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FOR IMMEDIATE RELEASE  
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## **Winter Warning!**

### **The Odds of a Colic Incident Rise as Temperatures Fall**

By Lowell Smalley, DVM

In winter, we spend a disproportionate amount of time in our practice treating colic. Knowing why this is so can make your life and that of your veterinarian a lot less hectic.

#### **45 Degrees a Critical Temperature**

Horses are most comfortable at temperatures above 45 degrees. When temperatures drop below 45 degrees, the horse is forced to use significant amounts of energy to help maintain body temperature.

The horse has two options to produce this needed energy: First, internally, from stores of body fat and muscle; and, second, externally, from energy provided in the diet -- and more importantly -- from heat generated by the bacterial digestion of forage.

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Option one, using body stores, is really not an option. It soon becomes life threatening, especially in older horses.

*The only acceptable way to manage the energy problem is option two: dietary management.*

### **Calculating Energy Needs**

We can calculate how much extra energy is needed per day by subtracting the actual temperature, including the wind chill adjustment, from the 45-degree critical temperature.

For example, let's say today's temperature with the wind chill is 19 degrees. Subtract this from the equine critical temperature of 45 degrees and you have 26 degrees. Convert this figure to extra energy measured as calories needed by your horse. Under these conditions your horse needs 26% more energy.

Now, in this situation the natural inclination is to feed more grain or sweet feed since they provide more calories per pound than hay. But with this approach, although we may have met our calculated calorie needs with grain, we fail to generate that all important body heat generated by the bacteria of the large intestine. To do this we need to feed hay.

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## **Recommendations**

The increased feeding of grain in cold weather is a primary reason for increased incidences of colic.

Our experience has shown the safest way to keep your horse comfortable through the winter is to increase *equally* the amounts of hay and grain fed, and to use concentrates that are very calorically dense. This means using concentrates that incorporate fat as the key energy source.

In our practice we recommend Revolution-Rx™, a concentrate that incorporates fat as a key energy source. Sold as a grain substitute for horses at risk from the over consumption of fermentable starches and carbohydrates, Revolution-Rx™ provides over 1600 K cal per pound, and is guaranteed at 10% fat.

It also provides your horse with ReStore™, the dietary supplement that we've found to be highly effective in maximizing the use of nutrients, and in reducing digestive upsets -- especially colic.

## **Water and Colic**

Horses prefer water that is between 45 degrees to 65 degrees. As water temperature drops, water consumption decreases, another key factor in causing colic.

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We have found that the combination of adequate amounts of hay fed in conjunction with Revolution-Rx™ will encourage your horse to drink more.

## **Summary**

Understanding how equine critical temperature affects dietary management is the first step to help you prevent a dangerous and costly episode of colic.

For information about Revolution-Rx™ and ReStore™, email [info@biovance.com](mailto:info@biovance.com) or visit [www.biovance.com](http://www.biovance.com).

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**Editor's Note: Dr. Smalley is  
Owner of the *Equine Veterinary  
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