

General Equine Supplements

Supplements should help horses by providing something they are missing or need in greater quantities

What are Nutritional Supplements?

According to the National Research Council, an animal dietary supplement is defined as, "A substance for oral consumption by horses, dogs, or cats, whether in/on feed or offered separately, intended for specific benefit to the animal by means other than provision of nutrients recognized as essential or for provision of essential nutrients for intended effect on the animal beyond normal nutritional needs, but not including legally defined drugs."¹

In simpler terms, veterinary nutritional supplements (also referred to as nutraceuticals) are products taken by mouth that contain one or more dietary ingredients intended to supplement the diet. Such ingredients include vitamins, minerals, herbs or other botanical products, amino acids (the building blocks for proteins), and substances such as enzymes, organ tissues, glandulars, metabolites, extracts, or concentrates.

Nutritional supplements for horses are available in a number of formulations, including pellets, granules, powders, pastes, liquids, injections (intravenous or intramuscular), and pills.

Big Business

In 2007 Packaged Facts² estimated that the total U.S retail sales of pet supplements and nutraceutical treats was \$1.2 billion. Despite the recent economic downturn, sales continue to grow.

Almost half of all horse owners administer one or more supplements to their horses.

The most popular supplements are joint (34% of total sales), digestion (15%), hoof



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(10%), general vitamin/mineral (10%), skin/coat (8%), and others (23%) that include electrolytes, minerals, relaxation, and cough/allergy.²

Use of Nutritional Supplements

Nutritional supplements are easy to administer, economical, and do not require a prescription. Some veterinarians recommend using nutritional supplements along with, or in lieu of, prescription drugs or in combination with pharmaceutical agents. Nutritional supplements are readily available from veterinarians, tack shops, or online.

While many products/ingredients exact mechanism(s) of action either remain unclear or have been extrapolated from research performed in other species, some ways that nutritional supplements might exert beneficial actions are by:

- Providing precursor molecules that are lacking or missing from the diet.
- Exerting an anti-inflammatory effect.

- Providing antioxidant effects.

Owner's Onus

The American Association of Equine Practitioners (AAEP) endorses the American Veterinary Medical Association's (AVMA) 2002 guidelines on the use of complementary or alternative medicine, including the use of nutraceuticals. Specifically, the therapeutic use of micronutrients, macronutrients, and other nutritional supplements is permitted; however, the potential risks and benefits should be discussed within the bounds of a veterinary/client/patient relationship.

The AVMA clearly encourages continued research and education on the use of veterinary nutritional supplements/nutraceuticals.

The seven-step ACCLAIM system, described in www.TheHorse.com/11958, can help owners identify supplements most likely to be safe and efficacious.^{3,4} Here is the foundation of the ACCLAIM system.

- A:** A name you recognize.
- C:** Clinical experience.
- C:** Contents.
- L:** Label claims.
- A:** Administration recommendations.
- I:** Identification of lot.
- M:** Manufacturer information.

Supplement Safety

Ingredients included in veterinary nutritional supplements are widely considered safe and few reports of adverse events, either major or minor, following administration of these products in horses exist. While the United States Food and

Drug Administration (FDA) is ultimately responsible for the government regulation of veterinary nutritional supplements, these products rank near the bottom of the FDA's pecking order. As such, poor-quality products, including those that do not contain the type or amount of ingredient listed on the label, have subtherapeutic (low) dosages, or are potentially contaminated with harmful chemicals (e.g., pesticides) or ingredients included in other types of supplements manufactured in the same facility due to inadequate cleaning of equipment, are commercially available.

Some supplement manufacturers are members of a private group called the National Animal Supplement Council (NASC). NASC's mission is to work constructively and cooperatively with state and federal regulatory agencies to ensure that animal owners have continuing access to products while creating systems to ensure quality and risk management. This is a self-regulated group.

In 2003 the NASC established an adverse event reporting system, and it also works to ensure the animal supplement industry is conducting itself responsibly by

the following means:

- Established current good manufacturing practices (cGMPs) in 2004.
- Established product labeling guidelines.
- Established a scientific advisory committee, providing independent oversight for ingredients.
- This committee submitted risk stratification recommendations to FDA-CVM for all ingredients in members' products (over 850 ingredients were reviewed).
- Established an independent quality audit program to verify implementation by member companies.

Supplement Wisely

Just because a little is good does not mean a lot is great. Providing too much of one or more nutrients, vitamins, or minerals in the diet can be dangerous. All nutrients must be consumed in balance, and providing unnecessary nutrients is not economical.

Owners are encouraged to determine the total amount of each supplement that is administered on a daily basis to determine if a horse is receiving more than the recommended daily allowance as defined

by the National Research Council.⁵

One of the most important things to remember when purchasing nutraceuticals and supplements is to ensure you are buying from a company you trust. 🐾

REFERENCES

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Further reading and free horse health e-newsletter: www.TheHorse.com/Nutrition

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