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**CORRELATION OF PLANT CONDENSED TANNINS AND NITROGEN CONCENTRATIONS TO WHITE-TAILED DEER PREFERENCES IN THE CROSS TIMBERS REGION**

Chemical plant defenses such as condensed tannins (CT) have the potential to reduce insect herbivory. Condensed tannins also reduce ruminant herbivory as a result of decreased palatability and nutrient availability in gastro-intestinal systems. However, when consumed at 1-3% of the total diet, CT can be beneficial to ruminants as anthelmintics and by binding to plant proteins to decrease ruminal bacterial metabolism of protein.

In this study we collected 56 preferred warm-season white-tailed deer browse within the cross-timbers region of Texas and analyzed for CT and nitrogen concentrations. Plant CT and nitrogen were present in a wide range of concentrations. There was no significant correlation between plant CT or nitrogen concentration and published deer preference.

Our study suggests that, while CT are important parts of the white-tailed deer diet, diet selection is not based solely on CT or nitrogen concentrations.

Further research is needed to determine if plant maturity or surrounding vegetation confound correlations between white-tailed deer feed preferences and CT or nitrogen in those selectively browsed plants.

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