

Effect of Added Sugar on Preference and Intake by Sheep of Hays Cut in the Morning versus the Afternoon. (C06-burritt130603-Poster)

Authors:

- E.A.Burritt* - *Utah State University*
- H.F.Mayland - *USDA-ARS*
- F.D.Provenza - *Utah State University*

Abstract:

Ruminants prefer hay cut in the afternoon to hay cut in the morning presumably because hay cut in the afternoon has higher concentrations of nonstructural carbohydrates. We determined if adding sugars - glucose and sucrose- to ground hay would account for differences in preference. Alfalfa hays cut either in afternoon (PM) or the following morning (AM) were used in the trials. Glucose and sucrose were added to AM hay (AMS) to make its sugar concentration similar to PM hay. During the first trial, lambs received a choice of either 1) AM vs. PM hay, 2) AMS vs. PM hay or 3) AMS vs. AM hay. Lambs preferred PM > AMS > AM hay. We also studied how the concentration of added sugars affected preference for hays. Lambs received a choice of AM hay and AM hay plus 1, 2, 3, or 4% added sugar. On the first day of the trial, lambs ate similar amounts of each hay regardless of the amount of sugar added. By the end of the trial, lambs preferred hay with either 2, 3 or 4% added sugar. During an intake trial, lambs ate similar amounts of AM, AMS and PM hay. Our results indicate that preference of PM hay maybe in part due to increased concentrations of sugars such as glucose and sucrose, and that lambs learn about the post-ingestive benefits of exogenous sugars added to hay.

Corresponding Author Information:

Beth Burritt

Utah State University

Dept of Rangeland Resources

Logan, UT 84322-5230

phone: 435-797-3576

e-mail: bethb@cc.usu.edu

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