

A Review of Baccalaureate Degree Programs in Agribusiness Management

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## A Review of Baccalaureate Degree Programs in Agribusiness Management

### Abstract

This research describes characteristics of 109 different four-year baccalaureate programs in agribusiness management in the United States. These included formal degrees, majors, and options within degrees. Over 65 percent of the formal agribusiness management degree programs do not require international and global dimensions of agriculture, an integrative management course such as strategy, and agricultural or business law. Almost 50 percent or more do not require courses in management, marketing, or finance from the college of business.

## **A Review of Baccalaureate Degree Programs in Agribusiness Management**

Many colleges and universities in the United States offer education and training in agribusiness management. Typically, this training is either through the college of agriculture and the department of agricultural economics, or through the college of business as additional option to a degree in management. The diversity of undergraduate degree programs in agribusiness management is great. Some programs are offered jointly with the college of business while others consist of an agricultural economics degree with several required courses in business.<sup>1</sup> Still others have formal B.S. degrees in agribusiness management.

This research describes characteristics of 109 different four-year baccalaureate programs in agribusiness management in the United States. These programs include formal degrees, options, majors, and specializations. Marketing, management, and other course requirements and electives for B.S. degrees in agribusiness management are compared against similar requirements for B.S. degrees in agriculture that have a major or option in agribusiness management.

### **The Need for Agribusiness Degree Programs**

#### *Food and Agribusiness Managers Require Unique Skills*

Sonka and Hudson (1989) identified five factors that separate agribusiness from other industries. These were “1) the unique cultural, institutional, and political aspects of food, domestically and internationally; 2) the uncertainty arising from the underlying biologic basis of crop and livestock production; 3) the alternative goals and forms of political intervention across subsectors and between nations in an increasingly global industry; 4) institutional arrangements that place significant portions of the technology development process in the public sector; and 5) the differing competitive structures

existing within and among the subsectors of the food and agribusiness sector.”

Managers desire undergraduate students who have skills in management as related to agriculture. More than 500 agribusiness managers responded to Schneider and Litzenberg’s (1989) survey on skills needed by undergraduates in agribusiness management. The need for more training in human relations, communication, general business finance, general business management, salesmanship, agribusiness finance, international marketing, and agribusiness marketing was cited by 45 percent or more of the respondents. Global competition, long-range planning coordination (i.e., business strategy), information technology, communication development, integration of technical and business skills, domestic agriculture policies, changing consumer tastes and preferences, new-product development and packaging, and global food and agriculture policies were ranked 3.3 or higher on a five point scale (1 equaled not important and 5 equaled important). Many, but not all, of these skills can be obtained within colleges of business.

### *Management is Taught within the College of Business*

Management education is taught in colleges of business. The American Assembly of Collegiate Schools of Business (AACSB) publishes standards by which accreditation will be awarded to business schools. In order to “provide an understanding of perspectives that form the context for business,” degree program coverage should include: 1) ethical and global issues; 2) the influence of political, social, legal and regulatory, environmental and technological issues; and 3) the impact of demographic diversity on organizations.

Curriculum content of programs in AACSB accredited institutions provides primary understanding of the following subject areas: 1) accounting; 2) behavioral science; 3) economics; and 4)

mathematics and statistics. Basic capacity in written and oral communication is also pertinent attributes of the programs. Core requirements for a typical accredited program in management consists of courses in managerial economics, business finance, management concepts, operations management, business strategy, marketing, human resource management, organizational behavior, quantitative methods, and business law. In addition, a policy-type course that relates management concepts to government, society, and global environment is also required. Thus, we would expect agribusiness management programs to include similar courses with applications that address the uniqueness of food and agriculture as noted by Sonka and Hudson (1989).

The rationale for teaching agribusiness management within colleges of agriculture was summarized by Downey (1989).<sup>1</sup> Many have integrated these business activities within agricultural economics curriculum with some success as noted by Larson and Burbink et al. However, no study has compared land grant and non-land grant universities that offer baccalaureate programs in agribusiness management.

### **Description of Baccalaureate Undergraduate Agribusiness Management Programs**

#### *Programs*

An extensive list of baccalaureate degree programs that provide students with training and education in agribusiness management were identified in March 2001. We used a U.S. Department of Agriculture Higher Education Programs database that had information on 1862, 1890, and 1994 land grant universities and non-land grant universities that offer baccalaureate programs in agricultural and forestry sciences. In addition, we did an extensive search of public and private colleges and universities by state to identify other programs. Consequently, we identified 113 programs with degrees or majors

in agribusiness management.<sup>2</sup> We obtained programs of study, course catalogs, and other information on 109 of these programs. These are listed in Appendix A.

Information on each program was used to determine which were required or elective courses within the curriculum. Required courses were listed as being required for each degree while electives were courses that students could choose for an area of concentration or emphasis. Electives were considered electives in the degree curriculum rather than general electives across any subject category. Where possible, textbook choice, syllabi, and course description were used to help categorize the courses.

Of these 109 programs, 49 offered formal degrees in agribusiness management. There were 24 B.S. or B.A. degrees in agribusiness, ten B.S. degrees in agricultural business, seven B.S. degrees in agribusiness or food management, six B.S. degrees in agricultural or food business management or marketing, and two B.A. in business administration. These 49 degrees were defined as B.S. degrees in agribusiness management (BSABM). There were five programs that have BSABM degrees jointly offered with the college of business.

The remaining 60 programs offered degrees in various subjects and had agribusiness majors, options, or specializations within that degree. A B.S. degree in agriculture comprised 42 of these programs. Seven programs had B.S. degrees in agricultural and/or applied economics. Six degrees used the words agricultural, food, and/or resource economics in their degree title. There were also B.S. degrees in agricultural science; agricultural, food, and life sciences; applied economics and business management; environmental and business economics; and managerial economics. These 60 degrees were defined as B.S. degrees in agriculture with an agribusiness major (BSA).

### *Classification for Purposes of Comparison*

For purposes of comparison, the courses were separated into marketing, management, and other (non-management or marketing courses). Marketing courses include agricultural marketing, agribusiness or food marketing, futures, price analysis, international agricultural marketing, cooperatives, sales or selling, business marketing, and marketing management. Management courses included agribusiness management, farm management, agricultural finance, strategy, business management, business finance, human resource management, and international business management. Finally, other courses that were examined included agricultural policy, production or managerial economics, agricultural law, and business law.<sup>3</sup>

### **Classification of Courses**

#### *Marketing Courses*

An agricultural marketing course was defined as a broad survey of agricultural marketing. Agribusiness or food marketing was defined as agricultural marketing with an emphasis on food distribution and management. Price analysis focuses on how prices were derived with some statistical or regression analysis used in the course compared to a broad descriptive futures markets course. International agricultural marketing included courses in international trade or global food marketing. (A course in development was not included in this course classification). Business marketing was an introductory course in the college of business on marketing while marketing management was an advanced marketing class that requires business marketing as a prerequisite and focused on the management function of marketing.

Table 1 contains the percentage of BSABM that were required (denoted by an R) or elective

courses (denoted by an E). The same information is reported in Table 2 for BSA. Agricultural marketing, business marketing, and food or agribusiness marketing were required by 67, 53, and 45 percent of the BSABM, respectively. With respect to BSA, the same courses were required by 83, 30, and 38 percent, respectively. Further analysis found that only four of the 109 programs did not require agricultural marketing or agribusiness or food marketing (those four did require business marketing). Marketing management was required by 18 percent of the BSABM compared to only 2 percent of the BSA.

Please insert tables 1 and 2 about here

Futures marketing and price analysis were required by 18 and 37 percent, respectively, for the BSABM compared to 22 and 30 percent of the BSA. Twenty-five percent of the BSA had a course in cooperatives that was required or an elective relative to 47 percent for BSABM. A course in selling or sales was a required or elective course in 47 and 33 percent of BSABM and BSA, respectively. The percentage of BSABM and BSA that had a required or elective course in international agricultural marketing was 54 and 40 percent, respectively.

With the exception of one program, all 109 BSA and BSABM taught an agricultural marketing or food and agribusiness marketing course. In addition, almost half of both programs taught a separate course in futures marketing. Sales was more likely to be required in BSABM but only 28 of the BSA and BSABM taught sales within the college of agriculture. The remainder were taught within colleges of business.

### *Management Courses*

Agribusiness management, business management, and farm management were required by 77,

53, and 34 percent of the BSABM (Tables 3 and 4). These percentages were 72, 27, and 52 percent for BSA. The percentage of degree programs that required agricultural finance was 79 and 67 percent, respectively. However, 45 percent of the BSABM required a course from the college of business in finance compared to only 13 percent of the BSA.

Business strategy was a required or elective course by 37 percent of the BSABM compared to 17 percent of the BSA. Similarly, human resource management was a required or elective course by 55 percent of the BSABM relative to 33 percent of the BSA. Finally, 41 percent of the BSABM had required or elective courses in international business management. Only 12 percent of the BSA had such a required or elective course.

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#### *Non-Management and Marketing Courses*

A required course in agricultural policy was the same for both BSABM and BSA at 57 percent. Production or managerial economics was a required or elective course for 51 and 30 percent of the BSABM and BSA, respectively. Agricultural or business law was a required course for 34 and 35 percent of BSABM compared to 25 and 35 percent of BSA.

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### **Comparison of BSABM and BSA Programs**

#### *Agricultural, Business, and Agribusiness or Food Marketing Courses*

A broad survey course in agricultural marketing was taught by 87 percent of the BSA programs (83 percent required it) relative to only 71 percent of the BSABM programs (67 percent required it). Likewise, business marketing was a required course for 53 percent of the BSABM programs relative

to 30 percent of the BSA programs. There were no significant differences between programs that taught a required or elective course in futures marketing, price analysis, and food and agribusiness marketing. These results suggest that some BSABM have likely substituted a business marketing course for an agricultural marketing course. In addition, marketing management was a required (elective) course for 16 (18) percent of the BSABM compared to only 2 (17) percent of BSA programs. This course had a prerequisite of business marketing. Thus, to improve agribusiness management student's skills in business marketing, BSABM required more business marketing courses.

### *Management Courses*

Over twice as many BSABM required a management course while agribusiness management was required by over 70 percent in both programs. However, more than half of the BSA programs required farm management compared to 34 percent of the BSABM. This suggests that BSABM may have substituted a business management course for a farm management course. BSABM were more than three times as likely to require business finance compared to BSA programs (45 to 13 percent). This result suggests that business finance has replaced an agricultural economics elective within BSABM.

Strategy was usually taught as a senior level course due to its integration of different management concepts. This course was twice as likely to be a required or elective course in BSABM. Thirteen courses in strategy were taught within colleges of agriculture. All BSABM that offered a strategy course taught within the college of agriculture required students to take the course. Only one BSA allowed students to take strategy as an elective. Thus, strategy courses offered within the college of agriculture have likely been developed to provide integrative training and education in agribusiness

management. Strategy is a required course in most AACSB accredited programs.

### *International Courses*

In addition, BSABM were more likely to have a required or elective course in international agricultural marketing relative to BSA. Most programs offered courses in trade, global food policy, or a related topic and this was more likely to be taken by BSABM students. International business management courses taught within the college of business were four times as likely to be a required or elective course for BSABM students. Courses that explore the global and international nature of management are required in AACSB accredited programs.

### *Courses Unique to Agriculture*

Government policy towards agriculture is unique and over half of the BSABM and BSA required such a course. Agricultural finance and agricultural marketing were taught within 94 (78) and 71 (87) percent of the BSABM (BSA) respectively. In addition, agribusiness or food marketing was taught within 53 (50) percent of the BSABM (BSA) respectively. Futures markets, price analysis, and international agricultural marketing were also taught by over half of the BSA and BSABM. These results are not surprising in that these courses have topics unique to agriculture as suggested by Sonka and Hudson (1989) and could easily be taught by agricultural economists as noted by Robbins (1988).

Law as applied to agriculture is also unique and 64 percent of the BSABM had a course requirement or elective in this topic compared to 38 percent of all BSA. Business law was required by over a third of both BSABM and BSA. In aggregate, 64 percent of the BSABM required law compared to 60 percent of the BSA. This result was somewhat surprising because law is an integral

part of AACSB programs. A course in cooperatives was four times as likely to be required by BSABM. This was not surprising as cooperatives are a unique form of business organization most often found in agriculture.

### *Comparing BSABM with AACSB Requirements and Schneider and Litzenberg Survey Results*

Exposure to global and international aspects of management are inadequate in many programs despite their importance as recognized by the AACSB and Schneider and Litzenberg study. Approximately 65 (85) percent of all BSABM programs did not require international marketing (international business) course. Strategy is a course that integrates many management concepts. Such integration was highly ranked in the Schneider and Litzenberg study and is a requirement in AACSB. Yet 75 percent of the programs did not require such a course. Human resource management and business or agricultural law was another course that was not required by almost 65 percent of the BSABM. Approximately 50 percent of the BSABM did not have a business finance, management, or marketing requirement.

### *Limitations of the Study*

Obviously the political economy of a department and university helps dictate whether the colleges of agriculture offers a BSABM or BSA. The relative size of a university or college and its resource base has an impact on the number of courses that are taught within a program. Some BSABM were likely started because their respective college of business had a nationally ranked program and thus did not want or need to offer service courses for non-business majors. In addition, we have aggregated larger BSABM and BSA programs with much smaller programs that have far less

resources. In smaller programs, it may be difficult to substitute more management courses for other agricultural economics courses. And, some departments may not have faculty resources to teach an integrative agribusiness management course such as strategy.

## **Summary**

Many B.S. degrees in agribusiness management have been developed since the National Agribusiness Education Committee released its findings in 1989. In many cases, programs have begun to respond to Sonka's call for integration of economics and management and address the needs expressed by managers in the Schneider and Litzenberg survey. But many agribusiness management programs are still missing some key components. In particular, international and global dimensions of agriculture, an integrative management course such as strategy, agricultural or business law, and human resources are a missing component of many programs. There is a resource tradeoff for many departments between requiring business courses without any integration of food and agricultural concepts and offering courses with such integration. However, it still is up to the student to apply the skills learned in these programs. It is also important that any agribusiness management program regardless of whether it is a separate degree or a major within a degree continue to produce students who understand the implications of their education and training in their everyday decision making.

## Footnotes

<sup>1</sup>College of Agriculture is defined as colleges that encompass agricultural and other applied sciences.

<sup>2</sup>It should also be noted that food marketing majors exist within several colleges of business (ex., St. Joseph's University, Western Michigan University). However, these were not included in the 113 programs. There are programs that have B.S. degrees in other areas of management such as environment or resources (ex., University of Alaska, University of California, University of Rhode Island, etc.) but these are not included in our data because of the focus on agribusiness management. Universities with only one or two courses in agribusiness management and no agricultural science courses (ex., Tabor College, etc.) were not used in our data. Another 32 public and private universities taught a course in agricultural economics but did not have a formal program and were not included in the data.

<sup>3</sup>Other courses were offered by both programs such as advanced agricultural finance, logistics or transportation, risk management, and other courses. Because these were offered by less than five programs we did not choose to include them in our discussion. Courses in quantitative methods differed significantly across programs from econometrics to computer courses in quantitative tools. Given this variability we chose not to categorize these courses. Calculus was required by almost 80 percent of both programs.

## **Appendix A**

The 49 universities with a B.S. degree in agricultural management were Abilene Christian University, Alcorn State University, Arizona State University, Berea College, California State Polytechnic University at Pomona, California State Polytechnic University at San Luis Obispo, California State University at Chico, Colorado State University, Dickinson State University, Eastern Oregon University, Florida A&M University, Fort Lewis College, Iowa State University, Kansas State University, Louisiana State University, Louisiana Tech University, Michigan State University, Mississippi State University, Montana State University, Murray State University, Nicholls State University, North Carolina A&T State University, North Carolina State University, North Dakota State University, Oklahoma State University, Oregon State University, Pennsylvania State University, South Carolina State University, Southeast Missouri State University, Southern Arkansas University, Southern Illinois University at Carbondale, Southwest Missouri State University, Southwest State University, Tarleton University, Tennessee State University, Texas A&M University, Texas A&M University at Commerce, Texas Tech University, University of Delaware, University of Minnesota at Crookston, University of Minnesota, University of Missouri, University of Nebraska at Kearney, University of Wisconsin at Madison, University of Wisconsin at River Falls, University of Wyoming, Utah State University, Washington State University, and West Virginia University.

The 60 universities with a B.S. degree in agriculture were Alabama A&M University, Arkansas State University, Arkansas Tech, Auburn University, Austin Peay State University, California State University at Fresno, Cameron University, Central Missouri State University, Clemson University, Cornell University, Delaware State University, Eastern Kentucky University, Fort Hays State University, Fort Valley State University, Illinois State University,

Middle Tennessee State University, Morehead State University, New Mexico State University, Northwest Missouri State University, Northwest Oklahoma State University, Ohio State University, Oklahoma Panhandle State University, Prairie View A&M University, Purdue University, Rutgers University, Sam Houston State University, Southwest Texas State University, South Dakota State University, Stephen F. Austin State University, Sul Ross State University, Tennessee Technological University, Texas A&M at Kingsville, Truman State University, University of Arizona, University of Arkansas, University of Arkansas at Monticello, University of California at Davis, University of Connecticut, University of Florida, University of Georgia, University of Guam, University of Hawaii, University of Idaho, University of Illinois, University of Kentucky, University of Maine, University of Maryland, University of Maryland Eastern Shore, University of Massachusetts, University of Nebraska, University of Nevada, University of Southwestern Louisiana, University of Tennessee, University of Tennessee at Martin, University of Wisconsin at Platteville, Virginia Polytechnic Institute and State University, Virginia State University, West Texas A&M University, Western Illinois University, and Western Kentucky University.

The four universities that we could not obtain information that had B.S. degrees in agribusiness management or B.S. degree in agriculture were Langston University, Lincoln University, McNeese State University, and University of Louisiana Monroe.

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Table 1. Number of Required and Elective Courses for 49 B.S. Degrees in Agribusiness Management (BSABM) in Marketing Courses<sup>a</sup>

Courses	Required or Elective Courses
Agricultural Marketing <sup>b</sup>	R (33), E (2)
Agribusiness or Food Marketing <sup>b</sup>	R (22), E (4)
Futures Marketing	R (9), E (14)
Price Analysis	R (18), E (10)
International Agricultural Marketing <sup>c</sup>	R (17), E (9)
Cooperatives	R (6), E (17)
Sales	R (12), E (16)
Business Marketing <sup>d</sup>	R (26), E (6)
Marketing Management <sup>e</sup>	R (9), E (8)

<sup>a</sup>R denotes a Required course and E denotes an Elective course with the number of courses reported in parentheses.

<sup>b</sup>Agricultural marketing was defined as a broad survey course in agricultural marketing while food marketing was defined as a course in food distribution or marketing with some emphasis on marketing management.

<sup>c</sup>Included trade or international food marketing but did not include agricultural development.

<sup>d</sup>Defined as an introductory survey course in business marketing.

<sup>e</sup>Defined as a course in marketing management that required a business marketing course as a prerequisite.

Table 2. Number of Required and Elective Courses for 60 B.S. Degrees in Agriculture (BSA) in Marketing Courses<sup>a</sup>

Courses	Required or Elective Courses
Agricultural Marketing <sup>b</sup>	R (50), E (2)
Agribusiness or Food Marketing <sup>b</sup>	R (23), E (7)
Futures Marketing	R (12), E (17)
Price Analysis	R (18), E (14)
International Agricultural Marketing <sup>c</sup>	R (17), E (7)
Cooperatives	R (3), E (12)
Sales	R (11), E (9)
Business Marketing <sup>d</sup>	R (18), E (3)
Marketing Management <sup>e</sup>	R (1), E (9)

<sup>a</sup>R denotes a Required course and E denotes an Elective course with the number of courses reported in parentheses.

<sup>b</sup>Agricultural marketing was defined as a broad survey course in agricultural marketing while food marketing was defined as a course in food distribution or marketing with some emphasis on marketing management.

<sup>c</sup>Included trade or international food marketing but did not include agricultural development.

<sup>d</sup>Defined as an introductory survey course in business marketing.

<sup>e</sup>Defined as a course in marketing management that required a business marketing course as a prerequisite.

Table 3. Number of Required and Elective Courses for 49 B.S. Degrees in Agribusiness Management (BSABM) in Management Courses<sup>a</sup>

Courses	Required or Elective Courses
Agribusiness Management	R (36), E (8 )
Farm Management	R (16), E (22)
Agricultural Finance	R (37), E (7)
Strategy	R (12), E (6)
Business Management	R (26), E (5)
Business Finance	R (22), E (9)
Human Resource Management	R (16), E (11)
International Business Management	R (8), E (12)

<sup>a</sup>R denotes a Required course and E denotes an Elective course with the number of courses reported in parentheses.

Table 4. Number of Required and Elective Courses for 60 B.S. Degrees in Agriculture (BSA) in Management Courses<sup>a</sup>

Courses	Required or Elective Courses
Agribusiness Management	R (43), E (5 )
Farm Management	R (31), E (10)
Agricultural Finance	R (40), E (7)
Strategy	R (9), E (1)
Business Management	R (16), E (3)
Business Finance	R (8), E (8)
Human Resource Management	R (15), E (5)
International Business Management	R (3), E (4)

<sup>a</sup>R denotes a Required course and E denotes an Elective course with the number of courses reported in parentheses.

Table 5. Number of Required and Elective Courses for 49 B.S. Degrees in Agribusiness Management (BSABM) in Non-Marketing or Non-Management Courses<sup>a</sup>

Courses	Required or Elective Courses
Agricultural Policy	R (27), E (14 )
Production or Managerial Economics	R (14), E (10)
Agricultural Law	R (16), E (14)
Business Law	R (17), E (4)

<sup>a</sup>R denotes a Required course and E denotes an Elective course with the number of courses reported in parentheses.

Table 6. Number of Required and Elective Courses for 60 B.S. Degrees in Agriculture (BSA) in Non-Marketing or Non-Management Courses<sup>a</sup>

Courses	Required or Elective Courses
Agricultural Policy	R (34), E (11)
Production or Managerial Economics	R (16), E (2)
Agricultural Law	R (15), E (8)
Business Law	R (21), E (3)

<sup>a</sup>R denotes a Required course and E denotes an Elective course with the number of courses reported in parentheses.