

Experiential Learning in Animal Science

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Challenge within Animal Science

- Student demographics
 - Rural < Urban
 - Farm < Non-farm
 - Male < Female
 - Major shift in last 20 years
 - **NC State** > 85% female
- Livestock industry < Veterinary medicine
 - **NC State** < 15% students with interest in livestock
 - Less student background in livestock
 - Many career openings available with livestock
- Increasing enrollment
 - More students per laboratory
 - Lack of increasing resources at farms (livestock numbers)
 - Less livestock based laboratory experiences

Traditional Experiential Learning

- Types of traditional experiential learning opportunities

Experiential Learning	NC State CALS Graduates	NC State CALS Seniors
Research	36%	27%
Internships	54%	40%
Teaching assistance	18%	20%
Independent study		27%
Extension education		12%

- Perceived value of experiential learning opportunities
 - Helpful to securing jobs after graduation
 - Student growth

Creating new experiential learning opportunities in Animal Science

- External learning experiences associated with course credit
- 3 examples from NC State
 - Have You Herd- Ambassadors of Beef
 - Dairy Farm Experience
 - Techniques of Animal Care- Special Project
- Conducted student survey to measure value of the experiential learning



Experiential Learning- Have You Herd

- Beef Management
 - Junior and Senior level course
 - Semester long project
 - 4 components
 - Poster Development
 - Activity Page
 - Community Engagement
 - Article Writing
 - 30% of course grade
 - Each component reviewed and graded


Growth Promoting Implants in Beef Cattle

By Hanna Andrews and Lauren Lahnstein
NCSU Department of Animal Science-ANS 402 Beef Management

Growth Promoting Implants are small pellets that increases the circulating levels of already present naturally occurring hormones.

Releases low doses of hormones into the body that rarely affect the consumer....

Subscribe Now!



MYTHBUSTER:
Only 1% of growth promoting implants have estrogen, even then it's a small amount.

IMPLANTS EFFECT ON GROWTH PERFORMANCE

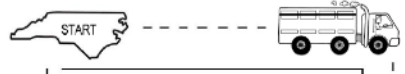
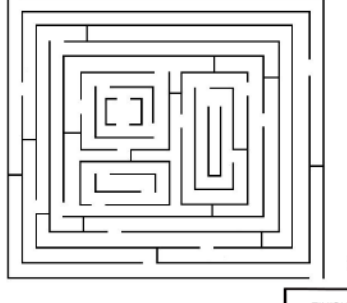
- Implants have a greater response in feedlot cattle, this is the calves final growing stage
- Feed efficiency is improved with estrogen/androgen implants. This allows for a healthy diet with maximum growth.
- These help the farmer reduces their overall expenditures to keep beef prices low for consumers

Growth Promoting Implants enhances muscle growth and allow for more tender muscle. It makes for good steaks and hamburgers.

"Implanting returns more revenue per dollar invested than any other management practice"

Beef Cattle Transportation

Because there are many different parts of the Beef Industry, sometimes Beef Cattle have to take long trips with their friends! Help Truck Driver Pete take his cattle from North Carolina to Kansas!

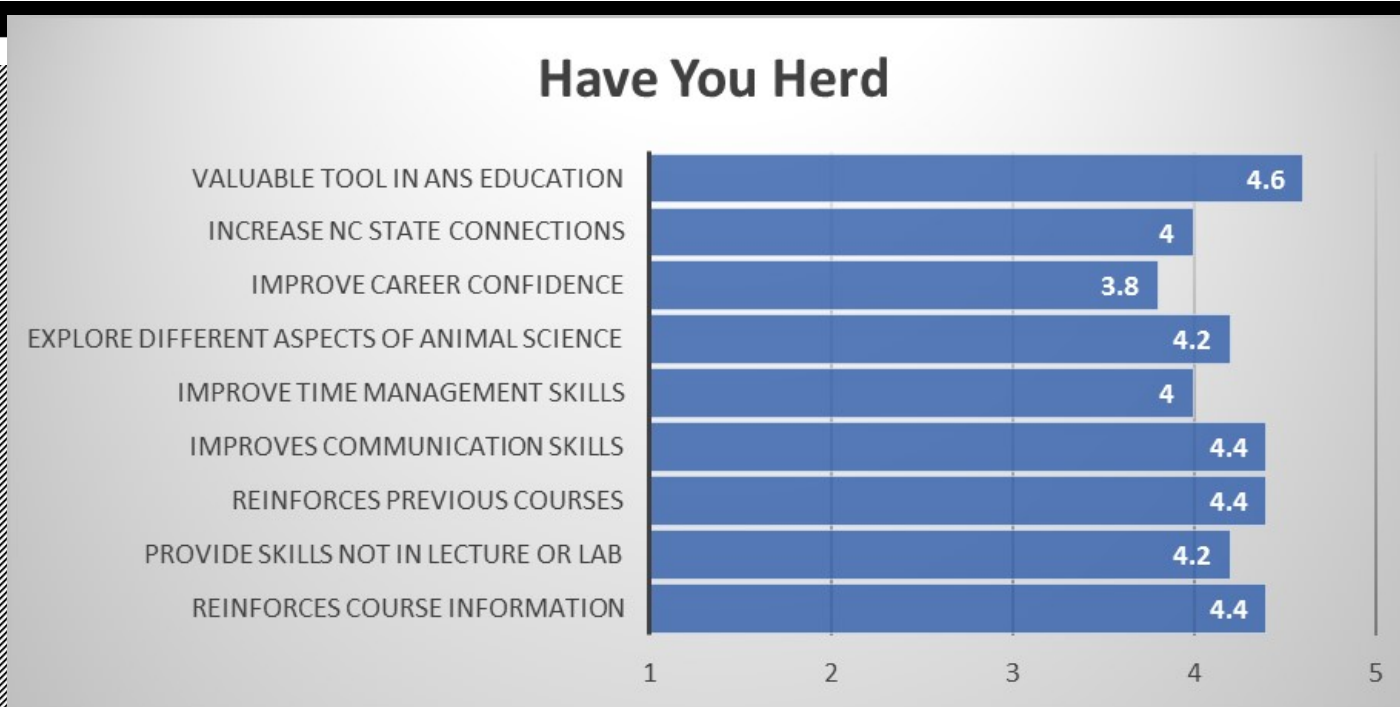



START

FINISH



Experiential Learning- Have You Herd



- “Talking with people at events after learning more about the subject was beneficial because I had to really think about some topics and some things made more sense because I could see how others thought differently.”

Experiential Learning- Dairy Experience

- Dairy Management
 - Junior and Senior level course
 - Semester long opportunity
 - 2 Components
 - Milking shift
 - Calf feeding shift
 - 8% of course grade
 - Each component graded by farm manager supervising shift



ANS 404 Dairy Experience Evaluation Report

Student Name: _____ Date: _____

Dairy Experience: (circle one) MILKING CALF FEEDING

The following must be completed and signed by your Dairy Experience Supervisor to receive a grade.

To be completed by the Dairy Workers/Supervisor(s)

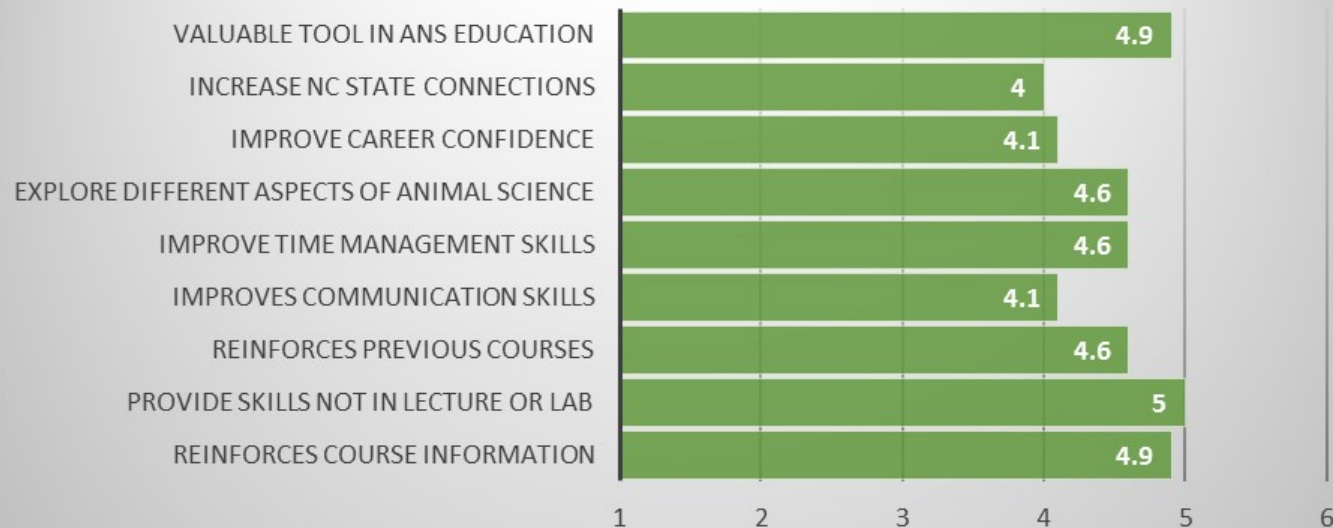
I would appreciate you would evaluate my students performance during their Dairy Experience for ANS 404 Dairy Cattle Management Laboratory. When the student completes the experience, please complete the following form and place it in the folder at the Dairy's main office.

Please Circle one of the following:

1. Punctuality	Good	Average	Fair	Poor
2. Willingness to learn	Good	Average	Fair	Poor
3. Dependability and initiative	Good	Average	Fair	Poor
4. Quality of work	Good	Average	Fair	Poor
5. Work speed/ Productivity	Good	Average	Fair	Poor
6. Technical competence	Good	Average	Fair	Poor
7. Overall Quality of Performance	Good	Average	Fair	Poor

Experiential Learning- Dairy Experience

Dairy Experience



- “There is a difference in learning about the day-to-day management, whether it is in lecture or even in lab, versus actually participating in these activities. I think getting up at 4:30am and driving out to the dairy unit to feed the calves or the milk the cows is something that gives every student a sense of what farmers and herdsman do on a daily basis. I think it is very important for all of us, especially the students that wish to go into a career in livestock, to experience and learn.”

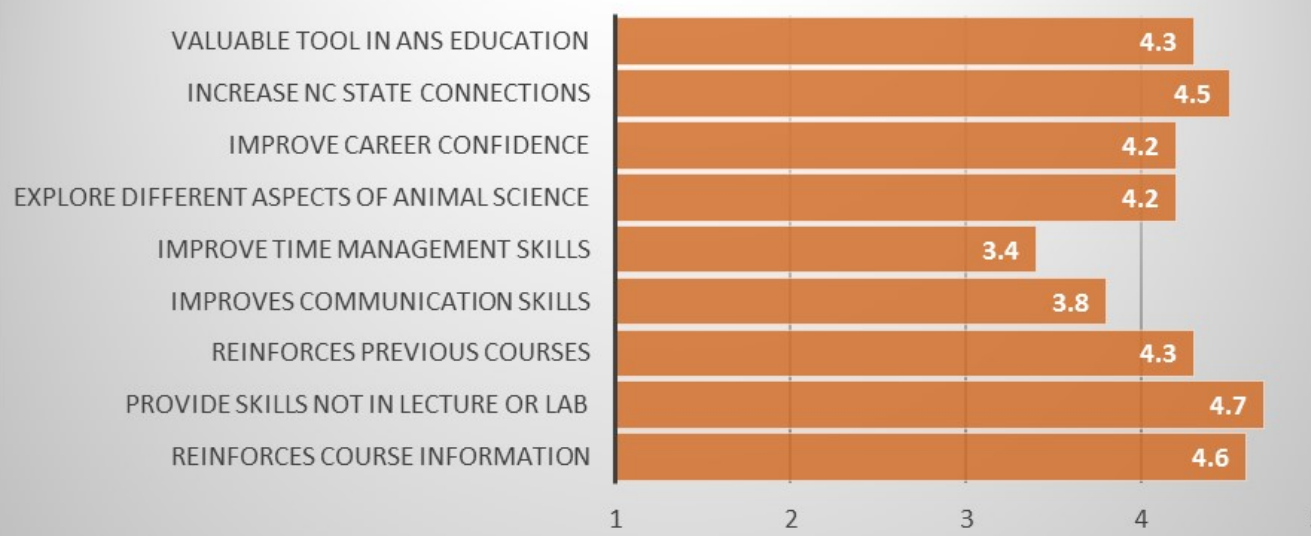
Experiential Learning- Farm Management

- Techniques of Animal Care
 - Open to AS and BS students
 - Requirements
 - 8 hours of volunteer service at a livestock educational unit
 - Beef, Dairy, Swine, Small Ruminant
 - Any combination of locations
 - 1 % of course grade
 - Farm unit supervisors must sign off on service hours



Experiential Learning- Farm Management

Techniques Special Project



- “What I enjoyed about this project was that it allowed us to work at any of the units, which sometimes with species specific classes you don’t get the freedom in doing. It also helped me get to know the unit managers better than I would have previously because we had to communicate with them to be able to set up times to volunteer.”

Experiential Learning- Farm Assistance

- NC State Teaching Educational Units
 - Beef Cattle, Dairy, Small Ruminant, Swine, and Equine
 - Key resources for laboratories for courses as well as research programs
 - Opportunities to learn the day-to-day management of the operation
 - “life of the farmer”
 - More than just another 2 hour laboratory experience
 - Paid and volunteer positions

Experiential Learning- Farm Assistance



Experiential Learning- Summer Camp Counselors

- NC State Animal Science Summer Camps
 - VetCAMP
 - 5+ years running
 - Non-residential day camp
 - 2, 1-week long sessions



- Livestock Science Camp
 - 1st year
 - Residential camp
 - 1 week long



Experiential Learning in Animal Science

- There is **demand** for graduates from Animal Science with skills, knowledge, and interest in working with **livestock**
- Majority of students entering Animal Science **lack these qualifications** at the start of their program
- Goal to **inspire and educate** student to seek careers related to livestock through experiential learning
- **Create new experiential learning opportunities**

Thank you, Questions?



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