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BE WARY OF NITRATES

Nitrates occur naturally in all forages. At low levels, nitrates either are converted into microbial protein by bacteria in the rumen or they are excreted. But when nitrate concentrations get too high, they can kill cows and maybe abort calves.

Some plants are much more likely to be high in nitrates than others. Annual grasses like cane, millet, oats, and even corn often have elevated nitrate levels. Weeds like pigweed, lambsquarter, and kochia can be especially troublesome. If your hay has lots of these weeds or is an annual grass, be alert to the potential for high nitrates.

That doesn't mean these forages always are toxic or that high-nitrate forages can't be grazed or fed safely. But always test these forages for nitrates in a lab to determine how to feed them safely.

There are many ways to use high nitrate forages safely. Diluting with grain or low nitrate forages is most common. Frequent, small meals that slowly increase the amount of nitrate fed helps cattle adapt to high nitrate forages. And make sure cattle have plenty of clean, low nitrate water at all times.

Nitrates cause deaths most often when very hungry animals are given free access to high nitrate hay or pasture. Avoid feeding even marginally high nitrate forage at this time because hungry cattle will rapidly eat an extra large meal. This could create an overload of nitrates to their system, leading to death.

More details about nitrates in forages are available in a NebGuide at your local extension office or online to help you feed safely.

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