsy examination, laboratory data and past experience.
   c. The antimicrobial selected should be appropriate for the target organism and should be administered at a dosage and route that are likely to achieve effective levels in the target organ.
   d. Product choices and regimens should be based on available laboratory and package insert information, additional data in the literature, and consideration of the pharmacokinetics and pharmacodynamics of the drug.
   e. Antimicrobials should be used with specific clinical outcome(s) in mind, such as fever reduction, return of mastitic milk to normal, or to reduce shedding, contagion and recurrence of disease.
   f. Periodically monitor herd pathogen susceptibility and therapeutic response, especially for routine therapy such as dry cow intramammary antibiotics, to detect changes in microbial susceptibility and to evaluate antimicrobial selections.
   **g. Use products that have the narrowest spectrum of activity and known efficacy** *in vivo* against the pathogen causing the disease problem.
   h. Antimicrobials should be used at a dosage appropriate for the condition treated for as short a period of time as reasonable, i.e., therapy should be discontinued when it is apparent that the immune system can manage the disease, reduce pathogen shedding and minimize recurrence of clinical disease or development of the carrier state.
   i. Antimicrobials of lesser importance in human medicine should be used in preference to newer generation drugs that may be in the same class as drugs currently used in humans if this can be achieved while protecting the health and safety of the animals.
   j. Antimicrobials labeled for use for treating the condition diagnosed should be used whenever possible. The label, dose, route, frequency and duration should be followed whenever possible.
   k. Antimicrobials should be used extra-label only within the provisions contained within AMDUCA regulations.
   l. Compounding of antimicrobial formulations should be avoided.
   m. When appropriate, local therapy is preferred over systemic therapy.
   n. Treatment of chronic cases or those with a poor chance of recovery should be avoided. Chronic cases should be removed or isolated from the remainder of the herd.
   o. Combination antimicrobial therapy should be discouraged unless there is information to show an increase in efficacy or suppression of resistance development for the target organism.
   p. Prophylactic or metaphylactic use of antimicrobials should be based on a group, source or production unit evaluation rather than being utilized as standard practice.
   q. Drug integrity should be protected through proper handling, storage and observation of the expiration date.

4. Veterinarians should endeavor to ensure proper on-farm drug use.
   a. Prescription or dispensed drug quantities should be appropriate to the production-unit size and expected need so that stockpiling of antimicrobials on the farm is avoided.
   b. The veterinarian should train farm personnel who use antimicrobials on indications, dosages, withdrawal times, route of administration, injection site precautions, storage, handling, record keeping and accurate diagnosis of common diseases. The veterinarian should ensure that labels are accurate to instruct farm personnel on the correct use of antimicrobials.
   c. Veterinarians are encouraged to provide written guidelines to clients whenever possible to describe conditions and instructions for antimicrobial use on the farm or unit.

*Presented by the Bacterial Resistance and Prudent Therapeutic Antimicrobial Use Committee. Board approved March 1999.*