

summer of 1995. Portions of the summer treatment plants are being protected from grazing to use for comparison to the grazed plants. The control treatment is an area on the ranch that has not been grazed for several years and these plants will be used to compare the two seasonal grazing treatments.

Monitoring is done by measuring growth increments on specific branches that were identified and marked at the beginning of this study. Measurements were taken every two weeks during the summer and once every month during the fall. The difference in growth increments from each treatment will be compared.

Initial early data indicate that Fall-only grazing seems to be the best way for winterfat to achieve the most growth and biomass. Fall grazed plants grew an average of 61% more than those plants grazed in the summer or the plants located in the control plots. Management implications for ranchers could be higher amounts of winter forage available for cattle if pastures with high densities of winterfat were deferred until late fall or early winter.

HABITAT PREFERENCE OF CATTLE GRAZING PINYON PINE/JUNIPER WOODLAND IN SOUTHCENTRAL NEW MEXICO

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The habitat preference of cattle grazing grassland and varying densities of Pinyon and Juniper woodland are being evaluated at the Corona Research Center. The study area consists of semi-arid terrain at approximately 7,000 ft in elevation, with blue grama as the primary grass. The behavioral data are recorded two times weekly with one night watch per month, via observation. Observations being recorded are: time spent in each area, activities in each area, i.e., grazing, ruminating, walking, species eaten, and time at water. Daily weather observation are being recorded for day and night watches. Observations suggest that cattle prefer open and sparse stands of Pinyon/juniper when compared to grassland and dense Pinyon/juniper during day hours. However, this preference shifts at night to grassland and sparse Pinyon/juniper. Key grazing times are from approximately 6:00-10:00 a.m., resume again from approximately 4:00-7:00 p.m., and then from approximately 11:00 p.m. - 2:00 or 3:00 a.m. However, these times may vary somewhat due to weather events and season. Ruminating, watering, resting, and socializing take up the rest of the cattle day. Clippings are taken once every two weeks from three areas where cattle have grazed to determine key species selected. Key species for grasses include blue grama, wolftail, and dropseed, while key forbs include four-o'clock, little yellow zinnia, cowpen daisy throughout all area types. This however, does not suggest that other forbs and grasses are not important. Further analysis of diet selection is underway.