

## **COURSE OUTLINE** **Livestock Selection II**

### **Course Description**

AG 134. Livestock Selection II. 3 hours credit. Prerequisite: AG 133 Livestock Selection I. The course will give the student an increased understanding of the evaluation of livestock including visual appraisal, grading, classification, market types, breeding and selection of livestock. The student will gain additional knowledge in the areas of performance record keeping, EPD's and livestock mating decisions.

### **Course Relevance**

This course will open the eyes of students wishing to prepare themselves for a future in livestock production. It will study, in-depth, the understanding of visual evaluation, production records and selection techniques based on operational goals.

### **Required Materials**

AG 134 Livestock Selection II. No Text Required

### **Learning Outcomes**

The intention is for the student to be able to

1. Evaluate livestock on various phenotypic traits
2. Understand performance records
3. Communicate an understanding of Expected Progeny Differences
4. Understand commercial and purebred selection decisions

### **Primary Learning PACT Skills that will be DEVELOPED and/or documented in this course**

Through the student's involvement in this course, he/she will develop his/her ability in the following primary PACT skill areas:

1. Critical Thinking
  - The student will develop critical thinking skills through assignments, exams and in class activities.
2. Problem Solving
  - The student will develop the knowledge to make selection decisions on given a variety of different goals and criteria.

Secondary skills (developed but not documented):

Teamwork  
Self-Concept  
Ethical Conduct  
Speaking  
Writing

Reading  
Listening  
Coping with Change

### **Major Summative Assessment Task(s)**

These learning outcomes and the primary Learning PACT skills will be demonstrated by

1. Completion of a writing assignment related to a specific livestock selection decision. (critical thinking)
2. Completion of several exams, quizzes and in-class assignments related to USDA grading systems and understanding of proper visual selection techniques. (problem solving)

### **Course Content**

- I. Themes – Key recurring concepts that run throughout this course:
  - A. Breeds of livestock
  - B. Performance records
  - C. Expected progeny differences
  - D. Production records
- II. Issues – Key areas of conflict that must be understood in order to achieve the intended outcome:
  - A. Breed association record keeping
  - B. Visual appraisal
  - C. Actual performance records
  - D. Progeny predictors
- III. Concepts – Key concepts that must be understood to address the issues:
  - A. Heterosis and its value to production
  - B. Commercial versus purebred mating systems
  - C. Basic animal anatomy
  - D. Terminology related visual evaluation and mating decisions
- IV. Skills/Competencies – Actions that are essential to achieve the course outcomes:
  - A. Problem solving
  - B. Reading
  - C. Writing
  - D. Critical thinking
  - E. Application of concepts

### **Learning Units**

- I. Mating systems
  - A. Commercial systems
  - B. Purebred systems
  - C. Breeding-up programs
- II. Actual performance records
  - A. Beef cattle
  - B. Swine
  - C. Sheep

- III. Progeny predictions
  - A. Expected progeny differences
    - 1. Beef
    - 2. Sheep
    - 3. Swine

- IV. Visual evaluation
  - A. Breeding livestock
  - B. Market animals

### **Learning Activities**

Lecture, instructor-led class discussions, group study, field trips, outdoor live animal evaluation.

### **Grade Determination**

The student will be graded on completion of exams, quizzes, homework and in-class assignments, class participation, and other methods of evaluation at the discretion of the instructor.