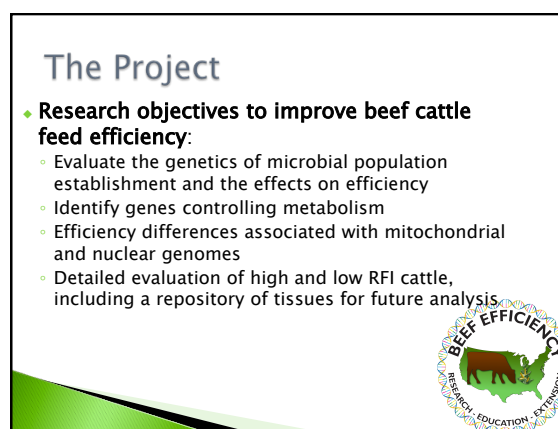
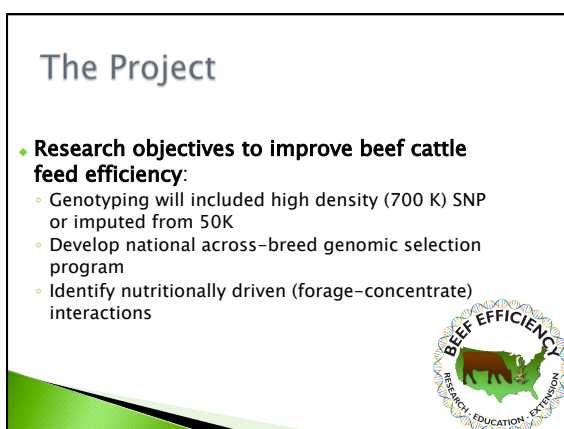




Research Objectives

- ◆ Assemble DNA samples, individual FI, growth and carcass composition data for 8,000 animals representing 8 major beef breeds

Breed	1	2	3	4	5	Total
Angus	698 (MU)			300 (MU)		1798
Red Angus	600 (UI)	200 (MU)				1439
Simmental	300 (UI)	300 (UI)				600
Gelbvieh	1139 (UI)		300 (MU)			1439
Charolais	300 (MU)	100 (MU)				500
		60 (WSU)	60 (WSU)	50 (USMARC)	50 (USMARC)	1300
	60 (WSU)	450 (UI)	450 (UI)	300 (AHA)	300 (AHA)	1600
Hereford	300 (AHA)	300 (AHA)	300 (AHA)	50 (USMARC)	50 (USMARC)	350
Wagyu	70 (WSU)	70 (WSU)	70 (WSU)	42 (ISU)	42 (ISU)	310
Limousin	42 (ISU)	42 (ISU)	42 (ISU)	50 (USMARC)	50 (USMARC)	7897
Total	3509	1522	1222	972	672	



Extension Program Goals

- ◆ Highly integrated with research component
 - Technology transfer
- ◆ Involves stakeholders early in the process
- ◆ Engages all segments of the industry
- ◆ Demonstrates progress in efficiency change by stakeholders by project conclusion
- ◆ Industry education component (tied to research results)



Extension Field Project

- ◆ Field demonstration project will demonstrate utility of molecular EBVs for FE and component traits and "test drive" the technology



In seedstock herds:

- 50K MEBVs for WW in Y1
- MEBVs for feed intake/efficiency in Y3



National Program for Genetic Improvement of Feed Efficiency in Beef Cattle

Overview/Introduction

The sustainability of the beef industry continues to be a vital issue in our country today. With the industry's ability to survive high feed and land prices, a \$5 million USDA NR Agriculture and Food Research Initiative grant has been awarded to a multi-disciplinary group of researchers from eight institutions to develop the latest technology to predict genetic merit for feed efficiency.

"Currently, we have no high-throughput tools to improve feed efficiency, which can lead to an increase in greenhouse gas emissions and demand for additional land to produce beef," said Jerry Taylor, Nebraska Chair in Applied Genetics in the University of Missouri's College of Agriculture, Food and Natural Resources, and project director. "Historically, the only way we have improved the efficiency of cattle growth was by selectively breeding cattle that grew fast. While this reduced the time it took to bring beef cattle to market, it did not tackle the fundamental issue of improving the efficiency of converting nutrients consumed into beef."

In this study, phenotypic data will be collected on 2000 cattle representing eight breeds, including Angus, Red Angus, Simmental, Gelbvieh, Charolais, Hereford, Limousin and Wagyu. Researchers will evaluate intake, performance and carcass traits. In addition, they will collect DNA samples for gene mapping. After the data are compiled, the team's goal is to deliver tools and knowledge which enable genetic selection for feed efficiency.

News Articles:

- [BIF: Five Year National Feed Efficiency Study](#)
- [Healthier and More Efficient Cows](#)
- [USDA: Other Universities Get Cattle Feed Efficiency Research Grant](#)
- [\\$5 million USDA grant targets feed efficiency in beef cattle](#)
- [Iowa State Faculty Part of Feed Efficiency Study of Beef Cattle](#)

Watch for more information about from [Iowa State University Beef Center](#)

Resources Today

- ◆ www.beefefficiency.org
- ◆ Conference presentations
- ◆ Updates on NCBA's Cattlemen-to-Cattlemen (first segment November 8, 2011)
- ◆ NCBA Cattlemen's College (February 1, 2012)

