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Got Nitrates?

In this project I tested corn silage pits from drought and irrigated corn fields to determine which silage had the least nitrate concentration. Nitrate poisoning is a threat to livestock well-being I sent two different samples to Servitech Industries. Servitech Industries have six different methods of scaling nitrates. The scaling is in parts per million or ppm. Results are categorized as very low (0-700 ppm), low (701-1400 ppm), medium (1401-2100 ppm), high (2101-2800 ppm), and very high (2801-3500+ ppm). Nitrates are minimally toxic at the low range, potentially toxic without an upgraded ration mix at the medium range, and toxic causing death in anything at high or very high levels.

The lab analyzed my 90-day silage samples for nitrate concentration. If nitrate levels exceeded 2101 ppm, then new samples would have to have been submitted to insure safe feeding nitrate levels. The irrigated corn samples indicated a lower level of nitrates when compared to the drought silage samples (353 ppm for the irrigated silage to 2170 ppm for the drought silage). I believe that drought silage contains a higher concentration of nitrates because the plants are stressed and have less opportunity to dilute the potentially hazardous high levels of nitrates which could result in livestock death and economic disaster for our ranching family.