

USE OF GEOGRAPHICAL INFORMATION SYSTEMS IN DEVELOPING RANGE INVENTORIES ON THE CORONA RANCH

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(Key Words: Vegetation Types, Mapping, Corona Ranch)

Geographical information systems offers new technology to integrate information about natural resources on a broad scale. The present project is aimed at integrating information on soils, topography and vegetation on the Corona Ranch into a GIS system. Currently information is available on topography from USGS topographical maps, and on soils from Soil Conservation Service surveys. Efforts during the next summer growing season will be aimed at sampling the vegetation on the Ranch. Primary data will be collected from 9 different plant communities identified from a reconnaissance survey (Hart et al. 1990, Livestock Research Briefs and Cattle Growers' Short Course). Line-point transects will be systematically allocated on a proportional basis to the identified plant communities to determine species cover and composition. These data will be necessary in planning additional research on the Ranch.

MULE DEER AND ELK USE OF HABITAT TYPES IN PIÑON-JUNIPER WOODLANDS IN WESTERN NEW MEXICO

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(Key Words: Wildlife Habitat, Browsing, Pellet Counts)

Mule deer and elk are important big-game species in piñon-juniper woodlands in western New Mexico. Deer or elk pellets were found in 74% of the stands sampled in the Gila National Forest with deer pellets in 66% of the stands and elk in 33% of the stands. Twice as many deer pellets were found as elk pellets. Habitat types at lower elevations were apparently not utilized by elk, but deer were found throughout the elevational range of the woodland. Greatest number of deer pellets were found in the *Pinus edulis-Juniperus deppeana/Quercus grisea/Muhlenbergia dubia*, the *Pinus edulis/Cercocarpus montanus/Bromus anomalus/Phase Quercus gambelii*, and the *Pinus edulis-Juniperus deppeana/Bouteloua gracilis* habitat types. Greatest elk use occurred on the *Pinus edulis-Juniperus deppeana/Bouteloua gracilis* habitat type. Mule deer and elk use was apparently not related to abundance of mountain mahogany or gambel oak.