

# **AGRIBUSINESS MARKETING:**

## **Guidelines for Course Development**

Michael W. Woolverton  
and Steven J. Torok

### **Agribusiness Undergraduate Education**

Agribusiness in the United States is a major part of our economic system and contributes about 20 percent to the GNP and employs approximately 23 percent of the labor force (1). In 1980, over 23.6 million people were employed in the input supply industries, agricultural production, commodity processing, food manufacturing, and distribution sectors (2).

Starting at the Harvard Business School in 1956, agribusiness programs have multiplied to about 60 throughout the United States. Most are offered by Agricultural Economics departments in land grant institutions. The remainder are found in various non-land grant schools, graduate schools of Business Administration and community colleges (3).

From land grant Agricultural Economics departments programs, a high percentage (50% to 80%) of the graduates are employed by agribusiness firms (4). Consequently, there has been considerable interest in designing curricula for agribusiness students. Litzenberg, Gorman and Schneider surveyed 58 U.S. colleges and universities in 1983 to determine the "typical" agribusiness undergraduate program. They found most schools exposed students to a broad range of courses including technical courses such as the natural sciences, quantitative analysis and economics. They concluded that compared to agribusiness employer expectations, most programs were deficient in the functional areas of management, marketing, and finance. Even when functional courses were included, they often were not taught with an emphasis on agribusiness (4).

Schools of business generally build curricula around the three major functional areas of management, finance and marketing. Courses in organization behavior, operations research, business law and business policy are added to the functional core to round out the student's educational program. Departments of Agricultural Economics tend to offer just one functional course to agribusiness students; agribusiness management. This course is usually designed to introduce the student to management theory, management functions and personnel management — with some topics drawn from the functional areas of marketing and finance. In some schools, case studies are used in an attempt to help the students consolidate the theories and concepts.

---

Woolverton is associate professor of Agribusiness, Arizona State University, and Torok is assistant professor of Agribusiness, Department of Agricultural Economics, University of Wyoming, P.O. Box 3354, Laramie, WY 82071.

Nearly all Agricultural Economics departments offer separate courses in marketing and finance, but these tend to be traditional courses oriented to production agriculture. In finance, this does not necessarily present a problem. The basic concepts and some of the analytical tools used in farm financial management are similar to those used in off-farm agribusiness firms. However, in marketing, the student who understands only production agriculture commodity marketing is at a severe disadvantage. Production agriculture commodity marketing courses are insufficient preparation for input marketing, commodity merchandising and food marketing positions. However, most entry level job opportunities for agribusiness majors are in marketing. Agribusiness firms have long complained to Agriculture Economics departments about this situation to no avail. Reasons for not adding a separate course in agribusiness marketing include lack of resources and lack of qualified instructors for the course. Another reason is Agricultural Economics professors, because of their training, have incomplete understanding of marketing concepts and practices except as related to agricultural production.

A typical agricultural production commodity marketing course would include the following general topics: definition of agricultural marketing, the importance of agricultural marketing, marketing institutions and their roles, price analysis, the futures markets, government programs and commodity specific marketing such as grain, livestock, cotton, dairy, etc (5). To be fair, some authors of textbooks used in these courses have expanded to include marketing in the input industries and food marketing. However, the courses taught generally do not give students an understanding of topics such as the marketing concept, managing the marketing mix, the role of the product manager, preparation of the marketing plan, marketing analysis and formulation of marketing strategies. A student must understand these topics in order to function successfully in a marketing position upon graduation. Unfortunately, most agricultural college graduates do not receive this training in school. They must learn this on the job, in company training programs, through individual reading or in night school. A well-designed agribusiness marketing course taken at the undergraduate level would help students in interviewing for entry level marketing positions and help them achieve success earlier in their careers. What follows is a discussion of what should be included in an agricultural marketing course as well as objectives for teaching, a typical course outline with selected readings, and a discussion of using case studies and an applied marketing project.

## Objectives of Teaching Agribusiness Marketing

The main objective of teaching the agribusiness marketing course is for students to understand the underlying economic theory of agribusiness marketing strategies as well as their application to various agribusiness situations. This can be accomplished by designing a course entitled Agribusiness Marketing with the following objectives that should be mastered by students:

- a. Demonstrate an understanding of agribusiness marketing terminology.
- b. Explain the roles of institutions and specialized individuals in the food and fiber marketing system.
- c. Describe the market structure for selected agricultural commodities and food products.
- d. Formulate a marketing strategy for an agribusiness product given a hypothetical market situation.

The following is a suggested course outline with a list of readings and comments on case studies as well as a marketing project. In most cases, an instructor will want to select one text for the course and perhaps put other readings on library reserve. The outline and readings are meant to be suggestive and individual faculty should expand or change the content/readings according to specific needs.

### Agribusiness Marketing Course Outline

- I. Introduction
  - A. Overview of the Agribusiness Sector (2):10-12; (4):5-8; (7):4-7
  - B. Agribusiness Marketing Stages/Functions (1):13-16, 58-84
  - C. What is Agribusiness Marketing? (1):4-6; (4):8-9
- II. Economic Theory of Agribusiness Marketing Strategies
  - A. Economic Principles: Demand and Supply (4):147-162; (6):101-107; (2):69-106
  - B. Economic Market Structures and Effect on Agribusiness Marketing Strategies (2):233-243; (4):176-183; (6):36-51; (9):49-61; (12):23, 393-399
  - C. Measuring Market Concentration (11):51-60, 145-152; (13):50-57
  - D. Market Structure of the Agribusiness Sector (1):482-485, 491-492, 494-495, 498, 500, 504-506; (4):90-94, 183-187; (7): 75-82; (10):135-148; (11):154-160; (12):384-387; (14):39-40, 43-47
- III. Development of Agribusiness Marketing Strategies
  - A. Developing an Agribusiness Marketing Plan, Managerial Marketing and the Marketing Mix (1):270-274, 299-313; (4):62-63, 281-282; (5):4-8; (7):382-383
  - B. Understanding Consumer Behavior (1): 314-320; (3):75-88; (4):39-41; 43-44, 70-85; (6):372-382; (7):94-97
  - C. Importance of Agribusiness Product Characteristics (1):325-328; (3):90-102; (7):385-386
  - D. Case Studies (5):307-323; (8):19-22, 283-286
- IV. Agribusiness Marketing Strategies
  - A. Agribusiness Pricing Strategies
    1. Monopoly and Oligopoly Pricing (6):390; (11):278-279, 293-322; (13):216-238

2. Processor Pricing Strategies (1):355-376; (3):152-156; (7):398-402; (12):86-90, 110-112, 208-213; (14):234-259
3. Retail Pricing Strategies (1):376-383; (3):143-152; (6):391-393; (7):445-448; (12):213-215
4. Price Discrimination (6):393-395; (13):253-257
5. Case Studies (5):273-275, 229-234; (8):171-178, 347-350, 187-193, 359-362
- B. Agribusiness Product Differentiation/Innovation
  1. Product Differentiation (1):328-339; (3):356-366; (4):89-90; (6):395-400; (7):387-392; (9):18-21; (10):77-80; (11):241-245; (12):84-85, 156-157, 203-205; (13):332-334
  2. Research and Development (11):184-189; (13):346-366
  3. Case Studies (5):185-198, 292-302, 346-361, 394-402; (8):39-48, 291-294
- C. Agribusiness Packaging/Labeling
  1. Packaging (1):341-351; (3):130, 133, 260-273; (7):386-387
  2. Branding (1):351-352; (3):251-260
  3. Case Studies (5):303-304
- D. Agribusiness Advertising/Production
  1. Promotion and Advertising (1):388-403; (3):131-132, 275-285; (4):284-288; (6):382-390; (7):84-85, 392-394; (10):80-90; (11):245-255; (12): 217-219
  2. Case Studies (5): 283-291; (8):3-8, 275-278, 139-148, 335-338, 229-248, 375-381
- E. Agribusiness Indirect Price Strategies (3):122-137; (7):395-396; (10):235-236; (11):255-258
- F. Agribusiness Merchandising (3):120-122; (7):442-444; (12):216-217
- G. Agribusiness Location/Transportation (2):176-183; (4):94-97; (6):401-406; (7):73-75; (14):399-410
- V. Evaluating the Agribusiness Marketing Program
  - A. Feasibility Analysis (6):406-413
  - B. Evaluating and Projecting Performance (1):417-424
  - C. Marketing Audit (1):424-425

### Selected Course Readings

#### Agricultural and Food Marketing Texts

1. Branson, Robert E. and Douglass G. Novell. **Introduction to Agricultural Marketing**. New York: McGraw-Hill Book Co., 1983.
2. Dhal, Dale C. and Jerome W. Hammond. **Market and Price Analysis - The Agricultural Industries**. New York: McGraw-Hill Book Co., 1977.
3. Darrah, L.B. **Food Marketing**. New York: The Ronald Press Co., 1971.
4. Kohls, Richard L. and Joseph N. Uhl. **Marketing of Agricultural Products**, 6th Edition, New York: MacMillan Publishing Co., 1985.
5. O'Dell, William F., Andrew C. Ruppel, Robert H. Trent and William J. Kehoe, **Marketing Decision Making - Analytic Framework and Cases**, 3rd Edition, Cincinnati, Ohio: South-Western Publishing Co., 1984.
6. Purcell, Wayne D. **Agricultural Marketing: Systems, Coordination, Cash and Futures Prices**. Reston, Virginia: Reston Publishing Co., Inc., 1979.
7. Rhodes, V. James. **The Agricultural Marketing System**, 2nd Edition, New York: John Wiley and Sons, 1983.
8. Talarzyk, W. Wayne. **Cases for Analysis in Marketing**, 3rd Edition, Chicago: The Dryden Press, 1984.
- Industrial Organization and Market Structure Texts**
9. Caves, Richard. **American Industry: Structure, Conduct, Performance**, 5th Edition, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1982.
10. Connor, John M., Richard T. Rogers, Bruce W. Marion and Willard F. Mueller. **The Food Manufacturing Industries - Structure, Strategies, Performance and Policies**. Lexington, Massachusetts: Lexington Books, 1985.

\* Select reading for each topic appear in brackets, the number in the parenthesis corresponds to the selected readings listing in the bibliography for the course.

11. Koch, James V. *Industrial Organization and Prices*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1974.

12. Moore, John R. and Richard G. Walsh. *Market Structure of the Agricultural Industries*. Ames, Iowa: The Iowa State University Press, 1966.

13. Scherer, F.M. *Industrial Market Structure and Economic Performance*. Chicago: Rand McNally College Publishing Co., 1970.  
*Business Decision Making Text*

14. Mantell, Leroy H. and Francis P. Sing. *Economics for Business Decisions*. New York: McGraw-Hill Book Co., 1972.

### **Agribusiness Case Studies and Marketing Project**

Agribusiness case studies and an applied marketing project are academic substitutes for "real world" agribusiness marketing experiences. They serve to demonstrate various agribusiness marketing strategies as well as provide simulated "hands-on" agribusiness marketing experience. The major objective is for students to learn how to apply agribusiness marketing strategies in a simulated agribusiness marketing situation.

The advantages of using agribusiness case studies and an applied marketing project (6) in an agribusiness marketing course include:

- a. Providing practice situations for the application of agribusiness marketing strategies without the risk of the student making costly business mistakes in a "real world" situation.
- b. Developing diagnostic problem solving ability, providing for practice in using analytical and evaluation techniques, and allowing the student to formulate workable plans of action.
- c. Providing an exposure to a variety of agribusiness firms in different agribusiness marketing situation.

The agribusiness case studies focus on one or a limited number of agribusiness marketing strategies, whereas an applied agribusiness marketing project is concerned with the development of an agribusiness marketing plan and the integration of several agribusiness marketing strategies. There generally does not exist a "right answer" to the case studies or a "best solution" to an agribusiness marketing project. What is required, is for the student to demonstrate agribusiness marketing analysis and decision making skills which can be evaluated by the student's ability to analyze marketing problems and issues, make marketing decisions, and logically defend the marketing strategies used.

Due to time constraints (generally the agribusiness marketing course is taught in one semester), the number of agribusiness marketing case studies must be limited. As illustrated in the course outline, the case studies should be limited to a few topics such as strategy development and consumer behavior, pricing, product differentiation/innovation, packaging/labeling, and advertising. Similarly, the agribusiness marketing project should be assigned early in the course (e.g., after Section IV.D. — Agribusiness Ad-

vertising/Promotion) in order for the students to have sufficient time for completion of the project. The topics applicable for an agribusiness marketing project can vary depending on the instructor's preference, but the following topics work well:

- a. Marketing of a value-added processed product such as a frozen dessert, beverage or breakfast cereal.
- b. Marketing of an agribusiness input such as a farm implement, ag-chemical or seed.
- c. Marketing of an agribusiness service such as pesticide application or agricultural managerial services.

The use of agribusiness case studies and an applied marketing project cannot directly substitute for on-the-job agribusiness marketing experience. However, agribusiness case studies and a marketing project complement the in-class lectures/readings by providing practice situations for agribusiness marketing decision making.

### **Summary**

Over 50 percent of the graduates from land grant Agricultural Economics departments are employed by agribusiness firms. However, the courses generally taught in Agricultural Economics departments tend to be traditional courses oriented to production agriculture. Agribusiness firms have voiced their concern about this issue in the past, to no avail.

The authors present an alternative or complementary course to the traditional production-oriented agricultural marketing course offered by Agricultural Economics departments. The suggested course, Agribusiness Marketing, is designed to give students an understanding of topics such as the marketing concept, managing the marketing mix, the role of the product manager, preparation of the marketing plan, marketing analysis, and formulation of marketing strategies. The main objective of teaching the agribusiness marketing course is to teach students the principles and strategies of marketing agribusiness products by presenting the economic theory of agribusiness marketing strategies as well as their application to various agribusiness situations. Case studies and an applied agribusiness marketing project should be assigned to students in order to supplement the course lectures and to subrogate for "real world" agribusiness marketing experiences.

An agribusiness marketing course will help fill the void in existing agribusiness curricula. The course should not be considered a panacea for Agricultural Economics departments or as a "ticket" for employment by students, but rather as a fundamental course in the analysis and application of agribusiness marketing.

### **References**

1. Woolverton, M.W., G.L. Cramer and Timothy M. Hammonds. "Agribusiness: What Is It All About?" *AGRIBUSINESS: An International Journal* 1 (1985): 1-3.

2. Anderson, W. "Marketplace: Trends in Agribusiness." *Feedstuffs* March 22, 8 (1982).

3. French, C.E., J. Niles, and R. Westgren. "Agribusiness Management Classroom Education." Unpublished paper presented at the Western Agricultural Economics Association Meeting in San Diego, CA, July 10, 1984.

4. Litzenberg, K.K., W.D. Gorman and V.E. Schneider. "Academic and Professional Programs in Agribusiness." *Amer. J. Agr. Econ.* 65 (1983): 1060-1064.

5. Hall, Lana and Andrew Novakovic. *A Survey of Undergraduate Marketing Courses in Agricultural Economics*. A.E. Res. 80-10 (Ithaca, New York: Department of Agricultural Economics, Cornell University, 1980) pp. 1-120.

6. Thompson, A.A. and A.J. Strickland, III. *Strategy and Policy: Concept and Cases*. (Plano, Texas: Business Publications, Inc., 1981) pp. 203-206.

# Integrating Microcomputer Applications Into Undergraduate Quantitative Methods Courses

Daryll E. Ray and Elton Li

## Abstract

*A quantitative methods course has been developed which bundles together the quantitative methods commonly used in undergraduate agricultural economics courses. Microcomputers are used as computational apparatuses and instructional aids. Students learn to use spreadsheet, business graphics and other general microcomputer application programs while applying the quantitative techniques discussed in class.*

For many years computers were in the backrooms and basements of large companies and institutions keeping records, spewing out invoices and other documents, while relatively few people worked directly with computers. Now computer terminals and computers, especially desktop microcomputers, are becoming as common as cash registers and pocket calculators. Most of today's university students will be using computers when they join the work force. Some will use large "company-size" mainframe computers and others will use "department-size" minicomputers, but a large share of them will be using stand-alone or interconnected microcomputers.

The challenge facing educators in general and teachers in agriculture in particular is how to best prepare students to productively use computers, especially microcomputers, in their future occupations (Knapper; Moulton and Colfin). Neither the approach of a quick coverage of microcomputer terminology nor the other extreme of a computer-science-like course which emphasizes programming in BASIC or Pascal seems appropriate for agriculture. This paper describes an approach which combines a quantitative methods course with an introduction to microcomputer application programs.

Daryll E. Ray is professor and Elton Li is visiting assistant professor at the Department of Agricultural Economics, Oklahoma State University, Stillwater, OK 74078.



## Origin of the Quantitative Component

A few years ago, the departmental undergraduate committee of the Department of Agricultural Economics recommended adding a course in quantitative methods. The course was to bundle together quantitative material that overlapped several courses. As it had been, course instructors diverted time from core course material to teach discounting, regression, index number construction, data presentation and other techniques that were also used in other courses but because of a changed mix of students were often covered again. The new quantitative methods course was to be required for all departmental options. Students would be expected to take it early in their college career. The course was put on the books, but a limited staff and no enthusiastic volunteer resulted in the course not being taught for three years.

## The Microcomputer Connection

In 1982 a departmental committee was formed to make recommendations concerning the integration of microcomputers into departmental teaching, research and extension activities. One of the committee's numerous recommendations was to use the quantitative methods course to introduce students to microcomputer application programs for performing economic analysis. The committee recommended that the department set up a microcomputer laboratory,