

Research Profile – Chanda Engel

Name: Chanda Engel

Department: Carrington Research Extension Center

REC Location: Carrington, ND

Brief background about yourself:

Chanda Engel has been the livestock research specialist in the beef cattle project at the Carrington Research Extension Center since June 2012. Chanda grew up in Eastern South Dakota and graduated from South Dakota State University with a B.S. degree in Animal Science in 1997. She worked as a livestock extension educator in two South Dakota counties for five years. In 2007 she graduated from South Dakota State University with an M.S. in Ruminant Nutrition. From 2007 to 2012 she held a combined research (25%) and Extension (75%) appointment working with both livestock and forages for Oregon State University at the Klamath Basin Research and Extension Center in Klamath County Oregon.



Tell us about the goals of your research program.

1. To conduct beef cattle production research, evaluating relevant nutrition and management practices for cow-calf and feedlot beef production systems in a northern climate.
2. To distribute sound research-based information generated from research trials to enhance husbandry practices, production efficiencies and profitability of beef production systems across the state of North Dakota, the northern United States and the world.

More specifically, what is the primary focus of your current research?

1. Cow-Calf Research

- A multi-year, systems evaluation, comparing dry-lot with traditional pasture based cow-calf beef production.
- Evaluate a variety of grazed and harvested forages, crop residues and by-product feeds, produced in the region, to enhance nutritional management efficiencies of beef cows throughout the production year.

2. Feedlot Research

- Evaluate the effects of various feedstuffs and nutritional interactions between feedstuffs on animal performance, meat production and quality, and the environment to gain a better understanding, and enhance the production efficiency and safety of beef feedlot production in northern climates.
- Investigate management practices that improve animal well-being, production efficiencies, and mitigate environmental impacts in beef feedlot production systems.
- Annually conduct two producer cooperative projects, in which producers consign cattle in multiples of four head per operation. The projects provide valuable feedlot performance and carcass data feedback to the participating producers. This data assists them with benchmarking their current production system and with developing future management and marketing plans.

What are your long term objectives?

A long term research objective is to generate knowledge that enables all sectors of beef production in North Dakota, the upper Midwest and the world to be sustainable and expand, while positively contributing to meeting the growing global food demand.

How do you feel it will impact the region, nationally, globally?

The drylot and pasture based cow calf systems research is generating information and providing viable options for cattlemen/women to continue to produce beef cattle in a climate where available pasture land is diminishing, due to increased row crop production and seasonal drought conditions, locally and across the country. The feedlot research is generating knowledge that is providing multiple feedstuff and best management practice options for economically and efficiently producing meat based protein in northern climates. Annually, producers from North Dakota, across the United States, and multiple countries visit, call and email us to learn more about our feedlot and cow-calf research programs. They are implementing practices from this knowledge into their production systems.

When finished, what will your work mean? What will it mean to the state of ND?

Our research is scientifically sound, producer minded, boots on the ground production focused. We are increasing ration options and market share for grains, byproduct feeds, forage crops, produced in North Dakota, as well as the prudent utilization of crop residues. We are adding knowledge and value that allows North Dakota producers to effectively, economically and environmentally produce high quality beef in the state.

What excites you the most about your project?

I am excited about the bountiful feedstuff options in North Dakota and in learning how they can be best utilized to benefit the continued production of high quality cattle in the state. It is very satisfying to be able to share research results to educate beef producers locally, regionally and internationally.

What is the greatest reward after the completion of a project?

It is rewarding to see producers implement the knowledge generated by our research; putting the information to work in their production systems.

What is your advice for students who want to go into your field of study?

First, have a passion for beef cattle production. It doesn't matter if you grew up on a farm; you just have to be passionate and willing to learn. Seek out and find opportunities to grow in your experience and knowledge. Find a mentor, someone who you can learn from, and can give you good direction. Take as many science classes as you can in high school; find and enroll in a college that has a solid animal science program. While in college, in addition to your formal studies, seek out internships, organizations, and extra-curricular opportunities that will help you grow in your knowledge and experiences with livestock.

What are some of your hobbies/activities you like to do when you are not spending time on your research project?

In my spare time I am actively involved in my church community, I lead a weekly bible study, and I enjoy singing in the community choir. I also enjoy spending time outdoors with my Great Dane Bella and my family, fishing, photographing landscapes, and riding horse. I also love to cook, often adding my own spin to a dish.

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