PRODUCT INFORMATION NADA 141-299, Approved by FDA.



(Florfenicol and Flunixin Meglumine) Antimicrobial/Non-Steroidal Anti-Inflammatory Drug

For subcutaneous use in beef and non-lactating dairy cattle only. Not for use in female dairy cattle 20 months of age or older or in calves to be processed for veal.

BRIEF SUMMARY: For full prescribing information, see package insert.

INDICATION: RESFLOR GOLD® is indicated for treatment of bovine respiratory disease (BRD) associated with Mannheimia haemolytica, Pasteurella multocida, Histophilus somni, and Mycoplasma bovis, and control of BRD-associated pyrexia in beef and non-lactating dairy cattle.

**CONTRAINDICATIONS:** Do not use in animals that have shown hypersensitivity to florfenicol or flunixin.

WARNINGS: NOT FOR HUMAN USE. KEEP OUT OF REACH OF CHILDREN. This product contains material 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 or to obtain a copy of the MSDS, call 1-800-211-3573. For technical assistance or to report suspected adverse reactions, call 1-800-219-9286.

Not for use in animals intended for breeding purposes. The effects of florfenicol on bovine reproductive performance, pregnancy, and lactation have not been determined. Toxicity studies in dogs, rats, and mice have associated the use of florfenicol with testicular degeneration and atrophy. NSAIDs are known to have potential effects on both parturition and the estrous cycle. There may be a delay in the onset of estrus if flunixin is administered during the prostaglandin phase of the estrous cycle. The effects of flunixin on imminent parturition have not been evaluated in a controlled study. NSAIDs are known to have the potential to delay parturition through a tocolytic effect.

RESFLOR GOLD<sup>®</sup>, when administered as directed, may induce a transient reaction at the site of injection and underlying tissues that may result in trim loss of edible tissue at slaughter.

RESIDUE WARNINGS: Animals intended for human consumption must not be slauphtered within 38 days of 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 pre-ruminating calves. Do not use in calves to be processed for veal.

ADVERSE REACTIONS: Transient inappetence, diarrhea, decreased water consumption, and injection site swelling have been associated with the use of florfenicol in cattle. In addition, anaphylaxis and collapse have been reported post-approval with the use of another formulation of florfenicol in cattle.

In cattle, rare instances of anaphylactic-like reactions, some of which have been fatal, have been reported, primarily following intravenous use of flunixin meglumine.

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## Metabolic risk factors Minimize fresh cow

problems By Fernando Diaz

ost of the metabolic problems of the dairy cow happen during the first two weeks of lactation. It has been reported nearly 25% of the cows that leave herds do so during the first 60 days in milk (DIM). After calving, the requirements for energy increase due to colostrum production while dry-matter intake is reduced drastically. The mammary gland at four days postcalving has increased demands for glucose (3 times), amino acids (2x) and fatty acids (3x) when compared to the uterus at 250 days of gestation. The mismatch between nutrient intake and demand generates a negative energy balance during several weeks after calving.

## **KETOSIS CHALLENGES**

Canadian researchers (Tatone et al., 2017) published in the Journal of Dairy Science the results from an observational study of 3,042 Ontario herds to estimate risk factors for ketosis in dairy cows. Ketosis was diagnosed as milk  $\beta$ -hydroxybutyrate  $\geq 0.15$  millimoles per liter (mmol/L) at the first dairy herd improvement association test when tested within the first 30 days in milk. The overall prevalence of ketosis in Ontario herds was 21%. The authors reported the following risk factors associated with having ketosis:

> Seasonality: Summer (20.0%) and Autumn (18%) had lower prevalence than Winter (26%) and Spring (25%).

**> Breed:** Jerseys had more than 1.46 times higher odds of succumbing to ketosis than Holsteins.

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> Number of lactations: Increased days dry and longer calving intervals, for multiparous animals, and older age at first calving for primiparous animals increased the odds of ketosis at first test.

> Milk fat yield:  $\geq 2.7$  lb. per day at the last test of the previous lactation was associated with decreased odds of ketosis in the current lactation (odds ratio: 0.56).

## SUBCLINICAL HYPOCALCEMIA

Researchers from Cornell University estimated risk factors associated with subclinical hypocalcemia (SCH) in dairy cows. Using data from two New York dairy herds, the authors (Neves et al., 2017) conducted a cohort study including 301 animals. Subclinical hypocalcemia was defined as Calcium concentrations ≤ 2.1 mmol/L Ca based on a blood sample collected within four hours of calving.

The overall prevalence of SCH at calving was 2%, 40% and 66% for first, second and third or greater parities, respectively. The study was published in the Journal of Dairy Science and reported the following risk factors associated with having SCH at parturition:

 > Number of lactations: Cows in third or greater parities were 70% more likely to have SCH than second-lactation cows.
> Prepartum Ca status: Multiparous

cows with blood calcium levels  $\leq 2.4$  mmol/L in the prepartum period were 40% more likely to have SCH at parturition than cows with calcium concentrations > 2.4 mmol/L.

Interestingly, prepartum plasma magnesium concentration were not associated with SCH at calving. Moreover, the authors found subclinically hypocalcemic cows at calving had an increased risk (3.2 times) of having SCH at two days in milk. This suggests cows can carry over the hypocalcemic status at least in the first two days postcalving. ( )

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