

Angus Foundation Research Project

Name of project: Establishment of a new research program to study beef cow biological efficiency, North Carolina State University (NCSU)

Status: Completed

Timeline: 2006 to 2010 (The Angus Foundation supported the fifth year of the project.)

Angus Foundation funding: \$30,000

Objective: To increase feed efficiency of the whole beef herd, so the producer can decrease feed input, thereby increasing the profitability of the whole herd. To accomplish the objective, the study was broken into three parts. The first part consisted of estimating efficiency of bulls during their post-weaning stage. The second part included estimating the efficiency of heifers and then estimating their efficiency as pregnant and lactating cows. Finally, the third part of this project was to estimate the efficiency of the dry cow.

Results, if any: For the first part of the research concerning measuring efficiency in bulls to identify those that will produce the best daughters in improving biological efficiency of the cow herd, the researchers found differences in sire groups that show evidence that there is a genetic component that plays a significant role in determining feed efficiency. In other words, there is evidence that some bulls pass on genes to their offspring that allow them to be more efficient than average.

The Angus cow biological efficiency component is under continued study with NCSU and the University of Illinois, which are sharing a database to keep efficiency records on females.

Application: The data collected and results found in this study have been used in the Association's National Cattle Evaluation (NCE) system's feed intake evaluation and contributed to the Residual Average Daily Gain (RADG) EPD.