

# How much nitrate is too much?

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$\text{NO}_3^-$ -N	$\text{NO}_3^-$ ppm	Category	Recommendation
0 to 550	0 to 2,500	Safe	Forage is generally safe to feed to all classes of livestock.
550 to 1,100	2,500 to 5,000	Caution	Forage with this nitrate ( $\text{NO}_3^-$ ) content can cause a problem with pregnant and young animals. Do not feed forage with nitrate levels this high in combination with nonprotein nitrogen supplements, and limit forage with $\text{NO}_3^-$ levels this high to one-half of total ration.
1,100 to 3,400	5,000 to 15,000	Danger; toxic	Limit forage with this $\text{NO}_3^-$ level to one-fourth of total ration. Should supplement forage of this type with energy, minerals and vitamin A.
More than 3,400	More than 15,000	Extremely toxic	Forage with this $\text{NO}_3^-$ level or higher is toxic and should <b>not</b> be fed under any circumstance. If forage with this $\text{NO}_3^-$ concentration must be fed, it should be mixed with other feed and make up no more than 15 percent of the total ration.