

Farm & Agribusiness Management



CDE Handbook

FARM AND AGRIBUSINESS MANAGEMENT

1. Purpose

The Farm and Agribusiness Management CDE provide competition that fosters information assimilation, critical thinking and problem-solving skills necessary for successful business management. The skills learned in this event can be used to successfully manage a farm, agribusiness, pursue agricultural business careers and can be applied to personal financial management.

2. Objectives

The Farm and Agribusiness Management CDE is for participants to demonstrate their ability to:

- a. Analyze business management information.
- b. Apply economic principles and concepts of business management to the decision-making process.
- c. Evaluate business management decisions.

3. Rules

- a. Each chapter may enter a team of three to five individuals with the three highest scores tallied for the team score.
- b. Team members will work as individuals for all parts of the CDE.
- c. Non-programmable, silent calculators can be used and must be furnished by participant.
- d. Universal E Scranton will be used for all parts of the CDE.
- e. Participants should bring #2 pencils.

4. Format

The Farm and Agribusiness Management Event will consist of two parts

Part 1 - A Written Test

- a. The written test is designed to test team members' understanding of the application of economic principles in farm management. Human resources questions will be added (not more than 5) and questions pertaining to the current happenings in the state of ND (3-5 questions).
- b. Multiple choice questions, some related to problematic situations, form the basis for testing this understanding.
- c. Team members work as individuals and each will complete the written test.
- d. There will be 50 multiple choice questions with 60 minutes allowed for completion of this section.
- e. One hundred points allowed for this section with each question worth two points.
- f. The resource for this part will be the John Deere "Farm and Ranch Business Management" text-2014 edition.

Part 2 - Problem Solving Analysis

1. The problem-solving analysis portion is designed to determine the team members' ability to use decision-making and problem-analysis skills while applying the economic principles and concepts taught in farm business management.
2. Multiple-choice questions will also be used for this section.
3. Team members work as individuals and complete all problems assigned.

4. There will be a total of 50 multiple choice questions.
5. One hundred twenty minutes (2 hours) is allowed for completion of this section of the contest.
6. Two hundred points allowed for this section. (4 points per question)
7. An information packet will be presented to each participant for use during the event. The information packet may include any of the financial background information needed to solve the problem.
8. Problems to be used may include:
 - A. Balance Sheet
 - B. Income Statement
 - C. Cash Flow Projection
 - D. Enterprise Budget Analysis
 - E. Marketing Situation
 - F. Family Living Analysis
 - G. Income Tax Management
 - H. Investment Analysis
 - I. Analysis of the Farm Business

5. Resources

- a. John Deere "Farm and Ranch Business Management" 2014 edition.
- b. Current North Dakota Farm Management "State Averages" booklets.
- c. Past three (3) years State Farm Management tests.
- d. Past two (2) years National Farm Management Contest tests.
- e. Past Years' Farmer's Tax Guide (IRS)
- f. Past Years' USDA Farm Program Guide (FSA)

6. Scoring

| Activity | Individual | Team |
|-----------------------------|-------------------|-------------|
| Written Test | 100 | 300 |
| Problem Solving | 200 | 600 |
| Total Maximum points | 300 | 900 |

7. Awards

a. Individual

1. Individual scores will be tabulated and broken into gold, silver, and bronze award areas.
2. Individual ties will not be broken.
3. The high individual receives the "baby bison" trophy and a \$100 stipend is awarded by the ND FFA Foundation.

b. Team

1. Team scores will be tabulated by adding the top three individual team member scores. They will be broken into gold, silver, and bronze.
2. The high team will receive possession of the traveling trophy, a travel stipend from the ND FFA Foundation and be eligible to represent North Dakota in the National Career Development Event.
3. Tie breaking will be decided by using the problem-solving questions listed above as tie breakers (in ascending order).

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This sheet is for demonstration and practice only. You must use a real scan sheet for actual competition.

| Exam D | | | | | | | | | | | |
|--------|---|---|---|---|---|----|---|---|---|---|---|
| 1 | A | B | C | D | E | 26 | A | B | C | D | E |
| 2 | A | B | C | D | E | 27 | A | B | C | D | E |
| 3 | A | B | C | D | E | 28 | A | B | C | D | E |
| 4 | A | B | C | D | E | 29 | A | B | C | D | E |
| 5 | A | B | C | D | E | 30 | A | B | C | D | E |
| 6 | A | B | C | D | E | 31 | A | B | C | D | E |
| 7 | A | B | C | D | E | 32 | A | B | C | D | E |
| 8 | A | B | C | D | E | 33 | A | B | C | D | E |
| 9 | A | B | C | D | E | 34 | A | B | C | D | E |
| 10 | A | B | C | D | E | 35 | A | B | C | D | E |
| 11 | A | B | C | D | E | 36 | A | B | C | D | E |
| 12 | A | B | C | D | E | 37 | A | B | C | D | E |
| 13 | A | B | C | D | E | 38 | A | B | C | D | E |
| 14 | A | B | C | D | E | 39 | A | B | C | D | E |
| 15 | A | B | C | D | E | 40 | A | B | C | D | E |
| 16 | A | B | C | D | E | 41 | A | B | C | D | E |
| 17 | A | B | C | D | E | 42 | A | B | C | D | E |
| 18 | A | B | C | D | E | 43 | A | B | C | D | E |
| 19 | A | B | C | D | E | 44 | A | B | C | D | E |
| 20 | A | B | C | D | E | 45 | A | B | C | D | E |
| 21 | A | B | C | D | E | 46 | A | B | C | D | E |
| 22 | A | B | C | D | E | 47 | A | B | C | D | E |
| 23 | A | B | C | D | E | 48 | A | B | C | D | E |
| 24 | A | B | C | D | E | 49 | A | B | C | D | E |
| 25 | A | B | C | D | E | 50 | A | B | C | D | E |

Appendix A: AFNR Career Cluster Content Standards-**Farm Business Management**

| | Performance Measurement Levels | Event Activity Addressing Measurement | Related Academic Standards |
|--|--|--|---|
| ABS.01.01. Performance Indicator: Apply principles of capitalism in the business environment. | | | Social Studies: 7b and 7g |
| | ABS.01.01.01.b. Differentiate types of ownership and outline the structure of AFNR businesses in a capitalistic economic system. | exam, team activity | |
| ABS.02.01. Performance Indicator: Compose and analyze a business plan for an enterprise. | | | Language Arts: 3, 4, 5, 7 and 8 Social Studies: 7h |
| | ABS.02.01.01.c. Prepare and critique AFNR business plans. | exam, team activity | |
| ABS.02.02. Performance Indicator: Read, interpret, evaluate and write a mission statement to guide business goals, objectives and resource allocation. | | | Language Arts: 3, 4, 5 and 6 |
| | ABS.02.02.01.a. Read and interpret mission statements. | exam, team activity | |
| ABS.02.03. Performance Indicator: Apply appropriate management skills to organize a business. | | | Language Arts: 12 |
| | ABS.02.03.02.a. Identify appropriate local, state, federal, international and industry regulations for AFNR businesses. | exam, team activity | |
| ABS.03.01. Performance Indicator: Prepare and maintain all files needed to accomplish effective record keeping. | | | Math: 5A and 6B Language Arts: 8 |
| | ABS.03.01.01.c. Apply management information systems in AFNR business financial analysis. | exam, team activity | |
| ABS.03.02. Performance Indicator: Implement appropriate inventory management practices. | | | Language Arts: 8 |
| | ABS.03.02.01.a. Monitor inventory to maintain optimal levels and calculate costs of carrying input and output inventory. | exam, team activity | |

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| BS.04.01. Performance Indicator: Use accounting fundamentals to accomplish dependable bookkeeping and fiscal management. | | | Math: 1C, 5A and 5C Social Studies: 7h |
| | ABS.04.01.02.c. Evaluate characteristics of lines of credit, loan terms and alternatives in sources of capital. | exam | |
| | ABS.04.01.03.b. Analyze reporting requirements for income, property and employment taxes associated with small AFNR businesses. | exam, team activity | |
| ABS.05.01. Performance Indicator: Maintain and interpret financial information (income statements, balance sheets, inventory, purchase orders, accounts receivable and cash-flow analyses) for businesses. | | | Math: 1C, 5A and 5C Language Arts: 8 |
| | ABS.05.01.01.c. Interpret financial information for an AFNR business to determine profitability, net worth position, financial ratios, performance measures and ability to meet cash-flow requirements. | exam, team activity | |
| | ABS.05.01.02.b. Recognize how changes in prices of inputs and/or outputs influence the financial statements of an AFNR business. | exam, team activity | |
| | ABS.05.01.03.c. Conduct a breakeven analysis for an AFNR business. | exam, team activity | |
| | ABS.05.01.04.c. Interpret and evaluate financial statements, including income statements, | exam, team activity | |
| ABS.06.01. Performance Indicator: Conduct appropriate market and marketing research. | | | Social Studies: 7b and 7h |
| | ABS.06.01.01.c. Implement and evaluate marketing strategies with agricultural commodities, products and services. | exam, team activity | |
| | ABS.06.01.02.a. Describe functions in agricultural marketing. | exam, team activity | |
| ABS.06.03. Performance Indicator: Develop strategies for marketing plan implementation. | | | Social Studies: 7b and 7h |
| | ABS.06.03.01.b. Determine marketing strategies that are most likely to be effective in an AFNR business. | exam, team activity | |
| ABS.07.03. Performance Indicator: Utilize appropriate techniques to determine the most likely strengths, weaknesses and inconsistencies in a business plan and relate these to risk management strategies. | | | Language Arts: 12 |
| | ABS.07.03.01.b. Describe approaches to use in revising a business plan for improved consistency and realism. | exam, team activity | |

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|---|--|---------------------|--|
| ABS.07.04. Performance Indicator: Manage risk and uncertainty. | | | Language Arts: 12 |
| | ABS.07.04.01.b. Describe alternative approaches to reducing risk, including the use of insurance for product liability, property, production or income loss and for personnel life and health. | exam, team activity | |
| CS.01.01. Performance Indicator: Action: Exhibit the skills and competencies needed to achieve a desired result. | | | Social Studies: 4d and 4h |
| | CS.01.01.01.c. Work independently and in group settings to accomplish a task. | team activity | |
| | CS.01.01.03.a. Exhibit good planning skills for a specific task or situation. | team activity | |
| | CS.01.01.06.b. Assign project parts equitably amongst team members to achieve a given task. | team activity | |
| CS.01.02. Performance Indicator: Relationships: Build a constituency through listening, coaching, understanding and appreciating others. | | | Language Arts: 12 Social Studies: 4h |
| | CS.01.02.02.b. Utilize communication skills to collaborate in a group setting. | team activity | |
| CS.01.03. Performance Indicator: Vision: Establish a clear image of what the future should look like. | | | Social Studies: 4a, 4d and 4h |
| | CS.01.03.04.b. Demonstrate consensus building. | team activity | |
| CS.01.06. Performance Indicator: Continuous Improvement: Pursue learning and growth opportunities related to professional and personal aspirations. | | | Science: A4 Language Arts: 8 Social Studies: 4h |
| | CS.01.06.03.b. Utilize a problem-solving model to solve a given problem. | team activity | |
| CS.02.04. Performance Indicator: Mental Growth: Demonstrate the effective application of reasoning, thinking and coping skills. | | | Math: 6C Science: A4 Language Arts: 4 and 8 |
| | CS.02.04.01.c. Demonstrate critical and creative thinking skills while completing a task. | team activity | |
| | CS.02.04.02.c. Implement effective problem solving strategies. | team activity | |
| | CS.02.04.03.c. Demonstrate the skills needed to negotiate with others. | team activity | |

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| CS.03.02. Performance Indicator: Decision Making –Analyze situations and execute an appropriate course of action. | | | Science: A1, A5 Social Studies: 1c and 4h |
| | CS.03.02.01.c. Make decisions for a given situation by applying the decision-making pro- | team activity | |
| | CS.03.02.02.c. Use problem-solving skills. | team activity | |

Appendix B: Related Academic Standards- **Farm Business Management**

National academic standards for mathematics, science, English language arts and social studies related to this event are reported below. The statements are based on information in reports of the respective associations/organizations in the academic areas. Some adjustment of numbering was done to facilitate the process of alignment with the standards that have been developed in the pathways of the Agriculture, Food and Natural Resources (AFNR) Career Cluster.

The approach was to determine the presence of alignment between the content standards, expectations or thematic strands of the four academic areas and the performance indicators of the AFNR Standards. Supporting statements have been included to clarify content of the respective content standards, expectations or thematic strands. The statements were initially developed independently by the respective organizations and, therefore, are not parallel in wording and presentation. Occasionally minor editing was done to adjust the background or stem of a statement but not the statement itself.

Mathematics

1. Standard and Expectations: Number and Operations
 - 1C. Compute fluently and make reasonable estimates.
5. Standard and Expectations: Data Analysis and Probability
 - 5A. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them.
 - 5C. Develop and evaluate inferences and predictions that are based on data.
6. Standard and Expectations: Problem Solving
 - 6B. Solve problems that arise in mathematics in other contexts.
 - 6C. Apply and adapt a variety of appropriate strategies to solve problems.

Science

- A. Content Standard: Science as an Inquiry
 - A1. Identify questions and concepts that guide scientific investigation.
 - A4. Formulate and revise scientific explanations and models using logic and evidence.
 - A5. Recognize and analyze alternative explanations and models.

English Language Arts

3. Students apply a wide range of strategies to comprehend, interpret, evaluate and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies and

- their understanding of textual features (e.g., sound-letter correspondence, sentence structure, context, graphics).
4. Students adjust their use of spoken, written and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for different purposes.
 5. Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.
 6. Students apply knowledge of language structure, language conventions (e.g., spelling and punctuation), media techniques, figurative language and genre to create, critique and discuss print and non-print texts.
 7. Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate and synthesize data from a variety of sources (e.g., print and non-print texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.
 8. Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.
 12. Students use spoken, written, and visual language to accomplish their own purposes (e.g., for learning, enjoyment, persuasion and the exchange of information).

Social Studies

1. Thematic Strand: Culture

1c. apply an understanding of culture and an integrated whole that explains the functions and interactions of language, literature, the arts, traditions, beliefs and values and behavior patterns;

4. Thematic Strand: Individual Development and Identity

4a. articulate personal connections to time, place and social/cultural systems;

4d. apply concepts, methods and theories about the study of human growth and development, such as physical endowment, learning, motivation, behavior, perception and personality;

4h. work independently and cooperatively within groups and institutions to accomplish goals;

7. Thematic Strand: Production, Distribution and Consumption

7b. analyze the role that supply and demand, prices, incentives and profits play in determining what is produced and distributed in a competitive market system;

7f. compare how values and beliefs influence economic decisions in different societies;

7g. compare basic economic systems according to how rules and procedures deal with demand, supply, prices, the role of government, banks, labor and labor unions, savings and investments and capital;

7h. apply economic concepts and reasoning when evaluating historical and contemporary social developments and issues;