

FEEDING FOR ALLERGIES

By Juliet M. Getty, PhD

Pollen, bugs, mold...they're everywhere. A little nutrition knowledge can go a long way to lessening your horse's allergy symptoms.



This time of year is especially challenging for horse owners. Heat and humidity are certainly issues, but you also have an environment brimming with insects, pollen and mold. Your horse suffers, and so do you. Perhaps you've found that antihistamines offer some relief – but they can lose their effectiveness over time. Or you may have succumbed to corticosteroids – these “big guns” work quickly but cannot be used for the entire season. And steroids such as dexamethazone can induce laminitis in the insulin resistant or Cushing's horse.

A TAXED IMMUNE SYSTEM

Anything that produces an allergic response stimulates your horse's immune system to combat the problem. Histamines are released, along with inflammatory prostaglandins, leading to respiratory and skin reactions. If your horse has a healthy immune system, he may not be affected by environmental allergens such as grass pollen or insect stings. But even the best immune system can become exhausted from the constant bombardment of allergy-producing substances.

This is where nutrition comes into the picture. The goal is to bring your horse's overactive immune function back into balance. Key nutrients can go a long way toward protecting him against allergies. The following nutritional approaches are worth considering during allergy season:

- **Quality protein:** Antibodies that counteract allergens are made of protein. In order for your horse to produce enough antibodies, he needs to have an adequate variety of amino acids (the building blocks of protein). Grass hay offers some amino acids, but is not complete. A legume, such as alfalfa (clover and soy are also legumes), will boost the overall protein quality because it contains different amino acids.
- **Omega 3s:** These fatty acids actually stabilize the immune system. If your horse is grazing on healthy pasture for at least eight hours a day, he is getting enough Omega 3s. If not, Omega 3s can easily be provided by adding flaxseed meal or oil to the diet. The best way to feed flaxseeds is to grind them. Do not feed whole flaxseeds since most will not be digested. And do not soak them, since water promotes oxidation (destruction) of these fatty acids. Instead, feed a commercial flaxseed meal that is stabilized against rancidity.

OMEGA 3 DOSAGES:

- Flaxseed meal – 1/2 cup per 400 lbs of body weight
- Flaxseed oil – 2 tablespoons per 400 lbs of body weight
- Chia seeds are also a good source of Omega 3s – 1/3 cup per 400 lbs of body weight
- Fish oils can be added in extreme cases: reduce flax or Chia seeds by 1/2 and add 2,000 mg fish oils per 400 lbs of body weight



- **Minerals:** A comprehensive vitamin/mineral supplement will generally cover all your bases regarding mineral intake, but disproportionate amounts can occur when the hay and/or pasture is out of balance. Copper and zinc in particular are important players in immune function; they should ideally have a 4:1 ratio of zinc to copper.

Iodine and selenium need to be present in the proper amounts. Too much iodine, without enough selenium, can damage the thyroid gland, while too much selenium can be toxic. A safe iodine level is between 1 and 6 mg per day. Selenium levels can safely range from 1 to 3 mg per day for maintenance (up to 5 mg per day for intense activity).

- **Antioxidants:** Many antioxidant supplements contain beneficial ingredients like quercetin, lipoic acid, grapeseed extract, and even coenzyme Q10. These are all worthwhile. But several vitamins also have the ability to neutralize damaging free radicals (the role of an antioxidant).

A healthy pasture is the best source of vitamins for your horse. Once cut, dried and stored to make hay, it loses many key vitamins, including C, D and E as well as beta carotene (your horse uses this to make vitamin A). Omega 3 fatty acids are also virtually non-existent in hay. Vitamin C is not only an antioxidant but also has antihistamine properties.

- **B vitamins:** The microbial population in your horse's hindgut is capable of producing B vitamins. But when the immune system is compromised, additional B vitamins offer protection for many bodily systems. Though not scientific, there is much anecdotal evidence to suggest that vitamin B1 (thiamin) at 1,000 mg a day repels insects. A B-complex preparation (without added iron) is an excellent choice.

- **Herbs:** Spirulina has been shown to be especially effective for upper respiratory allergies, as well as itching and skin allergies. Give your horse 2 grams per 100 lbs of body weight, twice daily – that's equivalent to two level tablespoons, twice daily, for the 1,000-lb horse. Another herb, Jiaogulan, at 2,000 mg twice daily, is also helpful. Stay away from garlic, as it can cause Heinz Body Anemia. Commercial garlic preparations often heat the garlic, which makes it safe but less effective at repelling bugs (though it has just as strong an odor!).

- **Apple cider vinegar:** This is another ingredient that many horse owners have been using over the years to reduce insect bites. You can add 4 ounces to a 5-gallon water tub or to your horse's meal.

HYDRATION IS KEY

Water is needed to thin mucous secretions and allow irritants to be expelled from the horse's lungs. A full-sized horse will drink between eight and 12 gallons of water each day. Always have fresh, clean water close by (without algae growth, dead insects or bird droppings). Keep your horse's thirst mechanism working properly by adding salt to the diet. A minimum of two tablespoons of plain white table salt is required every day. Many horses do not adequately lick a salt block, and therefore should either have granulated salt offered free choice, or one tablespoon added to each meal. Salt provides sodium – an electrolyte in which hay and pasture are deficient. It also provides chloride, to further promote fluid balance.



ANTIOXIDANT DOSAGES:

- Vitamin C – 20 mg per lb of body weight
- Vitamin E – 8 IU per lb of body weight
- Vitamin A – 50 IU per lb of body weight




PAY ATTENTION TO HINDGUT MICROBIAL POPULATION

The microbes that live in your horse's hindgut (cecum and large colon) are not only responsible for digesting fiber and producing B vitamins, but they also protect the immune system. Promote good numbers by providing yeast (*Saccharomyces cerevisiae*) as well as oligosaccharides. A good pro/prebiotic formulation will contain these two ingredients.

FINALLY, REDUCE STRESS

Nutrients are “tools” that help your horse battle the pollens and insects to which he’s exposed. But don’t forget his stress level – stress suppresses the body’s ability to fight infection, making him more susceptible to developing allergies. Hot humid weather is stressful. Take means to protect him from heat-related illness. And most importantly, respect his need to graze on forage continually throughout the day and night by offering hay and/or pasture, free choice.

Keep your horse happy. Fresh air, exercise, good food and the company of other horses all do wonders in keeping the immune function at its peak performance. A happy horse is a healthy horse! 



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TALKING WITH DR. CATHY ALINOVI

Q: Is there a way to manage a mild case of hives without steroids?

A: Most cases of mild hives will clear up on their own in 12 to 24 hours. Sometimes the pain associated with them needs to be treated, either with cool water or a non-steroidal pain reliever like phenylbutazone.

For horses with chronic hives, several different routes can avoid steroids and the risk of laminitis. The first is to have your horse covered with a flysheet at sunrise and sunset, when the tiny bugs that can cause the hives are flying about. The second is to use herbal formulas that help with hives – such as Lung Wind Huang, also called Xiao Huang San. The third option might be to use LDN – low dose naltrexone. LDN modulates the immune system so allergic reactions are less likely to occur. Fourth, look at whole grains instead of GMO grains and extruded feeds.

Hives are an allergic reaction. Allergies are due to an inappropriately responding immune system. Regardless of your method, once the immune system learns to respond properly, the hives should not occur.

