BROADCASTING PROFICIENCIES IN AGRICULTURAL COMMUNICATIONS: FREQUENCY OF USE AND ROLE IN CURRICULUM

By

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It was nearly a year ago I decided to attend OSU, one week before school actually started. Walking into a new university, unsure of exactly what was happening or why I was in the middle of Oklahoma seems like only yesterday. This last minute decision became reality and truly hit home when the first Friday occurred with 99.9% of the student population wearing bright orange, looking as if deer season was three months early in Oklahoma. The .1%, well … it was me, proudly strutting a black and gold Mizzou Tiger t-shirt, unaware of Friday being "spirit day" until a certain faculty member glared at me and said, "A cowboy can shoot a tiger." Needless to say, I joined the pride by wearing orange on Fridays, but Thursday was tiger day for me!

I must admit, I still bleed black and gold, but the gold is distorted with a slight hint of orange. This change in attitude and the increased respect for OSU is due solely to my interaction with great people including my committee members, Shelly Peper Sitton, Dwayne Cartmell, Charles Cox, and James Leising. I sincerely thank each of you for your guidance, patience, and the life lessons you have presented me. More specifically, I thank Dr. Cartmell for getting me to OSU, Dr. Leising for keeping me from paying tuition at two universities (long story), Dr. Cox for teaching me to let go of pride and to chill out, and adviser Dr. Peper Sitton for her excellent advising and a steady shoulder to lean on during my rollercoaster ride at OSU. I can not begin to explain the magnitude of the respect I hold for these individuals. I also appreciate the tremendous help I received

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CHAPTER I

INTRODUCTION

Background and Setting

Establishing a curriculum that will successfully prepare students to be knowledgeable and skilled in a particular area directly following the completion of a bachelor's degree is challenging. In fact, according to Layfield and Dobbins (2002), educators are faced with the ultimate challenge of providing an adequate learning environment to prepare students for a fast-paced world. It is extremely important to know what elements need to be taught in elective, required, and general courses to fulfill a complete curriculum effectively (Kroupa & Evans, 1976; Larson & Hoiberg, 1987; Sledge, et al., 1987; Terry, 1994).

It is now vital for educators and professionals to determine what proficiencies are most relevant to today's industry. More specifically, few assessments of agricultural communications curricula exist at all, including only a few detailed studies (Bolick, 1982; Duncan, 1957; Nash, 1928; Evans and Terry, 1994). Since the beginning, 100 years ago when the first agricultural journalism curriculum was formed, few formal evaluations identified what proficiencies need to be included in agricultural communications degree programs (Bolick, 1982; Duncan, 1957; Nash, 1928; Evans and Terry, 1994).

Through research, agricultural communications professionals need to identify the proficiencies and curriculum needed to produce effective graduates who are ready to

pursue the professional arena with the skills demanded by existing professionals. The identification of proficiencies used by modern agricultural broadcasters must be obtained to prevent students from enduring costly training that will prove to be ineffective or outdated (Burnett & Tucker, 1990).

This need can be satisfied by inquiring about frequency of use in the professional field regarding a variety of components.

The need for this outlined study is significant due to the gradual shift from agricultural journalism degree programs to agricultural communications programs. Historically, the first course in agricultural journalism was developed in 1905 by Iowa State University located in Ames (Burnett & Tucker, 1990; Nash, 1928). At the 1904 International Livestock Exposition, industry leaders emphasized the same desires as land-grant universities, in that there was a growing need for college-trained agricultural communicators (Duncan, 1957).

C.F. Curtis, dean of agriculture at Iowa State College, appreciated the idea put forth informally by the livestock leaders, if funding was made available for such a venture (Marvin, 1946). Jon Clay, a Chicago commissioner and affluent writer, responded to Curtis' statement by offering a $1,000 yearly endowment to fund a course titled "Agriculture Press" (Burnett & Tucker, 1990; Nash, 1928).

After the informal meeting at the International Livestock Exposition, Iowa State College, now Iowa State University, became the first to pursue academic agricultural journalism (Marvin, 1946). By the fall of 1911, Iowa State College was offering eight courses in agricultural journalism, and by 1920, they had developed the first ever Bachelor of Science degree in agricultural journalism (Marvin, 1946). The first

agricultural journalism department was later established in 1908 at the University of Wisconsin located in Madison (Burnett & Tucker, 1990).

By the 1990s, change and evolution motivated the agricultural journalism industry and most of the academic programs had shifted to agricultural communications (Doerfert & Cepica, 1991). The shift better identifies the diverse industry, demanding a broad knowledge base of several components, including journalism, public relations, crisis management, graphic and Web design, and broadcasting, as well as agriculture, which includes a wide array of components in and of itself (Doerfert & Cepica, 1991). One of the greatest strengths of the agricultural communications degree program is the flexibility of the curriculum, as it is intended to qualify graduates for a wide array of job opportunities (Terry, et al., 1994).

In 1990, there were approximately 30 agricultural communications/journalism degree programs offered by land-grant institutions throughout the United States (Doerfert & Cepica, 1991). The significant growth within the nation's agricultural communications' programs, along with the changes in the agricultural industry and technological advancements, validates the need for exploration into improving curriculum that better qualifies graduates for the professional environment (Bailey-Evans,1994).

The curriculum in colleges and universities serves as the foundation for developing professional proficiencies in the minds of students. The curriculum is designed to help potential graduates gain the skills and knowledge needed for them to qualify for a wide range of job opportunities available in the agricultural communications career field (Bailey-Evans, 1994). Moreover, active agricultural communicators can

serve as change agents who define technologies for the future (Beck & Ciley, 1994). Along these lines, studies should be conducted to develop competency lists needed for specializations in agricultural communications (Bailey-Evans, 1994). One such area of specialization housed under the agricultural communications degree program is agricultural broadcasting.

Problem Statement

A comprehensive study has not been completed on proficiencies included in agricultural broadcasting since 1994. Beyond that, no studies were found that focused on how frequently those proficiencies are used in the workplace or how they should be included in university curricula. To revise university curricula in agricultural communications, the perceptions of today's agricultural broadcasting professionals needed to be assessed.

Purpose of the Study

The purpose of this study was to determine the proficiencies in an agricultural communications curriculum perceived as important by agricultural broadcasting professionals. In addition, this study determined how frequently professionals used the specified proficiencies and how the proficiencies can best be integrated into an agricultural communications curriculum.

Objectives of the Study

To satisfy the purpose of this study, the following objectives were established:

1. To describe the demographic attributes of agricultural broadcasting professionals belonging to the National Association of Farm Broadcasters.
2. To determine perceived important technical agricultural proficiencies, how frequently those proficiencies are used, and how those proficiencies should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.
3. To determine perceived important general communications proficiencies, how frequently those proficiencies are used, and how those proficiencies should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.
4. To determine perceived important broadcasting proficiencies, how frequently those proficiencies are used, and how they should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.

Scope of the Study

This was a census study of agricultural broadcasters who were voting members of the National Association of Farm Broadcasters having e-mail addresses (NAFB) (N=138). The group is representative of agricultural broadcasters in the United States.

Assumptions

The author identified the following assumptions while conducting this research:

1. The instrument used in the study generated accurate responses from those participants involved in the study.
2. The participants honestly answered all of the questions provided to the best of their abilities.
3. The panel of experts accurately evaluated proficiencies for use in this study.

Limitations of the Study

The author recognized the following limitations:

1. Only members of the National Association of Farm Broadcasters (NAFB) (N=138) with listed e-mail addresses according to the NAFB database participated in the study.
2. All participants may not have had regular access to the Web, which may have restricted them from receiving the instruments.
3. Internet surveys have lower response rates than mailed surveys (Soloman, 2001).

Significance of Study

University agricultural communications educators across the country will have the opportunity to use the findings to revise and/or create a curriculum for agricultural broadcasting students. This study also will aid in developing an agricultural communications core curriculum and is being used as part of a national core curriculum committee's work.

This research is the third portion of a larger study. The earlier portions identified perceived important proficiencies in public relations and in writing and editing, as well as each proficiency's frequency of use and how each should be taught in an agricultural communications curriculum.

Definition of Terms

Agricultural Broadcasting: An array of media housed under agricultural communications consisting of radio, television, and the Internet (K. Root, personal contact, December 16, 2004).

Agricultural Communications: Academic programs involving a variety of communications specializations such as journalism, advertising, public relations, etc. (Bailey-Evans, 1994).

Agricultural Communications Core Curriculum: A common set of proficiencies regarding general communications, technical agriculture, writing/editing, public relations, and broadcasting all undergraduate students should be expected to know prior to graduation (J. Leising, personal contact, July, 20, 2005).

Broadcasting: The distribution of audio and video signals (programs) to a number of recipients ("listeners" or "viewers") who belong to a large group (Wikipedia Online Encyclopedia, 2005).

Communications: A process by which information is exchanged between individuals through a common system of symbols, signs, or behaviors (Bailey-Evans, 1994).

Curriculum: The total experiences planned for a school or students (Wiles & Bodi, 1998).

Disseminate: To disperse information throughout (Webster's Online Dictionary, 2005).

Experiment Station: The research tier of the land-grant university system mission, other tiers being education and extension, that conducts agricultural research in the areas of life sciences, natural resources, and agriculture (Duncan, 1957).

Proficiency: Identifiable skill or ability necessary for a successful performance in an occupation a student might seek after the completion of education courses (Akers, 1992).

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter reviews literature pertaining to agricultural communications proficiencies and curriculum. Specific areas to be examined include conceptual framework, history of agricultural communications, agricultural communications curriculum, curriculum development, agricultural broadcasting, and Web-based Surveys.

Conceptual Framework

A conceptual framework is based on topical literature found in research journals and other research-based publications (Pritchard, 2005, p. 236). Following a thorough review of related literature, concepts were applied to form a valid and significant base for this study.

To reinvent curriculum, one must answer a primary set of questions about what students should learn and a secondary set of questions about how decisions regarding a program should be made and then implemented (Reid, 1999). Curriculum designers must balance the vision of the faculty with the needs of the employers (Coffey, 1987).

To establish a curriculum with realistic proficiencies, curriculum development should involve university faculty and industry professionals, as well as all others affected

by the program (Bjoraker, 1987). Teachers, students, administrators, employers, and employees should participate in the planning, refining, and evaluating of agricultural communications curricula to ensure students are receiving the training necessary to become a success beyond college (Paulson & Metzger, 1990).

According to Lunde (1995), changes in curriculum must come from an agreement that new directions in society require students to master new skills or gain new knowledge. The agricultural industry is dynamic, and the proficiencies needed to become an agricultural communicator have evolved with time, technology, and job requirements, making it seemingly important to examine curricula to make it more relevant to the modern industry (Paulson & Metzger, 1990). To make this happen, academic and industry professionals must come together and redefine curriculum to reflect the skills needed beyond the confines of a university (Bjoraker, 1987). It is important for curriculum to reflect the needs of the "working world" (Finch & Crunkilton, 1989).

The critical question for curriculum developers is "Does the program serve the developed intentions?" (Wiles & Bodi, 1998). A solid range of coursework in art, sciences, and agriculture should be included in the agricultural communications curriculum (Boone, Meisenbach & Tucker, 2000). However, few studies have been conducted to examine courses taught in agricultural communications to provide guidelines for developing new programs or comparing programs (Reisner, 1990). Consequently, new competency lists should be developed through research for specialized areas of agricultural communications (Terry, et al., 1994), such as agricultural broadcasting.

History of Agricultural Communications

A need for agricultural communications programs originated from a need by land-grant universities to disseminate research results from experiment stations to agriculture and non-agriculture audiences through various media (Evans & Bolick, 1982). The beginning of such agricultural dissemination can be traced to the early 1900s (Burnett & Tucker, 2001). Those involved in this process were referred to as agricultural journalists. The agricultural journalist became recognized for his or her unique blend of knowledge in both journalism and agriculture (Duley, Jensen & O'Brien, 1984).

Agricultural communications can be defined broadly as a profession that applies communication techniques and theory to decisions of companies that represent food, agriculture or natural resources (Reisner, 1990). The development of these programs began at the university level, and its establishment coincided with the development of the extension function in the early decades of the twentieth century (Duley, Jensen & O'Brien, 1984).

After the informal meeting at the 1904 International Livestock Exposition, Iowa State University became the first to pursue academic agricultural journalism. Iowa State led the way for the development of agricultural journalism curriculum by offering the first agricultural journalism course in technical journalism in the fall of 1905. By the fall of 1911, Iowa State was offering eight classes, and by 1930, they had developed the first ever Bachelor of Science degree in agricultural journalism (Marvin, 1946).

In 1908, the first department of agricultural journalism was founded at the University of Wisconsin (Marvin, 1946). J. Clyde Marquis was appointed as an agricultural instructor at Wisconsin. The first to receive a bachelor's degree in agricultural journalism was Dallas S. Burch in 1908, who later worked for the U.S. Department of Agriculture. Marquis left the University of Wisconsin in 1911 and later became the U.S. Representative at the International Institute of Agriculture in Rome after working with the *Country Gentleman* magazine (Burnett & Tucker, 1990).

Other influential leaders in early agricultural journalism were Charles Ross and Nelson Crawford. Ross taught the first course in agricultural journalism at the University of Missouri in 1909 and later served as the press secretary for a Missouri native, President Harry S. Truman (Boone, Meisenbach, & Tucker, 2000).

Crawford served as the president of the profession's professional organization, Agricultural Communicators in Education (ACE) in 1917 and wrote the first journalism ethics textbook. He later served as the first director of information for the U.S. Department of Agriculture (Burnett & Tucker, 1990; Bailey-Evans, 1994).

Colleges and universities quickly caught on to the importance of agricultural journalism programs as indicated by the significant growth from 1908-1928. Seven colleges offered 11 courses by 1928 under the category of "Trade and Technical Journalism" (Nash, 1928).

From there, the idea of adding agricultural journalism curriculum to academic programs spread across the country. Later, most programs shifted to calling the area agricultural communications, better representing the diversity of the profession. In 1984,

38.5 percent of new programs were titled agricultural communications versus agricultural journalism (Duley, Jensen, & O'Brien, 1984).

In 1990, Doerfert and Cepica found 30 agricultural communications programs in existence, and the majority were housed in the colleges of agriculture and related fields. The need for agricultural communications programs was prompted by technological advancements, including the invention of the radio as a competitive source of news (Boone, Meisenbach, & Tucker, 2000).

Agricultural Communications Curriculum

Curriculum as a specialized area of study emerged from a growing need to organize and rationalize the changing forms of American education (Wiles & Bondi, 1998). The first study of agricultural communications/journalism curricula was in 1905 when the first curriculum was developed at Iowa State (Bailey-Evans, 1994).

According to Evans and Bolick (1982), separate studies completed in 1956 and 1957 revealed a lack of agreement among professionals regarding the ideal agricultural journalism curriculum as to the proper balance between the amount of formal agriculture training compared to the amount of training in journalism and communications. Mitchell (1956) did note employees of agricultural communicators placed great emphasis on formal education in agriculture, whereas employers emphasized education in journalism and communication. Both Mitchell (1956) and Duncan (1957) found that professionals recommended more coursework in agriculture than in journalism and other areas. However, both found a serious lack of agreement among professionals as to the type of

education needed to pursue a career in agricultural communications (Evans and Bolick, 1982).

A study later completed by Kroupa & Evans (1973) surveyed agricultural communications professionals regarding the competencies appropriate for an agricultural communications curriculum. Findings determined the most appropriate curriculum was one requiring a large amount of agriculture-related coursework with few specifically required courses. Respondents were inconsistent in the specific communications skills they perceived to be critical. This suggested the coursework for this broad program area should be diverse (Terry, et al., 1994).

A study conducted by Evans & Bolick (1982) revealed curricula to expose students to a wide array of courses, allowing students to choose to specialize in an agricultural field, such as animal science, while following up with an option in communications, such as broadcasting. The study suggested more communications-oriented programs compared to earlier studies, as professionals indicated their primary goal was the preparation of professional communicators.

The North Central Region Deans and Directors Resident Instruction Curricular Committee has curricular redevelopment as a necessity for all agricultural programs, citing it as a "given" (Wharton, 1987, p. 119). The committee conducted a study in 1987 to review the curricula of the North American colleges of agriculture. The study identified several limitations, including inadequate oral and written preparation of students, values and ethics, problem solving skills, and business skills (Wharton, 1987).

A study conducted by Tucker and Paulson (1988) found most agricultural communications graduates wanted to remain in the agricultural industry. Students

indicated interest in promoting agriculture, as well as working directly with people in agriculture.

Cooper and Bowen (1989) at The Ohio State University surveyed agricultural communications graduates and their perceptions of the curriculum. The graduates perceived communications and journalism courses to be the most important when compared to agriculture or basic education courses.

Boone (1991) concluded in her research that communications skills ranked above technical skills and knowledge of agriculture in terms of importance.

Bailey-Evans (1994) identified a set of communications and agriculture disciplines that should be included in the agricultural communications curriculum. In regard to communications, disciplines were identified, including advertising, journalism, photography, public relations, public speaking, and telecommunications. Regarding agriculture, disciplines were identified, including agricultural communications, agricultural economics, agricultural leadership, agronomy, animal science, environmental science, and food science. In addition, Bailey-Evans (1994) found the following disciplines also to be important and needed in the curriculum: business, marketing, computer applications, internship experiences, and international relations.

Sprecker & Rudd (1997) concluded that communications skills were more important than agricultural knowledge. Their study also revealed that writing was the most important competency for a graduate. Internships and interpersonal networking also were found to be important (Sprecker & Rudd, 1997).

Later, a study was conducted that interviewed agricultural communications professionals in Florida concerning the skills and knowledge that should be included in

the University of Florida curriculum (Sprecker, 1998). Sprecker found the curriculum at the University of Florida to be too general and recommended a course be developed to give an introduction to the array of areas within agricultural communications. She also recommended for students to have the opportunity to specialize and take more in-depth courses, for example, specializing in public relations, news writing, or broadcasting.

Terry, et al. (1994) and Bailey-Evans (1994) agreed agricultural communications graduates should have excellent written communications skills and be skilled in operating microcomputers to accomplish a variety of tasks. They also indicated the significant importance of internships, as well as business, marketing, and agricultural economics courses.

Curriculum Development

To reinvent curriculum, one must answer a primary set of questions about what students should learn and a secondary set of questions about how decisions regarding a program should be made and then implemented (Reid, 1999). Curriculum development is initiated with a set of questions that indicate value preferences, which guide undergraduate planning efforts and program evaluation (Wiles & Bondi, 1998). Curriculum designers must balance the vision of the faculty with the needs of the employers (Coffey, 1987).

When colleges and universities first began, they had a very simple curriculum, as well as planning procedures. The curriculum consisted of traditional subjects, and when new disciplines were found, they were simply added as courses or degree programs and staffed with individuals with expertise in that particular area (Smith & Clements, 1984).

Now, research studies regarding curriculum development, as well as specific studies regarding agricultural communications curriculum, reveal a much more comprehensive set of guidelines to follow when developing curriculum. When redeveloping or redefining curriculum, changes in society, demanding new skills or knowledge must be taken into account (Lunde, 1995). In addition, the need to involve individuals outside the confines of the university is not only advantageous, but vital (Erven, 1987). To determine what skills employers deem necessary for graduates to know will give educators guidelines to follow in an effort to prepare students for the working world (Erven, 1987).

Including industry professionals in curriculum development is important, as are existing research studies (Reisner, 1990).

Agricultural Broadcasting

A defining moment in the history of agricultural communications that sparked competition within the industry was the introduction of movies and radio in the 1920s (Evans & Salcedo, 1974). While it is obvious movies were not competitive for content with agricultural publications, it was apparent they were competing for audience and dollars (Evans & Salcedo 1974). However, farm publications did not recognize broadcast media as a threat at the time (Evans & Salcedo, 1974).

Radio revolutionized news and entertainment for Americans in a society that was quickly becoming more fast-paced (Evans & Salcedo, 1974). Radio had a profound effect on the lives of rural Americans, similar to the expectations of the World Wide Web today (Boone, Meisenbach, & Tucker, 2000). People believed radio would keep young people

on the farm and diminish the tempting lures of the city (Boone, Meisenbach, & Tucker, 2000). Although radio was used by all walks of life, rural Americans appreciated it more than anyone else due to their isolation (Boone, Meisenbach, & Tucker, 2000). They were not only entertained by the new device, but also they could stay current with the weather and commodity reports instead of relying on slow newspapers (Boone, Meisenbach, & Tucker, 2000).

According to Burnett and Tucker (1990), the first radio broadcast is said to have taken place at the University of Wisconsin in 1915 with weather and crop reports transmitted in Morse code over 9XM, a university experimental station. Five years later, the first regular agricultural radio broadcasts were over short wave in code on November 15. Market reports provided by the USDA over government station NCC located in Washington, D.C., were sent to stations at Bellefonte, Pennsylvania; Omaha, Nebraska; and St. Louis, Missouri. These reports were then relayed to approximately 2,500 ham radio operators who translated and posted the information in public places for farmers (Burnett & Tucker, 1990). Government soon realized the potential of radio for non-defense purposes. In fact, Herbert Hoover, then secretary of commerce, stated in a radio conference in Washington, D.C., that with the exception of the military, no use of radio should supersede agriculture (Boone, Meisenbach, & Tucker, 2000).

According to Burnett and Tucker (1990), the first vocal broadcast was a weather report transmitted February 3, 1921, again over 9XM at the University of Wisconsin experimental station. After the University of Wisconsin made significant breakthroughs regarding radio broadcasting, others followed. In the 1923, Henry Wallace, secretary of

agriculture, recognized that 117 general and 27 naval stations were airing daily weather reports (Boone, Meisenbach, & Tucker, 2000).

On May 19, KDKA, Pittsburgh, Pennsylvania, used telephonic transmissions of USDA market reports and began the first daily radio program for farmers (Burnett & Tucker, 1990). However, the first station to broadcast market reports was WLB, which was part of the University of Minnesota, in February 1921 (Boone, Meisenbach, & Tucker, 2000). On October 17, 1920, KDKA became the first station to be granted a commercial license. KDKA also became the first to have a full-time farm director, Frank E. Mullen, in 1923 (Burnett & Tucker, 1990). By early 1922, 35 stations were licensed to air market reports, and by 1925 more than 500,000 farmers were able to receive market information. By 1926, 500 radio stations were reaching nearly 1,000,000 people (Boone, Meisenbach, & Tucker, 2000).

According to Burnett and Tucker (1990), as of March 1924, 75 of the 129 AM stations were broadcasting daily market reports that covered more than two-thirds of the United States. With the significant expansion of the agricultural broadcasting industry came agricultural entrepreneurs seeing a value in advertising on the radio. In October 1922, the first farm radio commercial was on the “Farmers Noon Hour” over KFBB located in Great Falls, Montana (Burnett & Tucker, 1990). In 1998, agribusinesses spent $60 million in advertising through radio media (Boone, Meisenbach, & Tucker, 2000).

Eventually, the USDA established the Office of Information in 1935 to coordinate information efforts of all bureaus. The following year, it began a service for radio stations, which was used by 289 of the 610 radio stations by July 1929 (Burnett & Tucker, 1990).

Broadcasting expanded again in the 1940s and 1950s with the introduction of television. The USDA was among the first to take advantage of this new medium. In 1954, Layne Beaty became the chief of the USDA's radio and television service. Two of the USDA's first programs were "Across the Fence" and "Down to Earth," which both lasted well into the 1970s.

The "U.S. Farm Report" was and still is one of the most successful programs. (Boone, Meisenbach, & Tucker, 2000). Today, this weekly report is commercially syndicated.

Agricultural television has had mixed success. For example, Channel Earth Communications was offered to farmers who subscribed to DIRECTV in 1997 and offered 13 hours of programming daily. Approximately 500,000 of DIRECTV's 2.8 million subscribers considered themselves farmers, but these were not enough to keep Channel Earth alive. The station died in June 1998. Agribusinesses spend approximately $65 million in advertising through television (Boone, Meisenbach, & Tucker, 2000).

As agricultural broadcasting continued to grow, a need for a formal organization of farm broadcasters was recognized. In 1944, the National Association of Farm Broadcasters (NAFB) was organized with Larry Haeg of WCCO in Minneapolis, Minnesota, as president and Herb Plambeck of WHO in Des Moines, Iowa, as secretary. The primary goal of this newly established association was to improve and expand farm broadcasting and to encourage better relations among those involved, including clients and others working in agriculture. In addition to radio and television broadcasters, NAFB membership includes farm broadcasters who deliver news and information via the Internet, which is becoming more widespread. In 2000, computers were in more than

half (51 percent) of all American homes. More than 41 percent of households were recorded in 2000 to have Internet access (Boone, Meisenbach, & Tucker, 2000).

Many radio stations have farm directors, but they also are supported by networks, such as the Brownfield Network and Mid America Ag Network. These networks provide agricultural news and market information (Boone, Meisenbach, & Tucker, 2000).

Web-Based Surveys

A Web-based survey is the collection of data through an electronic set of questions on the Web (Dillman, 2000). Web-based surveys give the researcher control of the appearance of the surveys, allowing the researcher to make the survey more appealing and inviting. This type of survey can include a multitude of buttons, drop-down lists, text boxes, and styles, depending on the researcher's intent or preference (Dillman, 2000).

Dillman (2000) listed electronic surveys as one of the most significant advances in survey technology in the twentieth century. This relatively new form of survey technology is cheaper and faster than mail surveys (Dillman, 2000). However, Dillman found the response rate to suffer in comparison to mail surveys. According to Dillman (2000), Web-based surveys offer limited sampling, but they still maintain significant advantages over mail surveys, and survey professionals argue this type of survey should continue.

The implementation of electronic surveys usually involves professionals drawing samples from organizational lists that include e-mail addresses (Dillman, 2000).

Summary

This chapter provided a summary of literature concerning the histories of agricultural communications and broadcasting, as well as the history of Web-based surveys; it also provided an overview of the history and need for curriculum development.

Producing competent agricultural communicators in a society with limited agricultural knowledge is the goal of agricultural communications programs. Agricultural communications is a unique discipline as it embodies many facets of communications, agriculture, and basic education coursework that are not offered in most journalism or communication programs (Burnett & Tucker, 1990).

Like all programs, the agricultural communications curriculum must be examined and catered to fit changing workplace demands. Industry professionals provide an accurate representation of what graduates will face in the workplace, and their opinions should be included in the curriculum development process.

According to Sprecker & Rudd (1998), the reconstruction and evolution in agricultural communications curriculum produce more skilled and competent graduates, but they also should prove to be a positive change for all involved.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this chapter is to describe the methods and procedures used to conduct this research study, including the measures of data collection and analysis. The specified population, survey instruments, data collection, and analysis procedures were developed to address and explain the purpose and objectives of the study. Each of these factors are presented in chapter III.

Institutional Review Board

Federal regulations and Oklahoma State University policy require a review and approval of research that involves human subjects before researchers can begin any aspect of the study. The review is conducted by the Oklahoma State University Office of University Research under the direction of the Institutional Review Board to protect the rights and welfare of human participants engaged in biomedical and behavioral research. To comply with this mandated policy, this study received proper review and was assigned the application number AG0323 by the Institutional Review Board. Approval was granted to Rachel Crawford, who initiated the research as part of her senior honors thesis (Crawford, 2003). When an additional researcher was added, an application was submitted and approved to include the author on the research team (Appendix A).

Purpose of the Study

The purpose of this study was to determine the proficiencies in an agricultural communications curriculum perceived as important by agricultural broadcasting professionals. In addition, this study determined how frequently professionals used the specified proficiencies and how the proficiencies can best be integrated into an agricultural communications curriculum.

Objectives of the Study

To satisfy the purpose of this study, the following objectives were established:

1. To describe the demographic attributes of agricultural broadcasting professionals belonging to the National Association of Farm Broadcasters.
2. To determine perceived important technical agricultural proficiencies, how frequently those proficiencies are used, and how those proficiencies should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.
3. To determine perceived important general communications proficiencies, how frequently those proficiencies are used, and how those proficiencies should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.
4. To determine perceived important broadcasting proficiencies, how frequently those proficiencies are used, and how they should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.

Scope of the Study

This was a census study of agricultural broadcasters who were voting members of the National Association of Farm Broadcasters having e-mail addresses (NAFB) (N=138). The group is representative of agricultural broadcasters in the United States.

Research Design

A descriptive survey of a population was used as the design for this research study (Leedy & Ormrod, 2001). Descriptive research was selected as the design due to the fact perceptions of agricultural broadcasters were examined. According to Leedy and Ormrod (2001), descriptive research examines situations as they are and the researcher has no control over the results, thus the design measures only the data that actually exists. According to Ary, Jacobs, and Razavieh (1996), descriptive research involves description, not manipulation, of variables. Due to the fact a census of the total population was studied, descriptive statistics were used. Situations within the study were not altered or changed during the research, and cause and effect relationships do not occur.

The intent was to present an illustration of the proficiencies a graduate of an agricultural communications program who emphasizes in broadcasting should possess, as perceived by professionals. In addition, how these proficiencies should be taught and integrated into existing curriculum were identified. This study also identified the demographic characteristics of this sample of professional agricultural broadcasters.

Instrument Development and Design

The list of competencies developed by Terry, et al. (1994) were adapted for this study and placed in a Web-based format. The instrument was divided into three parts. Questions in part one asked professionals whether or not a proficiency was important (by answering yes or no); part two asked how often they used the proficiency: never, daily, weekly, monthly, or annually; and part three asked how they thought the proficiency should be implemented in university curricula: required, elective, workshop, internship, or not at all.

Prior to the study, a panel of experts comprised of eight agricultural communications and agricultural broadcasting professionals reviewed the list of proficiencies to determine the content validity of the instrument.

Because of the length of the survey, a partial matrix-sampling technique was used, as matrix sampling is commonly used to control survey length and decrease the time for individuals to respond (Ary, Jacobs & Razavieh, 2001).

The proficiencies were split into three content areas: agriculture, general communications, and broadcasting. Participants were asked to answer five purposely selected questions from two of the proficiency areas for a total of 10 questions in two sections of the instrument. The third section of the survey included the total proficiency list in the remaining content areas: technical agriculture, general communications, or broadcasting. Subjects were randomly sent one of the three surveys (Appendix B).

Demographic Section

The demographic portion of the instrument was developed to collect background information about participants to compile a profile of the average modern agricultural broadcaster. This section included eight questions and was placed at the top of each survey.

Broadcasting Proficiencies Section

This section dealt with the proficiencies related to those needed in the broadcasting profession. These proficiencies were identified using a review of literature and refinement by the panel of experts. There were 37 proficiencies included in this section.

Technical Agricultural Proficiencies Section

This section listed proficiencies related to a general knowledge of agriculture, again designated by the panel of experts and an extensive review of literature. There were 58 proficiencies included in this section.

General Communications Proficiencies Section

This section addressed proficiencies related to general communications skills needed. There were 67 proficiencies included in this section as identified by the panel of experts and literature review.

Instrument Validity and Reliability

The instrument was reviewed by a panel of experts, consisting of eight agricultural communications and broadcasting professionals (Crawford, 2003). The panel members assisted in the content validity of the instrument, because of their

extensive knowledge regarding the content and target audience. The panel reviewed the list to determine the content and face validity of the study. They indicated the majority of proficiencies to be appropriate for the study; a few proficiencies were eliminated from the list.

The partial matrix sampling provided respondents with an abbreviated group of questions in two of the three proficiency areas. The questions from the partial matrix sampling were grouped into proficiency areas, allowing the questions to be conceptualized to the entire population (Edwards & Briars, 1999).

The first 15 respondents belonging to the National Association of Farm Broadcasters were used to establish reliability and face validity in the instrument. Upon review of the initial data and feedback from the respondents, the researcher saw no need for changes to the format of the survey and included the 15 participants' responses as part of the final data collection. There were no scaled items in the instrument, therefore a Cronbach's Alpha was not calculated.

Data Gathering

The Dual Method for Web-Based Data Collection (Dillman, 2000) was used in an attempt to increase the response rate and ease of data collection. The first part of the dual method was the use of e-mail, which was used to send out an introductory e-mail including a survey invitation, which included the URL (Appendix D), and follow-up reminders (Appendix E). The second part is the use of the Web to access and submit the survey.

The invitation e-mail was sent to participants on December 1, 2004, informing them of the study and asking for their help. Included with this e-mail was the link to the instrument, information about the study, instructions, and contact information for the researcher and academic adviser. Reminders were sent to the participants on December 8, December 15, and December 22. The reminders included a link to the instrument.

Non-response error was assessed by comparing early and late responses. No differences in first week and final week responses were identified by the researcher. This allowed the collected data to be generalized to the total population (Briers, Linder & Murphy, 2001).

Data Analysis

After participants completed the survey, data were stored in a database. After data collection was complete, the database was converted to a Microsoft Excel spreadsheet. The spreadsheet was then imported into the Statistical Package for Social Sciences (SPSS) version 12.0 for Windows software program for analysis. Descriptive statistics were used to establish frequencies, means, and percentages for each of the objectives.

CHAPTER IV

FINDINGS

Introduction

The purpose of this chapter is to present the findings for this study based on the analysis of the data collected. This chapter also outlines the purpose and objectives of the study, provides a description of the population, and presents the findings related to each objective.

Purpose of the Study

The purpose of this study was to determine the proficiencies in an agricultural communications curriculum perceived as important by agricultural broadcasting professionals. In addition, this study determined how frequently professionals used the specified proficiencies and how the proficiencies can best be integrated into an agricultural communications curriculum.

Objectives of the Study

To satisfy the purposes of this study, the following objectives were established:

1. To describe the demographic attributes of agricultural broadcasting professionals belonging to the National Association of Farm Broadcasters.
2. To determine perceived important technical agricultural proficiencies, how

frequently those proficiencies are used, and how those proficiencies should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.

3. To determine perceived important general communications proficiencies, how frequently those proficiencies are used, and how those proficiencies should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.
4. To determine perceived important broadcasting proficiencies, how frequently those proficiencies are used, and how they should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.

Scope of the Study

This was a census study of agricultural broadcasters who were voting members of the National Association of Farm Broadcasters having e-mail addresses (NAFB) (N=138). The group is representative of agricultural broadcasters in the United States.

Response Rate

The data were collected from December 1, 2004, to January 1, 2005. A total of 138 members of the National Association of Farm Broadcasters were sent the survey. All e-mail addresses were valid. Forty-five responses were collected for a response rate of 33%. All responses were useable and included in the analysis.

Demographic Characteristics

Research objective one sought to describe the demographic characteristics of agricultural broadcasters. Data are presented in the following text, tables, and figures.

General Background Information

Of the 45 respondents, 33 (76.7%) were male, 10 (23.3%) were female, and two (4.4%) did not respond (see Table 1).

Table 1

Gender of Respondents (n=45)

Gender	*f*	*%*
Male	33	73.3
Female	10	22.2
No response	2	4.4

Respondents were asked to indicate their age range. Twelve respondents indicated their age was between 46-55 years old (26.7%). The fewest respondents (three) were 66 years or older (6.7%). The remaining respondents indicated the following age ranges: four (8.8%) were 18-25 years old, seven (15.6%) were 26-35 years old, 10 (22.2%) were 36-45 years old, seven (15.6%) were 56-65 years old, and two (4.4%) did not respond.

Thirty-one of the respondents (68.9%) indicated having a bachelor's degree (Table 2). Six professionals (13.3%) indicated having an associate's degree, and eight

(17.8%) indicated having no college degree at all. Three of the respondents (6.7) indicated having a master's degree.

Table 2

Academic Degrees Earned by Respondents (n=45)

Type of Degree	*f*	*%*
No Degree	8	17.8
Associate's Degree	6	13.3
Bachelor's Degree	31	68.9
Master's Degree	3	6.7
Doctorate Degree	0	0.0

Experience in Journalism

Twenty-seven respondents (60.0%) indicated having 13 or more years of broadcasting experience (see Table 3). Of the remaining respondents, three (6.7%) had one to three years of experience, seven (15.5%) had four to six years of experience, three (6.7%) had seven to nine years of experience, three (6.7%) had 10 to 12 years of experience, and two (4.4%) did not respond to the question.

Agricultural broadcasters were asked to specify how many full-time broadcasting positions they have held during their career (see Table 4). Thirteen respondents indicated having held one position (28.9%) during their career. Of the remaining respondents, eight (17.8%) indicated having held two positions, seven (15.6%) indicated having held three positions, six (13.3%) indicated having held four positions, nine (20.0%) indicated having held five or more positions, and two (4.4)% did not respond.

Table 3

Years in Broadcasting (n=45)

Years in Profession	*f*	%
1-3	3	6.7
4-6	7	15.5
7-9	3	6.7
10-12	3	6.7
13 or more	27	60.0
No response	2	4.4

Table 4

Number of Broadcasting Positions Held (n=45)

# of positions held	*f*	%
1	13	28.9
2	8	17.8
3	7	15.6
4	6	13.3
5 or more	9	20.0
No response	2	4.4

Experience in Agriculture

Twenty-two respondents (48.9%) rated their knowledge level as high, and 14 respondents (31.1%) indicated a somewhat high knowledge regarding agriculture (see Table 5). No respondents perceived themselves as having low agricultural knowledge, one (2.2%) indicated somewhat low knowledge, five (11.1%) indicated an average amount of knowledge, and three (6.7%) did not respond.

Table 5

Perceived Knowledge of Agriculture (n=45)

Perceived Knowledge	*f*	*%*
Low	0	0.0
Somewhat low	1	2.2
Average	5	11.1
Somewhat high	14	31.1
High	22	48.9
No response	3	6.7

Thirteen respondents (28.9%) indicated they never had any agricultural courses in college. In contrast, thirteen respondents (28.9%) also indicated having had 10 or more college agricultural courses (see Table 6). Of the remaining respondents, seven (15.6%) had one to three courses, six (13.3%) had four to six courses, four (8.9%) had seven to nine courses, and two (4.4%) did not respond.

Table 6

Number of Agricultural Courses Completed (n=45)

# of *Ag courses completed*	*f*	*%*
None	13	28.9
1-3	7	15.6
4-6	6	13.3
7-9	4	8.9
10 or more	13	28.9
No response	2	4.4

Only one respondent (2.2%) indicated no agricultural experience (see Table 7). Thirty respondents (66.7%) indicated having had paid work experience in agriculture, while 27 respondents (60.0%) indicated having had unpaid work experience. Twenty-five respondents (55.6%) indicated they live(d) in a rural area, whereas 30 (66.7%) indicated they live(d) on a farm, and 19 (42.2%) own(ed) a farm. Eighteen respondents (40.0%) indicated they work(ed) in a rural area, and 30 (66.7%) indicated they work(ed) on a farm. Twenty-four respondents (53.3%) work(ed) in an agricultural business, and 10 (22.2%) own(ed) an agricultural business. Eighteen respondents (40.0%) had an agricultural course in high school, and 21 (46.7%) indicated having had an agricultural course in college. Nineteen respondents (42.2%) have attended Extension workshops in agriculture. Five respondents (11.1%) marked the "other" category regarding their agricultural experience and listed the following: "cca degree," "countless educational

meetings to gather news," "currently farming," "industry education courses," and "testified before House & Senate committees."

Table 7

Agricultural Experience(s) (n=45)

Type of Ag. Experience	Frequency	%
None	1	2.2
Paid work experience	30	66.7
Unpaid work experience	27	60.0
Live(ed) in a rural area	25	55.6
Live(ed) on a farm	30	66.7
Own(ed) a farm	19	42.2
Work(ed) in a rural area	18	40.0
Work(ed) on a farm	30	66.7
Work(ed) for an Ag. Business	24	53.3
Own(ed) an Ag. Business	10	22.2
High school Ag. Course	18	40.0
College Ag. Course	21	46.7
Extension workshop in Ag.	19	42.2
Other	5	11.1

Findings Related to Technical Agricultural Proficiencies

The second objective for this study was to determine important technical agricultural proficiencies, how frequently these proficiencies are used, and how they should be taught in an undergraduate agricultural communications curriculum based on the perceptions of broadcasting professionals.

The participants were asked to rate each proficiency for importance by simply selecting yes or no. Next, participants were asked how frequently they use the listed proficiencies: daily, weekly, monthly, annually, or never. Lastly, the participants were asked to indicate how the proficiency should be incorporated into the curriculum: required, elective, workshop, internship, or not at all.

Table 8 illustrates a summary of the frequency of use for technical agriculture Proficiencies perceived as important by 75% or more of the respondents. Respondents indicated they used the following proficiencies on a daily basis: describe marketing theories related to price, grading, elasticity, etc. (50.0%) and discuss the impact of government and legislative policy upon agriculture (62.2%).

Respondents indicated they used the following proficiencies on a weekly basis: describe the purpose and rationale for farm programs (50.0%), evaluate the effectiveness of U.S. agricultural policy in foreign markets (50.0%), demonstrate an understanding of plant growth and development (50.0%), define conservation (50.0%), determine the impact of biotechnology on the world food production systems (51.1%), analyze the public perception of plant and animal issues (53.3%), and report on the impact of biotechnology in agricultural animals (78.6%).

A majority of respondents found the following proficiencies should be required in an undergraduate curriculum: analyze the economic impact of production agriculture on the economy (76.9%), determine the impact of biotechnology on the world food production systems (51.1%), identify current government programs that support agricultural business (53.8%), analyze the public perception of plant and animal food issues (60.0%), evaluate the effectiveness of U.S. agricultural policy in foreign markets (57.1%), discuss the impact of government and legislative policy upon agriculture

Table 8

Frequency of Use for Technical Agriculture Proficiencies Perceived Important by 75% or More of Respondents

	Frequency of Use						
Proficiency	D%	W%	M%	A%	N%	NR%	n
Discuss the definition and types of agribusiness marketing.	42.9	14.3	21.4	7.1	14.3	0.0	14
Describe marketing theories related to price, grading, elasticity, etc.	50.0	21.4	7.1	7.1	14.3	0.0	14
Discuss the impact of government and legislative policy upon agriculture.	62.2	24.4	2.2	2.2	91.1	6.7	41
Describe the purpose of and rationale for farm programs.	35.7	50.0	7.1	0.0	7.1	0.0	14
Evaluate the effectiveness of U.S. agricultural policy in foreign markets.	28.6	50.0	7.1	7.1	7.1	0.0	14
Discuss the factors that stimulate and inhibit economic growth.	35.7	28.6	14.3	7.1	14.3	0.0	14
Apply the concepts of indifference curves, supply/demand, and production functions.	35.7	35.7	14.3	0.0	14.3	0.0	14
Describe major world food and fiber crops including where they were produced geographically and explain their intended uses.	21.4	28.6	42.9	0.0	7.1	0.0	14
Demonstrate an understanding of plant growth and development.	21.4	50.0	14.3	7.1	7.1	0.0	14
Describe soil principles including fertility and water management.	7.1	42.9	14.3	14.3	21.4	0.0	14
Discuss characteristics unique to animal products and their related industries.	21.4	42.9	21.4	7.1	7.1	0.0	14

Table 8 (continued)

Report on the impact of biotechnology in agricultural animals.	7.1	78.6	7.1	0.0	7.1	0.0	14
Analyze the public perception of plant and animal food issues.	22.2	53.3	17.8	0.0	2.2	4.4	43
Summarize the economic and management roles of producing agricultural animals.	14.3	42.9	28.6	0.0	14.3	0.0	14
Define conservation.	7.1	50.0	28.6	7.1	7.1	0.0	14
Discuss environmental/global issues such as global warming and desertification and the relationship of agriculture with those issues.	4.4	22.2	37.8	22.2	6.7	6.7	42
Describe the effects of agriculture upon erosion and the introduction of chemical compounds in the environment.	0.0	33.3	41.7	8.3	16.7	0.0	12
Describe the basics of food classification, modern processing and quality/safety control.	0.0	41.7	33.3	0.0	25.0	0.0	12
Define and explain budget, cost, credit and tax and how they relate to agribusiness.	8.3	33.3	33.3	0.0	25.0	0.0	12
Identify governmental regulatory agencies related to agribusiness.	30.8	46.2	7.7	7.7	7.7	0.0	13
Identify current government programs that support agricultural business.	38.5	38.5	15.4	0.0	7.7	0.0	13
List the purposes of governmental farm agencies.	25.0	33.3	16.7	8.3	16.7	0.0	12
Explain the methods for proper handling and disposal of animal waste.	0.0	15.4	30.8	30.8	23.1	0.0	13
Explain how the selection of hybrid and certified seed affects performance and profitability.	0.0	16.7	58.3	0.0	25.0	0.0	12
Identify the types of tillage methods used in crop production.	0.0	25.0	41.7	16.7	16.7	0.0	12

Table 8 (continued)

Determine the impact of biotechnology on the world food production systems.	15.6	51.1	22.2	0.0	2.2	8.9	41
Explain the impact of governmental policy on the production and marketing of various commodities.	23.1	46.2	23.1	0.0	7.7	0.0	13
Analyze the economic impact of production agriculture on the economy.	38.5	38.5	15.4	0.0	7.7	0.0	13
Explain the importance of quality assurance of food and fiber products.	8.3	33.3	25.0	16.7	16.7	0.0	12
Explain the concepts of food sanitation and safety.	8.3	41.7	16.7	8.3	25.0	0.0	12
Explain the ethical and cultural concerns of biotechnology in agricultural processing.	7.7	38.5	15.4	15.4	23.1	0.0	13
Recognize what DNA and clones mean.	8.3	16.7	33.3	16.7	25.0	0.0	12
Define precision farming.	7.7	0.0	46.2	23.1	23.1	0.0	13
Know water issues.	16.7	33.3	16.7	16.7	16.7	0.0	12
Know specific insect pests.	15.4	23.1	30.8	15.4	15.4	0.0	13

Note. D=Daily, W=weekly, M=monthly, A=annually, N=never, NR=no response

(75.6%), and discuss the definition and types of agribusiness marketing (57.1%) (see Table 9).

A majority of respondents indicated they never use the following proficiencies: explain opportunity cost (63.6%), explain the process of photosynthesis (72.7%), explain lawn and turf maintenance (63.6%), identify fruits and nuts by common name (54.5%), and identify floriculture crops including houseplants by common name (54.5%) (see Table 10).

Table 11 shows technical agriculture proficiencies perceived to be important by less than 50.0% of respondents, as well as respondents' perceptions about how these proficiencies should be taught.

Findings Related to General Communications Proficiencies

The third objective for this study was to determine important general communications proficiencies, how frequently these proficiencies are used, and how they should be taught in an undergraduate agricultural communications curriculum based on perceptions of broadcasting professionals.

The participants were asked to rate each proficiency for importance by simply selecting yes or no. Next, participants were asked how frequently they use the listed proficiencies: daily, weekly, monthly, annually, or never. Lastly, the participants were asked to indicate how the proficiency should be incorporated into the curriculum: required, elective, workshop, internship, or not at all.

Table 9

Teaching Method(s) for Technical Agriculture Proficiencies Perceived Important by 75% or More of Respondents

	Teaching Method (s)						
Proficiency	R%	E%	W%	I%	N%	NR%	n
Discuss the definition and types of agribusiness marketing.	57.2	21.5	7.1	7.1	7.1	0.0	14
Describe marketing theories related to price, grading, elasticity, etc.	42.9	21.5	21.4	7.1	7.1	0.0	14
Discuss the impact of government and legislative policy upon agriculture.	75.6	8.9	2.2	0.0	4.4	6.7	41
Describe the purpose of and rationale for farm programs.	42.9	42.9	7.1	0.0	7.1	0.0	14
Evaluate the effectiveness of U.S. agricultural policy in foreign markets.	57.1	35.7	0.0	0.0	7.1	0.0	14
Discuss the factors that stimulate and inhibit economic growth.	38.5	38.5	15.4	0.0	7.7	0.0	13
Apply the concepts of indifference curves, supply/demand, and production functions.	50.0	14.3	21.4	0.0	14.3	0.0	14
Describe major world food and fiber crops including where they were produced geographically and explain their intended uses.	35.7	28.6	21.4	0.0	14.3	0.0	14
Demonstrate an understanding of plant growth and development.	35.7	35.7	7.1	7.1	14.3	0.0	14
Describe soil principles including fertility and water management.	23.1	38.5	7.7	7.7	23.1	0.0	13
Discuss characteristics unique to animal products and their related industries.	30.8	46.2	7.7	7.7	7.7	0.0	13

Table 9 (continued)

Report on the impact of biotechnology in agricultural animals.	16.4	69.2	7.7	0.0	7.7	0.0	13
Analyze the public perception of plant and animal food issues.	60.0	24.4	6.7	0.0	2.2	6.7	42
Summarize the economic and management roles of producing agricultural animals.	15.4	53.8	15.4	0.0	15.4	0.0	13
Define conservation.	30.8	23.1	30.8	7.7	7.7	0.0	13
Discuss environmental/global issues such as global warming and desertification and the relationship of agriculture with those issues.	13.3	35.6	37.8	2.2	4.4	6.7	45
Describe the effects of agriculture upon erosion and the introduction of chemical compounds in the environment.	8.3	41.7	33.3	0.0	16.7	0.0	12
Describe the basics of food classification, modern processing and quality/safety control.	16.7	41.7	25.0	0.0	16.7	0.0	12
Define and explain budget, cost, credit and tax and how they relate to agribusiness.	25.0	33.3	25.0	0.0	16.7	0.0	12
Identify governmental regulatory agencies related to agribusiness.	46.2	23.1	23.1	0.0	7.7	0.0	13
Identify current government programs that support agricultural business.	53.8	23.1	15.4	0.0	7.7	0.0	13
List the purposes of governmental farm agencies.	25.0	33.3	33.3	0.0	8.3	0.0	12
Explain the methods for proper handling and disposal of animal waste.	0.0	50.0	33.3	0.0	16.7	0.0	12
Explain how the selection of hybrid and certified seed affects performance and profitability.	0.0	69.2	15.4	0.0	15.4	0.0	13
Identify the types of tillage methods used in crop production.	8.3	50.0	25.0	8.3	8.3	0.0	12

Table 9 (continued)

Determine the impact of biotechnology on the world food production systems.	51.1	35.6	2.2	0.0	4.4	6.7	42
Explain the impact of governmental policy on the production and marketing of various commodities.	46.2	38.5	7.7	0.0	7.7	0.0	13
Analyze the economic impact of production agriculture on the economy.	76.9	15.4	0.0	0.0	7.7	0.0	13
Explain the importance of quality assurance of food and fiber products.	50.0	33.3	8.3	0.0	8.3	0.0	12
Explain the concepts of food sanitation and safety.	50.0	16.7	16.7	0.0	16.7	0.0	12
Explain the ethical and cultural concerns of biotechnology in agricultural processing.	38.5	38.5	15.4	0.0	7.7	0.0	13
Recognize what DNA and clones mean.	16.7	50.0	25.0	0.0	8.3	0.0	12
Define precision farming.	15.4	38.5	23.1	7.7	15.4	0.0	13
Know water issues.	50.0	25.0	8.3	0.0	16.7	0.0	12
Know specific insect pests.	30.8	38.5	15.4	7.7	7.7	0.0	13

Note. R=required, E=elective, W=workshop, I=internship, N=not at all, NR=no response

Table 10

Frequency of use for Technical Agriculture Perceived as Important by Less Than 50% of Respondents.

	Frequency of Use						
Proficiency	D%	W%	M%	A%	N%	NR%	n
Explain opportunity cost.	0.0	9.1	27.3	0.0	63.6	0.0	11
Demonstrate the proper procedures for administering animal health products.	0.0	0.0	45.5	27.3	27.3	0.0	11
Explain the process of photosynthesis.	0.0	0.0	9.1	18.2	72.7	0.0	11

Table 10 (continued)

Explain lawn and turf maintenance.	0.0	0.0	18.2	18.2	63.6	0.0	11
Identify fruits and nuts by common name.	18.2	0.0	18.2	9.1	54.5	0.0	11
Identify floriculture crops including houseplants by common name.	0.0	9.1	9.1	27.3	54.5	0.0	11

Note. D=Daily, W=weekly, M=monthly, A=annually, N=never, NR=no response

Table 11

Teaching Methods for Technical Agriculture Perceived as Important by Less Than 50% of Respondents

	Frequency of Use						
Proficiency	R%	E%	W%	I%	N%	NR%	n
Explain opportunity cost.	0.0	30.8	15.4	0.0	53.8	0.0	13
Demonstrate the proper procedures for administering animal health products.	0.0	9.1	45.5	9.1	36.4	0.0	11
Explain the process of photosynthesis.	9.1	0.0	36.4	0.0	54.5	0.0	11
Explain lawn and turf maintenance.	0.0	9.1	27.3	9.1	54.5	0.0	11
Identify fruits and nuts by common name.	9.1	0.0	45.5	9.1	36.4	0.0	11
Identify floriculture crops including houseplants by common name.	0.0	9.1	27.3	9.1	54.5	0.0	11

Note. R=required, E=elective, W=workshop, I=internship, N=not at all, NR=no response

Table 12 illustrates the frequency at which broadcasting professionals use the listed general communications proficiencies. This table includes only those proficiencies that were found to be important by 75% or more of the respondents.

A majority of respondents listed the following proficiencies as ones that are used daily: interview a source of information for a news article (75.0%), apply effective speaking techniques (54.5%), use the voice to maintain the interest of the audience (75.6%), use a variety of inflection, tone and volume (54.5%), describe the impact of agriculture upon all Americans (72.7%), describe the role agriculture plays in international relations (57.8%), demonstrate the characteristics of responsibility and credibility (63.6%), model proficiency in time management and organization (54.5%), navigate Internet; send and receive e-mail (90.9%), transfer and download information through a network (90.9%), apply human relations skills (90.9%), resolve conflicts (60.0%), understand government systems and how they affect agriculture (90.0%), cite sources (81.8%), gather and synthesize information (90.1%), converse knowledgeably on different areas in agriculture (90.0%), determine whether a topic would be best covered in a news article or feature article (63.6%), identify bias in media stories (81.8%), interpret statistics (63.6%), interpret the basics of the commodities market (63.6%), and apply common sense logic to an economic trend analysis (81.8%). A few proficiencies were perceived by 100% of the respondents as used daily: work under pressure, correctly report facts, and perform basic word processing (see Table 12).

Table 12

Frequency of Use for General Communications Proficiencies Perceived Important by 75% or More of Respondents

	Frequency of Use						
Proficiency	D%	W%	M%	A%	N%	NR%	n
Interview a source of information for a news article.	75.0	25	0.0	0.0	0.0	0.0	12
Edit the work of others; accurately proofread a document.	33.3	33.3	16.7	8.3	8.3	0.0	12
Describe common dilemmas faced by journalists.	9.1	54.5	27.3	9.1	0.0	0.0	11
Discuss ethical standards that exist in the field of journalism.	18.2	63.6	18.2	0.0	0.0	0.0	11
Determine ethical solutions to problems.	18.2	54.5	18.2	9.1	0.0	0.0	11
Describe the ways in which news and other information is disseminated to the public.	27.3	27.3	27.3	18.2	0.0	0.0	11
Compare the effectiveness of various dissemination systems for different messages and audiences.	24.4	13.3	24.4	22.2	6.7	8.9	41
Discuss legal problems facing journalists, broadcasters and advertisers.	18.2	36.4	27.3	18.2	0.0	0.0	11
Discuss and define communications regulations, fairness doctrine, libel, privacy and commercial speech.	18.2	45.5	27.3	9.1	0.0	0.0	11
Select appropriate topics in speech writing.	18.2	36.4	27.3	18.2	0.0	0.0	11
Write speeches using effective formats and formulas.	9.1	9.1	72.7	0.0	9.1	0.0	11
Use creative skills to develop introductions to effectively engage an audience in a speech.	18.2	18.2	45.5	9.1	9.1	0.0	11
Customize a speech for a specific audience.	27.3	9.1	36.4	18.2	9.1	0.0	11
Apply effective speaking techniques.	54.5	27.3	18.2	0.0	0.0	0.0	11

Table 12 (continued)

Use the voice to maintain the interest of the audience.	75.6	6.7	4.4	0.0	2.2	11.1	40
Use a variety of inflection, tone and volume.	54.5	18.2	27.3	0.0	0.0	0.0	11
Use appropriate hand and facial expressions.	27.3	36.4	18.2	18.2	0.0	0.0	11
Describe the impact of agriculture upon all Americans.	72.7	9.1	9.1	9.1	0.0	0.0	11
Describe the agricultural community in the United States.	36.4	45.5	18.2	0.0	0.0	0.0	11
Assess the level of agricultural literacy in the United States.	36.4	36.4	18.2	0.0	9.1	0.0	11
Use a variety of means including print, radio and video to inform the public.	36.4	27.3	27.3	9.1	0.0	0.0	11
Write features about agricultural topics.	36.4	27.3	18.2	18.2	0.0	0.0	11
Describe the role agriculture plays in international relations.	57.8	15.6	8.9	4.4	4.4	8.9	41
Discuss the cultural impact of agricultural trade.	27.3	27.3	27.3	18.2	0.0	0.0	11
List the barriers that exist when communicating agricultural information in international situations.	18.2	36.4	27.3	18.2	0.0	0.0	11
Contrast the uniqueness of agricultural communications to other types of communications.	20.0	40.0	20.0	10.0	10.0	0.0	10
Describe the purpose of agricultural communications.	45.5	18.2	27.3	0.0	9.1	0.0	11
Apply agricultural communications techniques and skills.	31.1	13.3	20.0	11.1	8.9	15.6	38
Demonstrate the characteristics of responsibility and credibility.	63.6	27.3	0.0	9.1	0.0	0.0	11
Model proficiency in time management and organization.	54.5	27.3	9.1	9.1	0.0	0.0	11
Create media program formats.	36.4	18.2	27.3	18.2	0.0	0.0	11
Navigate Internet; send and receive e-mail.	90.9	9.1	0.0	0.0	0.0	0.0	11
Transfer and download information through a network.	90.9	9.1	0.0	0.0	0.0	0.0	11
Apply human relations skills.	90.9	9.1	0.0	0.0	0.0	0.0	11
Resolve conflicts.	60.0	10.0	20.0	0.0	10.0	0.0	10

Table 12 (continued)

Evaluate the performance of co-workers.	27.3	18.2	18.2	18.2	18.2	0.0	11
Write a quality thank you note.	18.2	27.3	36.4	18.2	0.0	0.0	11
Identify and fix barriers to effective communication.	45.5	18.2	18.2	9.1	9.1	0.0	11
Interview for employment.	22.2	15.6	24.4	13.3	8.9	15.6	38
Work in a team activity.	90.1	0.0	9.1	0.0	0.0	0.0	11
Work under pressure.	100.0	0.0	0.0	0.0	0.0	0.0	10
Correctly report facts.	100.0	0.0	0.0	0.0	0.0	0.0	10
Understand government systems and how they affect agriculture.	90.0	10.0	0.0	0.0	0.0	0.0	10
Cite sources.	81.8	18.2	0.0	0.0	0.0	0.0	11
Gather and synthesize information.	90.1	9.1	0.0	0.0	0.0	0.0	11
Perform basic word processing	100.0	0.0	0.0	0.0	0.0	0.0	11
Converse knowledgeably on different areas in agriculture.	90.0	10	0.0	0.0	0.0	0.0	10
Determine whether a topic would be best covered in a news article or feature article.	63.6	27.3	9.1	0.0	0.0	0.0	11
Create a resume	9.1	9.1	27.3	54.5	0.0	0.0	11
Identify bias in media stories	81.8	9.1	9.1	0.0	0.0	0.0	11
Write for the Internet.	30.0	30.0	0.0	10.0	30.0	0.0	10
Discuss Freedom of Information Act.	27.3	9.1	0.0	36.4	27.3	0.0	11
Demonstrate sales skills.	27.3	27.3	18.2	0.0	27.3	0.0	11
Discuss the importance of belonging to a professional organization.	27.3	18.2	18.2	18.2	18.2	0.0	11
Interpret statistics.	63.6	9.1	0.0	9.1	18.2	0.0	11
Interpret the basics of the commodities market.	63.6	18.2	9.1	9.1	0.0	0.0	11
Apply common sense logic to an economic trend analysis.	81.8	0.0	0.0	18.2	0.0	0.0	11
Analyze and apply technical data.	45.5	18.2	9.1	18.2	9.1	0.0	11

Note. D=Daily, W=weekly, M=monthly, A=annually, N=never, NR=no response

Table 13 illustrates the method(s) in which the listed general communications proficiencies should be required in an undergraduate agricultural communications curriculum according to broadcasting professionals. This table includes only those proficiencies that were perceived as important by 75.0% or more of the respondents. These proficiencies included interview a source of information for a news article (91.7%), edit the work of others; accurately proofread a document (58.3%), describe common dilemmas faced by journalists (54.5%), discuss ethical standards that exist in the field of journalism (72.7%), determine ethical solutions to problems (72.7%), discuss legal problems facing journalists, broadcasters and advertisers (54.5%), discuss and define communications regulations, fairness doctrine, libel, privacy and commercial speech (81.8%), select appropriate topics in speech writing (54.5%), customize a speech for a specific audience (54.5%), apply effective speaking techniques (81.8%), use the voice to maintain the interest of the audience (77.8%), use a variety of inflection, tone and volume (81.8%), use appropriate hand and facial expressions (63.6%), describe the impact of agriculture upon all Americans (81.8%), describe the agricultural community in the United States (63.6%), assess the level of agricultural literacy in the United States (63.6%), use a variety of means including print, radio and video to inform the public (81.8%), write features about agricultural topics (54.5%), describe the role agriculture plays in international relations (68.9%), demonstrate the characteristics of responsibility and credibility (63.6%), navigate Internet; send and receive e-mail (54.5%), transfer and download information through a network (54.5%), work in a team activity (60.0%), work under pressure (70.0%), understand government systems and how they affect agriculture (90.9%), cite sources (90.9%), gather and synthesize information (90.0%), determine whether a topic would be best covered in a news article or feature article (81.8%),

Table 13

Teaching Method(s) for General Communications Proficiencies Perceived Important by 75% or More of Respondents

	Teaching Method(s)						
Proficiency	R%	E%	W%	I%	N%	NR%	n
Interview a source of information for a news article.	91.7	8.3	0.0	0.0	0.0	0.0	12
Edit the work of others; accurately proofread a document.	58.3	16.7	16.7	0.0	8.3	0.0	12
Describe common dilemmas faced by journalists.	54.5	27.3	9.1	0.0	9.1	0.0	11
Discuss ethical standards that exist in the field of journalism.	72.7	18.2	0.0	0.0	9.1	0.0	11
Determine ethical solutions to problems.	72.7	9.1	9.1	0.0	9.1	0.0	11
Describe the ways in which news and other information is disseminated to the public.	36.4	45.5	9.1	0.0	9.1	0.0	11
Compare the effectiveness of various dissemination systems for different messages and audiences.	37.8	24.4	17.8	4.4	6.7	8.9	41
Discuss legal problems facing journalists, broadcasters and advertisers.	54.5	27.3	9.1	0.0	9.1	0.0	11
Discuss and define communications regulations, fairness doctrine, libel, privacy and commercial speech.	81.8	9.1	0.0	0.0	9.1	0.0	11
Select appropriate topics in speech writing.	54.5	36.4	0.0	0.0	9.1	0.0	11
Write speeches using effective formats and formulas.	36.4	54.5	0.0	0.0	9.1	0.0	11
Use creative skills to develop introductions to effectively engage an audience in a speech.	45.5	45.5	0.0	0.0	9.1	0.0	11
Customize a speech for a specific audience.	54.5	27.3	9.1	0.0	9.1	0.0	11
Apply effective speaking techniques.	81.8	18.2	0.0	0.0	0.0	0.0	11
Use the voice to maintain the interest of the audience.	77.8	8.9	0.0	0.0	2.2	11.1	40
Use a variety of inflection, tone and volume.	81.8	18.2	0.0	0.0	0.0	0.0	11
Use appropriate hand and facial expressions.	63.6	27.3	9.1	0.0	0.0	0.0	11

Table 13 (continued)

Describe the impact of agriculture upon all Americans.	81.8	9.1	9.1	0.0	0.0	0.0	11
Describe the agricultural community in the United States.	63.6	36.4	0.0	0.0	0.0	0.0	11
Assess the level of agricultural literacy in the United States.	63.6	27.3	9.1	0.0	0.0	0.0	11
Use a variety of means including print, radio and video to inform the public.	81.8	18.2	0.0	0.0	0.0	0.0	11
Write features about agricultural topics.	54.5	45.5	0.0	0.0	0.0	0.0	11
Describe the role agriculture plays in international relations.	68.9	13.3	0.0	2.2	6.7	8.9	41
Discuss the cultural impact of agricultural trade.	36.4	45.5	9.1	9.1	0.0	0.0	11
List the barriers that exist when communicating agricultural information in international situations.	36.4	54.5	0.0	0.0	9.1	0.0	11
Contrast the uniqueness of agricultural communications to other types of communications.	45.5	36.4	9.1	0.0	9.1	0.0	10
Describe the purpose of agricultural communications.	45.5	54.5	0.0	0.0	0.0	0.0	11
Apply agricultural communications techniques and skills.	48.9	17.8	11.1	2.2	8.9	11.1	38
Demonstrate the characteristics of responsibility and credibility.	63.6	9.1	9.1	18.2	0.0	0.0	11
Model proficiency in time management and organization.	36.4	36.4	9.1	18.2	0.0	0.0	11
Create media program formats.	27.3	36.4	18.2	9.1	9.1	0.0	11
Navigate Internet; send and receive e-mail.	54.5	0.0	36.4	9.1	0.0	0.0	11
Transfer and download information through a network.	54.5	18.2	18.2	9.1	0.0	0.0	11
Apply human relations skills.	50.0	20.0	30.0	0.0	0.0	0.0	11
Resolve conflicts.	50.0	20.0	20.0	0.0	10.0	0.0	10
Evaluate the performance of co-workers.	20.0	50.0	20.0	0.0	10.0		11
Write a quality thank you note.	36.4	27.3	27.3	0.0	9.1	0.0	11
Identify and fix barriers to effective communication.	40.0	50.0	10.0	0.0	0.0	0.0	11
Interview for employment.	44.4	26.7	11.1	2.2	2.2	13.3	38
Work in a team activity.	60.0	20.0	10.0	10.0	0.0	0.0	11

Table 13 (continued)

Work under pressure.	70.0	10.0	0.0	20.0	0.0	0.0	10
Correctly report facts	100.0	0.0	0.0	0.0	0.0	0.0	10
Understand government systems and how they affect agriculture.	90.9	9.1	0.0	0.0	0.0	0.0	10
Cite sources.	90.9	9.1	0.0	0.0	0.0	0.0	11
Gather and synthesize information.	90.0	10.0	0.0	0.0	0.0	0.0	10
Perform basic word processing	100.0	0.0	0.0	0.0	0.0	0.0	11
Converse knowledgeably on different areas in agriculture.	100.0	0.0	0.0	0.0	0.0	0.0	11
Determine whether a topic would be best covered in a news article or feature article.	81.8	18.2	0.0	0.0	0.0	0.0	11
Create a resume	54.2	18.2	27.3	0.0	0.0	0.0	11
Identify bias in media stories	81.8	18.2	0.0	0.0	0.0	0.0	11
Write for the Internet.	27.3	63.6	0.0	0.0	9.1	0.0	11
Discuss Freedom of Information Act.	45.5	36.4	9.1	0.0	9.1	0.0	11
Demonstrate sales skills.	54.5	36.4	9.1	0.0	0.0	0.0	11
Discuss the importance of belonging to a professional organization.	36.4	45.5	18.2	0.0	0.0	0.0	11
Interpret statistics.	54.5	27.3	9.1	0.0	9.1	0.0	11
Interpret the basics of the commodities market.	81.8	9.1	9.1	0.0	0.0	0.0	11
Apply common sense logic to an economic trend analysis.	70.0	20.0	10.0	0.0	0.0	0.0	10
Analyze and apply technical data.	54.5	36.4	9.1	0.0	0.0	0.0	11

Note. R=required, E=elective, W=workshop, I=internship, N=not at all, NR=no response

create a resume (54.2%), identify bias in media stories (81.8%), demonstrate sales skills (54.5%), interpret statistics (54.5%), interpret the basics of the commodities market (81.8%), apply common sense logic to an economic trend analysis (70.0%), and analyze and apply technical data (54.5%). The following proficiencies were perceived by 100% of the respondents as required: correctly report facts, perform basic word processing, and converse knowledgeably on different areas in agriculture.

Three general communications proficiencies were recognized by less than 50.0% of the respondents as important and were recognized by most as taught through elective type courses used less frequently than the other listed proficiencies (Table 14 and 15). The proficiencies were use correct editing marks and symbols, critique and correct layout and design publications, and use graphics effectively to increase understanding.

Findings Related to Specific Broadcasting Proficiencies

The fourth objective for this study was to determine important broadcasting proficiencies, how frequently these proficiencies are used, and how they should be taught in an undergraduate agricultural communications curriculum based on perceptions of broadcasting professionals.

The participants were asked to rate each proficiency for importance by simply selecting yes or no. Next, participants were asked how frequently they use the listed proficiencies: daily, weekly, monthly, annually, or never. Lastly, the participants were asked to indicate how the proficiency should be incorporated into the curriculum: required, elective, workshop, internship, or not at all.

Table 14

Frequency of Use for General Communications Perceived as Important by Less Than 50% of Respondents

	Frequency of Use						
Proficiency	D%	W%	M%	A%	N%	NR%	n
Use correct editing marks and symbols.	25.0	25.0	16.7	8.3	25.0	0.0	12
Critique and correct layout and design of publications.	0.0	36.4	18.2	18.2	27.3	0.0	11
Use graphics effectively to increase understanding.	18.2	27.3	9.1	9.1	36.4	0.0	11

Note. D=Daily, W=weekly, M=monthly, A=annually, N=never, NR=no response

Table 15

Teaching Methods for General Communications Perceived as Important by Less Than 50% of Respondents

	Teaching Method (s)						
Proficiency	R%	E%	W%	I%	N%	NR%	n
Use correct editing marks and symbols.	50.0	16.7	8.3	0.0	25.0	0.0	12
Critique and correct layout and design of publications.	9.1	63.6	9.1	0.0	18.2	0.0	11
Use graphics effectively to increase understanding.	18.2	45.5	27.3	0.0	9.1	0.0	11

Note. R=required, E=elective, W=workshop, I=internship, N=not at all, NR=no response

Table 16 illustrates a summary of the frequency of use for broadcasting proficiencies perceived important by 75% or more of the respondents. A majority of respondents found the following to be daily used proficiencies: write broadcast copy (94.1%), tailor material to an audience (94.1%), generate newsworthy story ideas (86.7%), identify correct technology for the story (TV, Radio, etc.) (66.7%), edit using digital editing programs (94.1%), use correct phone etiquette (94.1%), sell radio advertising (62.5%), function in a live radio environment (88.2%), know how to use a newswire (Associated Press, etc.) (64.4%), use a mini-disc recorder (88.2%), use a sound board (94.1%), work one beat or multiple beats (76.5%), use the Internet to research stories (93.8%), understand radio formats (62.5%), direct a program (68.8%), deliver video or audio over the Internet (streaming, progressive download) (51.1%), and interview someone effectively (93.3%). One proficiency received 100% of the professionals' selection for daily use: use proper diction and grammar.

A majority of the respondents found the following broadcast proficiencies should be required in an undergraduate agricultural curriculum: write broadcast copy (94.1%), tailor material to an audience (76.5%), generate newsworthy story ideas (88.4%), use proper diction and grammar (94.1%), edit using digital editing programs (82.4%), create an original radio advertisement (52.9%), function in a live radio environment (76.5%), know how to use a newswire (Associated Press, etc.) (57.8%), use a mini-disc recorder (58.8%), use a sound board (64.7%), use the Internet to research stories (53.3%), and computer-assisted journalism (Freedom of Information Act and copyright laws in terms of radio, video and the Internet) (58.3%).

Table 16

Frequency of Use for Broadcasting Proficiencies Perceived Important by 75% or More of Respondents

	Frequency of Use						
Proficiency	D%	W%	M%	A%	N%	NR%	n
Write broadcast copy.	94.1	0.0	0.0	0.0	5.9	0.0	17
Tailor material to an audience.	94.1	0.0	5.9	0.0	0.0	0.0	17
Generate newsworthy story ideas.	86.7	4.4	0.0	0.0	2.2	6.7	42
Use proper diction and grammar.	100.0	0.0	0.0	0.0	0.0	0.0	17
Identify correct technology for the story (TV, Radio, etc.).	66.7	6.7	13.3	6.7	6.7	0.0	15
Edit using digital editing programs.	94.1	5.9	0.0	0.0	0.0	0.0	17
Use correct phone etiquette.	94.1	0.0	5.9	0.0	0.0	0.0	17
Sell radio advertising.	62.5	6.3	6.3	6.3	18.8	0.0	16
Create an original radio advertisement.	50.0	12.5	25.0	6.3	6.3	0.0	16
Function in a live radio environment.	88.2	11.8	0.0	0.0	0.0	0.0	17
Know how to use a newswire (Associated Press, etc.).	64.4	8.9	6.7	2.2	4.4	13.3	39
Use a mini-disc recorder.	88.2	5.9	0.0	5.9	0.0	0.0	17
Use a sound board.	94.1	0.0	0.0	5.9	0.0	0.0	17
Work one beat or multiple beats.	76.5	0.0	11.8	0.0	11.8	0.0	17
Use the Internet to research stories.	93.8	0.0	0.0	6.3	0.0	0.0	16
Understand radio formats.	62.5	18.8	6.3	0.0	12.5	0.0	16
Do live remote broadcasts (studio or field using patch cords, telephone, etc.).	43.8	37.5	12.5	6.3	0.0	0.0	16
Direct a program.	68.8	0.0	12.5	6.3	12.5	0.0	16
Dress correctly for television broadcast (makeup, hair, etc.).	7.1	7.1	7.1	35.7	42.9	0.0	14
Shoot well-composed shots.	9.1	0.0	0.0	9.1	81.8	0.0	11
Effectively use lighting.	9.1	0.0	0.0	18.2	72.7	0.0	11

Table 16 (continued)

Deliver video or audio over the Internet (streaming, progressive download).	51.1	15.6	6.7	4.4	11.1	11.1	40
Design effective Web sites.	33.3	0.0	13.3	20.0	33.3	0.0	15
Ability to create streaming, etc.	35.7	0.0	14.3	14.3	35.7	0.0	14
Computer-assisted journalism (Freedom of Information Act and copyright laws in terms of radio, video and the Internet).	50.0	7.1	21.4	7.1	14.3	0.0	14
Interview someone effectively.	93.3	6.7	0.0	0.0	0.0	0.0	15

Note. D=Daily, W=weekly, M=monthly, A=annually, N=never, NR=no response

Table 17

Teaching Method(s) for Broadcasting Proficiencies Perceived Important by 75% or More of Respondents

	Teaching Method(s)						
Proficiency	R%	E%	W%	I%	N%	NR%	n
Write broadcast copy.	94.1	5.9	0.0	0.0	0.0	0.0	17
Tailor material to an audience.	76.5	17.6	5.9	0.0	0.0	0.0	17
Generate newsworthy story ideas.	88.4	4.7	4.7	0.0	2.3	0.0	43
Use proper diction and grammar.	94.1	5.9	0.0	0.0	0.0	0.0	17
Identify correct technology for the story (TV, Radio, etc.).	43.8	31.3	18.8	6.3	0.0	0.0	16
Edit using digital editing programs.	82.4	11.8	5.9	0.0	0.0	0.0	17
Use correct phone etiquette.	47.1	11.8	35.3	0.0	5.9	0.0	17
Sell radio advertising.	47.1	29.4	11.8	5.9	5.9	0.0	17
Create an original radio advertisement.	52.9	23.5	17.6	0.0	5.9	0.0	17
Function in a live radio environment.	76.5	0.0	0.0	23.5	0.0	0.0	17

Table 17 (continued)

Know how to use a newswire (Associated Press, etc.).	57.8	8.9	17.8	6.7	4.4	4.4	43
Use a mini-disc recorder.	58.8	17.6	23.5	0.0	0.0	0.0	17
Use a sound board.	64.7	11.8	17.6	5.9	0.0	0.0	17
Work one beat or multiple beats.	47.1	23.5	5.9	11.8	11.8	0.0	17
Use the Internet to research stories.	53.3	40.0	6.7	0.0	0.0	0.0	15
Understand radio formats.	46.7	40.0	0.0	6.7	6.7	0.0	15
Do live remote broadcasts (studio or field using patch cords, telephone, etc.).	46.7	20.0	13.3	20.0	0.0	0.0	15
Direct a program.	20.0	40.0	13.3	13.3	13.3	0.0	15
Dress correctly for television broadcast (makeup, hair, etc.).	6.7	20.0	53.3	13.3	6.7	0.0	15
Shoot well-composed shots.	33.3	50.0	0.0	8.3	8.3	0.0	12
Effectively use lighting.	18.2	45.5	18.2	18.2	0.0	0.0	11
Deliver video or audio over the Internet (streaming, progressive download).	48.9	24.4	11.1	2.2	2.2	11.1	40
Design effective Web sites.	0.0	61.5	23.1	15.4	0.0	0.0	13
Ability to create streaming, etc.	15.4	53.8	23.1	7.7	0.0	0.0	13
Computer-assisted journalism (Freedom of Information Act and copyright laws in terms of radio, video and the Internet).	58.3	25.0	16.7	0.0	0.0	0.0	12

Note. R=required, E=elective, W=workshop, I=internship, N=not at all, NR=no response

From the list of broadcast proficiencies, professionals only found one they deemed unimportant. The majority (66.7%) listed generate screen graphics as a proficiency they never use and recommended it be used as an elective (Table 18 and 19).

Table 18

Frequency of Use for Broadcasting Perceived as Important by Less Than 50% of Respondents

Proficiency	D%	W%	M%	A%	N%	NR%	n
Generate screen graphics.	0.0	6.7	13.3	13.3	66.7	0.0	15

Table 19

Teaching Methods for Broadcasting Perceived as Important by Less Than 50% of Respondents

Proficiency	R%	E%	W%	I%	N%	NR%	n
Generate screen graphics.	0.0	46.7	13.3	20.0	20.0	0.0	15

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

This chapter is intended to present a review and overall summary of the study, as well as to develop conclusions, implications, and recommendations based on the findings established in the previous chapter.

Purpose of the Study

The purpose of this study was to determine the proficiencies in an agricultural communications curriculum perceived as important by agricultural broadcasting professionals. In addition, this study determined how frequently the professionals used the specified proficiencies and how the proficiencies can best be integrated into an agricultural communications curriculum.

Objectives of the Study

To satisfy the purpose of this study, the following objectives were established:

1. To describe the demographic attributes of agricultural broadcasting professionals belonging to the National Association of Farm Broadcasters.
2. To determine perceived important technical agricultural proficiencies, how

frequently those proficiencies are used, and how those proficiencies should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.

3. To determine perceived important general communications proficiencies, how frequently those proficiencies are used, and how those proficiencies should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.
4. To determine perceived important broadcasting proficiencies, how frequently those proficiencies are used, and how they should be taught in an undergraduate agricultural communications curriculum according to agricultural broadcasting professionals.

Scope of the Study

This research was a census study of agricultural broadcasters who were voting members of the National Association of Farm Broadcasters having e-mail addresses (NAFB) (N=138). The group is representative of agricultural broadcasters in the United States.

Summary of Methods and Procedures

Quantitative data were collected using an online instrument. A list of competencies developed by Terry, et. al. (1994) was adapted for the study. The data collection process was based on Dillman's (2000) method for Web-based surveying. A census of voting members belonging to the National Association of Farm Broadcasters

was conducted resulting in 45 responses for a 33% response rate. Descriptive statistics were used to describe and explain the data collected. Data was analyzed using SPSS 11.0 for Windows (SPSS, 2001).

Summary

Chapter I provided an introduction to the study. This study sought to determine what skills and knowledge employers' expect from agricultural communications graduates who emphasize broadcasting. Agricultural broadcasters were surveyed to identify proficiencies they deemed important in the working world. The study also sought to determine how the surveyed professionals thought the specified proficiencies should be taught and how often they use the proficiencies. This research provides a framework for curricula reassessment in agricultural communications.

Chapter II provided a literature review for this research study. The following areas were reported in the literature review: conceptual framework, history of agricultural communications, agricultural communications curriculum, curriculum development, agricultural broadcasting, and web-based Surveys. Little research was found that determined what skills professionals deem necessary for agricultural communications graduates to possess. However, the earliest studies regarding agricultural communications identified a need for continued curriculum reassessment. Studies also stressed the importance of including industry professionals in the revision of curriculum.

Chapter III reported the research methodology, providing a detailed description of steps taken to conduct the research. Chapter IV revealed the findings of the study using the methodology identified in Chapter III. The findings were organized by objective.

Major Findings

Findings related to objective 1

The typical agricultural broadcasting professional can be described as a male (73.3%) who has a bachelor's degree (68.9%), who has been in the broadcasting field for 13 or more years (60.0%), who has a high (48.9%) or somewhat high (31.1%) knowledge of agriculture. The same number of respondents indicated having no agricultural courses in college (28.9%) and having 10 or more courses (28.9%), making the data statistically polarized.

Findings related to objective 2

Twenty-five proficiencies were perceived as important by 75% or more of the respondents, while 17 proficiencies were perceived as important by 50% to 74% of the respondents. Respondents perceived six proficiencies were not important.

Agricultural broadcasters use two agricultural proficiencies on a daily basis: (1) describe marketing theories related to price, grading, elasticity, etc. and (2) discuss the impact of government and legislative policy upon agriculture.

Agricultural broadcasters use seven agricultural proficiencies on a weekly basis: (1) describe the purpose of and rationale for farm programs; (2) evaluate the effectiveness of U.S. agricultural policy in foreign markets; (3) demonstrate an understanding of plant growth and development; (4) report on the impact of biotechnology in agricultural animals; (5) analyze the public perception of plant and animal issues; (6) define conservation; and (7) determine the impact of biotechnology on the world food production systems.

Agricultural broadcasters use one proficiency on a monthly basis: explain how the selection of hybrid and certified seed affects performance and profitability.

Findings related to objective 3

Fifty-six proficiencies were perceived as important by 75% or more of the respondents, while eight proficiencies were perceived as important by 50% to 74% of the respondents. Respondents perceived three proficiencies were not important.

Agricultural broadcasters use 25 general communications proficiencies on a daily basis: (1) interview a source for a news article; (2) apply effective speaking techniques; (3) use the voice to maintain the interest of the audience; (4) use a variety of inflection, tone and volume; (5) describe the impact of agriculture upon all Americans; (6) describe the role agriculture plays in international relations; (7) demonstrate the characteristics of responsibility and credibility; (8) model proficiency in time management and organization; (9) navigate Internet; (10) transfer and download information through a network; (11) apply human relations skills; (12) resolve conflicts; (13) work in a team activity; (14) work under pressure; (15) correctly report facts; (16) understand government systems and how they affect agriculture; (17) cite sources; (18) gather and synthesize information; (19) perform basic word processing; (20) converse knowledgably on different areas in agriculture; (21) determine whether a topic would best be covered in a feature or a news article; (22) identify bias in media stories; (23) interpret statistics; (24) interpret the basics of the commodities market; (25) apply common sense logic to an economic trend analysis.

Findings related to objective 4

1. Twenty-six broadcasting proficiencies were perceived as important by professionals, especially radio-oriented proficiencies except for generate screen graphics.
2. A majority of respondents indicated they use the broadcasting proficiencies on a daily basis.
3. Professionals perceived the proficiencies they use on a daily or weekly basis should be taught in required courses.
4. Tailoring material to an audience, identifying correct technology for the story, editing using digital programs, and the ability to use a variety of microphones were among the most important proficiencies.

Conclusions

Conclusions related to objective 1

1. The vast majority of agricultural broadcasters are educated males who have been in the profession at the same station or affiliate for 13 or more years.

Conclusions related to objective 2

1. The vast majority of technical agricultural proficiencies are important to agricultural broadcasters.
2. The vast majority of agricultural broadcasters use economic and marketing theories and rely on an understanding of the impact of government and legislative policy upon agriculture on a daily basis.

3. The vast majority of agricultural broadcasters rely on their understanding of foreign markets, farm programs, biotechnology, public perception on agriculture, and conservation and plant science on a weekly basis.
4. The vast majority of agricultural broadcasters refer back to their knowledge of hybrid and certified seed selection on a monthly basis.

Conclusions related to objective 3

1. The following general proficiencies must be included in a required curriculum: interview a source of information for a news article, understand government systems and how they effect agriculture, cite sources, gather and synthesize information, ability to use word processing, correctly report facts, and converse about agriculture.

Conclusions related to objective 4

1. The following broadcasting proficiencies must be included in a required curriculum: write broadcast copy and use proper grammar and diction.
2. All listed broadcast proficiencies should be included in a required or elective curriculum.

Recommendations

Based on the conclusions of this study, the following recommendations were made:

1. Agricultural communications students interested in pursuing broadcasting should

focus their study on broadcasting proficiencies including using modern technology, tailoring stories to a specific audience, and understanding what area of broadcasting fits the story, such as radio, television or online.

2. Agricultural knowledge is essential but must be taught in a general format.
3. Graduates should improve their abilities to write and edit using modern digital programs, as well as understand economic principles before entering the professional arena of agricultural broadcasting.
4. Courses in specific agricultural areas such as knowing water issues should not be included in the curriculum.
5. Agricultural business and economics should be incorporated into agricultural communications in great detail.
6. The proficiencies identified in this study should be used to develop broadcasting curriculum for undergraduate agricultural communications students.
7. Industry professionals and university faculty and staff should unite to refine curriculum using the findings of this study to better prepare students for the demanding workplace.
8. Curriculum developers must take into account that proficiencies not used daily by professionals are not necessarily deemed unimportant according to this study.
9. Agricultural communications programs must hire faculty have the ability to teach effectively the proficiencies indicated in this study.

Recommendations for Research

1. Studies should be conducted to determine how the proficiencies can be implemented / or integrated into agricultural communications curriculum.
2. Research should be conducted to identify what proficiencies professionals with academic degrees deem most important versus non-degree professionals.

Implications

The findings of this study affirmed that the proficiencies from the Terry et al. (1994) study are still vital and relevant for the modern agricultural broadcaster. The study complimented this list of proficiencies by establishing a frequency of use and teaching method for the proficiencies.

Data collected from this study should be incorporated into agricultural communications curriculum using the frequency of use and teaching method for each of the proficiencies listed in the instrument.

This study, as well as previous research provides the basis for establishing a national core curriculum for agricultural communications. Establishing a national core curriculum would provide many benefits to the agricultural communications profession including: visibility, accreditation, funding opportunities for agricultural communications degree programs, and the ability to articulate courses and programs amongst two and four year colleges and universities.

Agricultural communications curriculum will continue to evolve over time due to constant technological change both in agriculture and in communications technologies.

Therefore, the agricultural communications curriculum needs to be viewed as dynamic by faculty, industry professionals, and students.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD

Oklahoma State University
Institutional Review Board

Protocol Expires: 6/2/2004

Date: Tuesday, June 03, 2003 IRB Application No AG0323

Proposal Title: AGRICULTURAL COMMUNICATIONS CURRICULUM COMPETENCIES IN AGRICUTURAL BROADCASTING

Principal Investigator(s):

Rachel Hubbard Crawford
448 Ag
Stillwater, OK 74078

Shelly Sitton
435 Ag
Stillwater, OK 74078

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to the IRB, in 415 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson

Carol Olson, Chair
Institutional Review Board

Date	Monday, December 06, 2004	**Protocol Expires:**	**5/19/2005**
IRB Application	AG0323		
Proposal Title:	AGRICULTURAL COMMUNICATIONS CURRICULUM COMPETENCIES IN AGRICUTURAL BROADCASTING		
Reviewed and Processed as:	Exempt **Modification**		

Status Recommended by Reviewer(s) **Approved**

Principal Investigator(s) :

Rachel Hubbard Crawford
448 Ag
Stillwater, OK 74078

Michael Deering
448 Ag Hall
Stillwater, OK 74078

Shelly Sitton
448 Ag
Stillwater, OK 74078

The requested modification to this IRB protocol has been approved. Please note that the original expiration date of the protocol has not changed. The IRB office MUST be notified in writing when a project is complete. All approved projects are subject to monitoring by the IRB

☒ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

Signature :

Carol Olson, Chair, OSU Institutional Review Board

Monday, December 06, 2004
Date

APPENDIX B

INSTRUMENTS

Agricultural Communications Curriculum Proficiencies

Demographics (*Please answer as indicated.*)

1. What is your gender? - Click Here -

2. What is your age? - Click Here -

3. How many years have you been in broadcasting? - Click Here -

4. How many different full-time broadcasting jobs have you had in your career? (including current position.) - Click Here -

5. What college or university degrees have you earned? (*Mark all that apply.*)

- ☐ None
- ☐ Associate (major)
- ☐ Bachelors (major)
- ☐ Masters (major)
- ☐ Education Specialist (major)
- ☐ Professional (J.D., etc.)(major)
- ☐ Doctorate (major)

6. How would you rate your level of knowledge about the agriculture, food, fiber and natural resources industry? - Click Here -

7. List the approximate number of college courses in agriculture you have completed. - Click Here -

8. What types of experiences have you had in agriculture? (*Mark all that apply.*)

- ☐ none
- ☐ paid work experience
- ☐ unpaid work experience
- ☐ live(d) in a rural area
- ☐ live(d) on a farm
- ☐ own(ed) a farm
- ☐ work(ed) in a rural area
- ☐ work(ed) on a farm
- ☐ work(ed) for an agricultural business
- ☐ own(ed) an agricultural business

☐ high school agriculture course
☐ college agriculture course
☐ extension workshops in agriculture
☐ other [ ](specify)

Below is a list of proficiencies in the area of **agriculture**. To the LEFT, designate **the importance** of the proficiency and how **frequently you use** the proficiency in your professional area.

To the RIGHT, indicate how the proficiency should be **included in the ideal agricultural communications curriculum**.

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss the impact of government and legislative policy upon agriculture.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Analyze the public perception of plant and animal food issues.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Determine the impact of biotechnology on world production systems.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Understand the impacts and controversies surrounding genetically modified organisms.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss environmental/global issues such as global warming and desertification and the relationship of agriculture with those issues.	○ .□ ○ □ ○ □ ○ □ ○

Below is a list of proficiencies in the area of **communications**. To the LEFT, designate **the importance** of the proficiency and how **frequently you use** the proficiency in your professional area.

To the RIGHT, indicate how the proficiency should be **included in the ideal agricultural communications curriculum**.

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Write features about agricultural topics.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe the purpose of agricultural communications.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify and fix barriers to effective communication.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Compare the effectiveness of various dissemination systems for different messages and audiences.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Apply effective speaking techniques.	○ .□ ○ □ ○ □ ○ □ ○

Below is a list of proficiencies in the area of **broadcasting**. To the LEFT, designate **the importance** of the proficiency and how **frequently you use** the proficiency in your professional area.

To the RIGHT, indicate how the proficiency should be **included in the ideal agricultural communications curriculum**.

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Write broadcast copy.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Tailor material to an audience.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Generate newsworthy story ideas.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use proper diction and grammar.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify correct technology for the story (TV, Radio, etc.).	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Edit using digital editing programs.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use various kinds of microphones (omnidirectional and shotgun).	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use correct phone etiquette.	○ .□ ○ □ ○ □ ○ □ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Gather and use natural sound to complement a story.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Sell radio advertising.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Create an original radio advertisement.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Function in a live radio environment.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Know how to use a newswire (Associated Press, etc.).	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use a mini-disc recorder.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use a sound board.	○ .□ ○ □ ○ □ ○ □ ○

Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Work one beat or multiple beats.	○ ○ ○ ○ ○ ○ ○ ○ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Use the Internet to research stories.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Understand radio formats.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Do live remote broadcasts (studio or field using patch cords, telephone, etc.).	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Direct a program.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Generate screen graphics.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Use correct juxtaposition when shooting a stand-up.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Dress correctly for television broadcast (makeup, hair, etc.).	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Use effective nonverbal communication.	○ ○ ○ ○ ○ ○ ○ ○ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Weave video to fit a script.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Edit linearly.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Edit non-linearly.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Know the anatomy of a video camera.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Shoot well-composed shots.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Use a teleprompter.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Effectively use lighting.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Compress video for DVD production.	○ ○ ○ ○ ○ ○ ○ ○ ○

	Frequency?		How Best to Include?
Yes No		Deliver video or audio over the Internet (streaming, progressive download).	
Yes No		Design effective Web sites.	
Yes No		Ability to create streaming, etc.	
Yes No		Computer-assisted journalism (Freedom of Information Act and copyright laws in terms of radio, video and the Internet).	
Yes No		Interview someone effectively.	
	Frequency?		How Best to Include?
Yes No		Other:	
Yes No		Other:	
Yes No		Other:	
Yes No		Other:	
Yes No		Other:	

Submit Reset Form

Agricultural Communications Curriculum Proficiencies

Demographics (*Please answer as indicated.*)

1. What is your gender? - Click Here -

2. What is your age? - Click Here -

3. How many years have you been in broadcasting? - Click Here -

4. How many different full-time broadcasting jobs have you had in your career? (including current position.) - Click Here -

5. What college or university degrees have you earned? (*Mark all that apply.*)

- ☐ None
- ☐ Associate (major)
- ☐ Bachelors (major)
- ☐ Masters (major)
- ☐ Education Specialist (major)
- ☐ Professional (J.D., etc.)(major)
- ☐ Doctorate (major)

6. How would you rate your level of knowledge about the agriculture, food, fiber and natural resources industry? - Click Here -

7. List the approximate number of college courses in agriculture you have completed. - Click Here -

8. What types of experiences have you had in agriculture? (*Mark all that apply.*)

- ☐ none
- ☐ paid work experience
- ☐ unpaid work experience
- ☐ live(d) in a rural area
- ☐ live(d) on a farm
- ☐ own(ed) a farm
- ☐ work(ed) in a rural area
- ☐ work(ed) on a farm
- ☐ work(ed) for an agricultural business
- ☐ own(ed) an agricultural business

☐ high school agriculture course
☐ college agriculture course
☐ extension workshops in agriculture
☐ other [ ] (specify)

Below is a list of proficiencies in the area of **communications**. To the LEFT, designate **the importance** of the proficiency and how **frequently you use** the proficiency in your professional area.

To the RIGHT, indicate how the proficiency should be **included in the ideal agricultural communications curriculum**.

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Write features about agricultural topics.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe the purpose of agricultural communications.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify and fix barriers to effective communication.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Compare the effectiveness of various dissemination systems for different messages and audiences.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Apply effective speaking techniques.	○ .□ ○ □ ○ □ ○ □ ○

Below is a list of proficiencies in the area of **broadcasting**. To the LEFT, designate **the importance** of the proficiency and how **frequently you use** the proficiency in your professional area.

To the RIGHT, indicate how the proficiency should be **included in the ideal agricultural communications curriculum**.

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Generate newsworthy story ideas.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use effective nonverbal communication.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Deliver video or audio over the Internet (streaming, progressive download).	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Know how to use a newswire (Associated Press, etc.).	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Gather and use natural sound to complement a story.	○ .□ ○ □ ○ □ ○ □ ○

Below is a list of proficiencies in the area of **agriculture**. To the LEFT, designate **the importance** of the proficiency and how **frequently you use** the proficiency in your professional area.

To the RIGHT, indicate how the proficiency should be **included in the ideal agricultural communications curriculum**.

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss the definition and types of agribusiness marketing.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe marketing theories related to price, grading, elasticity, etc.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss the impact of government and legislative policy upon agriculture.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe the purpose of and rationale for farm programs.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Evaluate the effectiveness of U.S. agricultural policy in foreign markets.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss the factors that stimulate and inhibit economic growth.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Define and compare the sources of credit for agricultural institutions.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Apply the concepts of indifference curves, supply/demand, and production functions.	○ .□ ○ □ ○ □ ○ □ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe major world food and fiber crops including where they were produced geographically and explain their intended uses.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Demonstrate an understanding of plant growth and development.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe soil principles including fertility and water management.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss characteristics unique to animal products and their related industries.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Report on the impact of biotechnology in agricultural animals.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Analyze the public perception of plant and animal food issues.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Summarize the economic and management roles of producing agricultural animals.	○ .□ ○ □ ○ □ ○ □ ○

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Define conservation.	○ .□ ○ □ ○ □ ○ □ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss the ways humans impact the ecosystem and methods of making it stable.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss environmental/global issues such as global warming and desertification and the relationship of agriculture with those issues.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe the effects of agriculture upon erosion and the introduction of chemical compounds in the environment.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Define ecology and related terms.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe the basics of food classification, modern processing and quality/safety control.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Define and explain budget, cost, credit and tax and how they relate to agribusiness.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Explain opportunity cost.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Prepare a budget.	○ .□ ○ □ ○ □ ○ □ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify governmental regulatory agencies related to agribusiness.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify current government programs that support agricultural business.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	List the purposes of governmental farm agencies.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify feedstuffs available to livestock enterprises and describe their nutritional values.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ ·□ ○ □ ○ □ ○ □ ○	Interpret charts, graphs and maps to make specific decisions related to business.	○ ·□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Demonstrate the proper procedures for administering animal health products.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Evaluate livestock for profitable production traits.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify the types of wholesale and retail cuts of meat.	○ .□ ○ □ ○ □ ○ □ ○

	Frequency?		How Best to Include?
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Explain the methods for proper handling and disposal of animal waste.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Explain how the selection of hybrid and certified seed affects performance and profitability.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify the types of tillage methods used in crop production.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Determine the impact of biotechnology on the world food production systems.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Explain the impact of governmental policy on the production and marketing of various commodities.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify career opportunities in production agriculture.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify major genetic characteristics of animal breeds and examine their uses in the animal's breeding systems and scientific principles.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Demonstrate safe and humane animal handling techniques.	○ .□ ○ □ ○ □ ○ □ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify and compare the operation of equipment and facilities involved with livestock for optimum production efficiency.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Analyze the economic impact of production agriculture on the economy.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use observational techniques to identify healthy, quality plants.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Explain the process of photosynthesis.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Explain lawn and turf maintenance.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify fruits and nuts by common name.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify vegetables and herd by common name.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify floriculture crops including houseplants by common name.	○ .□ ○ □ ○ □ ○ □ ○

	Frequency?		How Best to Include?
Yes ○ No ○	○ ○ ○ ○ ○	Explain the importance of quality assurance of food and fiber products.	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Explain the concepts of food sanitation and safety.	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Explain the ethical and cultural concerns of biotechnology in agricultural processing.	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Recognize what DNA and clones mean.	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Define precision farming.	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Define phenotype and genotype.	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Know water issues.	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Know specific insect pests.	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Understand urban agriculture.	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Understand the impacts and controversies surrounding genetically modified organisms.	○ ○ ○ ○ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ ○ ○ ○ ○	Other:	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Other:	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Other:	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Other:	○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○	Other:	○ ○ ○ ○ ○

Submit Reset Form

Agricultural Communications Curriculum Proficiencies

Demographics (*Please answer as indicated.*)

1. What is your gender? - Click Here -

2. What is your age? - Click Here -

3. How many years have you been in broadcasting? - Click Here -

4. How many different full-time broadcasting jobs have you had in your career? (including current position) - Click Here -

5. What college or university degrees have you earned? (*Mark all that apply.*)

- ☐ None
- ☐ Associate (major)
- ☐ Bachelors (major)
- ☐ Masters (major)
- ☐ Education Specialist (major)
- ☐ Professional (J.D., etc.)(major)
- ☐ Doctorate (major)

6. How would you rate your level of knowledge about the agriculture, food, fiber and natural resources industry? - Click Here -

7. List the approximate number of college courses in agriculture you have completed. - Click Here -

8. What types of experiences have you had in agriculture? (*Mark all that apply.*)

- ☐ none
- ☐ paid work experience
- ☐ unpaid work experience
- ☐ live(d) in a rural area
- ☐ live(d) on a farm
- ☐ own(ed) a farm
- ☐ work(ed) in a rural area
- ☐ work(ed) on a farm
- ☐ work(ed) for an agricultural business
- ☐ own(ed) an agricultural business

☐ high school agriculture course
☐ college agriculture course
☐ extension workshops in agriculture
☐ other [ ](specify)

Below is a list of proficiencies in the area of **agriculture**. To the LEFT, designate **the importance** of the proficiency and how **frequently you use** the proficiency in your professional area.

To the RIGHT, indicate how the proficiency should be **included in the ideal agricultural communications curriculum**.

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss the impact of government and legislative policy upon agriculture.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Analyze the public perception of plant and animal food issues.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Determine the impact of biotechnology on world production systems.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Understand the impacts and controversies surrounding genetically modified organisms.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss environmental/global issues such as global warming and desertification and the relationship of agriculture with those issues.	○ .□ ○ □ ○ □ ○ □ ○

Below is a list of proficiencies in the area of **broadcasting**. To the LEFT, designate **the importance** of the proficiency and how **frequently you use** the proficiency in your professional area.

To the RIGHT, indicate how the proficiency should be **included in the ideal agricultural communications curriculum**.

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Generate newsworthy story ideas.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use effective nonverbal communication.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Deliver video or audio over the Internet (streaming, progressive download).	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Know how to use a newswire (Associated Press, etc.).	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Gather and use natural sound to complement a story.	○ .□ ○ □ ○ □ ○ □ ○

Below is a list of proficiencies in the area of **communications**. To the LEFT, designate **the importance** of the proficiency and how **frequently you use** the proficiency in your professional area.

To the RIGHT, indicate how the proficiency should be **included in the ideal agricultural communications curriculum**.

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Write using appropriate style (i.e. AP, VPI).	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe the principles of journalism clearly and concisely.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Apply reporting and writing skills in a "real world" situation.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe ethical challenges faced by reporters.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Interview a source of information for a news article.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Edit the work of others; accurately proofread a document.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use correct editing marks and symbols.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Critique and correct layout and design of publications.	○ .□ ○ □ ○ □ ○ □ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe common dilemmas faced by journalists.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss ethical standards that exist in the field of journalism.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Determine ethical solutions to problems.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe the ways in which news and other information is disseminated to the public.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Compare the effectiveness of various dissemination systems for different messages and audiences.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss legal problems facing journalists, broadcasters and advertisers.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss and define communicatons regulations, fairness doctrine, libel, privacy and commercial speech.	○ .□ ○ □ ○ □ ○ □ ○

Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Select appropriate topics in speech writing.	○ .□ ○ □ ○ □ ○ □ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Write speeches using effective formats and formulas.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use creative skills to develop introductions to effectively engage an audience in a speech.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Customize a speech for a specific audience.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Apply effective speaking techniques.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use the voice to maintain the interest of the audience.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use a variety of inflection, tone and volume.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use appropriate hand and facial expressions.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe the impact of agriculture upon all Americans.	○ .□ ○ □ ○ □ ○ □ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe the agricultural community in the United States.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Assess the level of agricultural literacy in the United States.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use a variety of means including print, radio and video to inform the public.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Write features about agricultural topics.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ ·□ ○ □ ○ □ ○ □ ○	Describe the role agriculture plays in international relations.	○ ·□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Discuss the cultural impact of agricultural trade.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	List the barriers that exist when communicating agricultural information in international situations.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Contrast the uniqueness of agricultural communications to other types of communications.	○ .□ ○ □ ○ □ ○ □ ○

	Frequency?		How Best to Include?
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Describe the purpose of agricultural communications.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Apply agricultural communications techniques and skills.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Gain experience in the applications of agricultural communications theories in the workplace.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Demonstrate the characteristics of responsibility and credibility.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Model proficiency in time management and organization.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Create media program formats.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Navigate Internet; send and receive e-mail.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Transfer and download information through a network.	○ .□ ○ □ ○ □ ○ □ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Use graphics effectively to increase understanding.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Apply human relations skills.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Resolve conflicts.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Evaluate the performance of co-workers.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Write a quality thank you note.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Identify and fix barriers to effective communication.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Interview for employment.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Work in a team activity.	○ .□ ○ □ ○ □ ○ □ ○
Yes ○ No ○	○ .□ ○ □ ○ □ ○ □ ○	Work under pressure.	○ .□ ○ □ ○ □ ○ □ ○

	Frequency?		How Best to Include?
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Correctly report facts.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Understand government systems and how they affect agriculture.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Cite sources.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Gather and synthesize information.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Perform basic word processing	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Converse knowledgeably on different areas in agriculture.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Determine whether a topic would be best covered in a news article or feature article.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Create a resume	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Identify bias in media stories	○ ○ ○ ○ ○ ○ ○ ○ ○
	Frequency?		**How Best to Include?**
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Write for the Internet.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Discuss Freedom of Information Act.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Demonstrate sales skills.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Discuss the importance of belonging to a professional organization.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Interpret statistics.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Use an Associated Press Stylebook.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Interpret the basics of the commodities market.	○ ○ ○ ○ ○ ○ ○ ○ ○
Yes ○ No ○	○ ○ ○ ○ ○ ○ ○ ○ ○	Apply common sense logic to an economic trend analysis.	○ ○ ○ ○ ○ ○ ○ ○ ○

Yes No		Analyze and apply technical data.	
	Frequency?		**How Best to Include?**
Yes No		Other:	
Yes No		Other:	
Yes No		Other:	
Yes No		Other:	
Yes No		Other:	

Submit Reset Form

APPENDIX C

INTRODUCTORY E-MAIL

Dear Agricultural Broadcaster:

I would appreciate your help! You have the knowledge about the skills necessary for an agricultural communicator to be successful in today's constantly changing technological age. Your views are crucial to help agricultural communications and journalism educators design curriculum to prepare the future agricultural communicators to be successful in this industry. You are one of a limited number of agricultural communications professionals selected to participate in this study.

The primary purpose of this study is to define what disciplines and proficiencies should be included in a model curriculum for agricultural communications and to determine if classroom experiences can prepare students for "real-world" experiences. In addition, for each proficiency identified, this study will seek to identify whether the proficiency should be taught in a required course, as an elective, as a workshop through a professional organization or not at all. Your opinions are important as only a select number of agricultural communications professionals were chosen for this particular study, which focuses on agricultural broadcasting.

This survey will take approximately 10 to 15 minutes to complete. Please respond to the questions in terms of your views and current situation. Be assured your responses will be treated confidentially.

If you have any questions about this research project, please feel free to call me or Shelly Sitton at (405)744-3690. For additional information regarding human participation in research, call the Oklahoma State University Campus Institutional Review Board at (405)744-5700.

Sincerely,

Michael L. Deering
Oklahoma State University
(405)744-7960 or (405)762-2522
deeringmu@yahoo.com

Shelly Sitton, Ph.D.
Assistant Professor of Agricultural Communications
Department of Agricultural Education, Communications, & 4-H Youth Development
448 Agricultural Hall Stillwater, OK 74078-6031
(405) 744-3690
(405) 744-5176 Fax
Shelly.sitton@okstate.edu

APPENDIX D

INVITATION E-MAILS

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http://ccox.pt.okstate.edu/surveys/bcast_cm.htm

If you have trouble assessing the online version, please e-mail me at deeringmu@yahoo.com, and I will FAX a copy of the instrument for your completion. Your immediate response is greatly appreciated, as it will significantly benefit agricultural communications educators, students and professionals like you.

Thank you for taking time from your busy schedule to complete this survey. Without your assistance, it would be impossible to acquire this valuable information. If you have any questions about this research project, please feel free to call me or Shelly Sitton at (405)744-3690. For additional information regarding human participation in research, call the Oklahoma State University Campus Institutional Review Board at (405)744-5700.

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APPENDIX E

REMINDER E-MAILS

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To those of you who have taken the survey, we sincerely appreciate your valuable time and input. If you have yet to fill it out, please do so. We'll send one more reminder next Monday. Have a great week!

http://ccox.pt.okstate.edu/surveys/bcast_cm.htm

Mike Deering
Graduate Student
Coordinator Special Programs and Promotions
4-H Youth Development Building
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address as of 9/1/04)

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I'm writing you once again to remind you of the importance of this survey. This study is intended to gain information from agricultural broadcasters in regard to what components are needed to work effectively in the agricultural broadcasting field.

The faculty members at Oklahoma State University want to prepare students for the "real world" and educate them on essential skills needed prior to graduating from this institution. In addition, the information from this research will be shared with other agricultural communications programs.

If you have responded, we sincerely thank you. If you have not please take 10 minutes to fill it out. Our participants are limited because we are only collecting data from NAFB members, so we are counting on you!

Thanks for taking time to help us help you.

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(405) 744-3690
(405) 744-5176 Fax
Shelly.sitton@okstate.edu (please note new e-mail address as of 9/1/04)

I'm writing you once again to remind you of the importance of this survey. This study is intended to gain information from agricultural broadcasters in regard to what components are needed to work effectively in the agricultural broadcasting field.

The faculty members at Oklahoma State University want to prepare students for the "real world" and educate them on essential skills needed prior to graduating from this institution. In addition, the information from this research will be shared with other agricultural communications programs.

If you have responded, we sincerely thank you. If you have not please take 10 minutes to fill it out. Our participants are limited because we are only collecting data from NAFB members, so we are counting on you!

Thanks for taking time to help us help you.

http://ccox.pt.okstate.edu/surveys/bcast_ag.htm

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At this moment, you are thinking, what a persistent young man. I am passionate about this study and anxious to develop a foundation for a curriculum that will prepare students to meet the expectations set by professionals in the agricultural broadcasting industry.

We desperately need 15 more responses to our questionnaire to make this study statistically accurate. Please take ten minutes out of your busy holiday schedule to complete the survey if you have not already.

This is our final message to you, the NAFB members.

To those of you who have taken the survey, we sincerely thank you and apologize for the continuous e-mails. However, the responses are anonymous; thus, we have no way of knowing who has completed the instrument.

Once again, if you have trouble using the survey site please let me know and I will fax it to you.

Thanks again, NAFB members, and happy holidays.

http://ccox.pt.okstate.edu/surveys/bcast_cm.htm

Sincerely,

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VITA

Michael Lloyd Deering

Candidate for the Degree of

Master of Science

Thesis: BROADCASTING PROFICIENCIES IN AGRICULTURAL COMMUNICATIONS: FREQUENCY OF USE AND ROLE IN CURRICULUM

Major Field: Agricultural Communications

Biographical:

Personal Data: Born in St. Joseph, Missouri, on August 21,1981, the son of Lloyd and Elizabeth Deering.

Education: Graduated from Savannah High School, Savannah, Missouri, in May 2000; received Associate of Science degree from Northeastern Oklahoma A&M College, Miami, Oklahoma in May 2002; received Bachelor of Science degree in Agricultural Journalism from The University of Missouri, Columbia, Missouri, in May 2004; completed the requirements for the Master of Science degree in Agricultural Communications at Oklahoma State University, Stillwater, Oklahoma, in December, 2005.

Experience: Coordinator of Special Programs & Promotions; Oklahoma 4-H; Stillwater, Oklahoma 2004-2005; Contact Relations; Osborn & Barr Communications; St. Louis, Missouri 2004; Reporter; Columbia Missourian Newspaper; Columbia, Missouri 2004; Research; Missouri Association of Magazines; Columbia, Missouri 2003-2004; Reporter; KBIA Radio Station; Columbia, Missouri 2002-2003.

Professional Memberships: Agricultural Communicators of Tomorrow; Agricultural Education Graduate Student Association