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# New Regulations for Use of Neomycin and Oxytetracycline in Milk Replacers

Neomycin and oxytetracycline used in combination are antimicrobials approved for use in calf milk replacers to aid in the prevention and treatment of bacterial enteritis (scours). In 2003, proposed changes were published that established new regulations for how these antimicrobials can be incorporated into milk replacers and fed to calves. The final rule was published by the federal government in August 2009, which triggered the transition to the new regulations. The objective of this article is to outline the previous regulations, the new regulations, and how the new regulations may affect how calves are fed.

## Previous vs. New Regulations for Neomycin/Oxytetracycline in Milk Replacers

***Previous regulation:*** For the past several years, neomycin and oxytetracycline have been approved for use in calf milk replacers to aid in either the prevention or treatment of bacterial enteritis (scours); these medications could be fed continuously throughout the preweaning period.

***New regulation:*** As of August 2009, the new regulations allow for two levels of neomycin/oxytetracycline (in a 1:1 ratio rather than 2:1) in milk replacers: 1) a low level of 0.05-0.10 mg/lb calf bodyweight fed continuously, and 2) a therapeutic level of 10 mg/lb of calf bodyweight allowed to be fed continuously for 7-14 days. Comparisons of the previous versus new regulations for how neomycin and oxytetracycline can be fed in milk replacers are outlined in **Table 1**.

**Table 1. Previous versus new regulations for neomycin/oxytetracycline inclusion in calf milk replacers.**

| | | New Rule | |
|---|---|---|---|
| **Item** | **Previous Rule** | **Low level** | **Therapeutic level** |
| **Indications for use** | To aid in the prevention or treatment of bacterial enteritis (scours) | For increased rate of weight gain and improved feed efficiency | For treatment of bacterial enteritis caused by *E. coli* and bacterial pneumonia (shipping fever complex) caused by *P. multocida* |
| **Neomycin:oxytetracycline** | 2:1 | 1:1 | 1:1 |
| **Use level** | mg/gallon reconstituted milk replacer | 0.05-0.10 mg/lb body weight | 10 mg/lb body weight |
| **Limitations** | Feed continuously | Feed continuously; in milk replacers or starter feed. | Feed continuously for 7 to 14 d; in feed or milk replacers. If symptoms persist after using for 2 or 3 days, consult a veterinarian. Treatment should continue 24 to 48 hours beyond remission of disease symptoms. |
| **Inclusion rate, g/ton**[1] | 400 g/ton neomycin; 200 g/ton oxytetracycline | 10-20 g/ton neomycin; 10-20 g/ton oxytetracycline | 1600 g/ton neomycin; 1600 g/ton oxytetracycline |

[1]Inclusion rates are examples only; inclusion rate and feeding rate must comply with use level. For example, a milk replacer fed at a rate of 1.25 lbs/day to a 100 lb calf would contain 1600 g/ton of neomycin and 1600 g/ton of oxytetracycline to achieve a use level of 10 mg/lb body weight of each medication in combination.

***When will this happen?*** It is our understanding that milk replacer manufacturers must convert to the new regulations by April 2, 2010, and all product containing 2:1 neomycin/oxytetracycline must be sold and on-farm (out of distribution) by October 2, 2010

## Resources

"New Animal Drugs for Use in Animal Feeds; Oxytetracycline; Neomycin; Final Rule." *Federal Register* 74 (13 August 2009):40723-40726. *Federal Register* is searchable here: http://www.gpoaccess.gov/fr/

 