Increasing Student Comfortability in a Livestock Handling, Safety, and Welfare Course

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Background Information

- **Undergraduate students have limited livestock handling experience when they start college**
  - **Experienced students may not be competent in multiple species**
  - **Urban students may lack experience with all food animals**

Incoming Animal Science Students, Fall 2017 (N = 330)

Rural/Farm
40.4%

Small Town (<100,000)
38.6%

Urban (>100,000)
21.0%

Background Information

**Companion Animals
38%**

**Beef Cattle
17%**

**Equine
14%**

**Exotic (Zoo) Animals
10%**

**Swine
9%**

**Dairy Cattle
7%**

**Other
5%**

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New Course Development

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Animal Science 190X (2 credits)
Animal Handling, Safety, and Well-Being

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- Course Objectives:

  The aim of this course is to understand the importance of the farm animal-human interaction and to demonstrate basic handling skills

  ➢ Upon completion of this course, students should be able to:
  - Exhibit an understanding of farm animal perceptions
  - Demonstrate factual, scientific, and theoretical knowledge of farm animal-human interactions
  - Safely handle and move healthy farm animals
  - Demonstrate proper techniques and methods when handling sick and injured farm animals

ANS 190X Course Design

Lecture
One 2-hour session (weekly)
- Biosecurity
- Species Perception
- Species 101
- Transportation
- Compromised Animals

Handling Laboratory
One 3-hour session (weekly)
- Beef Cattle
- Swine
- Dairy Cattle
- Sheep
- Poultry
- Equine

Data Collection

Pre-Course Measures

Demographics and Pre-Course Survey

➤ Student background
➤ Experience/Comfort Level

Pre-Course Exam

➤ 50 multiple choice questions
➤ Basic specie and handling information

Pre-Course Laboratory Practical

➤ Assessing basic animal handling techniques

Post-Course Measures

Post-Course Survey

➤ Experience/Comfort Level
➤ Feelings about the course

Post-Course Exam

➤ 50 multiple choice questions
➤ Basic specie and handling information

Post-Course Laboratory Practical

➤ Assessing basic animal handling techniques

Overall Course Grade

Student Demographics
Data Collected During Pre-Course Survey (N=132)

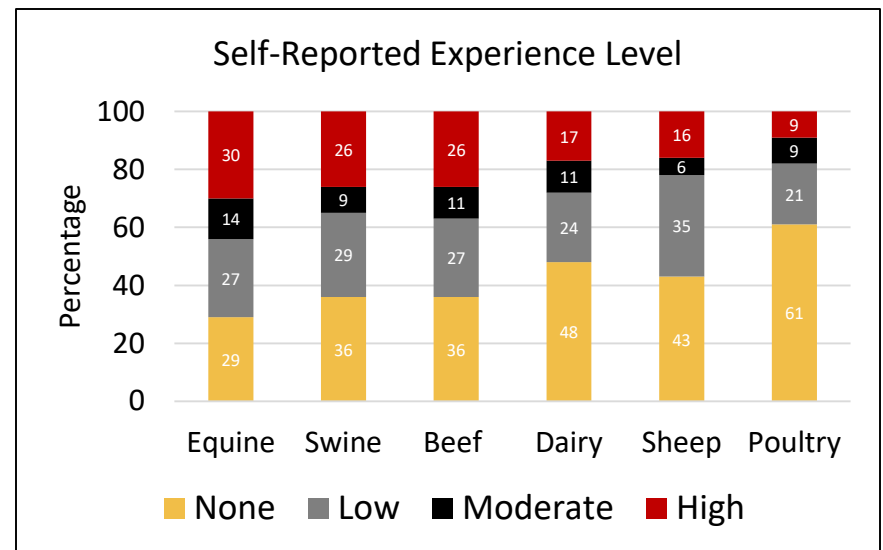| Students enrolled in ANS 190: Fall 2015 – Spring 2017		
Gender		
Males	30	23%
Females	102	77%
Entry Type		
Direct from High School	104	80%
Transfer Students	26	20%
Student-Reported Background		
Farm (Livestock or Crop)	50	38%
Small Town (<100,000)	37	28%
Urban (>100,000)	34	26%
Other	11	8%
Residency		
Iowa resident	89	67%
Out-of-state	43	33%
Agriculture Involvement		
4H or FFA (Yes)	73	55%
High School Livestock Judging (Yes)	33	25%
Collegiate Judging (Yes)	7	5%

Student Feedback
Data Collected During Pre-Course Survey (N=132)

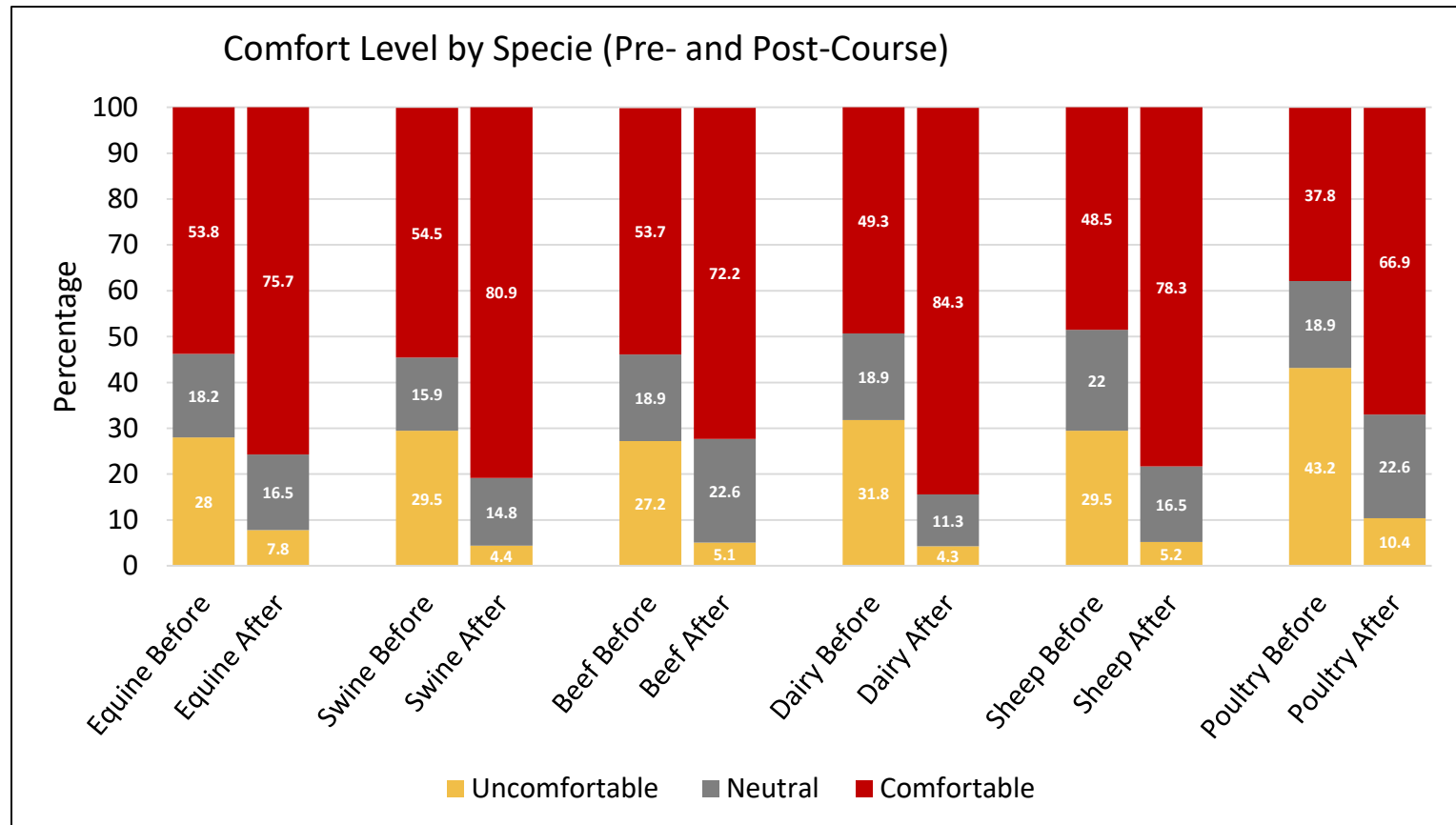Have you handled the following species (more than just merely touching or petting)?

Species	Yes	No
Equine	68%	32%
Swine	57%	43%
Beef Cattle	48%	52%
Dairy Cattle	27%	73%
Sheep	43%	57%
Poultry	30%	70%

How experienced do you feel handling each species of livestock (putting on halter, leading the animal, etc.)?
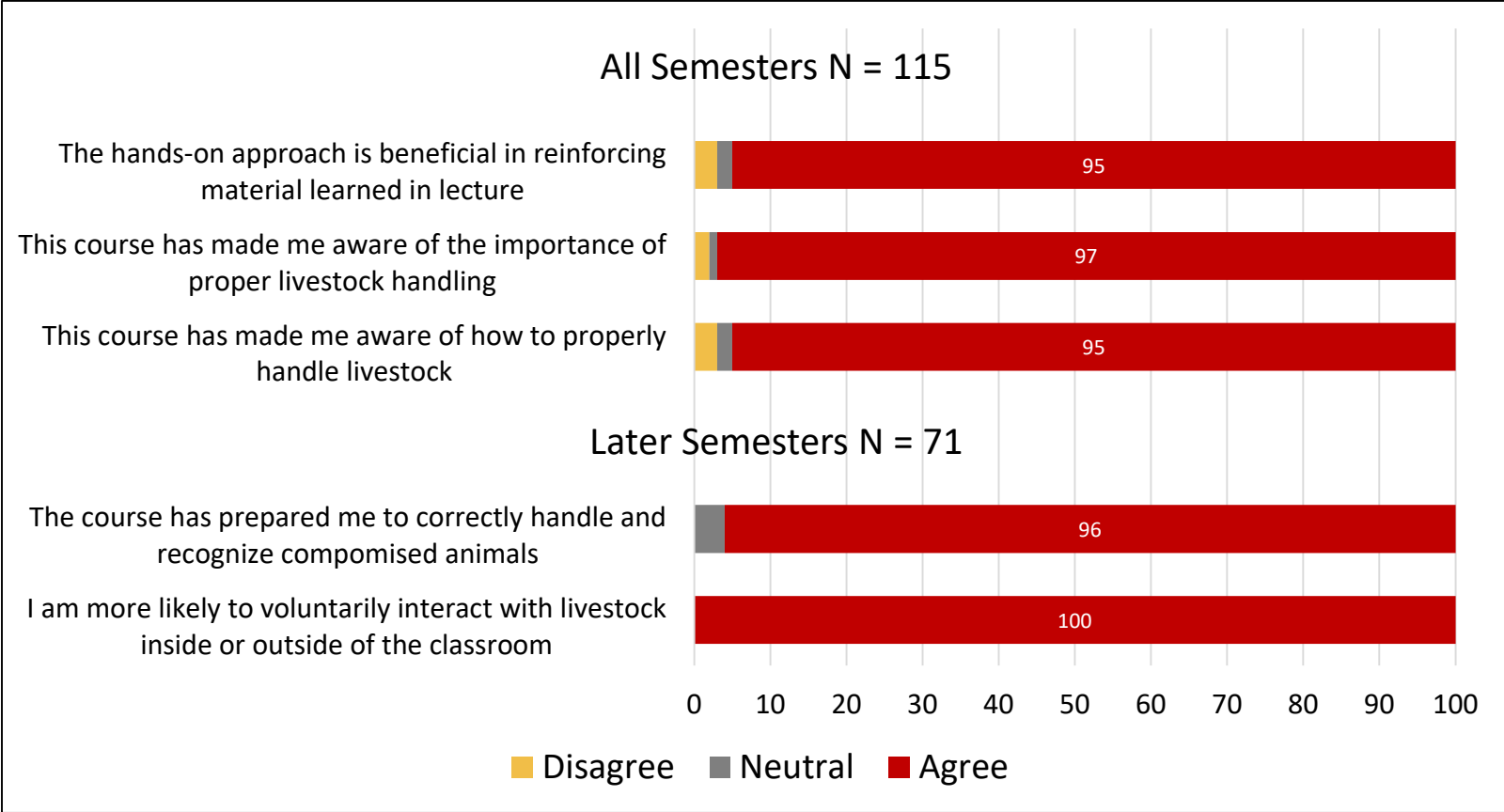

Self-Reported Experience Level

Species	None	Low	Moderate	High
Equine	29	27	14	30
Swine	36	29	9	26
Beef	36	27	11	26
Dairy	48	24	11	17
Sheep	43	35	6	16
Poultry	61	21	9	9

Student Feedback

Data Collected During Pre-Course Survey (N = 132) and During Post Course Survey (N = 115)

Comfort Level by Specie (Pre- and Post-Course)

Student Feedback
Data Collected During Post Course Survey (N = 115 and N = 71)

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Conclusions

- ANS 190 was effective at increasing comfortability of all livestock species
  - Largest improvement in dairy cattle (35% increase)
  - Roughly 33% of students are still not comfortable with poultry

- Students are more likely to recognize compromised animals
- Students are more likely to interact with livestock in an internship setting

- ANS 190X is successful at achieving the course objectives

Implications

- Should ANS 190X be a required course for incoming students?

  - Do we have the resources to support ANS 190X as a required course?

  - Could students test-out of ANS 190X?

Further Research

- Quantitative analysis to determine success factors (in progress)

- Follow-up survey to determine if ANS 190X played a role in choices made by the student (internships, career path, etc.)

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Thank you!

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