

**Farm**  
Fifth Edition

# Management

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EDITION 14AS107

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## FARM MANAGEMENT, FIFTH EDITION

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This book is printed on acid-free paper.

3 4 5 6 7 8 9 0 DOC/DOC 0 9 8 7 6

ISBN-13: 978-0-07-242868-1

ISBN-10: 0-07-242868-6

Publishers: *Martin J. Lange/Colin H. Wheatley*

Developmental editor: *Fran Schreiber*

Marketing manager: *Heather K. Wagner*

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Cover designer: *Rebidas Design & Associates*

Cover image: © *Andy Sacks/Stone*

Senior photo research coordinator: *Lori Hancock*

Compositor: *GAC Indianapolis*

Typeface: *10/12 Times Roman*

Printer: *R. R. Donnelley Crawfordsville, IN*

Opening photos for chapters 2, 3, 4, 5, 6, 7, 10, 11, 13, 14, 15, 16, 17, 20, and 21; parts 1 and 4; and title page courtesy of U.S. Department of Agriculture

Opening photos for chapters 1, 8, 9, 12, and 18 and parts 2, 3, and 5 courtesy of USDA Natural Resource Conservation Service

Opening photo for chapter 19 courtesy of Kirk Withrow

Opening photo for chapter 22 courtesy of USDA Agricultural Research Service

### Library of Congress Cataloging-in-Publication Data

Kay, Ronald D.

Farm management / Ronald D. Kay, William M. Edwards, Patricia A. Duffy. — 5th ed.  
p. cm.

Includes bibliographical references and index.

ISBN 0-07-242868-6 (hard copy : alk. paper)

I. Farm management. I. Edwards, William M. II. Duffy, Patricia A. III. Title.

S561.K36 2004

630'.68—dc21

2003010863

CIP

# PREFACE

Farms and ranches, like other businesses, require sound management to survive and prosper. The continual development of new agricultural technologies means that farm and ranch managers must stay informed of the latest advances and decide whether or not to adopt them. Adopting a risky, unproven technology that fails to meet expectations can cause financial difficulties or even farm financial collapse. On the other hand, failing to adopt a profitable new technology will put the farm business at a competitive disadvantage that could also prove disastrous in the long run. In addition, changing public policies regarding environmental protection, taxes, and price supports can make certain alternatives and strategies more or less profitable than they had been previously. Finally, changes in consumer tastes, the demographic makeup of our population, and world agricultural trade policies affect the demand for agricultural products.

The continual need for farm and ranch managers to keep current and update their skills motivated us to write this fifth edition. It was also a good time to add another author to provide additional farm management experience, skills, and viewpoints to the writing process. Dr. Patricia Duffy from Auburn University joins us as a third author for this edition. She has considerable experience teaching farm management and other agricultural economics courses and is familiar with previous editions of this text. Dr. Duffy has contributed not only to specific chapters in the text, but also did the PowerPoint presentations that are now available for instructors. We look forward to her contributions in future editions.

This book is divided into five parts. Part I begins with the chapter “Farm Management in the Twenty-First Century.” It describes some of the forces and technology, which are driving the changes we see in agriculture. By reading this chapter students will find both an incentive to study farm management and an appreciation for the management skills modern farm managers must have or acquire. Part I concludes with an explanation of the concept of management and the decision-making process, with an increased emphasis on the importance of strategic decision-making.

Part II presents the basic information needed to measure management performance, financial progress, and the financial condition of the farm business. It discusses how to collect and organize accounting data and how to construct and analyze balance sheets and income statements. In response to several suggestions, income tax depreciation (MACRS) has been added to Chapter 4, which discusses depreciation methods and asset valuation.

As in the fourth edition, Part III contains three chapters on basic microeconomic principles and four chapters on budgeting and planning tools. The topics in this part provide the basic tools needed to make good management decisions. Students will learn how and when economic principles can be used in management decision-making, along with the importance of the different types of economic costs. The discussion of economies of size has been revised and expanded. Practical use of budgeting is emphasized in the chapters on enterprise, partial,

whole farm, and cash flow budgets. An expanded discussion on using sensitivity analysis with partial budgets has been added, and linear programming is covered in more detail than in previous editions.

Topics necessary to increase a manager's decision-making skills are included in Part IV. Farm business organization, analyzing investments, managing risk, income tax management, and whole farm business analysis are discussed. The chapter on income tax management has been updated with the latest changes available. Data from an actual farm is now used to demonstrate the analysis process in the chapter on whole farm business analysis. The chapter on investment analysis includes a new discussion of the concepts of annual equivalent and capital recovery values.

Part V discusses the management alternatives and decisions related to acquiring the resources needed on farms and ranches. This part includes chapters on capital and credit, land, human resources, and machinery. The human resource chapter includes new sections on improving managerial capacity and bridging the cultural barriers that may be encountered in managing agricultural labor.

Last, but certainly not least, this edition's most obvious changes are the new cover design and book style. We hope users will find the new cover to be more attractive and distinguishable. Between the covers is a new style of double-column pages and other related style changes. These changes should increase the readability of the text and improve student comprehension.

Much of the material in the fourth edition's instructor manual has been updated and moved to the text's fifth edition website. An electronic PowerPoint presentation covering each chapter, a test bank, and answers to the end of chapter questions can be found at [www.mhhe.com/kay5e](http://www.mhhe.com/kay5e)

The authors would like to thank the instructors who have adopted the previous edition for their courses and the many students who have used it both in and out of formal classrooms. Your comments and suggestions have been carefully considered and many were incorporated in this edition. Suggestions for future improvements are always welcome. A special thanks goes to the following McGraw-Hill reviewers for their many thoughtful ideas and comments provided during the preparation of this edition.

Gary W. Brester

*Montana State University—Bozeman*

Stephen B. Davis

*University of Minnesota—Crookston*

Carl R. Dillon

*University of Kentucky*

Duane K. Jewell

*Northwest Missouri State University*

Hezekiah S. Jones

*Alabama A & M University*

Donald M. Nixon

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Guido van der Hoeven

*North Carolina State University*

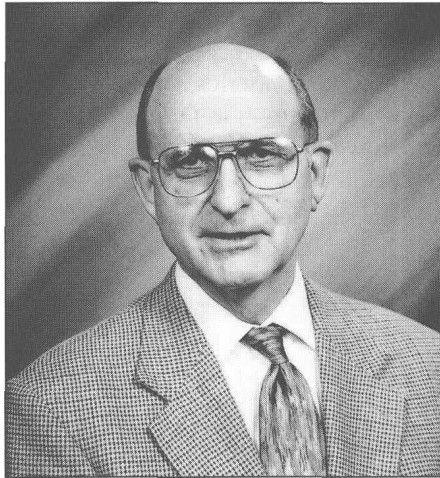
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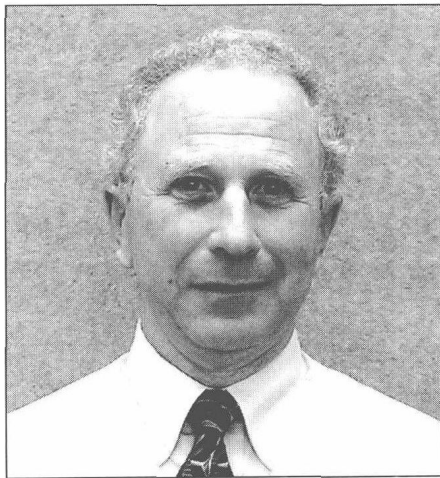
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William M. Edwards is a Professor of Economics at Iowa State University, from which he received his B.S., M.S., and Ph.D. degrees in agricultural economics. He grew up on a family farm in south-central Iowa, and worked as an agricultural economist with the Farmer's Home Administration and the Colombian Agrarian Reform Institute. Since 1974, he has taught on-campus and distance education courses, and carried out extension programs in farm management at Iowa State University. In 1997, he received the Iowa State University Extension Achievement Award. Dr. Edwards has also collaborated in farm management educational programs in Latin America and Eastern Europe.



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Fifth Edition

# FARM MANAGEMENT

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# MANAGEMENT

**G**ood management is a crucial factor in the success of any business. Farms and ranches are no exception. To be successful, farm and ranch managers today need to spend more time making management decisions and developing management skills than their parents and grandparents did.

This is because production agriculture in the United States and other countries is changing along the following lines: more mechanization, increasing farm size, continued adoption of new production technologies, growing capital investment per worker, more borrowed or leased capital, new marketing alternatives, and increased business risk. These factors create new management problems, but also present new opportunities for managers with the right skills.

These trends will likely continue throughout the twenty-first century. Farmers will make the same type of management decisions as in the past, but will be able to make them faster and more accurately. Advances in the ability to collect, transfer, and store data about growing conditions, pest and disease problems, and product quality will give managers more signals to which to respond. Moreover, future farm and ranch operators will have to balance their personal goals for an independent lifestyle, financial security, and rural living against societal concerns about food safety, environmental quality, and agrarian values.

The long-term direction of a ranch or farm is determined through a process called strategic planning. Farm families establish goals for themselves and their businesses based on their personal values, individual skills and interests, financial and physical resources, and the economic and social conditions facing agriculture in the next generation. They can choose to emphasize wider profit margins or higher volumes of production, or to produce special services and products. After identifying and selecting strategies to help achieve their goals, farm and ranch operators employ tactical management to carry them out. There are many decisions to be made, and many alternatives to analyze. Finally, the results of those decisions must be monitored and evaluated.

Chapter 1 discusses some factors that will affect the management of farms and ranches in the twenty-first century. These and other factors will require a new type of manager. This manager must be able to absorb, organize, and use large amounts of information, particularly information related to new technologies. Resources will be a mix of owned, rented, and borrowed assets. Products will need to be more differentiated to match consumer tastes and safety standards. The profitability of a new technology must be determined quickly and accurately before it is or is not adopted. A twenty-first century manager also will need new human resource skills as the number of employees per farm increases.

Chapter 2 explains the concept of management, including strategic planning and tactical decision making. What is management? What functions do managers perform? How should managers make decisions? What knowledge and skills are needed to be a successful manager? The answers to the first three questions are discussed in Chapter 2. Answers to the last question will require studying the remainder of the book.









# FARM MANAGEMENT IN THE TWENTY-FIRST CENTURY

## CHAPTER OUTLINE

Structure of Farms and Ranches  
The Information Age  
Financial Management  
Human Resources  
Producing to Meet Consumer Demands  
Environmental and Health Concerns  
New Technology  
Summary  
Questions for Review and Further Thought

## CHAPTER OBJECTIVES

1. To discuss how changes in the structure and technology of agriculture in the twenty-first century will affect the next generation of farm and ranch managers
2. To identify the skills that future farm and ranch managers will need in order to respond to these changes

What will future farm managers be doing as we enter the twenty-first century? They will be doing what they are doing now, making decisions. They will still be using economic principles, budgets, record summaries, investment analyses, financial statements, and other management techniques to help make those decisions. What kinds of decisions will managers be making in future decades? They will still be deciding input and output levels and combinations, and when and how to acquire additional resources. They

will continue to analyze the risks and returns from adopting new technology, making new capital investments, adjusting farm size, and changing enterprises.

Will anything about management decisions in the future be different? Yes. While the broad types of decisions being made will be the same, the details and information used will change. Technology will continue to provide new inputs to employ and new, more specialized products for production and marketing. Management