

NUTRITIVE CONTENT OF ABORTED AND NON-ABORTED GOAT DIETS ON RANGELAND

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Abstract. Nutrient content of diets selected by aborted and non-aborted crossbred Criollo goats on rangeland were studied during the last 4 month of gestation in the dry period. Dietary samples were obtained directly from the mouth of momentarily restrained goats during their grazing path on a highly degraded rangeland. A short light rope permanently tightened around their neck was used to immobilize goats to obtain the forage collected from the goat's mouth. Samples were used for chemical analyses. Across months, non-aborted goats selected diets higher (133 ± 17 vs. 119 ± 21 g kg⁻¹ DM; $p < 0.01$) in crude protein (CP) than aborted goats; this nutrient did not meet the requirements of late gestation in aborted goats. All diets were highest in CP during February ($p < 0.01$) and lowest during May (last month of pregnancy). Non-aborted goats made use of less fibrous feeds (e.g. across months NDF= 575 ± 43 g kg⁻¹ DM) than non-pregnant goats (599 ± 34 g kg⁻¹ DM; $p < 0.01$). Levels of ash, macro and microelements in the goat diets did not differ between groups of animals; minerals were adequate to meet the demands of pregnancy. Non-aborted goats did not seek forages lower in tannins (1.5 ± 0.2 vs. 1.6 ± 0.3 g 100 g⁻¹ DM) or alkaloids (1.1 ± 0.6 vs. 1.1 ± 0.5 g kg⁻¹ DM) compared with aborted goats. It was concluded that in this rangeland those goats were not able to increase selection of forages or plant parts with high nutritional value to maximize nutrient ingestion aborted. This implies that non-aborted goats have a greater ability to selectively graze/browse and a greater capacity to seek out parts of plants or patches of high nutrient content than aborted animals.

Keywords: abortion, diet analysis, feeding behaviour, cell wall content, secondary metabolites.