

Deer Density and Feeding on Density and Morphology of Palatable Plants

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Kidneywood, granjeno, guayacan, orange zexmenia, and bush sunflower are widespread throughout the western Rio Grande Plains and may represent significant forage resources for white-tailed deer. The purpose of this research is to determine how supplemental feeding of deer and different deer densities affect the abundance and morphology of these plants.

This study is being conducted on the Comanche and Faith ranches in Dimmit County, Texas. Six 200-acre areas were enclosed with a deer-proof fence on each ranch. Two enclosures on each ranch contain target populations of 10 deer, 25 deer, and 40 deer, which represent low, medium, and high deer densities for South Texas. One enclosure in each pair of enclosures is provided with pelleted feed. Density of kidneywood, granjeno, guayacan, orange zexmenia, and bush sunflower is estimated annually within each enclosure. To aid in understanding browsing pressure, a fence was constructed around kidneywood and granjeno plants to prevent deer browsing, and a similar-sized plant was marked outside the enclosure for each protected plant. Height, canopy diameter, and internode lengths of protected and unprotected plants are determined annually.

Bush sunflower density tended to be greater in low deer density enclosures in 2007. Morphological characteristics of protected and unprotected plants were similar. Additional data collection and analysis are needed to meet our objectives.

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