



Seasonal Forage Production, Quality, Livestock Utilization Dynamics in Meadows and Adjacent Aspen Stands

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There is significant concern about the decline of aspen on western rangelands, and particularly about the lack of successful aspen regeneration due to grazing by both cattle and wildlife. A better understanding of the mechanisms determining temporal patterns of livestock use of aspen saplings, aspen herbaceous understory, and meadow vegetation is needed to identify grazing management options to focus livestock use on meadow forage and minimize use within aspen stands. We conducted a study of seasonal forage utilization by free grazing cattle in relation to forage quality and quantity of vegetation found within in aspen-meadow complexes common to northeastern Calif. Forage types included meadow vegetation, aspen understory herbaceous vegetation, and aspen saplings. Over two years, we analyzed how utilization of the three forage types correlated to levels of crude protein, acid detergent fiber (ADF), water content and limiting macronutrients in the region (Ca, P). We found that livestock utilization of forage types changed as the summer growing/grazing season progressed. There was increased use of aspen saplings as the season progressed. We found little difference in meadow and aspen understory vegetation in terms of forage quality or production. We found that all forage quality metrics remained significantly higher in aspen saplings compared to meadow or aspen understory herbaceous vegetation as the season progressed. We will present all results and provide a basis for grazing management to minimize grazing in aspen stands.

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