



Cows and Trees in New Mexico: Using Cattle Behavior to Inform Piñon Juniper Woodland Management

Day: Friday

Time: 4:00 PM - 4:30 PM

Location: 018 Cochiti

Program Track/Topic: Agroforestry

ID: 279

Track: Agroforestry

Title: Cows and Trees in New Mexico: Using Cattle Behavior to Inform Piñon Juniper Woodland Management

Full Abstract: Results from research conducted over a twelve year period (2004-16) at a site in central New Mexico are reported. The overall goal of this research was to determine how rangeland beef cows use piñon juniper (PJ) woodlands. Cows monitored via GPS grazed grassland/woodland mosaics for periods of several consecutive weeks at a time. Although cows usually preferred to graze open grassland, on cold or windy winter days they showed high preference for wooded areas, particularly when forage in open grasslands fell below 300 lbs DM/acre and regardless of their physiological state (whether non-pregnant or pregnant). Although cows used PJ woodland more frequently in winter instances of increased daily use of woodlands were documented in all seasons. When grazing in PJ woodlands, cattle usually selected areas with up to 20% tree cover, although instances of grazing in dense woodland of up to 55-65% tree cover were also documented. Pregnant/nursing cows actively selected woodland sites on days immediately before or after their estimated calving date. Cows with milder temperaments tended to spend close to 50% more time in PJ woodland than their more aggressive counterparts. Reducing stocking rates from moderate (4.8 ac/AUM) to light (11 ac/AUM) resulted in a four-fold decrease in woodland use by cows. Cows that showed highest preference for woodland sites, tended to wean the heaviest steer calves. Patches of open to dense intact PJ woodland appear to improve the quality of cattle grazing environment and, under moderate stocking, may allow cows to wean heavier steer calves.

Session Agroforestry

Title:

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