

**DIETARY IRON ABSORPTION AND THE ROLE OF TANNINS IN EASTERN
(*DICEROS BICORNIS MICHAELI*) AND SOUTHERN BLACK RHINOCEROS
(*DICEROS BICORNIS MINOR*)**

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ABSTRACT

Three diet treatments were fed for at least 6 months at 6 institutions to a total of 11 black rhinoceros to assess the effect of tannins on iron status. Diet treatments were: 1.) a pellet/mixed hay diet, which reflected the diet historically fed; 2.) a pellet/mixed hay diet with quebracho added to the pellets as a source of iron binding polyphenolics; 3.) a pellet/mixed hay and high browse diet with huisache (*Acacia farnesiana*) contributing to 40% of the diet. Statistics were run using Intercooled STATA Version 9.0 (StataCorp, College Station, TX). Comparison across diet treatments were performed by repeated measures ANOVA followed by Tukey-Kramer pairwise comparisons. Significance was determined by $P < 0.05$. Adding quebracho as a source of iron binding polyphenolics to the diet to supply 0.06 mg equivalents of gallic acid/g did not appear to have an effect on serum ferritin. There was no significant relationship between iron consumed or digested and ferritin. There was no significant difference in iron absorption between treatment groups.