



Agricultural and communications competencies for an agricultural communications curriculum at a land grant institution
by Laurel Lee Olsen

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in
Agricultural Education
Montana State University
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Abstract:

The purpose of this study was to identify the importance of specific communications and agricultural competencies needed by students enrolled in a proposed agricultural communications curriculum at Montana State University-Bozeman. Communications competencies that were included in the study were advertising, journalism, graphics, public relations, public speaking, telecommunications, and computer applications. Agricultural competencies in the study were agricultural communications, agricultural economics, agricultural leadership, agronomy, livestock production and management, environmental science, and food science/technology. Further competency statements were listed for an internship experience in agricultural communications.

The population for this study included members of communications-related professional organizations including Agricultural Communicators of Tomorrow (ACT) advisors, Agricultural Communicators in Education (ACE), American Agricultural Editors' Association (AAEA), and the National Association of Farm Broadcasters (NAFB). The population was limited to members of who reside in Montana, North Dakota, South Dakota, Wyoming, Colorado and Idaho. Eighty-four surveys were mailed. Forty-six surveys were returned for a return rate of 58% (5 members were unavailable).

The survey consisted of three sections. The first section focused on communications competencies. The second section focused on agricultural competencies. The third section noted demographic information.

The results of the study indicated that 89% of professionals in agricultural communications who were contacted think an agricultural communications program at Montana State University-Bozeman would be beneficial to the agricultural industry in Montana, North Dakota, South Dakota, Wyoming, Colorado, and Utah. Those professionals offered support in the form of internships, and serving as guest speakers for agricultural communications courses, or at Agricultural Communicators of Tomorrow (ACT) meetings.

The top five communications competencies that should be included in an agricultural communications curriculum were: reporting, apply writing skills; discuss ethical questions, make ethical choices; identify the target audience; know the difference between public relations and journalism; and navigate the Internet, send and receive e-mail. The top five agricultural competencies that should be included in an agricultural communications curriculum were: communicate agriculture to the domestic public; apply agricultural communications concepts; demonstrate reliability and trust, work as a team member; apply human relations skills to solve workplace problems; and demonstrate responsibility and credibility.

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APPROVAL

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Laurel Lee Olsen

This thesis has been read by each member of the graduate committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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ABSTRACT

The purpose of this study was to identify the importance of specific communications and agricultural competencies needed by students enrolled in a proposed agricultural communications curriculum at Montana State University-Bozeman. Communications competencies that were included in the study were advertising, journalism, graphics, public relations, public speaking, telecommunications, and computer applications. Agricultural competencies in the study were agricultural communications, agricultural economics, agricultural leadership, agronomy, livestock production and management, environmental science, and food science/technology. Further competency statements were listed for an internship experience in agricultural communications.

The population for this study included members of communications-related professional organizations including Agricultural Communicators of Tomorrow (ACT) advisors, Agricultural Communicators in Education (ACE), American Agricultural Editors' Association (AAEA), and the National Association of Farm Broadcasters (NAFB). The population was limited to members of who reside in Montana, North Dakota, South Dakota, Wyoming, Colorado and Idaho. Eighty-four surveys were mailed. Forty-six surveys were returned for a return rate of 58% (5 members were unavailable).

The survey consisted of three sections. The first section focused on communications competencies. The second section focused on agricultural competencies. The third section noted demographic information.

The results of the study indicated that 89% of professionals in agricultural communications who were contacted think an agricultural communications program at Montana State University-Bozeman would be beneficial to the agricultural industry in Montana, North Dakota, South Dakota, Wyoming, Colorado, and Utah. Those professionals offered support in the form of internships, and serving as guest speakers for agricultural communications courses, or at Agricultural Communicators of Tomorrow (ACT) meetings.

The top five communications competencies that should be included in an agricultural communications curriculum were: reporting, apply writing skills; discuss ethical questions, make ethical choices; identify the target audience; know the difference between public relations and journalism; and navigate the Internet, send and receive e-mail. The top five agricultural competencies that should be included in an agricultural communications curriculum were: communicate agriculture to the domestic public; apply agricultural communications concepts; demonstrate reliability and trust, work as a team member; apply human relations skills to solve workplace problems; and demonstrate responsibility and credibility.

CHAPTER 1

THE PROBLEM

Introduction

Agricultural communications has emerged within the agricultural industry as a career field and course of study for those aspiring to join the ranks of professional agricultural communicators. Why are agricultural communicators an important part of the agricultural industry?

Agriculture is a constantly evolving industry. Agricultural specialists use technology, research, and current information to respond to the increasing food needs of the world. These producers, researchers, technologists, agri-business men and women, educators, and other workers involved in agriculture and natural resources help provide an abundant food supply to a nation of consumers who are generations removed from the farm. They need to learn what other researchers have done and to pass that information along; in short, they both need to receive and distribute agricultural communications.

In addition, it is important for consumers to have a basic understanding of the industry that produces and distributes their food supply (Birkenholz, 1992). The implications of an agriculturally ignorant society are frightening for two reasons. First of all, the public, by their vote, decides on legislation crucial to agriculture's survival. If the voters do not understand the impact of their decisions on agricultural programs, it could be detrimental to the agricultural industry. Hamlin (1962) stated that:

...Public policy which governs and controls agriculture is policy they (the voters) make, not policy which farmers make. They must (the voters) be sufficiently aware of the revolution in agriculture and its implications to approve policies which will sustain and improve agriculture and be fair to the people who engage in it, recognizing that in their blindness they could "kill the goose that laid the golden egg" (p.58).

In a 1992 publication on Strategies to Promote Agricultural Literacy, Birkenholz stated:

...Graduates of the American educational system can hardly be expected to develop an accurate understanding of, or an appreciation for the role of agriculture in their lives when the subject is virtually ignored in the curriculum (p. 3).

Second, if the public doesn't consider agriculture a viable industry, the college-bound high school graduate may not consider agriculture and natural resource sciences as a viable career choice. The USDA (Goecker, et al, 1999) predicts a shortage of qualified food and agricultural sciences college graduates over the next five years. Strong employment opportunities exist for graduates in several areas including food science and engineering, food and forest products sales, agricultural science education, landscape horticulture, outdoor recreation, and information systems. Without qualified employees, the industry suffers.

Montana's need for agricultural communicators was expressed by the Vision 2005 Task Force created by Montana Governor Marc Racicot. The final report, published in 1998, stated, "As we meet the challenges of a new century, it is imperative that we in the agriculture profession do so with unity and a sense of joint vision" (Montana Department

of Agriculture, 1998). The ability to communicate within the industry, as well as to the consuming public will certainly affect how the goals of Vision 2005 are met.

Purpose of the Study

The purpose of this study was to identify the importance of specific communications and agricultural competencies needed by students enrolled in a proposed agricultural communications curriculum at a land grant university, as identified by members in agricultural communications professional organizations. Communications competencies included in the study were advertising, journalism, graphics, public relations, public speaking, telecommunications, and computer applications. Agricultural competencies included in the study were agricultural communications, agricultural economics, agricultural leadership, agronomy, livestock production and management, environmental science, and food science/technology. Further competency statements were listed for an internship experience in agricultural communications.

Need for the Study

The need for agricultural production information can be traced back to the formation of the United States. George Washington conducted his own investigations into erosion, improved plowing methods, the value of fertilizers, crop rotation, and the exploration of new crops. Washington relied on British publications for information, but these publications were not available to the average farmer (Demaree, 1941).

Almanacs were recognized as a valid source of agricultural information, and the well-respected Philadelphia Agricultural Society resolved in 1816:

That the distribution of agricultural information, and the proposition of questions calculated to excite observations and inquiry, as well as to induce the farmers of our country to communicate their experience in husbandry, through the medium of an Almanack, would be productive of important benefit to society (Demaree, 1941 p. 4).

The common farmer relied upon the Farmer's Almanack, begun in 1818 (Farmer's Almanac, 2000), which suggested farming practices based on the sun, moon, and movement of the earth. The almanac contained farm articles, local calendars, a farmer's calendar, and blank pages for recording data by farmers themselves.

The need for the education of skilled agricultural writers was addressed in 1905 when Iowa State College was given an endowment to fund a course titled "The Agricultural Press." By 1920, a four-year curriculum for a Bachelor of Science in Agricultural Journalism was established at Iowa State College. By 1928, seven colleges of agriculture offered eleven courses in journalism, advertising, research, and editing (Texas Tech, 1993). Doerfort and Cepica reported there were "approximately 30 agricultural communications programs in existence in 1990, and over 75 percent were housed in a college of agriculture and related arts" (1991).

Today's land-grant university plays a role in bridging the gap between society's problems and frontiers of knowledge (Sprecker and Rudd, 1998). With the majority of the population removed from the farm, it is imperative to provide accurate information to the public, which influences the governing of this essential industry.

Land grant institutions are to be criticized when their course offerings do not keep abreast with industry and student needs. For instance, Jack Larson, Agricultural Education instructor at Custer County High School in Miles City, Montana, stated, "I feel that Montana State University is losing some excellent students because of its' inability to keep degree offerings current with individual needs" (Personal interview, March 22, 2000,). Some of those needs were described in the Montana State University-Bozeman program of agricultural education "Vision for Montana" (1999) brochure. It proposed three themes with goals directly related to increasing public relations in agriculture and natural resources. The first theme was to "educate and increase public awareness regarding the importance of the food and fiber industry." The proposed strategy that Montana agricultural educators devised was to involve students in promoting the industry, informing the public media on the value of agricultural industry information, and using the public media to provide public education about the food and fiber industry.

The second related theme was for "agricultural education to form partnerships with parents and teachers with industry, public agencies, researchers and educational institutions." The strategy formulated by Montana agricultural educators was to encourage partnerships with public agencies by involvement in educational and promotional activities.

The third related theme was to "develop partnerships with agriculture industry to utilize industries' instruction in careers." The strategy created by Montana agricultural educators was to promote agricultural education through industry trade shows and by

providing promotional information. These themes and strategies to achieve them provided an insight into the communication role that agricultural education has assumed.

Land-grant institutions have made significant contributions to the agricultural industry, and agricultural communication has been a part of that success. Tucker (1996) asserted that:

“Since the early 1900s, agricultural communicators have indeed shown their value to land-grant research and extension. We have inspired public confidence in agricultural research and personal confidence in ourselves as responsible, efficient communicators. It is clear that much more work will be needed to forge the future of agricultural communication as an academic enterprise, and significant challenges lie ahead” (p. 37).

The need for undergraduate as well as graduate studies in agricultural communications has been identified by industry personnel and those in academic occupations, according to studies by Boone, Paulson, and Barrick (1993), as well as Sprecker and Rudd (1998). Sprecker and Rudd reported that students need a strong foundation in communications, especially writing skills. Boone, Paulson, and Barrick identified a need for highly trained individuals to work in the industry, as well as serve in faculty and research positions in academic occupations. Additionally, the USDA report, “Employment Opportunities for College Graduates in the Food & Agricultural Sciences,” (Goecker, et al, 1999) report predicted a shortage of qualified college graduates to fill jobs in agricultural communications and education through 2005.

Terry (1996) proposed the idea that agricultural communication was integral to achieving the mission of agricultural education by providing education in and about agriculture. The audience of agricultural communicators reaches far beyond the traditional students of agricultural education; therefore, a curriculum unique to agricultural communications was needed.

Terry identified three categories of discipline areas: communications, agriculture, and general education core curriculum. The competencies he identified in agriculture were: agricultural communications, agricultural economics, agricultural leadership, agronomy, livestock production and management, environmental science, and food science/technology. Terry included internship experience with agriculture because these are usually supervised by faculty of colleges of agriculture. The competencies he identified in communication were: advertising, journalism, graphics, public relations, public speaking, telecommunications, and computer applications. Sprecker and Rudd (1998) suggested that, "Competencies needed to become an agricultural communicator have changed with technology and job requirements, indicating an urgent need to examine the curricula in an effort to make it applicable to students and their future employers."

Objectives of the Study

To meet the purpose of this study, which was to identify the importance of specific communications and agricultural competencies needed by students enrolled in a proposed agricultural communications curriculum, the following objectives were proposed:

1. Determine the perceived importance of and need for selected communications and agricultural competencies needed by agricultural communications industry personnel;
2. Determine those competencies that should be included in a proposed agricultural communications curriculum; and
3. Determine the perceived need for an agricultural communications curriculum by agricultural communications professionals.

Assumptions

The researcher realized the following assumptions in this study:

1. There was a set of communication and agricultural competencies that were needed by individuals in the agricultural communications industry;
2. Professionals in the agricultural communications industry were knowledgeable about competencies needed to be successful in the industry.

Limitations of the Study

The researcher realized the following limitations to this study:

1. The data for this study were collected between January and March of 2000;
2. The competencies of the study related to communications included: advertising, journalism, graphics, public relations, public speaking, telecommunications, and computer applications;
3. The competencies of the study related to agriculture included: agricultural communications, agricultural economics, agricultural leadership, agronomy, livestock

production and management, environmental science, food science/technology, and competencies gained through an internship experience;

4. The population surveyed consisted of members of the American Agricultural Editors Association (AAEA), Agricultural Communicators in Education (ACE), National Association of Farm Broadcasters (NAFB), and advisers of Agricultural Communicators of Tomorrow (ACT), who reside in Montana, North Dakota, South Dakota, Wyoming, Colorado, and Idaho.

Definitions

To assure a common understanding of the terms in the study, the following definitions were presented:

1. Agricultural Communications—a profession that applies communication techniques and theory to decisions of companies that represent food, agriculture, or natural resources. (Sprecker and Rudd, 1998).
2. Agricultural Communicator—an individual whose job requires communicating to both rural and urban audiences through a variety of media on matters of importance to food, agriculture, and natural resources (Sprecker and Rudd, 1998).
3. Competencies—The skills, attitudes, and knowledge that allow a person to complete a task, perform a function, and complete an assignment in a satisfactory way.

CHAPTER 2

REVIEW OF LITERATURE

The Review of Literature is presented in three sections. The first section addresses the role of agricultural communicators. The second section discusses agricultural programs of study at colleges and universities. The third section presents information on membership in professional organizations of agricultural communicators.

Role of Agricultural Communicators

Agricultural communicators have been credited with playing an important role in the technological developments and advancements in the industry. Ogilvie (1927) stated that:

The press has been a medium through which the personalities behind it have laid the foundation of an improved agriculture. The accelerated advance in American agriculture, since the birth of the first American farm paper, over a hundred years ago, would tend to substantiate such a presumption (p. v).

Wearley concluded that employees trained in agricultural information systems were critical to the agricultural industry. Policy makers with no concept of agriculture enacted laws and public policy. Wearley discovered that one-third of Montana legislators lack knowledge of the size of the agriculture industry and its contribution to the Gross National Product. They perceived that education about agriculture was becoming more

important, but while educational agencies were currently doing a good job, he concluded that they must increasingly emphasize educating the public about agriculture in the future (Wearley, 1996, p. 36).

Producers rely heavily on accurate information that agricultural communicators provide. In the Montana Agricultural Statistics 1997 report, Ralph Peck, Director of the Montana Department of Agriculture, stated:

Montana's agriculture producers face a multitude of major decisions each year. Decisions such as how many acres to seed, when to market their livestock, how to reduce input costs, and the list goes on. In order to make viable decisions, it is crucial that producers have the most recent information available (Montana Department of Agriculture, 1997).

According to Terry (1996), the field of agricultural communications is unique, separate from agriculture, and apart from the general field of communications (p. 286). The agricultural communicator of tomorrow faces many challenges, not the least of which is the use of technology. Hays and Evans (1983) proposed that:

Technological change is not limited to communications, of course, it permeates the wider society, including the farm sector. Agriculture involves far more sophisticated technology than it did a generation ago. And if the farmer is to keep up with new developments, the agricultural communicator probably is going to have to make an important contribution to that awareness. This is not an easy challenge. It means that the agricultural communications student—tomorrow's professional communicator—must be prepared to deal with complicated subject matter as well as advanced communication technology (p. 1).

Beck and Cilley (1994) found evidence that, "Agricultural communicators are accustomed to acting as change agents. Communicators face the challenge of dealing with technological changes that are reshaping their own profession" (p. 1). They said that

individuals training in agricultural communications should consider their role as change agents and the influence that technological advances will have on this career field.

Vestal and Briers (1999) suggested that media also serve gatekeeper roles. Although the public perceives agriculture as slow and sustaining, agricultural biotechnology and the diffusion of innovation associated with it has been very rapid. Food biotechnology stands out among agricultural innovations, which usually are diffused only among farmers, because consumers perceive it to have a direct effect on the food we eat. Vestal and Briers (1999) found that journalist "knowledge, attitudes and perceptions may enhance the technology transfer and consumer awareness efforts of agricultural educators" (p. 413).

The United States Department of Agriculture Office of Communications has described its mission as to provide information to the public that was helpful to Americans' health and economic well being (USDA, 2000). One objective identified by the Office of Communications was to, "strengthen the public knowledge and understanding of USDA's role in economic and trade opportunities for agricultural producers and other residents—a major goal of USDA." Other objectives related to strengthening the public knowledge and understanding about the USDA's role in providing a safe, nutritious, affordable food supply; and their role in developing a healthy natural environment and ecosystem.

The issue of agricultural literacy has come to the foreground of professional awareness. Thomson and Kelvin stated that, "Individuals must perceive an issue is important to them personally before they decide to become involved with it" (Thomson

and Kelvin, 1996, p.12). As the population has become more removed from the farm and their food source, their dependence on agriculture has become less vivid. Thomson and Kelvin suggested that today's consumers rely on general mass media for information. The mass media "will be among the public's primary sources of information about the relationship between the food they purchase and issues relating to regional agriculture" (p.19). The researchers further stated that, "Understanding the interconnectedness of the issues of a sustainable food system from the field to the consumer is one challenge which media can help the public understand" (p. 12).

The Agricultural Literacy Work Group (Birkenholz, 1992) reported that, "The basic purpose of agricultural literacy programs should be to achieve an awareness and understanding of the significance of agriculture in the lives of all people." Those pursuing careers in agriculture, in agricultural communications or other fields, must understand the issues of agricultural literacy and become an advocate for agricultural education. Frick and Spotanski (1990) identified three major themes of agricultural literacy:

1. Understanding of the applied processes or methods of agriculture. This includes the understanding of agriculture as a system, each component affecting the total outcome;
2. Having a basic vocabulary of agriculture terms. Literacy includes the ability to follow basic public discussions; and
3. Understanding the impact of agriculture on society.

Agricultural Communications Programs of Study at Colleges and Universities

The agriculture and natural resource industry first recognized the need for education in agricultural writing in 1905. Iowa State College was given an endowment to

fund a course titled "The Agricultural Press" (Texas Tech, 1993, p. 6). The presence of agricultural communications programs in colleges of agriculture show that they have recognized the need to train students in agricultural communications. Among those universities that currently offer some type of program in agricultural communication or agricultural journalism are Washington State University, University of Florida, The Ohio State University, Texas Tech University, and Oklahoma State University (Telg, 2000).

According to Terry (1996), "Agricultural communications curriculums have been designed to fulfill two primary needs of graduates: 1) provide a strong basis of both technical agriculture and sources for agricultural information; and, 2) introduce methods of journalistic writing and other communications skills." A curriculum in agricultural communications assists graduates in qualifying for a wide range of job opportunities available (Evans & Bolick, 1982, p. 35).

Reisner identified three basic components of an ideal agricultural communications curricula. The researcher surveyed 30 universities, of which 16 offered courses in agricultural communications. The three components identified were:

1. Micro-level courses that allowed students to combine agricultural subject matter with communications skills;
2. Advanced micro-level skills courses that allowed students to work outside the classroom, often in professional settings to gain practical experience in agricultural communications;
3. Systems courses that dealt with communications transfer among aggregate populations within agriculture (Reisner, 1990, p.24).

Land grant universities have provided agricultural communications education in a variety of ways. According to the University of Florida's Institute of Food and Agricultural Sciences Agricultural Education and Communication Department, their

vision was to "be a national leader in developing and strengthening education and communication professionals in agriculture and natural and human resources through client-centered teaching, research, and extension programs" (University of Florida, 2000). Students enrolled in the Agricultural Communications program at Texas Tech University produce "The Agriculturalist," an award-winning magazine (Texas Tech University, 2000). Ohio State University Agricultural Communications students can choose a special interest area such as advertising, public relations, or broadcasting, or they can develop a double-major program with other departments in the College of Agricultural Sciences and Natural Resources (Ohio State University, 2000).

A 1988 study conducted by The Ohio State University to profile Agricultural Communication graduates found that:

The qualifications needed to become an agricultural communicator have evolved as technology and job requirements changed. Thirty years ago, farmers were still the primary audience of agricultural communicators. Now, agricultural communicators are trying to reach urban audiences, consumers, and the business world (Bowen & Cooper, 1989, p.2).

Bowen and Cooper discovered that 22 percent of the graduates held positions classified as business-marketing, another 22 percent were in public relations, and 19 percent held positions in writing-editing. The graduates indicated that foreign language was the least important basic education requirement for future agricultural communicators, and courses in business and economics were the most important. Also, their satisfaction with selected academic experience was highest for those involved in the College of Agriculture student magazine, advising and counseling, and the Agricultural Communicators of Tomorrow (ACT) student organization (Bowen & Cooper, 1989, p.4).

In his study "Enhancing the Agricultural Communications Curriculum" published in 1996, Terry identified 27 disciplines in three core areas: agriculture, communications, and general education. The disciplines rated highest in agriculture included agricultural communications, agricultural economics, agricultural leadership, agronomy, animal science, environmental science, food sciences technology, and internship experience. The disciplines rated highest in communications included advertising, journalism, mass communications law, photography, public relations, public speaking, and telecommunications. The disciplines identified in the general education core area were English, government/political, science, history, international relations, mathematics, biological sciences, psychology, sociology, business, marketing, and computer applications (Terry, 1996).

According to a study by Evans and Bolick (1982), the majority of academic programs established since 1960 identified their programs as agricultural communications, rather than agricultural journalism, reflecting the wide scope of the degree programs. Many institutions did not offer specific courses in agricultural communications, and instead students took courses in agriculture, and communications and journalism. Some larger, longer-established programs offered specific courses such as Agricultural and Public Affairs Reporting; Writing for Agricultural Media; and Photography in Agriculture (Evans and Bolick, 1982, p. 34).

In their study on curriculum in agricultural journalism and communications programs, Evans and Bolick found that:

Most agricultural journalism or communications programs are designed to pursue the best of two worlds, to produce graduates who know the basics of both agriculture and journalism. Graduates are taught to disseminate agricultural information to farm or non-farm audiences, through various media. Such curricula, therefore, are intended to help graduates qualify for a wide range of job opportunities in the career field (Evans and Bolick, 1982, p. 35).

Wilson, Paulson, and Henderson (1991) identified a need for graduate programs in agricultural communications. In their survey of ACE (Agricultural Communicators in Education) members, the researchers found evidence that a master's degree provided the agricultural industry with "highly trained individuals needed to cope with the issues agriculture is currently facing" (p. 26). Further research by Boone, Paulson, and Barrick (1993) identified a need for faculty as well as a need for further research in order for the field of agricultural communications to mature. The researchers stated that:

The need for graduate studies in agricultural communication was identified by the need for persons with the abilities to conduct research and teach, and demonstrate professional proficiency and technical skills. In general, both academicians and practitioners perceive a need for graduate programs in agricultural communication (Boone, Paulson, and Barrick, 1993, p.23).

Sprecker and Rudd (1998) reported that, "Practitioners agreed that agricultural communicators are not agriculturalists primarily, but communicators who have a specialty" (Sprecker and Rudd, 1998, p.36). They suggested that students needed to be familiar with a wide breadth of agricultural subjects, but build a solid foundation of communication skills, most importantly, writing skills. The researchers also found evidence that, "Courses should teach students to conduct communication campaigns and

to manage issues, especially in crisis situations, because agricultural communicators spend much time responding to issues that develop beyond their control.” (Sprecker and Rudd, 1998, p.36)

According to Linda S. Vance, a writer for Commodity News Service:

Tomorrow’s communicator in agriculture cannot look just to the traditional magazine, newspaper, and radio fields. There are specialized services such as CNS and Reuters. There are newsletters and there are commodity industry public relations and writing jobs. There are growing television and radio network opportunities. There are jobs available for qualified journalists in a variety of new and expanding fields related to agriculture (Hays & Evans, 1983, p. 35).

There were also employment opportunities and a need for researchers and faculty members at colleges and universities offering programs in agricultural journalism (Boone, Paulson, and Barrick, 1993). These researchers found evidence to support developing graduate programs in agricultural communications to fulfill the need for faculty and researchers in this growing academic field.

According to the USDA report “Employment Opportunities for College Graduates in the Food & Agricultural Sciences” (Goecker, et al, 1999), there was a predicted shortage of qualified college graduates to fill jobs in agricultural communication and education over the years 2000 through 2005. While average annual job openings for these fields were predicted to be 6,397; only 6, 223 qualified graduates were expected to be available. Goecker, Whatley, and Gilmore (1999) projected very strong employment opportunities for computer information specialists, advertising representatives, public relations specialists, secondary school agricultural science and

business teachers, and international communication specialists. Stable employment opportunities were predicted for writers, editors and newscasters.

Membership in Professional Organizations of Agricultural Communicators

Professional organizations for agricultural communicators were formed to help their memberships and address specialized needs. The American Agricultural Editors' Association (AAEA) was formed in 1921 by a small group of farm magazine editors who hoped the association would, "be of value to its members and instill values that could be passed on to readers" (American Agricultural Editors' Association, 2000). The National Association of Farm Broadcasters (NAFB) was formed in 1944 because farm broadcasters, "felt that they were not receiving enough attention to their specialized needs" (National Association of Farm Broadcasters, 2000).

Those who participated in professional organizations for agricultural communicators, "contribute directly to growth and collective expertise within the profession itself," according to Buck and Paulson (1995). The researchers stated that, "Professional organizations are valuable to the growth and welfare of any profession and thus serve as catalysts for the professional growth and development of members" (Buck and Paulson, 1995, p.1).

In her research on coursework in agricultural communications programs, Reisner found that instruction in values and ethics in agriculture was missing (1990, p.11). Research conducted by Oliver and Paulson directly reflected the influence professionals in organizations of agricultural communication had on college curriculum. After surveying seven agricultural communication professional organizations, the researchers

identified several areas of ethical issues that face agricultural communicators. These areas were incorporated into courses of study in ethics for agricultural communicators at the college level (1995, p. 19).

The Agricultural Communicators in Education (ACE) international association was organized in 1913. The majority of its membership are faculty and staff members at land grant and sea grant universities throughout the United States and in similar institutions in other nations. According to the ACE websight, "ACE members are the communications backbone of a research and teaching network established in the United States more than a century ago. They plan, prepare, and disseminate research results and extension teaching materials" (Agricultural Communicators in Education, 2000). Tucker concluded in his research:

Since the early 1900's, agricultural communicators have indeed shown their value to land-grant research and extension. We have inspired public confidence in agricultural research and personal confidence in ourselves as responsible, efficient communicators. It is clear that much more work will be needed to forge the future of agricultural communication as an academic enterprise, and significant challenges lie ahead (1996, p.37).

Agricultural Communicators of Tomorrow

Agricultural Communicators of Tomorrow (ACT) is a national organization for students in any major interested in agricultural communications. The American Association of Agricultural Communicators of Tomorrow (ACT) was established in 1970 at the annual convention of Agricultural Communicators in Education (ACE). In 1999, there were over 15 ACT chapters at colleges and universities serving students interested in pursuing careers in agricultural communications.

The purposes of ACT are to:

1. Stimulate interest in and promote agricultural communications careers.
2. Provide leadership experience to members and keep them abreast of developments in the agricultural communications field.
3. Invigorate campus-level programs of study by promoting the exchange of ideas and information among agricultural communication students and faculty members.
4. Recognize and encourage professional excellence and growth in agricultural communication.

(Agricultural Communicators of Tomorrow, 1999)

This organization provides professional contacts in organizations such as American Agricultural Editor's Association, Agricultural Communicators in Education, Agricultural Relations Council, Cooperative Communicators Association, Livestock Publications Council, National Association of Farm Broadcasters, and the National Association of Agricultural Journalists.

CHAPTER 3

METHODOLOGY

This study was designed to identify the importance of specific communications and agricultural competencies needed by students enrolled in a proposed Agricultural Communications curriculum. The Methodology Chapter is organized into four sections: Population Description, Instrument Design, Data Collection, and Data Analysis.

Population Description

The population for this study included four agricultural communications-related professional organizations including Agricultural Communicators of Tomorrow (ACT) advisors, and members of Agricultural Communicators in Education (ACE), American Agricultural Editors' Association (AAEA), and the National Association of Farm Broadcasters (NAFB). The population was limited to members of these organizations who reside in Montana, North Dakota, South Dakota, Wyoming, Colorado and Idaho. The mailing list for ACT was provided by the National ACT Organization, the mailing list for ACE was obtained through their national office, as was the mailing list for AAEA. The NAFB member names were obtained from the NAFB websight. The survey was mailed to 84 members of the named organizations who resided in the selected states. The survey was mailed to 43 members of Agricultural Communicators in Education (ACE), 15 members of American Agricultural Editors' Association (AAEA),

three state advisors of Agricultural Communicators of Tomorrow (ACT), and 23 National Association of Farm Broadcasters (NAFB) members.

Instrument Design

The survey consisted of three sections designed to meet the objectives of this study. The first section focused on communications competencies. The second section focused on agricultural competencies. The third section noted demographic information.

The competencies included were first identified by Dr. Robert Terry, associate professor at Oklahoma State University, in his study "Enhancing the Agricultural Communications Curriculum" (1996). Terry conducted a three-round survey of a panel of 80 individuals representing agricultural communications employers, employees, educators and students. Round one of Terry's study included a section to obtain demographic data, and a section that listed 38 curriculum discipline areas. Survey participants were asked to rate their level of agreement by using a four-point Likert type scale, with ratings of Strongly Agree, Agree, Disagree, and Strongly Disagree that the competency was important to include in an agricultural communications curriculum.

Round two of Terry's study consisted of a list of items from round one with strongly agree or agree ratings by 70% of the respondents. In addition, he added competency statements with each discipline area. Round three of the survey process requested that respondents agree or disagree with items that had been eliminated in round two.

From this three-round survey process, Terry developed a model curriculum. Within this model, Terry identified three categories of discipline areas: communications,

agriculture, and general core. The final step in Terry's research was to determine objectives in each competency area. College faculty representing 24 departments and 6 universities assisted in identifying the objectives.

The researcher referred to the results of Terry's study to form competency statements that were based on competency areas and objectives in agriculture and communications. The researcher did not explore the general core discipline areas as these are, "normally part of the university core curriculum," according to Terry.

The first section of the survey instrument, Communications Competencies, included seven items of communications with specific competency statements for each item. Communications competencies included in the study were advertising, journalism, graphics, public relations, public speaking, telecommunications, and computer applications. The second section of the survey instrument, Agricultural Competencies, included eight items of agriculture with specific competency statements for each item. Agricultural competencies in the study included agricultural communications, agricultural economics, agricultural leadership, agronomy, livestock production and management, environmental science, food science/technology, and internship experience. The internship experience was placed in the list of agricultural competencies because it is usually supervised by academic faculty in colleges of agriculture, according to Terry (1996).

The respondents were asked to indicate their level of agreement or disagreement, whether the competency should be included in the Montana State University Agricultural Communications curriculum. The first two sections asked the population to respond by

using a Likert-type scale. Responses were divided into four areas: agree strongly, agree, disagree, and disagree strongly.

The demographic data obtained provided a profile of the respondents in terms of age, years employed in agricultural communication, background in farming or ranching, agricultural background, and skills utilized. Respondents were also asked to indicate familiarity with university agricultural communications programs.

The survey was tested for face validity in terms of identifying problems in wording, clarity, and format, as well as completion time, during a pilot test by 27 students in the Agricultural Leadership class (AgEd 251) at Montana State University-Bozeman Spring Semester 2000.

Data Collection

The Dillman (1978) Total Design Method (TDM) model was used for maximum return rate. A post-card (Appendix A) was mailed to participants on January 14, 2000, informing them of the forthcoming survey. The survey (Appendix B), along with a cover letter, was mailed to 84 study participants on January 21, 2000. The survey was self-addressed and stamped so the participant could tape it closed and mail it to the researcher. The cover letter (Appendix A) explained the purpose of the survey, instructions, and was signed by Dr. Van Shelhamer, Agricultural Education Professor, and the researcher. A follow-up postcard (Appendix A) was mailed February 9, 2000 to all participants who had not yet responded. A second copy of the survey was mailed February 18, 2000, along with a cover letter (Appendix A) urging them to participate by

