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Agricultural, Agribusiness, and International Marketing Courses in Undergraduate Curricula: Issues and Ideas

Allen F. Wysocki, Gary F. Fairchild, Richard N. Weldon, Arlo W. Biere, Joan R. Fulton, and Christopher S. McIntosh

Agricultural marketing courses cover a broad spectrum of topics and issues. Undergraduate committees, program coordinators, and marketing-oriented faculty struggle with the appropriate number and content of marketing course offerings. Curricula issues are discussed from the perspectives of three agricultural economics departments. Size, expertise, interests, and pedagogic philosophy assist in determining the number, mix, and content of courses. Solving these problems includes modulization and increasing depth or breadth, to reflect the changing marketing system and student needs. Educators must continually look outward at the changing food system and inward to their marketing curriculum to assess needs and implement changes as they are warranted.

Key Words: agribusiness curricula, agricultural marketing, marketing courses, marketing curricula

In recent years, many agricultural economics and agribusiness departments have been struggling with questions as to the optimal number, combination, and content of marketing courses in their undergraduate curricula. Given the magnitude and rate of change in the food system, marketing courses are required to cover a broad spectrum of topics and issues, resulting in a substantial number of courses. The increased emphasis on food marketing, and more broadly agribusiness marketing, has further complicated the situation. Add to this the internationalization of markets, and one can see why undergraduate committees, program coordinators, and marketing-oriented faculty are dealing with difficult questions concerning the appropriate number and content of marketing course offerings.

This paper identifies and discusses the issues confronting agricultural economics and agribusiness departments with respect to marketing courses in the undergraduate

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curriculum. Several perspectives and approaches are considered, and examples of marketing course combinations in three fairly large academic departments are detailed and discussed.

Issues

There are a number of mega-trends affecting our food system. Increasingly, agricultural producers are taking responsibility for marketing their output. In response, land grant colleges are repositioning themselves to meet the expanding needs of traditional clientele (Thompson, 1997). On the one hand it can be argued that the curriculum should define the marketing courses offered, while on the other hand it might be argued that it is courses which define a curriculum. In either case, many issues influence the number and composition of marketing courses offered in agricultural economics and agribusiness curricula. Three interrelated issues provide the major impetus for course offerings: (a) the relevance of the course/topics to current marketing skills needed in the job market, (b) the viability of the curriculum for students and employers, and (c) faculty desires and perceptions.

Relevance

Our economy continues to change rapidly, and the food and agribusiness sector is no exception. Technology and information continue to replace physical assets as inputs in production and distribution. Globalization and liberalization of agricultural markets and rationalization of production and distribution are occurring throughout the world. These changes are producing more efficient and competitive firms and industries, and are fueling economic growth and development in national economies where such growth is permitted. Agricultural economics teaching and research, once dominated by the fields of production, demand, finance, trade, and development, are now increasingly focused on agribusiness, resource economics, and management (Heiman et al., 2002).

It should be noted that change is ongoing, and not a recent phenomenon. Moreover, agricultural economics is not the only discipline confronting change. For example, advances in biotechnology are having significant impacts on other disciplines. The challenge is to adjust teaching resources and curricula to better reflect current and emerging priorities in agriculture.

Market changes such as increases in contract production, identity-preserved grains, branded fresh poultry, beef, pork, and fruit, and industry restructuring have occurred in order to meet the needs of efficient supply-chain management. At the same time, commodity marketing continues to be a significant aspect of the agricultural and food sector. In fact, with the increased use of the internet and other information tools, more products may take on traits commonly associated with commodities. Furthermore, differentiation clearly has moved beyond just product differentiation to include service differentiation. As asserted by researchers such as Boehlje, Akridge, and Kalaitzandonakes (2002), the dramatic changes taking place in agricultural

industries require competencies and capabilities that embrace new ideas, change, innovation, analysis, integration, and teamwork—which may not be part of traditional agricultural economics curricula.

These changes have been recognized by industry leaders and managers. In a survey of 100 agribusiness managers, McGarry-Wolf and Schaffner (2000) found significant support for marketing and agribusiness marketing as a major part of curricula for international agribusiness. Among the 100 professionals surveyed, "Principles of Marketing" was ranked as the most important course for a recent college graduate to have taken when being considered as a potential employee. Other desired topics among the top 10, as ranked by these managers, included: business in a global environment, distribution, sales export documentation, logistics, and international marketing management.

Today, marketing courses must cover a wide range of topics and issues, including traditional agricultural commodity, agribusiness, and international marketing. Consequently, a variety of courses must be offered to cover these topics adequately. However, it should be noted that many of the knowledge areas desired by agribusiness employers have been taught in business schools for decades. This raises the "turf" question as to whether agricultural economics departments should try to teach courses which are, in large part, the same as courses offered in business-school programs across campus, and whether our faculty are really qualified to teach such courses.

While the content of many agribusiness courses overlaps with business-school courses, there are often significant differences reflecting the uniqueness of the agriculture/agribusiness sector. Examples include problems, programs, and policies resulting from the biology and associated risk of agricultural production, as well as processing, distribution, financing, trade policy, and the regulatory environment. Hence, by offering agribusiness curricula, agricultural economics departments may well be meeting clearly differentiated needs, rather than simply duplicating businessschool curricula.

In many agricultural economics departments, faculty are well qualified to teach a wide range of agribusiness courses, as the result of retooling and hiring decisions. Thus, it may come down to a question of departmental resources and the potential for cooperation with the business school.

Viability of the Curriculum

For an undergraduate program to be viable, it must produce well-trained, high-quality graduates who meet the needs of employers. Moreover, it must be able to attract students in sufficient numbers to be sustainable. While some departments may wish to downsize their undergraduate enrollment, it can be argued that the objective of many departments is to maintain and/or enhance their undergraduate programs, since students are the lifeblood of academic departments and the future of the profession. However, to maintain and enhance a program requires a curriculum that both produces the type of quality graduates demanded by employers and is attractive to students in several ways. It must be intellectually challenging and exciting. The

appeal of a particular course to a student is obviously influenced by that student's perception of the role it will play in preparation for a desired career. Other factors, such as instructor, difficulty, time scheduled, and so on, will also influence the attractiveness of a course. While an appealing curriculum is not a sufficient condition for a successful program, it is a necessary condition.

Consequently, many departments have engaged in activities to influence student perceptions about programs and curricula. It is now commonplace for departments to advertise and reach target populations of potential students and to broaden the identity of a department's programs in order to expand the base of potential students. Some see this as critical to growth. What this means is that now, in addition to the broad array of topics and material to be covered in the marketing area, there is also a more diverse student population with equally diverse interests.

Faculty

Over time, the relevance and viability of the curriculum, in conjunction with the overall objectives of the department and its individual faculty, determine the curricula and the marketing courses offered. Over the last couple of decades, much has been accomplished regarding curriculum and course design. Many departments have (and continue to) redesigned and revamped curricula, and consequently marketing courses.

Curricula Considerations

In an earlier survey of academic departments, Blank (1985) found that 54% of those responding felt agribusiness undergraduate programs had the greatest growth potential. Another 20% ranked agribusiness second in terms of growth potential. In a 1998 follow-up survey, Blank reported that agribusiness programs had indeed experienced growth in undergraduate agribusiness programs, and agribusiness was still the area of greatest growth potential for undergraduate agricultural economics programs.

In Blank's 1985 survey, agricultural marketing was ranked by 9% of respondents as having the greatest growth potential, while 24% ranked agricultural marketing as having the second greatest growth potential. That study also found an increasing number of undergraduate majors with nonfarm backgrounds. In another study, Larson (1996) found, of 43 departments surveyed, 86% required agricultural marketing and 84% required agribusiness management. Only introductory principles, statistics, and computer courses were required more often than agricultural marketing and agribusiness management in agribusiness management curricula.

Based on these trends, many departments—such as Kansas State University (1980s) and the University of Florida (early 1990s)—engaged in major revisions of their curricula. In these cases, the revisions resulted in more concept-centric teaching, with applications drawn broadly from agriculture, agribusiness, and international marketing. In so doing, courses became less commodity/farm centric. Specific commodity marketing courses began to disappear and economic content became more

broadly applied, although still focused on food and agriculture. These changes ushered in the development of a new array of courses, many of which have continued to be altered and expanded. In some departments, the number of marketing course offerings has expanded simply by faculty offering what they like to teach. Such an ad hoc approach to curriculum development is not recommended.

These changes in curricula and courses have not been without their downside. Most often, a change has translated into an addition rather than a deletion of topics to be covered, in either new or existing courses. As a result, a major question facing agricultural economics departments is how to offer courses in as many of these areas as possible, given resource limitations. Student scheduling is a second constraint. In an increasingly complex business environment, it is essential that students receive a broad education; thus there exists considerable competition for slots in students' programs of study. Consequently, marketing curricula in agricultural economics and agribusiness departments now cover a vast array of topics.

As departments attempt to address expanding needs in traditional commodity/ industry marketing, as well as firm-level agribusiness marketing and the marketing of differentiated food products, they risk marketing-course overload, in terms of faculty resources and student schedule and program limitations. There are several issues to be considered in crafting the marketing components of a curriculum. Should a general, farmer-oriented, agricultural commodity course be maintained? What about commodity-specific courses? Should commodity marketing be combined with firm-level, marketing-mix-oriented agribusiness or food marketing? Should only firm-level agribusiness marketing be taught, or should it be offered as an alternative to a traditional commodity marketing course? Should international agribusiness marketing be a separate offering, or should it be a part of a broader agribusiness marketing course or combined with international trade policy? So, to address appropriately the issues raised, we need to identify optimal combinations of agricultural, agribusiness, and international marketing courses to be offered.

Evaluation of Curricula

There are many marketing issues to be explored and many ways to organize learning experiences. In terms of developing a curriculum that works, the authors believe there is not a one-size-fits-all template. Rather, the development of an optimal curriculum is dependent on both internal factors associated with the department and the institution and external factors associated with employment requirements in the state and region. Also, curricular design at a particular institution is heavily influenced by historical developments within the department and by the interest, attitudes, and dominant pedagogic philosophy of current faculty. The pressures associated with efficient use of faculty time, flexibility of student scheduling, and the desire to teach students everything about the latest developments in the marketing of agricultural production inputs, commodities, and food products provide very real challenges.

Faculty will continue to be challenged to find new and creative ways to solve these problems. For some departments, modules are expected to be one of the possible solutions. However, it is important to carefully evaluate the advantages and disadvantages of modules for a given situation. In general, modules will be more effective when material is of a very applied nature and the topic is concise enough to be covered in a short time frame.

Some departments have attempted to add more depth and less survey to each course in an effort to facilitate the development of critical thinking, and have found this to be well received by students. Some departments have dramatically expanded the number of agribusiness courses offered in recent years, adding courses in sales, human resource management, and strategic marketing management, as well as linking marketing with related courses such as finance and law. For example, agricultural law courses are increasingly related to marketing as contract marketing and international and environmental concerns become more common. However, adding breadth to the curriculum has implications for the number of marketing courses that can be viably offered.

Size, expertise, and interests of the faculty, along with geographic location of the university, will play a role in determining the number, mix, and content of marketing courses. Whether the curriculum and its supporting faculty are part of a main campus, a distance education program, or a satellite campus will influence the number of courses which can be supported and the degree of cooperation with other departments and institutions which will be required.

Revision of Curricula

The ideal review process would involve input from employers, students, alumni, and faculty. The process should make use of the results from continuous assessment programs, as well as periodic comprehensive reviews. For example, at Kansas State University (KSU), the continuous assessment program in the Agricultural Economics Department includes graduating senior exit interviews by the department head, student focus groups, teacher and class evaluations, and alumni assessments conducted by the University. In addition, over the past decade, KSU agricultural economics professor Andrew Barkley has conducted two major surveys of graduates of the College of Agriculture, the results of which have been used in undergraduate program evaluation.

The Agricultural Economics Department at Purdue University and the Food and Resource Economics Department at the University of Florida (UF) also utilize multiple continuous-assessment approaches to evaluate the effectiveness of their undergraduate curricula. These include feedback from students through comments on course evaluations, exit interviews with graduating seniors, and alumni surveys. On a more informal basis, the faculty of all three departments maintain close connections with, and continuously gather information from, employers, interviewers, and other industry representatives. For example, the Center for Food and Agricultural Business at Purdue allows faculty to incorporate comments and suggestions from industry representatives into curricular decisions.

KSU and UF have utilized comprehensive curriculum reviews about every 10 years. At KSU, the review involves all of the department faculty, as well as input from students. It begins with a position paper, written by the coordinator and the undergraduate program committee. The department holds several faculty seminars to discuss the status of the undergraduate curricula and to consider revisions, after which the undergraduate curriculum committee prepares official proposals for consideration by the full faculty. UF follows a similar, albeit somewhat less formal, procedure.

Purdue uses a special faculty committee to develop proposals for curricular changes. A proposal is given to the department's undergraduate teaching committee for evaluation and vote. Successful proposals are then taken to the full department faculty, and then on to the School of Agriculture for approval. Success factors in the Purdue model include a small enough subcommittee to sort out the issues and develop a proposed change, good communication between the subcommittee and the faculty, and attention to institutional structures and timelines.

The process of evaluating and revising curricula has important implications for students, employers, and academic departments. Specific revisions resulting from curricular assessments at the University of Florida, Kansas State University, and Purdue University provide examples of how the assessment process can better meet the needs of both students and employers. Table 1 details selected courses that have been revised or developed, time frame, identified need, how the need was identified. and the outcome or action taken. For example, in the early 1990s at the University of Florida, need was identified for undergraduate students to have a better understanding of policies which influence international agricultural trade. The need was identified by listening to the comments of recent graduates, from interviews with industry leaders, and from faculty observations and insight. As a result, a new senior-level course, International Trade Policy in Agriculture, was developed and first offered in 1991.

The following discussion of undergraduate marketing curricula illustrates three different approaches to designing and fine-tuning agricultural, agribusiness, and international marketing courses in an undergraduate curriculum. The process of change is ongoing as academic departments are continuously being challenged to assess and alter their curricula to reflect the evolving marketing system and the needs of students being prepared for participation in the sector. It is clear that university faculty must maintain close relationships with agribusiness firms in order to produce cutting-edge graduates. While departments across the country may differ in their individual approach to these curricular issues depending on department size, institutional relationships, and geographic location, these examples provide a foundation for further discussion.

Examples of Marketing Curricula

In order to give curricular context and further definition to the issues and problems surrounding marketing courses in undergraduate programs, the marketing curricula of three programs are examined: Kansas State University, Purdue University, and the University of Florida.

Evaluations
Curricula
from
Resulting
of Revisions
Examples
Table 1.

TIME NEED WAS IDENTIFIED						
International Trade Policy in Agriculture (AEB 4242) in Agriculture (AEB 4242) influence global trading Agricultural & Food Marketing Agricultural & Food Marketing Agricultural Agricultural & Food Marketing Agricultural Agricultural Agricultural Agricultural Agricultural Marketing (AEB 4343) International Agribusiness Marketing Fundamentals & Early 1990s To gain a better understanding International Agribusiness Marketing (AEB 4343) International Agribusiness Marketing (AEB 4343) International Agribusiness Marketing (AEB 4343) International markets International Agribusiness Marketing (AEB 4343) International markets Agribusiness Logistics Marketing Fundamentals & Early 1990s To develop experience in Faculty member proposed Commonts from playing a game sa a class where students share students; actual trading creates an experience different from playing a game the risk Mid-1990s To develop an understanding of Recruiter comments about Inford and agriculture Agribusiness Logistics Mid-1990s To develop an understanding of Recruiter comments about Inford and agriculture Agribusiness risk and the tools to the need for this course, student address it and the tools to the need for this course, student address it address it Agribusiness risk and the tools to the need for this course has grown quickly	SCHOOL	COURSE NAME	Time Frame	Need	How Need Was Identified	OUTCOME OR ACTION TAKEN
Agricultural & Food Marketing Mid-1990s Expand beyond commodity comments, faculty insight products International Agribusiness Mid-1990s To gain a better understanding (AGEC 520) Marketing Fundamentals & Early 1990s To develop experience in commodity market analysis and agricultures (AGEC 520) Agribusiness Logistics Mid-1990s To develop an understanding of faculty insight comments (AGEC 632) Risk Management 2000 To develop an understanding of faculty member first suggested (AGEC 680) Risk Management 2000 To develop an understanding of faculty member first suggested (AGEC 680) Risk Management 2000 To develop an understanding of faculty member first suggested demand for course has grown quickly	UF	International Trade Policy in Agriculture (AEB 4242)	Early 1990s	To gain a better understanding of international ag policies that influence global trading	Comments of recent graduates, interviews with ag industry leaders, faculty insight	New course developed
Marketing (AEB 4343) Marketing (AGEC 520) Marketing Fundamentals & Early 1990s To develop experience in offered the predecessor course actually trade futures & options as an experiment; course had immediate demand from students; share students share students share students and experience different from playing a game Agribusiness Logistics Mid-1990s To develop an understanding of Recruiter comments about logistics and supply-chain issues importance of logistics; faculty member first suggested business risk and the tools to the need for this course, student address it demand for course has grown quickly	Ţ.	Agricultural & Food Marketing (AEB 3300)	Mid-1990s	Expand beyond commodity marketing of agricultural products	Student exit interviews, recruiter comments, faculty insight	New text adopted, less depth on commodity marketing; increased focus on wholesaling, retailing, and the consumer
Marketing Fundamentals & Early 1990s To develop experience in offered the predecessor course actually trade futures & options as an experiment; course had a class where students share immediate demand from the risk as a class where students share students; actual trading creates an experience different from playing a game Agribusiness Logistics Mid-1990s To develop an understanding of Recruiter comments about logistics and supply-chain issues inportance of logistics; faculty in food and agriculture course. Risk Management 2000 To develop an understanding of the need for this course; student address it quickly	UF	International Agribusiness Marketing (AEB 4343)	Mid-1990s	To gain a better understanding of how to be successful in international markets	Comments of recent graduates, interviews with ag industry leaders, faculty insight	New course developed
Agribusiness Logistics Mid-1990s To develop an understanding of Recruiter comments about logistics and supply-chain issues importance of logistics; faculty in food and agriculture member volunteered to develop course Risk Management 2000 To develop an understanding of Faculty member first suggested business risk and the tools to the need for this course; student address it demand for course has grown quickly	KSU	Marketing Fundamentals & Futures/Options Trading (AGEC 520)	Early 1990s	To develop experience in commodity market analysis and actually trade futures & options as a class where students share the risk	Faculty member proposed/ offered the predecessor course as an experiment; course had immediate demand from students; actual trading creates an experience different from playing a game	The experiment was developed into the course as now offered
Risk Management 2000 To develop an understanding of Faculty member first suggested (AGEC 680) business risk and the tools to the need for this course; student address it demand for course has grown quickly	KSU	Agribusiness Logistics (AGEC 632)	Mid-1990s	To develop an understanding of logistics and supply-chain issues in food and agriculture	Recruiter comments about importance of logistics; faculty member volunteered to develop course	Course was offered for first time in 1995
	KSU	Risk Management (AGEC 680)	2000	To develop an understanding of business risk and the tools to address it	Faculty member first suggested the need for this course; student demand for course has grown quickly	New course developed

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SCHOOL	COURSE NAME	TIME FRAME	NEED	HOW NEED WAS IDENTIFIED	OUTCOME OR ACTION TAKEN
Purdue	Purdue Futures & Options Market Applications (AGEC 321) Grain & Grain Products Marketing (AGEC 420) Livestock & Meat Marketing (AGEC 421) Technical Price Analysis (AGEC 422)	Mid-1990s	To develop an understanding of how commodity markets work and to create an opportunity to pursue rigorous analysis in a specific area (e.g., grains, livestock, technical analysis); to make the most efficient use of scarce faculty resources	Student exit interviews, faculty insight, and recruiter comments	Development of a series of modular courses with linked content; students begin with basic futures & options course and advance to specific topics in more detail
Purdue	Advanced Futures Topics (AGEC 440) Purdue Food Distribution: A Retailing Perspective (AGEC 333)	Late 1990s	To expand course offering within the Food Industry Marketing and Management major	Student exit interviews, faculty insight, and recruiter comments	Course revised to have a supply-
Purdue	Purdue Marketing Management of Agricultural Business (AGEC 426)	Late 1990s	To increase the level of rigor in the course	Student exit interviews, faculty insight, and recruiter comments	The course was offered twice a year rather than once a year, and class size was subsequently reduced; projects introduced where students are required to undertake research

The Kansas State Approach

In Kansas State University's Department of Agricultural Economics, eight semesterlong, 3-credit, upper-division undergraduate marketing courses fulfill curricular needs in the agribusiness major, as well as in four options in the agricultural economics major (table 2). While this can be viewed as a large number of marketing courses, with 350 undergraduate majors and a substantial number of minors, the faculty believes it can afford such a breadth of course offerings and learning experiences.

Of those eight courses, only one, Agricultural Market Structures (AGEC 505) is required in all of the curricular options in the department. It provides, at the intermediate level, the microeconomic theoretical base of marketing and business strategy, and explores other issues from all aspects of food and agribusiness marketing, especially markets and a free society.

Commodity Futures and Options (AGEC 420) is not required, but is widely taken by both majors and nonmajors, and can be taken as early as the sophomore year. It introduces students to futures and options and to the role of those institutions in price discovery in grains and livestock. Students may enhance their ability to use futures and options by taking the follow-up course, Marketing Fundamentals and Futures/Options Trading (AGEC 520), a very experiential course—students contribute to a class pool, which is used to take real market positions using mini-contracts and options. The third course in this sequence is Risk Management (AGEC 680). The focus of this course is on understanding decision making with uncertainty and efficient markets, and on the use of risk management tools.

Price Analysis and Forecasting (AGEC 605) is an applied econometrics course dealing with understanding and forecasting price behavior and spreads. International Agricultural Trade (AGEC 623) addresses both trade policy and international marketing issues in food and agriculture. These courses are all at the senior level.

Food and Agribusiness Marketing (AGEC 515), required of all students in the agribusiness curriculum, is a heavily experiential, product-marketing course, with a major component involving student teamwork. Each team works with a local firm to develop a business plan and marketing plan for that firm. Agribusiness Logistics (AGEC 632) addresses logistical issues which include transportation and warehousing, supply-chain management, transaction costs and choice of organization, information technology and e-commerce, contracting, quality and food safety, and other issues of logistics and business strategy.

Student enrollment in the Kansas State program allows the department to provide this menu of courses, although some faculty may question the number of courses being offered. However, the department's 1998 comprehensive undergraduate program review found the faculty generally supportive of the array of courses, and provided the impetus for what became the sequence of commodity and risk management courses described above. In 1998, student enrollment was still growing. By the fall of 2002, student numbers had fallen to about 300 majors and dual majors. The recent decline has prompted the department to review its situation. Options include

Table 2. A Comparison of Agricultural Marketing Course Offerings: Kansas State University, Purdue University, and the University of Florida

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KANSAS STATE UNIVERSITY	Purdue University	University of Florida
< Commodity Futures & Options (AGEC 420)	< Futures & Options Market Applications (AGEC 321)	< Futures Markets & Risk Management in Agriculture
< Marketing Fundamentals & Futures/Options Trading	< Grain & Grain Products Marketing (AGEC 420)	(AEB 3315)
(AGEC 520) < Risk Management	< Livestock & Meat Marketing (AGEC 421)	
(AGEC 680)	< Technical Price Analysis (AGEC 422)	
	< Advanced Futures Topics (AGEC 440)	
< Agricultural Market Structures (AGEC 505)		< Agricultural & Food Marketing (AEB 3300)
	< Food Distribution: A Retailing Perspective (AGEC 333)	< Food Wholesale & Retail Marketing (AEB 4309)
< Price Analysis & Forecasting (AGEC 605)	< Agricultural Prices (AGEC 305)	< Agricultural Price Analysis & Consumer Behavior (AEB 4334)
< International Agricultural Trade (AGEC 623)	< International Agricultural Trade (AGEC 450)	< International Agribusiness Marketing (AEB 4343)
		< International Trade Policy in Agriculture (AEB 4242)
< Food & Agribusiness Marketing (AGEC 515)	< Marketing Management of Agricultural Business (AGEC 426)	< Agribusiness & Food Marketing Management (AEB 4342)
	< Advanced Agribusiness Marketing (AGEC 427)	< Agricultural Marketing Strategies (AEB 4380)
< Agribusiness Logistics (AGEC 632)		

expanding departmental focus further down the food and agriculture supply chain to final food manufacturing and to food retailing, as well as enhancing minority recruitment. While today's enrollment is near that in 1997, further declines may prompt major changes in course offerings.

There is an interrelationship across the spectrum of agriculture, agribusiness, and international marketing courses at Kansas State. In the Kansas State situation, the futures and options sequence (AGEC 420, 520, and 680) arguably has applications to both agricultural marketing and agribusiness marketing. The same could be said for Agricultural Market Structures (AGEC 505). In contrast, Price Analysis and Forecasting (AGEC 605) is considered to have significant application to agricultural, agribusiness, and international components.

It can be argued that KSU's Food and Agribusiness Marketing (AGEC 515) and Agribusiness Logistics (AGEC 632) focus on marketing applications as related to agribusiness and food marketing. However, AGEC 632 has a supply-chain focus which does at times include agricultural marketing and international marketing. The lone course with an emphasis on international marketing is International Agricultural Trade (AGEC 623).

The Purdue Approach

Purdue University's Department of Agricultural Economics offers 10 upper-division, undergraduate marketing courses to fulfill the needs of 350 agribusiness majors (table 2). Since Purdue has adopted the use of modules, the classes range from 1 to 3 credit hours per semester. Agricultural Prices (AGEC 305) is a 3-credit traditional price analysis course that examines agricultural prices and the movement of farm product prices. Topics covered include conceptual and statistical analysis of agricultural supply and demand relationships, price analysis, and price forecasting.

In the commodity marketing area, Purdue utilizes modules and a sequencing of courses. Futures and Options Market Applications (AGEC 321) is a 2-credit course providing students with an in-depth background on the origin, operation, and application of futures and options in risk management for agriculture and agribusiness. After acquiring the foundation of how the futures and options markets work, students then select, using a cafeteria approach, from a set of four 1-credit courses in the commodity marketing area. Some students take one of these courses, while others take all four.

Grain and Grain Products Marketing (AGEC 420) is a 1-credit course that provides both a fundamental and technical analysis of agricultural grain commodity prices. It covers supply and demand in determining market prices, futures markets in relation to cash markets, and an analysis of alternative forward pricing methods. Also a 1-credit course, Livestock and Meat Marketing (AGEC 421) offers an analysis of the livestock and meat marketing system, including prices, forecasting, buying and selling, carcass marketing, futures market, and wholesale and retail channels. Technical Price Analysis (AGEC 422) covers the theory and application of technical tools to the analysis of price movements. In this 1-credit hour course, the orientation is toward agricultural futures and options users who want to develop a better understanding of how and when to use these tools. Finally, Advanced Futures Topics (AGEC 440) is a 1-credit hour course examining the role of futures markets in price formation and as a business management tool. Topics include why the markets work, price formation in futures, regulation of futures, interest rate futures, speculative pricing, risk management, and equity financing.

Food Distribution: A Retailing Perspective (AGEC 333) is one of three courses dealing with agribusiness marketing. This 3-credit hour course focuses on distribution factors affecting the food industry, with particular attention to the food wholesaling and retailing sectors. Discussion of the relative importance of each of the major departments within the modern supermarket is central to this course. Marketing

Management of Agricultural Business (AGEC 426), also a 3-credit hour course, examines the major types of marketing strategy decisions that must be made by agribusiness firms, including target market selection; marketing research; sales forecasting; product policies; distribution channels; pricing, advertising, and personal selling; and marketing control. Advanced Agribusiness Marketing (AGEC 427) is a 2-credit hour course dealing with the application of marketing principles to market planning, research, and analysis. This course leads to the development of strategic marketing plans for agribusiness and is an important training ground for students who will be participating in the National Agri-Marketing Association (NAMA) competition.

International Agricultural Trade (AGEC 450) is a 3-credit hour course examining U.S. agricultural trade with emphasis on international trade theory, exchange rates and their determination, relationships between domestic agricultural policies and trade policies, and analysis of institutional arrangements for world trade in agricultural products.

In summary, Purdue offers five courses in the commodity marketing area, with its Futures and Options Market Applications (AGEC 321) as the base course, followed by four topical courses among which students can choose (AGEC 420, 421, 422, and 440), having corresponding application to agricultural marketing and agribusiness marketing. In addition, there is a price analysis course (AGEC 305) with application to agricultural, agribusiness, and international marketing. Three courses (AGEC 333, 426, and 427) deal exclusively with marketing in the agribusiness sector. International Agricultural Trade (AGEC 450) is the only course offering in international marketing.

The University of Florida Approach

The Food and Resource Economics (FRE) Department at the University of Florida, with 295 upper-division undergraduate majors and a large number of minors, offers eight upper-division, semester-long, 3-credit, undergraduate courses which deal with marketing issues (table 2). Approximately 90% of the undergraduate students in FRE are in the Agribusiness Management specialization, with the remainder in the Natural Resource specialization.

Agricultural and Food Marketing (AEB 3300) is a required course for students in the agribusiness specialization. In addition, many departments in the College of Agricultural and Life Sciences, such as Animal Science, Horticultural Science, and Agricultural Operations Management, require this course for their students. The course provides students with a broad understanding of the U.S. food system, and the mechanisms involved in getting food and fiber from "seed to table." However, the focus of this course is on the producer. Futures Markets and Risk Management in Agriculture (AEB 3315) is a specialization elective in the FRE Department. It covers the basic elements and principles of agricultural commodity marketing using the futures market. There is some overlap between Agricultural and Food Marketing (AEB 3300) and Futures Markets and Risk Management in Agriculture (AEB 3315), as a portion of the semester in Agricultural and Food Marketing deals with futures and options trading as a risk management tool.

Agricultural Price Analysis and Consumer Behavior (AEB 4334) is a quantitative, applied econometrics course that utilizes consumer theory to examine factors affecting agricultural prices. Food Wholesale and Retail Marketing (AEB 4309) is the most recent addition to the marketing curriculum. While Agricultural and Food Marketing (AEB 3300) is geared more toward producers, the focus of Food Wholesale and Retail Marketing is on trends driving change across the entire food system. Special emphasis is placed on the needs of consumers and how manufactures, wholesalers, and retailers endeavor to meet these needs.

Agribusiness and Food Marketing Management (AEB 4342) is a required course for FRE majors in the agribusiness specialization, focusing on application of marketing and management principles to agribusiness and food marketing problems faced by agribusiness managers. This course emphasizes case problems, group projects, oral presentations, and written assignments. Agricultural Marketing Strategies (AEB 4380) is designed to familiarize students with the decision-making activities necessary to launch agricultural/agribusiness products successfully. The team marketing plan development for this course is completed in conjunction with an actual firm, and is used as a preparation for the NAMA competition.

International Agribusiness Marketing (AEB 4343) is also a specialization elective, and focuses on global marketing of perishable and storable agricultural commodities and food products. It combines firm-level agribusiness marketing concepts with international agribusiness marketing and export management applications. Student teams develop and present a detailed written international marketing plan for an agribusiness product in a foreign target market. Another course with an international focus is International Trade Policy in Agriculture (AEB 4242). This course explores the effects of various trade policies, issues and agreements on domestic and international competition, production, prices, consumption and trade, and includes the analysis of various trade policy tools.

To recap, unlike Purdue and Kansas State, Florida has only one futures and options course (AEB 3315) focusing on commodity marketing. However, similar to both Kansas State and Purdue, Florida offers a price analysis course (AEB 4334). Three courses (AEB 4309, 4342, and 4380) deal exclusively with marketing in the agribusiness sector, while one course (AEB 3300) focuses primarily on marketing from the agricultural producer perspective. Florida's AEB 4242 and AEB 4343 both have an international focus, with AEB 4242 almost exclusively so, while AEB 4343 includes firm-level agribusiness marketing concepts applied to international markets.

Concluding Remarks

Curricular evaluation and revision is an ongoing process for academic departments. This is certainly the case for agricultural economics and agribusiness curricula. By examining the programs of three departments' curricula and approaches to assessment and revision, this paper has demonstrated that the goal of developing high-

quality, employment-ready graduates can be attained through different approaches and resulting outcomes. In addition to the feedback mechanisms discussed, validation of these curricula assessments and the resulting programs can be found in outside formal program reviews.

In recent years, all three academic departments were evaluated by the U.S. Department of Agriculture's Cooperative State Research, Extension, and Education Service (CSREES). The 1996 review of Kansas State University's Agricultural Economics Department identified a commitment to undergraduate teaching characterized as both commendable and a rarity. The report further stated that the undergraduate program was distinguished in terms of the level of success, and noted the growth in enrollment was likely to have been the result of the Department's strong reputation for instruction and advising and its emphasis on the agribusiness degree. The 1998 review of the Food and Resource Economics Department at the University of Florida identified the undergraduate agribusiness program as being the strength of the Department. Finally, the 1999 review of the Agricultural Economics Department at Purdue described the undergraduate program as strong and vibrant.

The purpose of this paper has been to focus attention on issues and choices associated with marketing courses in undergraduate agricultural economics and agribusiness curricula and to stimulate discussion within the profession. Clearly, we, as a profession, do not talk enough about teaching or curricular issues with our colleagues. Often, we seem content to continue doing things as we have always done them without stepping back and taking a careful look at how we can best serve our students and other stakeholders, including agribusiness employers. On an encouraging note, conversations with marketing-oriented faculty across the country in recent years reveal common themes of both concern about the optimal number and content of marketing courses and a recognition of the continuing need to reassess marketing curricula.

As educators, we must continually look outward at the changing commodity and food system and look inward to our marketing curriculum in order to assess changing needs and implement changes as they are warranted. Strong linkages with agribusiness firms and industries are essential. We must be aware that we are much better at adding more courses and material than we are at eliminating established courses and subject matter. A continuing critical assessment of the marketing curriculum is needed. Detailed discussions among marketing faculty and with agribusiness employers are needed to assure we have the optimal curriculum to prepare our students for careers in the 21st century. It is hoped this paper will serve to stimulate such discussions.

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