

***NEW ANTIBIOTIC FORMULATIONS FOR BEEF CATTLE AVAILABLE
Disease Treatment and Relief of Suffering Combined***

Recently, some new products were introduced to aid producers in caring for their cattle. These products are unique in several respects and there will undoubtedly be a number of questions that arise. I will attempt to answer some of the common questions in this column and refer you to your veterinarian for information specific to your herd. The new products are Nuflor Gold® and Resflor Gold®. The products are available from Intervet/Schering-Plough Animal Health. The antibiotic in the products is the same parent compound contained in Nuflor® (florfenicol). In addition, the Resflor Gold® product has a potent anti-inflammatory compound (flunixin meglumine) which controls fever, blunts many of the adverse effects of the animal's inflammatory response, and helps get the animal back on feed much sooner. This compound is the same one that is contained in Banamine®.

What is the amount of antibiotic in the products?

The active antibiotic ingredient (florfenicol) concentration is 300 mg/ml in both the Nuflor Gold® and the Resflor Gold®. This is the same concentration of florfenicol contained in Nuflor® which you may be familiar with already. The solvent in the new products is different, however and this affects the withdrawal times and other aspects of the new products.

What else is different?

The Resflor Gold® product contains the anti-inflammatory compound flunixin, while the Nuflor Gold® does not.

What disease problems are these drugs labeled for?

Nuflor® is labeled for the treatment and control of respiratory disease in beef cattle caused by the common bacterial pathogens and it is also labeled for the treatment of infectious foot rot in cattle. Nuflor Gold® and Resflor Gold® are labeled for the treatment of respiratory disease caused by the common bacterial pathogens plus *Mycoplasma bovis* (a pathogen more frequently diagnosed in recent years). Also, Resflor Gold® is labeled for control of pyrexia (fever).

What are the labeled dosage rates?

The subcutaneous (SQ) dose for all three products is 6 ml/100 pounds of body weight. The Nuflor® product is also labeled for 3 ml/100 pounds when given intramuscularly (IM). The IM dose for Nuflor® is repeated in 48 hours. As per Beef Quality Assurance

(BQA) Guidelines, the SQ route should be used whenever possible. The Nuflor Gold® and Resflor Gold® products are for SQ use.

How much drug can be injected per site?

There are some differences between these products in this regard. For Nuflor® and Resflor Gold® the label states 10 ml per site when given SQ. This is the standard BQA recommendation and should be followed. For Nuflor Gold® up to 15 ml can be given SQ and while this differs from the standard BQA guidelines it is perfectly acceptable for this new product.

Are the withdrawal times the same?

No. The withdrawal time for Nuflor® when given SQ is 38 days and when given IM is 28 days. The withdrawal time for Nuflor Gold® is 44 days and the withdrawal time for Resflor Gold® is 38 days. Depending on the product and route of administration there are 3 different withdrawal times for these products. Remember, the withdrawal time is the time from the last administration of a product until the animal can be sold for slaughter.

What is the advantage of Resflor Gold®?

This unique product is the combination of two drugs: one to fight infection (florfenicol) and one to make the animal feel better (flunixin). The flunixin compound has been available for a number of years as Banamine® and can be used separately, but it must be given intravenously (IV)—which is uncommon in practice. This has led to a number of problems. One is intramuscular use (IM) which is not recommended as the product is very irritating and causes lesions. The other is subcutaneous (SQ) use which results in a prolonged withdrawal time and violative residues of flunixin in some classes of beef products (particularly dairy cows going to slaughter). The combining of the drugs in one product that can be administered SQ with a standardized withdrawal time has resulted in a huge step forward in terms of effective therapy and relief of animal suffering.

What about the Beef Quality Assurance aspects of this product?

As we all know and appreciate, the value of beef has increased tremendously and we no longer have the luxury of being able to tolerate injection site blemishes, abscesses, or toughness of meat due to injected products. The ability to use these products via SQ administration is very important. The Nuflor Gold® product can be used with a higher volume (15 ml) when given SQ and the Resflor Gold® product has the combination of both antibiotic and anti-inflammatory compounds. However, these products reinforce the need for veterinarians and beef producers to carefully read and follow the label directions for use as they are markedly different for each of the products.

Are there any disadvantages associated with the use of this product?

No product is perfect and the use of any product must take into account the potential advantages and disadvantages. These products (Nuflor®, Nuflor Gold®, and Resflor Gold®) tend to be fairly viscous (thick) and at lower temperatures this becomes more of a problem. Intervet/Schering Plough Animal Health is working on practical solutions to these issues. These solutions include devices to keep the products warm and special needles for injection of the products. As always, it is suggested that you consult your veterinarian before using these new products or any animal health product.

What's the bottom line?

The bottom line is we have two new products to treat disease and relieve suffering in our cattle. This advance comes with the responsibility to read, understand, and follow the label instructions to prevent violative residues and injection site problems.

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