

**Madison Hoffman: Animal & Range Sciences**

**Mentor: Emily Glunk, Megan Van Emon -- Animal & Range Sciences**

***Evaluating Hay Feeding Methods on Heifer Performance, Hay Waste, and Economics***

Hay feeders have been evaluated in many studies, and have shown a significant reduction in amount of hay wasted compared to feeding without a feeder. A new feeder on the market, the Cattle System by LS feeder, has been developed to decrease hay waste compared to other commercially available feeders. The objective of this project was to compare the Cattle System by LS feeder, a new feeder on the market, to a popular alternative, a cone feeder. Our hypothesis was that due to the design of the new Cattle System feeder, this treatment would result in decreased hay waste compared to the traditional cone feeder. This study was a replicated crossover design, with four periods lasting five days each. A single large round bale (50/50 legume grass mixture) was provided to each pen every 5 days. Bales were individually weighed prior to feeding. Each feeder was placed on concrete in separate pens for ease of hay waste collection. Heifers had ad libitum access to water and minerals throughout the duration of the trial. Measurements taken included: beginning heifer weights and final heifer weights, weight of hay waste, beginning bale weight, and final bale weight. Hay was weighed on day 1 of each period before being placed into the feeders, and hay orts was collected at the end of each five day period to calculate period pen intake. Hay waste was defined as any hay outside the feeder that had not been weighed, and was collected on days three and five of each period. Hay core samples were collected from each bale to ensure uniformity and will be sent to a commercial lab to determine forage quality. Hay waste will be weighed at the end of the study, as all waste was bagged separately by treatment and period, to determine percent waste. The waste will also be sorted into forage species by legume or grass in order to determine individual species composition. This evaluation is still on-going and final results have not been concluded, however, visual differences have been noted in hay wastage between the feeders.

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