



Studying Feed Efficiency in Dairy Cattle

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College Park Scholars Academic Showcase, May 6, 2022



Introduction

The University of Maryland Extension system works throughout Maryland with various programs focusing mainly on aspects of agriculture. The Central Maryland Research and Education Center which is part of the Extension program spans 925 acres and is comprised of a research facility as well as home to the University's dairy cattle research herds. The study I was involved in revolved around quantifying feed efficiency in dairy cows. The study involved measuring both feed intake and feed refused daily. Over the course of the study, each cow was offered all 3 triticale treatment feed groups (NLOW, NMED, and NHIGH) as well as a control diet. This study unfortunately came to a halt early due to lack of materials, but it is scheduled to start back up again in the fall of 2022, following the triticale harvest.



Image of the CMREC facility including the housing and feeding barn.

Activities

During my time working at the dairy facility, I aided in collecting excess uneaten feed, fed the cows their portioned designated food ration, collected feed samples, and observed the cows for any abnormal behaviors. This was all done during a set portion of time in the morning to maintain a consistent feeding schedule. The feed was delivered based off of the amount of feed left over from the day before, as to limit waste. Feed was collected and delivered using a Calan data ranger feed mixer and amounts were recorded daily. Left over feed from the day prior was vacuumed from each feed stall.



Image of the Calan data ranger used to collect, deliver, and record feed



One of the cow subjects involved in the study

Impact

The research conducted with my help will eventually provide insight into feed efficiency and subsequent milk production in dairy cows. This experience was really rewarding as it gave me the opportunity to learn more about large animal research while allowing me to gain valuable hands-on experience with dairy cows. Since a lot of my work done on this project was done individually, I learned a lot about my own work ethic and motivations. Working at the Clarksville research faculty also strengthened my appreciation for research outside a more lab-based setting.

Future Work

Although this study came to an abrupt halt about 3/4th of the way through, I have recently started working on a second study which revolves around heifer grazing that should run through the end of this summer. I have enjoyed my time at CMREC and am looking forward to helping this summer and learning more about rotational grazing methods.

Site Information

Name of Site: Central Maryland Research and Education Center (CMREC)

Address: 4240 Folly Quarter Road Ellicott City, MD 21042

Supervisor: Dr. Sarah Potts

Site mission: Conduct research projects related to dairy and animal science in conjunction with the College of Agriculture and Natural Resources at the University of Maryland

<https://agmr.umd.edu/research/research-and-education-centers-locations/cmrec/clarksville>

Acknowledgments:

I would like to thank my supervisor Dr. Sarah Potts, as well as my SGC mentors, Dr. Holtz and Dr. Merck.



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