



## PROGRESS REPORT

**PROJECT TITLE: Financial and Beef Quality Implications of Corn Crop Harvest Option (shredlage, earlage, high-moisture corn or dry corn) for Cattle Feeders**

**PROJECT NUMBER:**

**REPORTING PERIOD: 2015**

**PRINCIPAL INVESTIGATOR: Alfredo DiCostanzo**

**ORGANIZATION: University of Minnesota**

**PHONE NUMBER: 612-624-1272**

**EMAIL: dicos001@umn.edu**

1.) **PROJECT ACTIVITIES COMPLETED DURING THE REPORTING PERIOD.** (*Describe project progress specific to goals, objectives, and deliverables identified in the project workplan.*)

*yr 1*

The feedlot project has been completed. Steers were slaughtered this past summer. We are in the process of analyzing growth performance and impact of growing phase diet and growth on finishing performance. All agronomic data is being integrated with production data to yield beef and dollars produced per acre to determine most profitable corn crop endpoint.

*yr 2*

Meat quality data collection is proceeding at this time.

2.) **IDENTIFY ANY SIGNIFICANT FINDINGS AND RESULTS OF THE PROJECT TO DATE.**

*yr 1*

Interestingly, steers fed corn crop endpoints with greatest fiber (NDF) content (corn silage and earlage) gained weight and converted feed to gain less efficiently than those fed lowest fiber (high moisture corn and rolled corn). This was expected, but we expected cattle fed earlage to convert and gain similar to those fed dry rolled corn. Regardless, yield of beef per acre followed a similar trend; cattle fed corn only portion yielded and returned more beef and dollars to the acre than those fed corn silage or earlage. However, there were no differences in gross return to each acre when comparing all corn crop endpoints. These results represent analyses of returns to live final weight sold. Additional computations are under way to study effects of feeding these corn crop endpoints to gross dollar return per acre on a carcass sold basis.

*yr 2*

Currently meat samples being analyzed no data available yet.

3.) CHALLENGES ENCOUNTERED. (*Describe any challenges that you encountered related to project progress specific to goals, objectives, and deliverables identified in the project workplan.*)

*yr 1*

Given excellent intake by cattle fed corn silage. The originally planned dry matter inclusion of 75% was as corn silage supply was dropping. Final corn silage inclusion over the entire feeding phase averaged 65%. This strategy had an impact on the comparison of corn crop endpoints and may be offsetting any differences in nutrient content between corn silage and earlage.

*yr 2*

None encountered

4.) FINANCIAL INFORMATION (*Describe any budget challenges and provide specific reasons for deviations from the projected project spending.*)

*yr 1*

No challenges observed.

*yr 2*

No challenges observed.

5.) EDUCATION AND OUTREACH ACTIVITIES. (*Describe any conferences, workshops, field days, etc attended, number of contacts at each event, and/or publications developed to disseminate project results.*)

*yr 1*

Study design was shared at the annual NCCC308 Regional Research Meeting in NE in May (~12 professors of feedlot nutrition). This session raised great interest as this question comes up regularly from our cattle feeding corn producers. Further, we shared preliminary results and implications of data from year 1 to over 200 producers in the states of MN, IA, WI, SD and NE through our MN Cattle Feeder Day Program in December. A student competition presentation will be given at the Midwest Animal Science Meetings in Des Moines, IA in March, 2016.

*yr 2*

Data under collection yet.