

Ammonia Fumes in a Horse's Stall

My horse's stall smells like ammonia. I feed my horse alfalfa hay, and my barn friends tell me that the high-protein content of this hay is causing the ammonia smell. Is this true? Is it a bad thing?

By Nancy S. Loving, DVM

Q. My horse's stall smells like ammonia. I keep it clean, but the odor is still there. I've heard that a strong ammonia smell indicates a horse is passing a lot of protein in his urine. I feed my horse alfalfa hay, and my barn friends tell me that the high-protein content of this hay is causing the ammonia smell. Is this true? Is it a bad thing?

A. A high-protein diet is notorious for increasing the amount of ammonia output in horse urine. So yes, your friends are correct. Legume hay, like alfalfa, is exceptionally high in protein and may well be contributing to the ammonia smell in the stall. If you can stand in the barn or aisleway and smell the ammonia or feel that your lungs are irritated by it, then the fumes are too strong for your horse, too.

High ammonia fumes in the stable are detrimental to good respiratory health in horses. The fumes irritate the respiratory airways and can trigger any number of inflammatory events, including heaves (also known as recurrent airway obstruction). Irritated airways are also more susceptible to viral and bacterial invasion. Your objective should be to improve the air quality in the barn, and this can be done in several ways:

First off, and when possible, switch your horse to a grass hay diet to lessen the protein load on his kidneys. Use other supplements, like high-fat, fiber-rich complete feeds or beet pulp, to add calories to your horse's diet instead of alfalfa hay. If you must feed alfalfa hay, then try to move your horse outside, where there is better ventilation, for as much of the day as possible.

Frequently muck your horse's stall and change the bedding often. Bedding saturated with urine holds the fumes. Add commercial materials (like Sweet PDZ) to the bedding that are known for soaking up urine and neutralizing the odors.

Avoid the temptation to shut the barn up tightly or to heat it in attempts to keep the horses warm. Keep barn doors and windows open when possible to allow good air circulation inside. By fall horses should have good fur coats or are being blanketed, so they should stay warm. As long as they have shelter, they will benefit from the air flow. Have a knowledgeable person help evaluate the barn's ventilation system to ensure that fresh air is circulating in and stale air is moving out.

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