

COURSE OUTLINE

Beef Management

Course Description

AG 221. Beef Management. 3 hours credit. This course will enable student to apply principles of breeding and reproduction, raising, feeding (nutrition), finishing and merchandising desirable beef cattle for market consumption. The student will explore career opportunities in beef production and related agri-business, cattle management including nutrition, breeding, reproduction and merchandising.

Course Relevance

The management, science, and concepts learned in this course will impact student knowledge base needed the production of healthy, nutritious, and safe beef for the consuming public at a profit.

Required Materials

Ensminger, M. E., Perry, R. C., (1997). *Beef cattle science*. (7th ed.). Danville, IL: Interstate Publishers, Inc.

Learning Outcomes

The intention is for the student to be able to

1. Produce quality beef that the consumer desires through production and management
2. Recognize diseases and nutritional deficiencies, that would interfere with producing a quality product in the production of cattle
3. Pursue career opportunities in beef production and related agri-businesses

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
 - Through the analysis of various beef management systems the student will make well founded decisions regarding production, management, and processing.
2. Problem Solving
 - Through the understanding of concepts in beef management, the student will solve problems related to beef management, genetics, selection, management and marketing.
3. Field-Related Technology
 - Through laboratory learning experiences, identify beef cattle that produce the kind of beef the consumer desires and market safe human food sources.

Secondary skills (developed but not documented):

Time Management
Reading

Major Summative Assessment Task(s)

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

1. Completing a case study that indicates awareness of the industry's latest management systems, technologies, and career opportunities
2. Making a verbal presentation of beef cattle management
3. Collecting and utilizing beef management guides for beef enterprises

Course Content

- I. Themes – Key recurring concepts that run throughout this course:
 - A. Background information related to beef management, production, and practices.
 - B. Beef cattle growth and reproduction
 - C. Nutrition and range management
 - D. Safe, desirable food production
- II. Issues – Key areas of conflict that must be understood in order to achieve the intended outcome:
 - A. Resources relative to beef production
 - B. Management adjustments to new technologies
 - C. Food safety in genetic variations
- III. Concepts – Key concepts that must be understood to address the issues:
 - A. Beef management systems of production
 - B. Nutrition and disease management
 - C. Behavior and environment in beef management
- IV. Skills/Competencies – Actions that are essential to achieve the course outcomes:
 - A. Analyze new management techniques
 - B. Apply concepts and new management techniques.

Learning Units

- I. Beef management systems of production
 - A. Explain relationships between management enterprises and production
 - B. Discuss origin and domestication of cattle
 - C. Explain differences in breeds of beef cattle
 - D. Explain differences in systems of beef production
 - E. Describe methods of beef cattle improvement
 - F. Discuss recent developments in beef management
- II. Nutrition and disease management
 - A. Explain feeding systems and feed preparation
 - B. Outline a health program and time schedule for treatments
 - C. Explain impact of proper nutrition on animal health
 - D. Demonstrate techniques used in preventing dystocia
 - E. Describe methods of feed management
 - F. State the formula for calculating cattle nutritional requirements

III. Behavior and environment in beef management

- A. Discuss beef cattle behavior in terms of management systems
- B. Identify types of environment best for beef production
- C. Assemble a proper beef cattle handling blueprint
- D. Plan approved methods for disposal of dead animals

Learning Activities

Learning activities will include lecture/demonstrations and practical exercises. Classroom lecture is designed to enable the student to understand the key principles in beef management.

Grade Determination

The student will be graded on assessment tasks, and written examinations.