

Nutraceuticals for Calming Nervous Dogs and Horses

Our topics for this week are:

- **Regulations on nutraceuticals and other dietary supplements**
- **How to assess the efficacy and safety of nutraceuticals**
- **Means of preventing or managing anxiety in dogs and horses**

Nutraceuticals are dietary supplements derived from food sources that are inferred to have health benefits or medicinal effects. The word was created by blending the words “nutrition” and “pharmaceutical”. Before we talk about whether they can calm nervous dogs and horses, we are going to try to establish some perspective about nutraceuticals in general by how they affect humans.

What would you think of buying an unseen car that may or may not have a motor and may or may not have brakes?

That is basically what a person does when they buy nutraceuticals. There is no requirement for manufacturers of nutraceuticals to prove that their product is effective or safe. Yet millions of people buy them on trust in the producing company’s marketing. Over 70% of Americans take some form of dietary supplement every day. Rarely is the purpose to correct a nutritional deficiency. The motivation generally comes from marketing schemes, promising better health. Dietary supplement stores are everywhere. The industry in the U.S. grosses over \$28 billion dollars annually.

After the passage of the Dietary Supplement Health and Education Act of 1994, dietary supplements have not been required to be registered by the federal government or approved by the U.S. Food and Drug Administration prior to production or sales. The FDA issues regulations for ingredients but leaves enforcement up to the dietary supplement companies. The FDA only monitors complaints that may indicate a lack of safety. Many of the ingredients come from China. None of the factories in China have ever been inspected by the U.S. FDA.

An independent research group called the Natural Medicines Comprehensive Database has cataloged over 54,000 dietary supplements. According to their investigations only about 30% of the products on the market have any safety and efficacy information based on scientific evidence. Yet, the FDA has only banned one ingredient ever, ephedrine alkaloids, following thousands of adverse effect reports, including deaths.

Nutraceuticals Market for Animals

A National Institutes of Health supported study estimates up to 33% of dogs and 84% of horses in the U.S. are fed a dietary supplement, including nutraceuticals. Sales were estimated at \$580 million per year. Without federal requirements to prove efficacy and safety before marketing, the time requirement and expense of getting a nutraceutical to market is far less than a new pharmaceutical.

There is also a National Animal Supplement Council, a non-profit group of 300 dietary supplement manufacturers that encourage quality standards. They have agreed to implement certain quality standards, but it is self-regulated.

How to Assess the Value of a Nutraceutical

First realize that nutraceutical company advertisements are for selling a product. That involves convincing you that their nutraceutical will enhance the health of your animal and will be safe. Convincing you does not require proof, but proof is what you need.

In searching for proof, begin by looking for a “USP Verified Mark”. USP stands for United States Pharmacopeia. This verified mark indicates the product was tested for purity by an independent group. Simply having USP on a label only means the manufacturer claims they have met USP standards. USP Verified Marks means the product has been proven to contain what its label says, it will be absorbed into the body, does not contain contaminants, and has been produced in a sanitary manner with well controlled procedures. The USP mark does not directly ensure that the nutraceutical will enhance health or have medicinal effects or that it is safe in the species it will be used in. However, a company that meets USP standards is more likely to have a nutraceutical that could be safe and effective.

Next, pay absolutely no attention to anecdotal testimonials. They have no credibility even if by a famous animal owner, animal trainer, or even veterinarian. Look at what the company claims is proof of safety and efficacy. This evidence should be published in a well-known scientific journal. The papers should demonstrate that the nutraceutical works and is safe in the species it will be used in. The paper should not have been funded by the manufacturer and the investigators should not be employees of the manufacturer. There should be a statement disavowing any conflicts of interest. The reported study should contain randomized subjects receiving the nutraceutical and a placebo group. Evaluation of results should be done by investigators blinded to the subjects' treatments. No other treatment should be involved other than the nutraceutical. Sufficient detail should be provided that another group could run the same evaluation to see if they get the same results. Statistical analyses should be appropriate, accurately done, and lead to correct interpretations. Very few nutraceuticals meet these criteria because they unfortunately do not have to.

Nutraceuticals for Anxiety in Dogs and Horses

Finally, there are several nutraceuticals proposed to control anxiety in dogs and horses. These include tryptophan, melatonin, alpha-casozepine, theanine, souroubea and platanus, bifidobacterium, passionflower, chamomile, valerian, magnolia, ashwagandha, and cannabidiol. None of these have met both the efficacy and safety standards of objective proof I previously described, but all are marketed now.

If you ultimately decide to use a nutraceutical to calm your dog or horse, I suggest that you ask others who will be frank with you who do not know you are giving the nutraceutical to your animal to tell you if they have noticed any changes in your animal's behavior. If in their unbiased and blinded opinion, your animal seems more calm, continued use may be justified.

Recommended Management of Anxiety in Dogs and Horses

However, in my opinion, if you want a calmer dog or horse, I recommend that rather than buying nutraceuticals you should spend your money on buying a calmer dog or horse, hiring a trainer, or consulting a veterinarian. The use of drugs to calm dogs or horses on a regular basis is my last choice, but using an FDA approved, prescription required, pharmaceutical is reliable and reasonably safe, when needed.

If you have comments or you're interested in particular animal handling subjects contact us at CBC@BetterAnimalHandling.com

Now let's recap the key points to remember from today's episode:

- 1. Nutraceuticals do not have to be evaluated for efficacy and safety before marketing.**
- 2. Monitoring of nutraceuticals is done retrospectively, i.e. by complaints of adverse effects from owners.**
- 3. Nutraceuticals to manage anxiety in dogs and horses have not been evaluated by non-bias, placebo-controlled, randomized, and blinded assessments to prove efficacy and safety.**

More information on animal handling can be found in my book, *Animal Handling and Physical Restraint*, published by CRC Press and available on Amazon and from many other fine book supply sources. My new spiral-bound handbook, *Concise Textbook of Small Animal Handling* was recently published and can be found on Amazon as well as other book supply sources.

Additional information is provided at: www.betteranimalhandling.com . This website has more than 100 past podcasts with notes on handling of dogs, cats, other small mammals, birds, reptiles, horses, cattle, small ruminants, swine, and poultry.

Don't forget, serious injury or death can result from handling and restraining some animals. Safe and effective handling and restraint requires experience and continual practice. Acquisition of the needed skills should be under the supervision of an experienced animal handler.