

Farm Business Management

Revised 9/26/16

PURPOSE

The New Mexico FFA Farm Business Management Career Development Event provides competition that fosters information assimilation, critical thinking, and problem solving skills necessary to successfully manage a farm and pursue farm business management careers. It also enhances and encourages opportunities for all participants to receive instruction that develops farm business management skills.

OBJECTIVES

- Analyze farm/ranch business management information.
- Apply economic principles and concepts of farm business management to the decision-making process.
- Evaluate farm business management decisions.
- Work together cooperatively as a group.

COMMON CORE REFERENCE

7th Grade

CCSS.ELA-Literacy.SL.7.2 Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.

8th Grade

CCSS.Math.Content.8.F.A.1 Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.

9-10th Grade

CCSS.Math.Content.HSF-BF.A.1 Write a function that describes a relationship between two quantities.

11-12th Grade

CCSS.ELA-Literacy.RI.11-12.3 Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.

The principles and concepts listed below can be included in each section of the event.

A Economic Principles Related to Farm Business Management

1. Production functions
 - a. diminishing returns
 - b. profit maximizing point
 - $MFC = MVP$
 - $MC = MR$
2. Opportunity costs
 - a. alternative investment opportunities

3. Cost analysis
 - a. fixed cost
 - b. variable cost
4. Input combinations
5. Enterprise selection
 - a. equi-marginal returns
 - b. specialization and diversification
6. Supply and demand
 - a. price and quantity determination
 - b. elasticity of demand
 - c. elasticity of supply
 - d. substitute and complementary products

B Concepts Related to the Use and Analysis of Records to Manage Resources

1. Analysis of records
 - a. profit and loss
 - b. financial statements
 - ratios
 - solvency
 - liquidity
 - profitability
 - labor and feed efficiency
 - inventory, assets liabilities, net worth
2. Budgeting
 - a. partial budgets
 - b. whole farm budgets
 - c. enterprise budgets
3. Cash flow analysis
 - a. summary
 - b. projections
4. Managerial accounting
5. Tax management

C Concepts and Functions of Risk Management

1. Investment analysis
 - a. capital budgeting
 - time value of money
 - net present value
 - b. credit
 - sources
 - loan applications
 - interest
 - c. leasing of real property
 - d. land acquisition and ownership
 - e. machinery management
 - f. insurance
 - life insurance
 - property insurance
 - crop insurance
 - health
 - liability

2. Marketing analysis
 - a. functions
 - b. structures
 - c. price determination
 - supply
 - demand
 - comparative advantages
 - d. price methods
 - cash markets
 - futures and options
 - forward contracting
 - e. international trade
 - f. types of markets
 - perfectly competitive markets
 - few participants markets
 - one participant markets
3. Market and purchasing structure
 - a. cooperatives
 - b. corporations
 - c. individuals
4. Legal analysis
 - a. estate planning
 - b. business organization
 - sole proprietorship
 - business organization
 - partnership
 - contract farming
 - c. written agreements
5. Government programs and regulations

Rules and Regulations

1. Teams can have 3 or 4 members participating with each member working individually. The scores of the three members scoring the highest of the four will be considered as the representing team.
2. All team members will be provided with non-programmable calculators by contest officials.
3. In scoring problems, full credit will be given for accuracy. In developing the problems, intermediate answers will be provided whenever feasible so that mathematical or calculation errors do not severely penalize students in the longer sections of the event.

Career Development Event Format

The Farm Business Management Career Development Event will consist of two general parts, a multiple choice test and a problem solving analysis. (Note: test banks will be maintained as a study guide. Exam questions will not come verbatim from test banks.)

Part 1 - A Multiple Choice Test

The multiple choice section of the Farm Business Management Career Development Event is designated to test team members' understanding of economical principles in farm business management.

Multiple choice questions, some related to problem situations, form the basis for testing this understanding of the application rather than definition identification.

1. Team members work individually.
2. There will be 50 multiple choice questions with 60 minutes allowed for completion of this section of the event.
3. One hundred points allowed for this section of the event with each question worth two points.

Part 2 - Problem Solving Analysis

The problem solving analysis section of the Farm Business Management Career Development Event is designed to determine the team members' ability to apply economic principles and concepts of farm business management to the decision making process by actual problem analysis and to defend the decisions made.

- 1 Team members will compete individually in completing the problem solving section of the event.
- 2 If microcomputers are used, the problem solving section may be restructured to involve a team exercise.
- 3 One hundred fifty minutes will be allowed to completion of this section of the event.
- 4 Two hundred points will be allowed for this section of the event.
- 5 Forms such as enterprise, partial whole farm, and cash flow budgets will follow the sample and procedures for completion as presented in the Farm and Ranch Business Management text published by John Deere.
- 6 Problem solving section of the event will use problems that are developed using the outline provided under the Objectives specified above.

Reference List

Author	Books/Guides/Mannuals* Title	Publication Date	Source
Jobes and Steward	Farm & Ranch Business Management (2nd Ed.)	1987	1
Carlson and Thompson	Farm & Ranch Business Management: Instructor's Guide	1987	1
Carlson and Thompson	Farm & Ranch Business Management: Student Guide	1987	1
Bowers	Machinery Management (3rd Ed.)	1987	1
Carlson	Machinery Management: Instructor's Guide	1987	1
Carlson	Machinery Management: Workbook	1987	1
Lee, Boehlje, Nelson & Murry	Agricultural Finance (8th Ed.)	1987	6
Erickson, Hinton and Szoke	Microcomputers on the Farm: Getting Started	1987	6
Herbst	Farm Management: Priciples, Budgets, plans	1987	12
Higgs, Heidenreich, Leberger, Cropp and Mitchell	Agricultural Mathematics (2nd Ed)	1987	5
Hopkin, Barry and Baker	Financial Management in Agriculture (4th Ed.)	1987	5
Camp, Moore, Foster and Moore	Microcomputer Applications for Students in Agriculture	1987	5
Osburn and Schneeberger	Modern Agricultural Management (2nd Ed.)	1987	11
Futrell and Wisner (editors)	Marketing for Farmers	1987	3
Libbin and Catlett Records	Farm and Ranch Financial	1987	7
Castle, Becker and Nelson	Farm Business Management (3rd.)	1987	7
Kay	Farm Mangement: Planning, Control and Implementation (2nd Ed)	1987	8
Catania and Keefer	The Marketplace	1987	13
Catania and Keefer	The Marketplace: Teachers Guide	1987	13

Curriculum Center Materials**

Author	Title	Publication	Source
		Date	
	Farm Business Records and Financial Statements	1989	10
Steward	Microcomputer Applications in Agriculture	1984	9
Bacon, Boren Kirkwood, Berikholz, Plain and Rohrback	Instructor's Guide in Agricultural Management and Economics	1988	4

Technical References

Doane's Agricultural Report	Weekly	3
Doane's Agricultural Computing	Monthly	3
Doane's Farm management Guide	1989	3
Facts and Figures for Farmers	1989	3
Farmers Tax Guide (Publication 225)		2
A self-study Guide for Hedging with Livestock Futures	1986	14
A Self -Study Guide to Forward Pricing with Livestock Option	1989	14
Ten Strategies for Forward Pricing Livestock Using Livestock Futures & Options	1988	14

Commodity Futures Trading

Options on Agricultural Futures	13,14
Wheat, Corn, Oats, Soybeans, Soybean Oil and Soybean Meal	13
Live Cattle, Feeder Cattle, Live Hogs, Pork Bellies and Lumber	14
Wheat , Corn, Soybeans, Live Cattle and Hogs	16
Sorghum	15
Cotton	17
Orange Juice	18
Farm Budgets and Other Materials	19

*The books listed should be reviewed and evaluated by the teachers prior to selection. Books listed vary in their content and reading level. Some are appropriate for student and classroom use, while others may serve as teacher references.

**Teachers should consult their sources of curriculum materials. The references listed are but a selected sample from the many materials available from Instructional Materials Centers.

Sources of References

- | No. | <u>Publisher and Address</u> |
|-----|---|
| 1 | Deere and Company, John Deere Road, Moline, IL 61265-8098 |
| 2 | Department of Treasury, Internal Revenue Service, IRS Forms Distribution Center in your state |
| 3 | Doane Information Services, 11701 Borman Drive, St. Louis MO 63146 |
| 4 | Instructional Materials laboratory, No. 10 Industrial Education Building, University of Missouri Columbia, MO 65102 |
| 5 | Interstate Publishers, Inc., PO Box 50, Danville, IL 61834-0050 |
| 6 | Iowa State University Press, 2121 South State Avenue, Ames, IA 50010 |
| 7 | Macmillan Publishing Co., 866 Third Avenue, New York, NY 10020 |
| 8 | McGraw-Hill Book Co., 866 Third Avenue, New York, NY 10020 |
| 9 | Mid-America Vocational Curriculum Consortium, 1500 West Seventh Avenue, Stillwater OK 74074 |
| 10 | Oklahoma Curriculum and Instructional Materials Center, 1500 West Seventh Avenue, Stillwater, OK 74074-4364 |
| 11 | Prentice Hall Inc., 200 Old Pappon Road, Old Pappon, NJ 07675 |
| 12 | Stapes Publishing Company, 10-12 Chester Street, Champaign, IL 61802 |
| 13 | Chicago Board of Trade, LaSalle at Jackson, Chicago, IL 61802 |
| 14 | Chicago Mercantile Exchange, 30 South Wacker Drive, Chicago, IL 60606 |
| 15 | Kansas City Board of Trade, 4800 West Main Street, Kansas City, MO 64112 |
| 16 | Mid-America Commodity Exchange, LaSalle at Jackson, Chicago, IL 60604 |
| 17 | New York Cotton Exchange, 4 World Trade Center, New York, NY 10005 |
| 18 | New York Mercantile Exchange, Commodity Exchange Center, 4 World Trade Center, New York, NY 10048 |
| 19 | Cooperative Extension Service in your state. |

100 Head Stocker Budget, Per Head
 Buy April 15- Sell October 15: Steers
 380# IN - 682# Out SBOM and SILAGE

OPERATING INPUTS:					
	UNITS	PRICE	QUANTITY	VALUE	YOUR VALUE
STR CALVES	CWT.	86.000	3.914	33.60	_____
CORN SILAGE	TONS	22.000	3.050	67.10	_____
PRAIRIE HAY	TONS	27.000	0.160	4.32	_____
SOYBEAN OIL MEAL	LBS	0.150	189.000		_____
SALT & MINERALS	LBS	0.090	17.500	1.57	_____
TRUCKING	HD	2.700	1.000	2.70	_____
SALES COMMISSION	HD	4.350	1.000	2.00	_____
VET MEDICINE	HD	4.500	1.000	4.50	_____
UTILITIES	HD	0.250	4.000	1.00	_____
ANNUAL OPERATING CAPITAL	DOL	0.118	198.784	23.46	_____
MACHINERY LABOR	HR	4.500	1.200	5.40	_____
EQUIPMENT LABOR	HR	4.500	1.130	5.08	_____
LIVESTOCK LABOR	HR	4.500	1.300	5.85	_____
MACHINERY FUEL, LUBE, REPAIRS	DOL			7.09	_____
EQUIPMENT FUEL, LUBE, REPAIRS	DOL			2.27	_____
TOTAL OPERATING COST				499.65	_____
FIXED COSTS					
	AMOUNT	VALUE			YOUR VALUE
MACHINERY					
INTEREST AT 11.80%	11.51	1.36			_____
DERP. TAXES, INSUR		2.39			_____
EQUIPMENT					
INTEREST AT 11.80%	45.12	5.32			_____
DERP. TAXES, INSUR		8.29			_____
LIVESTOCK					
HORSE	3.40				_____
INTEREST AT 11.80%	3.40	0.40			_____
DERP. TAXES, INSUR		0.15			_____
LAND					
INTEREST AT 0.00%	0.00	0.00			_____
TAXES		0.00			_____
TOTAL FIXED COSTS		17.91			_____
PRODUCTION:					
	UNITS	PRICE	QUANTITY	VALUE	YOUR VALUE
STEERS (600-700)	CWT.	78.00	6.820	531.96	_____
RETURNS ABOVE TOTAL OPERATING COSTS				32.31	_____
RETURNS ABOVE ALL COSTS EXCEPT OVERHEAD, RISK, AND MANAGEMENT				14.41	_____
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CORN-OWNED HARVEST EQUIPMENT

AVERAGE PRODUCTIVITY

OPERATING INPUTS:					
	UNITS	PRICE	QUANTITY	VALUE	YOUR VALUE
CORN SEED	LBS	0.900	25.000	22.50	_____
ANHYDROUS	LBS	0.160	160.000	25.60	_____
PHOSPH (P205)	LBS	0.200	60.000	12.00	_____
POTASH (K20)	LBS	0.150	40.000	6.00	_____
INSECTICIDE	ACRE	11.000	1.000	11.00	_____
HERBICIDE	ACRE	8.000	1.000	8.00	_____
RNTRERTSPRD/ACRE	ACRE	2.000	1.000	2.00	_____
ANNUAL OPERATING CAPITAL	DOL	0.118	49.790	5.85	_____
LABOR CHARGES	HR	4.500	2.770	12.46	_____
MACHINERY FUEL, LUBE, REPAIRS	ACRE			26.09	_____
TOTAL OPERATING COST				131.50	_____
FIXED COSTS		VALUE	YOUR VALUE		
MACHINERY					
INTEREST AT 11.80%	DOL	21.354			_____
DERP. TAXES, INSUR	DOL	26.114			_____
LAND					
INTEREST AT 0.00%	DOL	0.00			_____
TAXES	DOL	0.00			_____
TOTAL FIXED COSTS		47.47			_____
PRODUCTION:					
	UNITS	PRICE	QUANTITY	VALUE	YOUR VALUE
CORN	BU	3.450	95.000	327.75	_____
PASTURE	AUMS	0.000	0.300	0.00	_____
TOTAL RECEIPTS				327.75	_____
RETURNS ABOVE TOTAL OPERATING				196.25	_____
RETURNS ABOVE ALL COSTS EXCEPT OVERHEAD, RISK, AND MANAGEMENT				148.78	_____

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6/21/1989

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 PROGRAM DEVELOPED BY DEPT. OF AGRI. ECON - OKLAHOMA STATE UNIVERSITY