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NUTRIENT DISAPPEARANCE FROM PLANTS CONTAINING CONDENSED TANNIN

A study was designed to evaluate the nutrient disappearance from three Texas browse species containing condensed tannins (CT; *Acacia angustissima* var. *hirta*, *Desmodium paniculatum*, *Smilax bona-nox*, and *Medicago sativa* as control) using the mobile nylon bag technique. The effect of quebracho CT on nutrient disappearance also was evaluated.

Ruminally or duodenally cannulated steers were fed a basal diet of Sorghum bicolor x *S. sudanense* hay and a solution of 150 ml of molasses with or without 156 g of quebracho. Quebracho in the diet did not have an effect on any of the response variables evaluated ($P>0.05$). Greater disappearance rates were measured after the rumen + pepsin/HCl + duodenum incubation than during the other stages for most nutrients. However, disappearance rates after rumen and rumen + pepsin/HCl incubation differed among plant species and nutrients evaluated ($P<0.05$). *Medicago sativa* had greater nutrient disappearance ($P<0.05$) for all the nutrients evaluated in every incubation site. Dry matter (DM), inorganic matter (IM), and organic matter (OM) disappearance was greater ($P<0.05$) after rumen incubation for all the plants evaluated. This indicates that rumen microorganisms are more important for the digestive process than post-ruminal digestion. A greater proportion ($P<0.05$) of *A. angustissima* and *D. paniculatum* crude protein (CP) and phosphorus (P) disappearance occurred in the duodenum. Of the plants containing CT evaluated in this study, *A. angustissima* demonstrated the greatest overall disappearance of DM, CP, P, and OM.

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