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Agribusiness Education

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In recent years colleges of agriculture have experienced unprecedented changes in student enrollments, backgrounds, skills, interests, and career aspirations. Employment opportunities for college of agriculture graduates have also changed dramatically. Within this context, developing and maintaining effective instructional programs requires an on-going assessment of the changing needs and perceptions of prospective students and employers. There is increasing realization that colleges of agriculture need to give students more exposure to business-related courses to prepare students for careers in agribusinesses.

Agribusiness education increases students' understanding of business management principles and concepts. It also develops their conceptual and analytical abilities to apply this knowledge to enhance the working effectiveness of the food and fiber sector. Within Agribusiness education there is an interface between agriculture and business. Agribusiness education must provide students with two things: a basic understanding of agriculture and agricultural products and a grounding in business concepts.

Students may already have opportunities to take business-related courses without an official major or minor in Agribusiness. However, such informal arrangements can have many problems. First, students would not have proper guidance on selecting the proper mix of business-related courses. So, they might over emphasize some areas, while neglecting other important areas. Secondly, students who take some business-related courses might not get adequate recognition for their efforts. Potential employers are more likely to recognize the importance of a major or minor in Agribusiness than a group of business-related courses on a student's transcript. Thirdly, a college of agriculture would not have at its disposal valuable vehicles to encourage students to prepare for careers in Agribusiness. Hence, many students who might otherwise prefer a degree from a college of agriculture may turn to the business school.

In the United States there are about 60 undergraduate and graduate Agribusiness degree programs (Woolverton, Cramer, and Hammonds). Similar programs exist in many other countries. The number of degree programs in Agribusiness and the number of students in these programs have been growing rapidly in recent years.

This paper examines the various formal approaches used in Agribusiness education. The first approach considered is an Agribusiness minor for any undergraduate major in the college of agriculture. The second approach considered is an Agribusiness major for undergraduates. The third is a graduate program in Agribusiness at the master's level.

Agribusiness Minor

Graduates from any major in a college of agriculture may pursue careers that will involve operating decisions for some farm, firm or public agency. They may also participate in public decision making either for community action or policy formulation. While a traditional degree in production agriculture from a college of agriculture might not adequately prepare students for making such decisions, business-related courses could provide a base for improved decision making. A minor in Agribusiness could include such courses.

An Agribusiness minor might include five courses. Principles of microeconomics and accounting are essential. Courses in management, marketing, and finance could complete the minor.

The usefulness of a business background in production agriculture was not clear during periods of high farm prices. Recently however, employers have been demanding an awareness of business topics by college of agriculture graduates. Students in fields of production agriculture often fail to recognize the benefits derived from a business background. Colleges of agriculture need to take an active role in informing students of these benefits. We should also encourage students to take business-related courses. Offering an Agribusiness minor can be an important tool in encouraging students to take business-related courses.

A major drawback of an Agribusiness minor is that it does not offer any depth. We expose students only to introductory courses in a variety of business fields. We design introductory courses to prepare students for more advanced courses in the field. However, we do not expect students pursuing an Agribusiness minor to take any of the advanced courses. So, special courses are needed to form the core of an Agribusiness minor.

Agribusiness Major

Franklin recently reported that 37 institutions offered Agribusiness degrees. However, this number has continued to grow as other institutions have made needed adjustments and recognized opportunities in the area of Agribusiness education.

To be most effective, an Agribusiness degree must be distinctive from conventional degrees in agricultural economics and business administration. The niche for an Agribusiness major is illustrated by examining closely related majors.

A Description of Related Majors. I will examine two areas which are closely related to an Agribusiness major; agricultural economics and general business administration.

The typical agricultural economics degree includes principles of economics, farm and ranch management, computers, agricultural production, agricultural policy, agricultural marketing, intermediate microeconomics and macroeconomics, and price analysis (Franklin). An agricultural economics program will focus mainly on economic decisions at the level of a farm or ranch. The program integrates technical agriculture and economic theory as a basis for improved decision making in agriculture. It also focuses on determining the optimum levels of crop and livestock production and input usage. The main type of economic entity considered is a single proprietor firm, and sometimes the farmer cooperatives. Major marketing concerns focus on when a farmer should sell a particular commodity and whether storage is profitable.

Combining an agricultural economics education with some practical experience provides a good basis for farm managers. The problem with this approach is that only a small fraction of these graduates actually work on a farm or ranch. Instead, many of the agricultural economics graduates get jobs in Agribusiness firms that supply inputs to agriculture or market agricultural products. Many of these firms are corporations rather than single proprietorships. Their production may include highly processed products with brand names rather than raw agricultural products. Knowledge of selling differentiated products, personnel management, and interpersonal communication are often important to these people. However, agricultural economics has not traditionally provided the broad base of knowledge needed for careers in Agribusiness.

A business administration degree prepares students in a much different way. Students pursuing this degree must take principles of economics and accounting, business law, computers, management information systems, and organizational communication during the first two years of college. Re-

quired courses during the final two years include statistics, financial management, production management, management and organizational behavior and marketing. These courses recognize the importance of organizational behavior, sales management, consumer behavior, and adaptation of products to markets. In addition to the basic requirements, students can take economics, banking and finance, accounting, management, management science, and marketing.

While students with a business administration degree have broad training, they do not study any one field in detail. For example, they are not required to take intermediate microeconomics. In fact, it may be possible to graduate with a business administration degree with no senior-level courses. This lack of depth of understanding may prove a hinderance for many.

A Description of Agribusiness Majors. The typical Agribusiness major includes principles of economics, statistics, computers, management, finance, agricultural policy, marketing, intermediate microeconomics and macroeconomics, and Agribusiness management (Franklin). This program has more emphasis on economics than the business administration program. In addition to more courses in economic theory, Agribusiness programs use economic applications in most courses. This emphasis on economics arises because most Agribusiness majors are in departments of agricultural economics. Business administration degrees on the other hand are spread over several business disciplines. An advantage of the emphasis on economics is that Agribusiness students have a more in-depth education. More specialization than business administration majors is possible.

Agribusiness programs offered within colleges of agriculture require courses in technical agriculture such as animal science, plant science, and food science. These courses help students interact better with farmers and better understand agricultural processes and products. These technical agriculture courses distinguish Agribusiness programs offered by colleges of agriculture from similar programs offered by institutions without agricultural programs.

Principles and applications covered in Agribusiness programs relate more to agribusinesses than farms. This focus helps distinguish Agribusiness programs from traditional agricultural economics programs.

There are several other features which can strengthen Agribusiness programs and distinguish them from traditional agricultural economic programs. Agribusiness programs should design curricula to meet specific industry needs (Litzenberg and Schneider). Matching curricula content with industry needs requires close interaction between academic and in-

dustry leaders. Agribusiness programs should help develop communication skills and require internships (Broder and Houston). We should address both oral and verbal communication skills. Developing these skills means placing more emphasis on them in existing Agribusiness courses. It also requires more communication courses such as business writing and speech. An effective Agribusiness internship can add to a student's program. It is also advantageous because it may lead to later employment. Furthermore, it provides a link for the academic unit to the Agribusiness community.

Undergraduate programs in Agribusiness focus on entry-level management and do not prepare students for top management. Recognition of this limitation has recently led to the development of graduate programs in Agribusiness.

Graduate Agribusiness Education

Graduate programs in Agribusiness range from a Master of Science program with general coursework and a thesis in agricultural economics or management to a Master of Business Administration with an emphasis on agriculture and firm-level management. The type of master's program considered here is one designed to prepare students for middle and eventually top management careers in Agribusiness. While management skills are important, other areas covered include economic theory, accounting, finance, and marketing. Some important features of this type of degree program are; (1) a capstone course in Agribusiness strategic management, (2) practical experience, usually in the form of an internship, and (3) extensive use of analytical tools (French and Erven).

An Agribusiness master's program typically takes 18 months to complete. Courses taken in the first year are core requirements, including microeconomics, statistics, marketing management, financial management, production management, and management information systems. Courses taken beyond core requirements should broaden a student's perspective by covering additional fields. Alternatively, they could develop a specialization in a selected field by taking advanced courses. Most of the courses taken during the program would be general courses, but at least one fourth of the courses should be specialized Agribusiness courses.

Traditional classroom approaches should include effective internships, guest lectures by practitioners, field trips and related research. These include professional papers and feasibility studies (French and Erven). Development of conceptual, analytical and communication skills are important.

Development of a successful Agribusiness program is much more difficult at the master's level than at the undergraduate level. Faculty in most agricultural economics departments can easily switch the focus of under-

graduate courses to include an Agribusiness orientation. However, a graduate program requires a greater commitment of specialized resources. These courses would cover topics outside the training and interests of most agricultural economists. Current agricultural economics faculty would therefore need additional training, education, and practical experience. Alternatively, new faculty with business orientation should be hired. Likewise, it would be difficult for faculty in business administration to develop a specialized program in Agribusiness. Furthermore, we should set up linkages with the Agribusiness community to develop an Agribusiness degree to attract students from the industry. We should also set up internships, and find employment for graduates.

Summary and Conclusions

Agribusiness education covers a variety of informal and formal programs to improve human capital operating the food and fiber sector. Undergraduate Agribusiness education emphasizes management skills with a marketing or sales orientation. It offers a broader education than either traditional management or agricultural economics programs, emphasizing a professional orientation. Conversely, it is more specialized than a general business administration program, considering the unique features of the food and fiber sector.

A baccalaureate degree does not adequately prepare students for strategic planning and top management. Agribusiness master's programs fulfill this role. These programs help students develop conceptual and analytical abilities to address both short-term concerns and long-term strategic issues. Furthermore, these programs develop competence over related disciplines of management, economics, finance, and marketing.

Two other types of Agribusiness programs warrant consideration. Since Agribusiness is not an academic discipline it would be difficult to conceptualize and develop a successful Ph.D. program in this area. Some Ph.D. graduates have emphasized Agribusiness topics in coursework and dissertations, but by necessity they have specialized in one field or another. This specialization limits the time and effort that they can devote to other fields. With the small number of Ph.D.'s graduating with an emphasis in Agribusiness, one could reasonably question where future faculty for Agribusiness programs will come from. The other type of program that warrants consideration is one for Agribusiness executives. The Agribusiness community needs outstanding executive training programs and would certainly add to the stature of institutions that can successfully deliver them. However, there is an investment associated with developing the human capital needed for instruction in these executive training programs and to make

the necessary contacts to attract executives to these programs. Most departments offering degrees in Agribusiness do not have the personnel with adequate training and experience to develop successful general executive training programs. However, opportunities exist for coordination and cooperation across states in developing Agribusiness executive training programs.

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