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“Rangeland Management Strategies for Adapting to Climatic Variability: Enhancing the Positive and Mitigating the Negative Effects”

Rangeland management strategies for adapting to climatic variability are needed to reduce enterprise risk, increase resilience of rangeland/grassland ecosystems and deliver sustainable provision of ecosystem goods (e.g., livestock production) and services (e.g., wildlife habitat) from western North American rangelands. Projections of more extreme and variable intra-annual precipitation, more intense and protracted droughts, and continued increases in atmospheric carbon dioxide (CO₂) and resultant warmer temperatures provides challenges and subsequent opportunities to develop effective grazing management strategies for adaptation. Successful development of such strategies will be dependent upon (1) appropriate spatial and temporal movement of livestock on the landscape with sufficient flexibility to opportunistically obtain desired outcomes and mitigate negative effects, (2) incorporation of human dimensions through integration of experiential, experimental, social and biophysical knowledge to provide a more comprehensive framework for grazing management, (3) fundamental application of adaptive management which incorporates appropriate monitoring of key metrics to provide feedback for tactical (within season) and strategic (across seasons) changes in grazing management to achieved desired outcomes, and (4) restoration of historical interactions between fire and grazing, using the patch burn grazing approach where prescribed fires are strategically (across year) and tactically (within year) applied to influence grazing behavior and subsequent landscape-level vegetation heterogeneity.

THURSDAY

SEPTEMBER 5,
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9:30 A.M.

Room 2002
Throckmorton
Plant Sciences
Center

