



# Agricultural Economics Courses for Farm and Ranch Management

Center for Grassland Studies Fall Seminar Series

November 26, 2018



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Department of Agricultural Economics

# Grazing Livestock Systems

- Degree program coordinated and administered by the Center for Grassland Studies
- Combines coursework and faculty advising from the
  - Department of Agricultural Economics
  - Department of Agronomy & Horticulture
  - Department of Animal Science

# Grazing Livestock Systems

- Targeted Career Opportunities for GLS Graduates
  - Ranch Management
  - Government Agencies
  - Range Management Specialist
  - Land Stewardship/Natural Resources
  - Extension Educator
  - Financial Specialist/Loan Officer

# Agricultural Economics Core

- GLS students are required to take

AECN 141

*Introduction to the Economics of Agriculture*

Introductory course on the basic principles of agricultural economics. Production economics, principles of supply and demand, resource economics, world food situation, marketing of agricultural products, and agricultural public policy.

Not recommended for students who have math entrance deficiencies

# Agricultural Economics Core

## AECN 201

### Farm and Ranch Management

Various economic principles and business management concepts which are involved in the decision-making process when organizing and operating a farming/ranching operation. Includes production economics, record keeping systems, financial budgets and analysis, crop and livestock enterprise analysis, leasing arrangements, depreciation, farm business organizations, farm investment analysis, pasture/rangeland management, and production efficiency indicators.

## AECN 235

### Introduction to Commodity Marketing

This course focuses on the foundations of commodity markets. It discusses how markets were created, how commodities are traded from producers to final consumers, the role of transportation and storage, among other topics. It provides a broad and detailed discussion of economic theories behind markets, how they work in practice, and the current state of these markets in the world.

## AECN 141

### Introduction to the Economics of Agriculture

# Agricultural Economics Electives

6 credit hours required

- AECN 256 Legal Aspects in Ag
- AECN 265 Resource and Environmental Economics I
- AECN 301 Farm Acct, Analysis, & Tax management
- AECN 325 Marketing of Agricultural Commodities
- AECN 345 Policy Issues in Agriculture and Natural Resources
- AECN 357 Natural Resource and Environmental Law
- AECN 401 Advanced Farm Management and Linear Programming
- AECN 435 Advanced Agricultural Marketing Management
- AECN 445 Agricultural and Natural Resource Policy Analysis
- AECN 452 Ag Finance
- AECN 453 Agricultural and Rural Property Appraisal
- AECN 465 Resource and Environmental Economics II

# Agricultural Economics Electives

At least one course from two of the three blocks

## BLOCK 1: Farm Management and Marketing

- AECN 301 Farm Acct, Analysis, & Tax management
- AECN 325 Marketing of Agricultural Commodities
- AECN 401 Advanced Farm Management and Linear Programming
- AECN 435 Advanced Agricultural Marketing Management

## BLOCK 2: Agricultural Financial Analysis

- AECN 301 Farm Acct, Analysis, & Tax management
- AECN 452 Ag Finance
- AECN 453 Agricultural and Rural Property Appraisal

# Agricultural Economics Electives

At least one course from two of the three blocks

## BLOCK 3: Natural Resources, Policy, & Legal Environment

- AECN 256 Legal Aspects in Ag
- AECN 265 Resource and Environmental Economics I
- AECN 345 Policy Issues in Agriculture and Natural Resources
- AECN 357 Natural Resource and Environmental Law
- AECN 445 Agricultural and Natural Resource Policy Analysis
- AECN 465 Resource and Environmental Economics II



# AECN 301

## Farm Accounting, Analysis, and Tax Management

Business record systems for farming and ranching. Financial statements; income tax and decision making; farm business and enterprise analysis.

(AECN 201 recommended prereq)

Financial Specialist  
Loan Officer

Ranch management is  
business management

## AECN 141

Introduction to the Economics of Agriculture

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At least one course from two of the three blocks

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- AECN 453 Agricultural and Rural Property Appraisal

# AECN 325

## Marketing of Agricultural Commodities

Operation and use of agricultural commodity markets and institutions as applied to enterprise and firm risk management. Cash; futures and futures option markets; basis; hedging; price discovery; fundamental analysis; and risk management strategies.

## AECN 235

Introduction to Commodity Marketing

## AECN 141

Introduction to the Economics of Agriculture

# AECN 435

## Advanced Agricultural Marketing Management

Marketing: farm, ranch, and agribusiness firm management. Risk management strategies using combinations of derivatives and insurance products. Advanced trading and merchandising strategies using fundamental and technical analysis.

## AECN 325

Marketing of Agricultural Commodities

## AECN 235

Introduction to Commodity Marketing

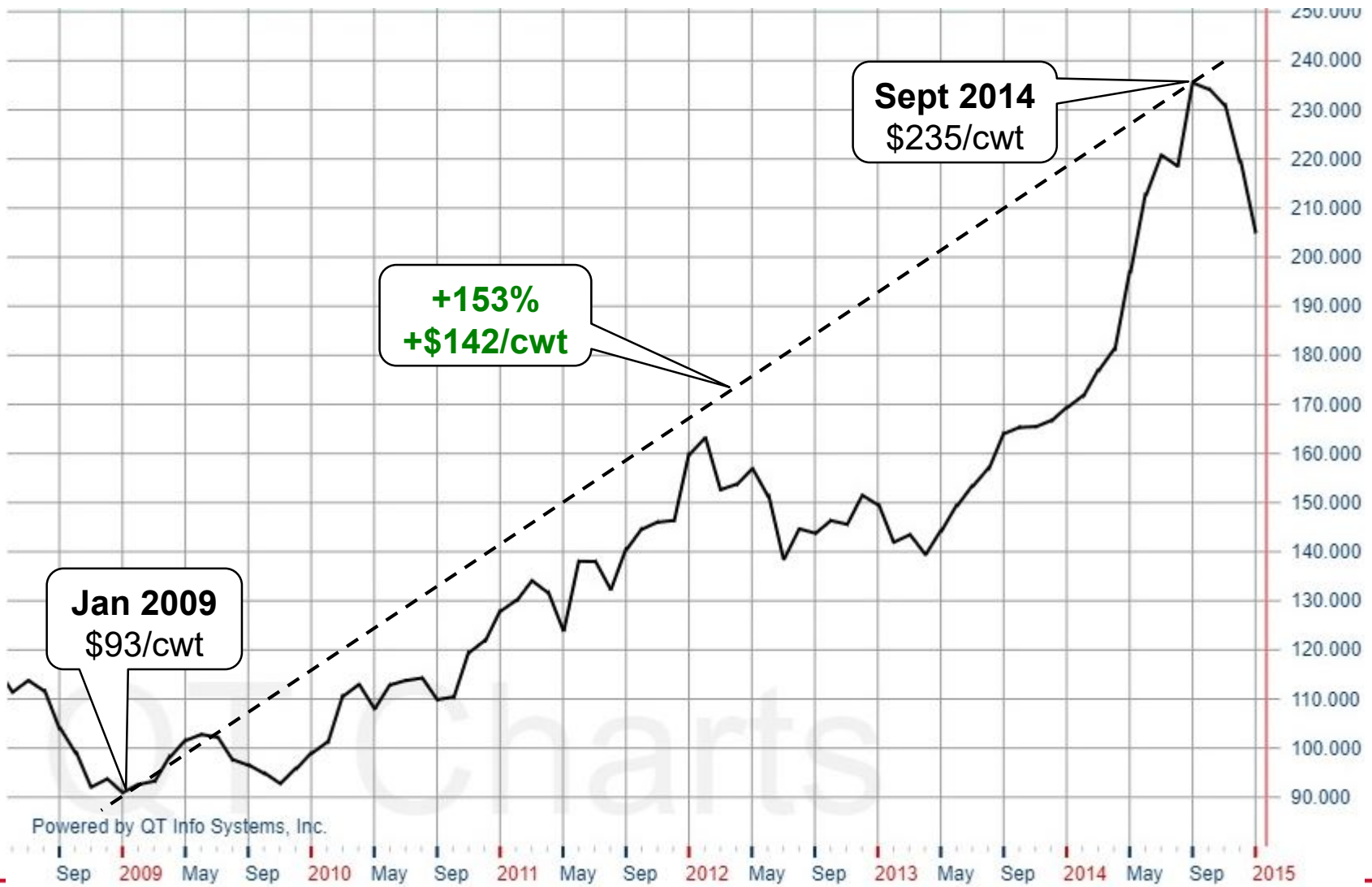
## AECN 141

Introduction to the Economics of Agriculture

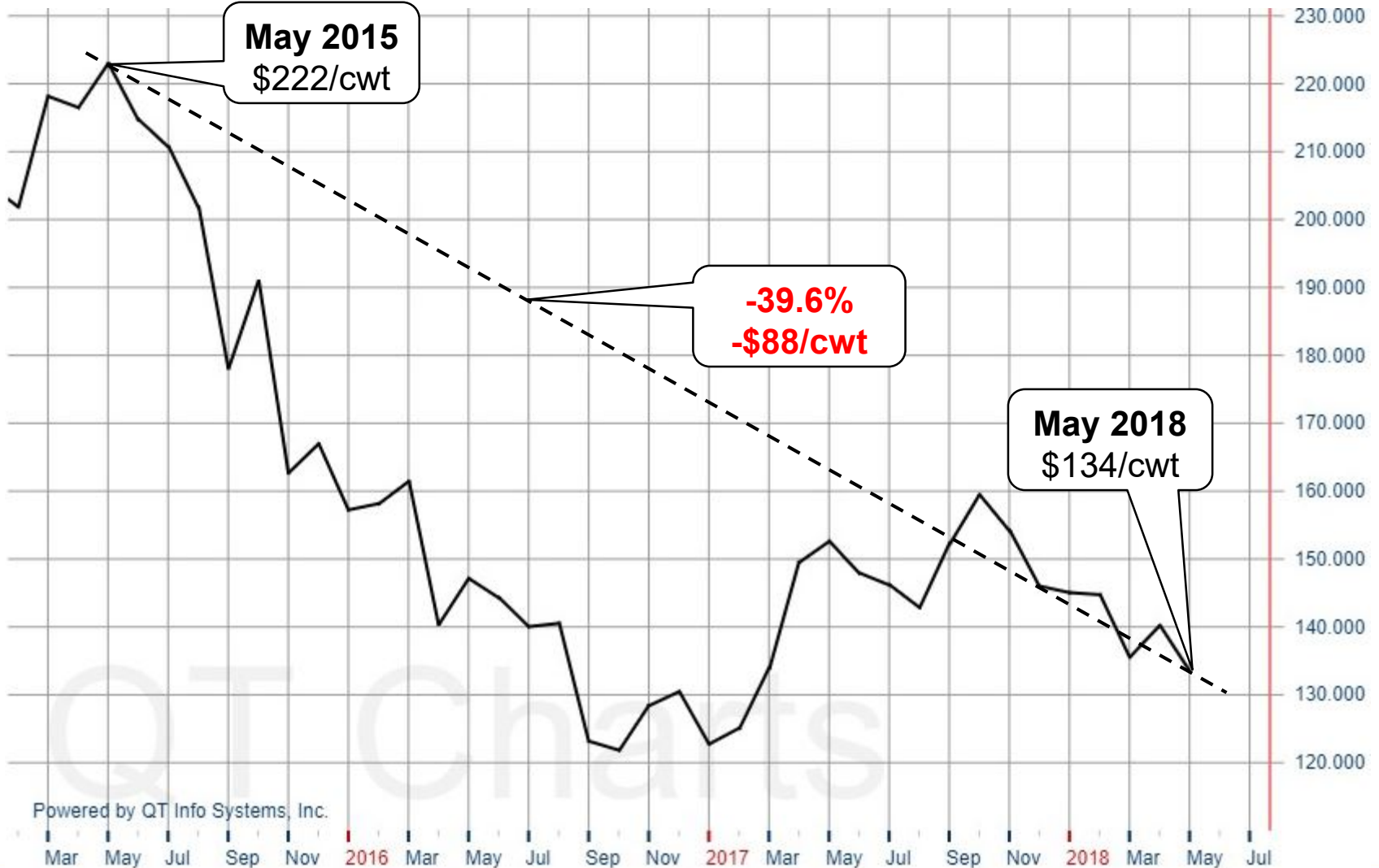
# Marketing Review

- Agricultural producers are typically commodity producers or “price takers”
  - there are many producers around the world producing the same product (beef, corn, etc.)
  - no individual producer control the market supply
  - no individual producer can determine or influence the overall market price of the commodity
- Therefore, commodity producers are “exposed” to the ups and downs of commodity prices in the local, national, and world markets

# Feeder Cattle Futures Market



# Feeder Cattle Futures Market



# What Lies Ahead

- Forecasting commodity prices is not getting any easier
- There are currently many uncertainties in commodity markets
  - new players
  - changing market structures
  - changing price dynamics



# What Lies Ahead

- Agricultural producers will continue to be exposed to ups and downs in the market prices they receive
  - Understanding how prices are determined and how they change over time becomes essential for successful marketing
  - Successful marketing involves using marketing tools to
    - smooth out that variability
    - consistently sell above production costs

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# AECN 401

## Advanced Farm Management and Linear Programming

The role of budgeting and linear programming in analyzing farm organization problems, theory of linear programming, linear program design, and analysis of linear programmed solutions to farm organization problems. Includes goal programming, multiple objective programming, risk programming, and financial modeling.

## AECN 201

Farm and Ranch Management

## AECN 141

Introduction to the Economics of Agriculture

# AECN 401 Objectives

- Recognize the importance of a balanced portfolio of management principles, production skills, and personal aptitudes in successful farm and ranch management.
- Construct and use crop and livestock enterprise budgets for forward planning.
- Use time value of money concepts in investment decisions.
- Make better decisions in the presence of risk and uncertainty.
- Understand and use modeling techniques (e.g. linear programming) for decision making.
- Utilize Excel for analysis of the farm operation.
- Use and interpret results of computer software in farm planning and decision making.

# The Farm/Ranch Manager

- Management – The process or art of making business decisions which have the effect of “maximizing” the probability of achieving business goals.

# Why Bother Making Decisions?

- Decisions are hard, especially when you have lots of choices and uncertainty.



# Why Bother Making Decisions?

- Decisions are the only way you can purposefully influence your life.
- Making decisions is your opportunity to earn a competitive advantage.
- Decisions are opportunities to make choices that help you accomplish your goals and objectives.

# What Lies Ahead

- Decisions will continue to be difficult for agricultural producers to make
  - Lots of risk and uncertainty
  - Multiple objectives involved
- A proactive understanding of decision making becomes essential to success
  - Recognizing opportunities
  - Gathering and analyzing information



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# AECN 452

## Agricultural Finance

Principles and concepts of financial management of farm and agribusiness firms developed. Various strategies for acquiring and using capital resources by the individual firm explored. Institutions providing the sources of agricultural credit are individually studied.



## AECN 201

Farm and Ranch Management



## AECN 141

Introduction to the Economics of Agriculture

# AECN 453

## Agricultural and Rural Property Appraisal

Valuation of agricultural and rural real estate traced from the underlying theory of value through full development of principles, practices, and factors used by the appraisal profession to estimate value. The income approach, the market data approach, and the cost approach to value developed in detail. Appraisal procedure analyzed for such special purposes as farm loans, tax assessment, and condemnation.

AECN 201 and AGRO 153 recommended prerequisites

## AECN 141

Introduction to the Economics of Agriculture

# Agricultural Economics Electives

At least one course from two of the three blocks

## BLOCK 3: Natural Resources, Policy, & Legal Environment

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- AECN 465 Resource and Environmental Economics II

# AECN 256

## Legal Aspects in Agriculture

Legal aspects of agriculture: taxation, contracts, property rights, buying and selling real estate, condemnation, land use regulations, leases, co-ownership, partnerships, corporations, commercial transactions, credit, liability, insurance, estate planning, water law, and agricultural regulations. A practical exposure to the legal institutions of Nebraska.

Sophomore Standing

# Why Study Ag Law?

- There is a lot of basic business law that you need to know as a farmer/rancher.
- Some laws can cost you money if you don't know them.
- A lot of laws are counter-intuitive.
- The political dimension of how law is created is important to understand.

# Ag Law, Farmers & Politics

- A lot of law, policy is farmer friendly
- Consumer interests often conflict with agricultural producer interests
  - Animal welfare, antibiotics in feed, etc.
- The farmer friendly era may be ending
- If you don't like how a law works, you have to get politically active to change it

# AECN 345

## Policy Issues in Agriculture and Natural Resources

History, development, programs, and analysis of public policy issues in agriculture and natural resources. Analysis of science, economic, and political factors involved in policy development. Farm policy and farm structure, food and nutrition, trade and development, natural resources, the environment, and bioenergy, with special attention to issues and policies impacting Nebraska.

## AECN 141

Introduction to the Economics of Agriculture



# AECN 345

## Policy Issues in Agriculture and Natural Resources

Introduces students to ag policy process and issues such as farm bill programs, trade, food policy, and conservation policy that affect the operating risks farmers and ranchers face and the tools they have to address them.

## AECN 141

Introduction to the Economics of Agriculture

# What Lies Ahead

- Public policies and laws will continue to have a large impact on agriculture
- Staying informed and proactively involved becomes essential for farm and ranch management success

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- AECN 465 Resource and Environmental Economics II

# AECN 265

## Resource and Environmental Economics I

Introduction to resource economics and the role of such concepts in natural resource management. The interface of economics and ecology in the context of both private and public decision making. Application of economic principles to actual natural resource/environmental issues.

ECON 211 has been removed as a prereq

Government Agencies  
Range Management Specialist  
Land Stewardship/Natural Resources

## AECN 141

Introduction to the Economics of Agriculture

# Summary Comments

- Grazing Livestock Systems is an integrated multi-disciplinary degree.
- Real world decision making skills form the foundation of curriculum outcome.
- Elective agricultural economics courses in marketing, farm management, law, finance, policy, and resource economics can add important skills to that foundation
  - First tier priority: AECN 301
  - Tier 1A: 401, 325, 425, 452, 453, 256, 345, 265



# Questions?



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