

# NIRS Report

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Sample: 125340	Crude Protein: 8.8%
Animal Kind: Cattle	Digestible Organic Matter: 60.7%
Pasture Name: Greenhouse	DOM/CP Ratio: 6.9
Date Collected: 2019-05-08	Fecal Nitrogen: 1.42%
Report Date: 2019-06-04	Fecal Phosphorus: 0.5%

Comments: a lot of rain, mature cows

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## Understanding the NIRS Report

The GAN Lab uses near infrared spectroscopy (NIRS) to evaluate the forage component of the diet and predict the quality of the grass and hay the animals were consuming for the past 36 to 48 hours. Therefore, the analyses do not reflect supplements that may have been fed.

Crude protein (CP) analysis measures grams of crude protein per gram of dry matter in the manure.

Digestible organic matter (DOM) measures grams of digestible organic matter per gram of dry matter in the manure.

The DOM/CP ratio is an indicator of rumen efficiency. The acceptable range for this ratio is 4 to 7 with 4 being optimal. A ratio of 4 or less usually coincides with very lush, cool season or early spring pastures and very runny feces. Most warm season and native range grazing has a ratio of 5 to 6. Late summer or drought stressed forage, some stockpiled grasses, and very mature, dry grass often has a ratio greater than 7. This sample's ratio of 6.9 is inside the ratio for positive rumen efficiency.

Fecal nitrogen (FN) is a direct measurement of the amount of nitrogen in the manure and is not necessarily correlated to dietary nitrogen. FN can be used to roughly quantify the amount of nitrogen going back onto the pasture where the animals were grazing.

Fecal phosphorus (FP) analysis measures the percent of phosphorus (P) in the manure itself. FP can be used to roughly gauge whether dietary P is adequate. An FP value greater than 0.3 generally indicates that dietary phosphorus intake is adequate.