



My name is Katey. I love being a student in ABE/ASM. I was born and raised in Grand Island, FL where my parents own a small hay and beef cattle operation. My undergraduate degree is also from Purdue in Agricultural Economics. I plan to work for Farm Credit Services in Louisville, KY in June and am currently training to become an amateur road biker. I got a helmet yesterday! Hail Purdue!

Agricultural & Biological ENGINEERING

Thesis Defense

Speaker: Katharine H. Bartlett

Title: Co-Ensiling Co-Products for Feed on Small to Mid-Size Cattle Farms

Major Professor(s): Dennis R. Buckmaster

Date: Friday, March 30, 2012

Time: 2:00 p.m.

Location: ABE 212

Abstract:

Condensed Distillers Solubles (CDS) and corn stover mixed at a 3:1 or 2:1 ratio has shown to be of potential value for beef and dairy cattle producers. Through lab scale silo tests, the aerobic stability, pH, mold and nutrient values suggest that these blends can partially replace corn silage. Cost projections were modeled for 8 processes of mixing the CDS and stover for storage in bag silos. They were based on published custom rates, machinery prices, fuel price, machinery capacity, power requirements, transportation, and material costs. Stover nutrient removal cost was also included. The processes focused on strategies of baling or chopping the stover, while shredding and processing were additional options. Five of the processes used a vertical mixer, while the last three left the mixing cost out so we could determine the value of a (not yet developed) device that would meter and dribble the CDS over the stover as it entered silage bagger.

Application:

The price of feed has become even more of a concern since the development of ethanol production for fuel gained attention. As more corn is used for fuel, the supply of corn and corn silage for cattle feed decreases as the price rises. This project will show how the use of co-products of ethanol can provide alternative feeds.