Effect of Morning versus Afternoon Harvesting of Alfalfa upon Soluble Sugar and Silage Acid Profiles. (C06-alghumaiz161103-Poster)

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Abstract:

The objective of this study was to evaluate the harvest time effects on sugar content and silage acid profile of alfalfa. The study was conducted in 2001 at East Lansing (EL) and the Upper Peninsula (UP) Experiment Stations of Michigan State University. Alfalfa was harvested three times at each site in a spilt-plot design with five replications.The fields were divided into two sections, one for AM and the other for PM harvest.Five fresh cut samples of alfalfa were randomly sampled from each harvest time treatment.In addition,five samples were packed into PVC mini-silos at 30-50%DM and allowed 45 d to complete fermentation acids.The fresh samples were dried and ground for laboratory sugar analysis and the total ensiled acids were analyzed using HPLC.Results at each location showed sugar content to be significantly higher for the PM cutting compared to the AM cutting. Due to high sugar content in the PM cutting at both locations, lactic acid concentration increased in the PM compared to AM cutting. However,a decline of lactic acid concentration was observed in the third cut at the UP site. The affects of cutting time on alfalfa sugar content were varied by location.

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