

# New Food Product Relieves The Serious Problem Of “Tying Up” In Horses

University of Minnesota



“Tying up” is an age-old condition in horses that causes them to develop severe muscle cramping and muscle tissue damage during exercise. Some horses are particularly predisposed to “tying up” and develop pain, stiffness, severe cramping and sometimes complete immobility with very little exertion.

Researchers at the University of Minnesota have discovered inborn errors in muscle metabolism that predispose horses to developing tying up. Common horse feed ingredients such as cereal grains and molasses that are high in starch can contribute to the onset of tying up in these horses.

In 1999 Dr. Stephanie Valberg, D.V.M., Ph.D., at the College of Veterinary Medicine at the University of Minnesota, doctorate student Jennifer MacLeay, and Joe Pagan, Ph.D., from Kentucky Equine Research, a private nutrition company, obtained funding through the Southern California Equine Foundation to develop RE-LEVE, a new horse feed for horses that are prone to tying up.

“ *RE-LEVE is the first feed developed for horses that uses alternative energy sources such as soy hulls, rice bran, and soy oil, which not only provide easily digestible, high-energy fat and fiber, but are also low in starch.*

The product is fortified with all the vitamins and minerals horses need for peak performance. The concept of feeding fat to horses has revolutionized the equine feed industry.

Research has shown that when horses predisposed to tying up were fed RE-LEVE, they demonstrated less post-exercise muscle damage than horses fed on conventional grains or sweet feed. RE-LEVE allows horses with muscle disorders to continue to exercise and compete without developing painful cramping or muscle damage.

This story was originally published in 2007.

**To see available technologies from research institutions, click [here](#) to visit the AUTM Innovation Marketplace.**

Share your story at [autm.net/betterworldproject](https://autm.net/betterworldproject)

#betterworldproject