

PERCEPTIONS OF SELECTED AGRICULTURAL
EDUCATION ADMINISTRATORS REGARDING
THE ENHANCEMENT OF INTERNATIONAL
STUDIES AND OPPORTUNITIES FOR
AGRICULTURAL EDUCATION
STUDENTS AND FACULTY

By

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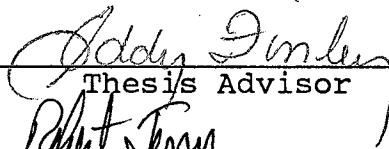
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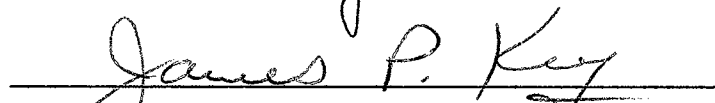

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CHAPTER I

INTRODUCTION

Schuh (1984) suggested that the reality of a rapidly emerging global society is prompting, if not forcing, all facets of American society to relax its long standing apathy toward the remainder of the world. The Soviet Union has descended into oblivion, the grasp of Communism has been relaxed in Eastern Europe and in its place are the beginnings of new democracies. These along with many other staggering social, economic, political, and educational changes, both domestically and internationally, have heightened Americans' interest in (and necessity for) knowledge about the other countries of the world. This new attitude is nothing short of an American phenomenon, one that might be described as "the struggle for international literacy", literacy through awareness.

During recent years pressure has been placed upon the institutions of higher education to incorporate an international dimension into all teaching, research, and extension programs, regardless of discipline (Henson & Noel, 1988). Some institutions have been proactive in this effort, others reactive, and, unfortunately, still others have not yet met the challenge to internationalize (Sabella

& Kirby, 1991).

The post secondary agricultural teacher education programs of the United States have been and continue to be strongly impacted by the pressure to internationalize (Henson & Noel, 1988). As early as the middle 1970's Agricultural Educators were proclaiming the need to incorporate an international dimension into post-secondary agricultural education programs (Bristol, 1975; Lindley, 1975; and McCreight, 1979). Since that time many Agricultural Education programs, nationwide, have strived to provide students that needed international dimension through the organization and implementation of instructional components designed specifically to address international issues, topics, and implications (Baker, 1990).

Presently, Agricultural Educators do not agree on how or if international topics should be incorporated into the curriculum. Some are proponents of infusing international topics throughout the existing curriculum, others believe courses that specifically address international topics are needed to properly convey the international subject matter, and others do not believe that international education is a serious concern (Sabella & Kirby, 1991).

Rationale for the Study

Administrators of Agricultural Education, both institutional and state, are those persons primarily responsible for the development, operation, and enhancement

of present and future programs in agricultural education. It is conceivable then, considering the impact Administrators have upon programs, a better understanding of the Administrators' background in, and perceptions of, international education could help other agricultural educators better understand their superior's perspectives regarding international studies.

It was determined that, based upon the input of the Administrators, recommendations could be made and shared with the following present and future agricultural educators: (1) Institutional Administrators; (2) State Administrators; (3) Institutional Faculty; (4) State Staff; (5) Secondary Agriculture Teachers; (6) Graduate Students; (7) Undergraduate Students; and (8) Secondary Students who may desire to become professional agricultural educators. In addition, these recommendations could be shared and utilized by the: (1) United States Department of Education; (2) State Departments of Education, and (3) other organizations and agencies concerned with international education and development.

Statement of the Problem

Relatively little specific information is available about Agricultural Education Administrators' background in, and perceptions of, international education. It became apparent that, in order for agricultural education to implement international components or to further improve and

expand existing international components, it was vital that research be conducted to identify and describe those backgrounds and perceptions. Therefore, this study was deemed necessary to determine specific information regarding the perceptions of Agricultural Education Administrators toward the enhancement of international studies and to determine the perceived opportunities for Agricultural Education students and faculty.

Purpose of the Study

The purpose of this study was to determine the perceptions of selected Agricultural Education Administrators regarding the enhancement of international studies and to determine the opportunities for Agricultural Education students and faculty.

Objectives of the Study

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

1. To determine specific Agricultural Education Administrators' demographic information regarding:
 - a. Level of professional international experience;
 - b. Interest in obtaining international experience;
 - c. Types of professional international experience;
 - d. Countries or regions where Administrators' international experience was obtained;

- e. Types of international experience desired;
- f. Countries or regions preferred to obtain international experience;
- g. Ability to speak a foreign language; and
- h. Foreign language proficiency level;

2. To determine if, and from whom, requests for assistance regarding international activity had been received.

3. To determine if Administrators had participated in the development of instructional materials and/or courses of instruction in order to internationalize the secondary and/or post-secondary agricultural education curriculum.

4. To determine Administrators' perceptions regarding the importance of infusing international topics into the existing instructional materials and/or courses at the secondary and/or post-secondary level of agricultural education.

5. To determine Administrators' perceptions of whether or not undergraduate agricultural education majors should be required to have completed a college level international course specifically for agricultural education majors.

6. To determine the international course type and minimum required semester hours of international study most preferred by Administrators supporting required international agricultural education courses.

7. To determine the international topics perceived most important by Administrators.

8. To determine if Administrators perceive it would be an advantage for undergraduate and graduate agricultural education students to minor or specialize in international agricultural education.

9. To determine Administrators' perceptions regarding selected aspects of the current status of international agricultural education.

10. To determine Administrators' perceptions of what can be done to further improve the quality of international education provided to high school, undergraduate, and graduate agricultural education students.

Assumptions for the Study

For the purpose of this study the following assumptions were accepted.

1. The questionnaire developed would elicit the information needed to meet the objectives;

2. All of the Administrators fully understood the questions presented and responded honestly and openly.

Scope of the Study

The scope of this study included all State and Institutional Administrators of Agricultural Education (150) in the United States, Puerto Rico, Virgin Islands, and Guam.

Definition of Terms

The following terms are presented as they apply to this study.

1. International Agricultural Education - All activities, educational, developmental, and otherwise, of agricultural education that encompassed global issues, implications, and cooperation.
2. International Dimensions - World dimensions added to existing subjects and independent courses with its emphasis upon information, change of attitude, and student acquisition of international awareness and expertise.
3. International Perceptions - The opinions, ideas, and beliefs of agricultural educators as they relate to global issues, implications, and cooperation.
4. International Components - The academic coursework that pertains, all or in part, to international or global issues, implications, and cooperation.
5. Institutional Administrators - Those persons responsible for the operation and development of agricultural education programs in institutions of higher education.
6. State Administrators - Those persons responsible for the operation and development of secondary agricultural education programs at the state level.

CHAPTER II

REVIEW OF LITERATURE

Introduction

This chapter is devoted to the examination of past and present initiatives on the part of American education, with an emphasis on Agricultural Education, to internationalize its teaching, research, and extension programs. The chapter reviews literature relevant to the areas of: the internationalization of American higher education; the role of the land grant universities in international education; international perspectives of agricultural education; the international dimensions of agricultural education; and a summary of the literature review.

The Internationalization of American Universities

Schuh (1987) stated that,

large continental countries tend to be insular and inward looking. They tend to be self contained, and to have little dependence on the rest of the world. Because they don't need the rest of the world they ignore it (p.1).

Historically, the United States has been recognized as a large country in every sense of the word. The U.S., until the past few decades, has demonstrated this attitude and posture of indifference toward the remainder of the world. The American political and economic systems, as well as its citizenry, have in the past been content with attending to matters at home and letting the remainder of the world do likewise. Therefore, it is not surprising that American education has also taken a posture of indifference in the education it provided. Blackman (1984) indicated that,

Before World War II the United States educational system demonstrated little commitment to the need for providing students with an international or global perspective. Like most Americans, educators were much more concerned with domestic growth and internal matters. Rather than acknowledging the changing circumstances brought about by new immigrant populations and increased foreign student enrollment the educational system sought to Americanize their cultures and minimize any contribution they might make toward our world understanding (p. 330).

World War II was a turning point in world history, a point which would dramatically impact the United States economically, politically, and socially. Schuh (1987) suggested that it took up until this global conflict before the United States finally reached out and engaged the world on a global scale. The post World War II era saw the United States enter the global arena for the first time. The first recognized international initiative set forth by the United States was the European Recovery Program, most commonly known as the Marshall Plan. During this period massive

humanitarian and reconstruction aide was provided to the war torn countries of Europe. Later during the 1950's and 1960's the universities of the United States undertook a large amount of research and teaching in foreign countries (Schuh, 1987).

A comprehensive review of literature indicated that presently, the institutions of higher education in the United States are facing a milestone in American history. These institutions have been charged with the internationalization of American higher education (Henderson, Noel, Gillard-Byers, & Ingle, 1990). A changing global and domestic environment has dictated that Americans become aware of the peoples with which they share the earth (Kellogg, 1984; Martin & Keller, 1989). The social, political, and economic environment of today's world has made it imperative that Americans begin to comprehend the severity of global problems, grasp the importance of world events, learn to work and interact with the peoples of other cultures, and obtain the needed skills for employment in this increasingly interdependent world. In order for American students to achieve global awareness and to become internationally educated, it is crucial that the institutions of higher education adjust their curriculum to accommodate these needs (Blackman, 1984).

The institutions of higher education in the United States will play a vital role in the internationalization of the American society. In keeping with their tradition of

excellence in education, these institutions must strive to effectively incorporate international dimensions, contents, and considerations into all of their teaching, research, and extension programs and activities (Henson & Noel, 1988). It appeared that, only if a concerted effort to internationalize the curriculum is made, can it be possible for the institutions of higher education to fulfill their mission. The mission to provide its clientele the best education possible. The education necessary for students to become productive citizens in this new global society.

The literature revealed that many of the colleges' and universities' agricultural teacher education departments are aware of the severity of the internationalization issue and are striving to incorporate an international dimension into their programs (Adam, 1990). This awareness on the part of agricultural education departments is depicted by Martin (1989), who suggested that, to be considered educated in agriculture, students must become aware of global agriculture systems and the governments, cultures, and societies in which they function. It becomes apparent that agricultural education programs, in order to adequately train their students, must incorporate a international dimension into their programs. Kellogg (1984) suggested that, in order to be effective, international agricultural education programs should consist of three basic dimensions consisting of: foreign language fluency; a broad understanding of cultural, political, and geographical

differences among nations; and an understanding of the international impact on agriculture in the different economic systems of the world. While it is not in the agricultural education department's capacity to provide the foreign language dimension, it is surely their responsibility to provide the agriculturally related dimensions. Many agricultural education departments have and continue to make a concerted effort to provide an international dimension to their programs (Sabella & Kirby, 1991). However, it appears that others have not fully risen and faced the challenge to internationalize (Adam, 1991; Sabella & Kirby, 1991).

The Role of Land Grant Universities

The intuitiveness and foresight of earlier Americans provided for the creation of the Land Grant System of higher education. Today, those institutions which compose the Land Grant System of the United States are globally respected for their contributions to advancement of education, research, extension, and the prosperity of American life. The Land Grant institutions are deservedly rich in tradition, history, and honor (Adam, 1990).

Historically, the land grant institutions have risen to the needs of American agriculture by continually provided the best education, research, and extension system in the world. However, in today's changing society the land grant institutions are facing yet another monumental challenge.

Presently, the cry from the nation, and the world for that matter, is for the internationalization of education. This societal plea to the land grant universities is reflected in the statement by Henson and Noel (1988).

Internationalizing the U.S. colleges of agriculture and universities is imperative. Many indicators emphasize this statement as exemplified by declining U.S. competitiveness in the global marketplace, the U.S. economy related to our status as the largest debtor country in the world and numerous studies indicating a dismaying lack of knowledge and understanding by U.S. citizens of other countries, cultures, economies, and political systems (p. 1).

Substantial international work has been and continues to be performed by the land grant universities, mostly in the areas of international development, and linkages with foreign institutions (Blackman, 1984). However, at the same time, little has been done to educate American students about the peoples of other nations and the world in which they live (Schuh, 1984), thus indicating that internationalization is much more complex than just international development and foreign linkages (Blackman, 1984). It should, however, be noted that these international encounters on the part of the land grant institutions have done much to improve the international experience and expertise of the faculties involved. This invaluable expertise and experience is beneficial to the struggle of the internationalization of American higher education.

Internationalization, as it pertains to education, is defined as, "the incorporation of international contents, materials, activities, and understanding into the teaching, research, extension, and public service functions of universities (Henson, Noel, Gillard-Byers, & Ingle, 1990, p. 3). The previous statement indicated that for an institution of higher education to internationalize its education, it must ensure that all areas of the education it provides must include a global perspective. This feeling is further supported by the American Association of State Colleges and Universities which stated, "Institutions of higher learning which claim to offer an education appropriate to the highly interdependent world today must seriously examine, plan, and implement their international role in the curriculum and other programs" (p. 16). Therefore, the conclusion may be drawn that, in order for the internationalization of education to occur, it is mandatory that international dimensions be incorporated into all university disciplines and at all levels. It becomes evident that the land grant universities of the United States will play a crucial role in America's struggle to internationalize education. However, when one considers the collective expertise, human and financial resources, and tradition of excellence inherent to the land grant universities they become the logical choice to lead the endeavor for educational internationalization.

International Perspectives of Agricultural Education

In order to accurately comprehend the educational perspectives of agricultural education in the United States it is necessary to consider the principles upon which it is founded. Inherent to agricultural education is its sense of duty to American society in accomplishing the educational objectives of: 1) meeting the manpower needs of society; 2) increasing the options (employment) available to each student; and 3) serving as a motivational source to enhance all types of learning (Finley, 1990). Each and every one of these objectives are significant and noble when considered individually, but when considered together they form the foundation and heart of the agricultural education profession. In the past it has been common practice for Americans to perceive post-secondary agricultural education as solely those activities directed at the preparation of vocational agriculture teachers (Diamond, 1986). This perception, while fundamentally correct, is greatly under simplified. It fails to take into consideration the complexity and sophistication required to adequately train teachers of agriculture.

Today's work world is far different from that of the past. Agricultural educators in the past saw their students graduate from the halls of higher education to enter the world of work in the traditional way, working in American

agriculture. In today's world this is no longer the case. Schuh (1987) indicated that "most of today's students will either work abroad, work for a company that has vital interests abroad, or work for a company that experiences significant competition from abroad" (p. 308). This statement is representative of the feelings of many leaders in American education, business, and industry. If the agricultural education departments in the institutions of higher education in the United States are to obtain their primary objectives, drastic changes must occur in the curriculum and the methods used to train the agricultural educators of tomorrow. Blackman (1984) insisted that . . .

If students are going to develop the skills needed for them to survive in the interdependent world they must understand the world in which they must live. To be effective elementary and secondary teachers, students must develop worldmindedness (a global perspective). Therefore the schools of education must train and educate teachers that are able to make sense of the impulses they receive daily from abroad. To do this students must take more international courses and area study courses in their undergraduate and graduate programs. If institutions make a concerted attempt to internationalize schools of education, the multiplier effect and its impact are obvious (p. 337).

Presently many Americans are asking, to what extent is education preparing students for this new world into which they will live and work? Schuh (1987) responded to this question with the statement, "My judgement is that we are doing a very inadequate job". Schuh's position is supported by Kobus (1983) who implied that education majors in U.S. colleges and universities, inclusive of agricultural

education majors, are among those most unprepared to meet the challenge of implementing a global perspective in their future careers. Much of this sentiment toward American education was caused by America's attitude of indifference in the past. The United States, up until the agricultural crash years of the 1970's, had little dependence upon the rest of the world. America was strong politically, economically, militarily, and agriculturally. A sense of invulnerability had grasped the nation. It appears that the time of American self sufficiency is gone, likely never to return. In its place America has found that the key words for the 1990's are "international interdependence." The 1990's find America facing crippling competition from abroad, a severe weakening in the agricultural sector, high unemployment, and inflation. These and other factors too numerous to cite have changed the attitude of America toward isolationism. The American government has been forced to abandon its isolationist attitude and reach out and become an active member of the global society. However, other sectors of the society continue to procrastinate. McBreen (1989), referring to those sectors, suggested that . . .

Historically, local needs in the U.S. have not included an understanding of the impact of international activities or characteristics on localities. Our government may have abandoned policies of international isolationism, but our communities and individual citizens hold the philosophy to be quite clear (p. 23).

Presently, this sentiment is changing. Today the cry from the masses is for international education and awareness.

Considering the vastly changed domestic and international environment this plea is understandable. If America and the American agriculturalist are to survive as leaders in this global society it must learn to understand, respect, and appreciate its neighbors around the world.

Adam (1990) reflected that numerous studies have identified the need to incorporate into the graduate and undergraduate experience a broader understanding of the politics, economics, and cultures of foreign lands. Unfortunately, Adam also related those studies found that American students lacked the knowledge base and cultural experience to understand and compete in an internationally driven economy.

Welton (1987) suggested that recently agricultural educators have become increasingly aware of a necessity to look at the profession from a global perspective and are beginning to perceive themselves as teachers in a world community. In keeping with this sentiment, many agricultural educators within the institutions of higher education have or are presently reassessing and redirecting their agricultural education programs. In some cases even to the point of redefining the program. This changing attitude by agricultural educators is evidenced by Love (1982) who broadly defined agricultural education as, "the general mission of colleges of agriculture in higher education to provide quality instruction in all agriculture subject areas" (p. 1). An even broader and more

encompassing definition of agricultural education was provided by Habito (1979). Habito defined agricultural education as, "any and all organized programs whose purpose is education or training in agriculture subjects" (p. 3). Regardless of how one defines agricultural education it is of the utmost importance to realize that agricultural education recognizes the necessity to expand its curriculum to include an international dimension to the education it provides. This awareness on the part of agricultural educators was identified in the literature in the early 1970's. In 1975 an article by Bristol gave added depth to the need for the infusing of an international dimension into the agricultural education curriculum. Bristol stated "Many persons who have been abroad for any extended period of time have noticed that foreign schools make much greater efforts to educate their students about the United States than our schools do about the foreign countries" (p. 84), thus indicating a deficiency on the part of American education to adequately expose American students to the other cultures, governments, and religions of the world.

Agricultural education has a history of accomplishment and dedication to the industry of agriculture. It has, over the years, repeatedly risen to meet the changing needs of its clientele. The area of international agricultural education is yet another change that must be met and overcome by the profession. Moore (1987) stated that "The role of agricultural education has been limited in recent

years. This role has expanded and we have an even more vital role to play in the future - at home and abroad" (p. 5). Statements such as this serve to depict the dedication and insight of agricultural educators toward meeting the present and future educational needs of their students.

The International Dimensions of Agricultural Education

Since its inception, agricultural education has strived to meet the educational needs of American agriculture. It is obvious that, over the many years since the inception of agricultural education, many things have changed both domestically and globally. Agriculture has changed drastically. During the earlier years agriculture was a dominant factor in American employment. Most of the labor force at that time was directly or indirectly involved in the production of food and fiber. Today, less than two percent of the American labor force is involved in the production of agricultural products (Houck, 1986). The educational needs of the earlier American agriculturalists were also vastly different than those of present day agriculturalists. Today's modern world finds its present and future agriculturalists facing a vastly more complex and globally interdependent economic, political, and social system than that of their forefathers (Houck, 1986). The changes in the world environment have mandated that the

education provided to American agriculturalists also be changed to meet those new domestic and global challenges. It is the obligation of the departments of agricultural education in the institutions of higher education to meet the changing needs of their students and to promote American agriculture. This feeling is reflected by Martin and Keller (1989) who stated that . . .

The mission of Agricultural Education in the United States is to foster the development of knowledge and skills related to the industry of agriculture. Pursuant to the mission is a growing need for students and educators to develop an understanding of world agriculture and its impact on U.S. agriculture as well as its effect on local production and marketing of food and fiber (p. 19).

Logically, the first step to fulfilling the American agriculturalist's need for an international education begins with the colleges and universities of the United States.

Curriculum changes are many times difficult to adopt. Educators, like other members of society, often have reservations about change and frequently choose to take a wait and see posture. However, basic changes in the curriculum, regardless of the necessity, will not occur until the faculty is ready to implement them (New England Board of Higher Education, 1987). With respect to educational change in the form of the internationalization of the agricultural education curriculum, Blackman (1984) stated . . .

Internationalization of the curriculum (regardless of the options selected) has the greatest long term effect on the institution. Without a substantial commitment to an appropriate curriculum significant internationalization will not take place. Perhaps the most far reaching option is infusing into courses an international dimension which was previously absent (p. 336).

The sentiment presently held by Americans toward international education greatly impacts the agricultural education departments of the United States. The majority of agricultural educators agree that agricultural education students must become internationally aware and competent in international issues in order to be effective teachers (Welton, 1986). Many of the institutions of higher education in the United States have in recent years recognized the need for international education and have attempted to meet that societal need. Likewise, many of the agricultural education departments within these institutions of higher education have and are continuing to provide their students an international dimension to their educational experience (Sabella & Kirby, 1990). This sentiment is reflected by Martin and Keller (1989) who suggested, that for a student to be considered educated in agriculture he or she must become aware of global agriculture systems and the governments, cultures, and societies in which they function. This position is further supported by Adam (1990) who stated,

Many studies have identified the need to incorporate into graduate and undergraduate experience a broader understanding of politics, economics, and cultures of foreign lands, and that the United States students lack the knowledge base and cultural experience to understand and compete in an internationally driven economy (p. 13).

It becomes apparent that agricultural education programs, in order to adequately train their students, must incorporate a international dimension into their programs. The question that arises is, to what degree do agricultural education departments need to internationalize their curriculum? Kellogg (1984) suggested that international agricultural education programs, to be effective, should consist of three related dimensions. He indicated that students should acquire foreign language fluency, a broad understanding of cultural, political, and geographical differences among nations, and an understanding of the international impact on agriculture in the different economic systems of the world. While it is not the responsibility of the agricultural education departments to provide the language dimension it is certainly their duty to provide the agriculturally oriented dimensions.

The agricultural education departments in the American colleges and Universities have or are attempting, in varying degrees, to initiate the infusion of international dimensions into their programs (Sabella & Kirby, 1990). Some of the agricultural education departments have been proactive in this effort and lead the nation in international agricultural education. Others were and are

reactive in their respective internationalization efforts. Unfortunately, still others have not internationalized their programs.

International education is a relatively new concept to the Agricultural education profession. The newness of international education is evidenced in a statement by Harbstriet and Welton (1990). After conducting a study of secondary agriculture students awareness of international agriculture the researchers stated that, "No formal reference was made by agricultural education to international education until the early 1970's (p.10). Thus indicating that international agricultural education is at most two decades old.

The earlier international activities on the part of agricultural education were primarily international development endeavors. Blackman (1984) reflected that "Schools of agriculture have been involved in international activities more extensively than any other professional program, owing to international development projects and government sponsored agricultural contracts (p. 337)." Statements such as this indicate that international development was likely the initial undertaking by agricultural education in the international arena. During the mid 1970's a series of articles in agricultural education professional publications began to focus upon the international efforts and perceptions of agricultural educators. These articles reflected an increasing

international awareness on the part of some agricultural educators. Bristol (1975), in an article congruent with the writings of others, stated, "In today's world, probably every course taught in our high schools and colleges should have an international dimension" (p. 84). This indicated an apparent awareness (or foresight) regarding the future changes and expanded obligations of the profession. Prior to 1979 little specific information was available concerning the extent of international interest and involvement on the part of agricultural educators in the United States. Most of the literature offered agricultural educators perceptions regarding international agricultural education. In 1979 an effort was made to provide the needed information about the international dimension of agricultural education. A study was conducted by Thuemmel and Welton on behalf of the American Association of Agricultural Educators. The 1979 assessment reported that fifty percent of the agricultural education programs in the United States had been involved in international activities to some degree. The report also reflected that most institutions, at that time, did not offer a formal program in international agricultural education. The study also revealed that one out of every five teacher educators had foreign experience in international agricultural education. This led the researchers to conclude that courses and programs in international agricultural education would likely become more available in the future. This national assessment, in

retrospect, appears to be responsible for supplying the information needed for agricultural educators to develop plans and programs in international agricultural education. Following this assessment a series of events began to take place throughout agricultural education. Initially, the American Association of Teacher Educators in Agriculture (AATEA) undertook a modification of its purposes. In this modification AATEA included the formal promotion of international agricultural education as a basic function of international agricultural development. Later, in 1984, a new organization for professional agricultural educators and extension personnel was formed. This new organization was to be known as the Association for International Agricultural and Extension Education (AIAEE) and was primarily devoted to the advancement of agricultural education programs in the developing countries (Bowen, 1986). Much has been written and spoken about international agricultural education since the national assessment was conducted by Theummel and Welton in 1979. During the period of 1979 to 1990 the support for, and incorporation of, international agricultural education was spreading through the agricultural education departments of the United States. However, the exact status of international agricultural education in the United States was not again known until 1990. A preliminary study by Adam (1990) provided additional information about the status of international agricultural education through a study of the land grant

institutions in 16 southern states. The study indicated that, in the southern states, agricultural education Administrators were aware of the increasing demand for international agriculture. However, considering their awareness, their departments were not heavily involved in international agriculture. It was also concluded from this study that, in the southern region, international dimensions courses were not required by the agricultural education departments. Considering that the study conducted by Adam provided information about international agricultural education from a limited area, it was not until later that information derived from the entire country became available.

In 1990, Sabella and Kirby conducted a study with the specific purpose of, "describing the extent of international agricultural teachers education activities in agricultural education departments in institutions of higher education throughout the United States and its territories" (p. 196). The study findings reported that approximately thirty nine percent of the departments had faculty with no short term international experience. In addition fifty-four percent of the faculty did not have long term international experience. Surprisingly, after the emphasis that has been placed upon internationalization, 32.8 percent of the departments reported that they were not at all involved in undergraduate international agricultural education. It was also reported that less than half of the departments included

international agricultural education in their departmental mission statements. However, the most striking information derived from the study was that 29.1 percent of the departments did not offer courses specifically designed to address international agricultural education issues.

The study by Sabella and Kirby (1990) provided valuable information about the status of international agricultural education in 1990. However, considering the amount of emphasis being placed on agricultural education from both internal and external sources, it is somewhat surprising to find that a number of departments have not yet initiated undergraduate and graduate courses in international agricultural education. It appears that the agricultural education departments throughout the United States and its territories have (or are attempting to) become involved in international agricultural education. However, it also appears that there is still much work to be done if agricultural education is to adequately provide its students the international education they desperately need and deserve.

CHAPTER III

DESIGN AND CONDUCT OF STUDY

The purpose of this chapter is to describe the steps and methods utilized to accomplish the objectives of the study. The steps of the study were carried out with the purpose in mind. The purpose of the study was to determine the perceptions of selected Agricultural Education Administrators regarding the enhancement of international studies and to determine the opportunities for Agricultural Education students and faculty. The objectives of the study were as follows:

1. To determine specific Agricultural Education Administrators demographic information regarding:
 - a. Level of professional international experience;
 - b. Interest in obtaining international experience;
 - c. Types of professional international experience;
 - d. Countries or regions where Administrators international experience was obtained;
 - e. Types of international experience desired;
 - f. Countries or regions preferred to obtain international experience;
 - g. Ability to speak a foreign language; and
 - h. Foreign language proficiency level;

2. To determine if, and from whom, requests for assistance regarding international activity had been received.

3. To determine if Administrators had participated in the development of instructional materials and/or courses of instruction in order to internationalize the secondary and/or post-secondary agricultural education curriculum.

4. To determine Administrators' perceptions regarding the importance of infusing international topics into the existing instructional materials and/or courses at the secondary and/or post-secondary level of agricultural education.

5. To determine Administrators' perceptions of whether or not undergraduate agricultural education majors should be required to have completed a college level international course specifically for agricultural education majors.

6. To determine the international course type and minimum required semester hours of international study most preferred by Administrators supporting required international agricultural education courses.

7. To determine the international topics perceived most important by Administrators.

8. To determine if Administrators' perceive it would be an advantage for undergraduate and graduate agricultural education students to minor or specialize in international agricultural education.

9. To determine Administrators' perceptions regarding selected aspects of the current status of international agricultural education.

10. To determine Administrators' perceptions of what can be done to further improve the quality of international education provided to high school, undergraduate, and graduate agricultural education students.

Institutional Review Board

Federal regulations and Oklahoma State University policy require review and approval of all research studies that involve human subjects before investigators can begin their research. The Oklahoma State University Office of University Research Services and the IRB conduct this review to protect the rights and welfare of human subjects involved in biomedical and behavioral research. In compliance with the policy, this study was found to be within the guidelines of policy and was granted permission to continue (see Appendix G).

Scope of the Study

The population for this study consisted of all State and Institutional Administrators of Agricultural Education in the United States, Puerto Rico, Guam, and the Virgin Islands. The population of the study included 150 Administrators, 96 Institutional and 54 State. The final study population was identified through the utilization of

the 1992-1993 Directory of Teacher Educators in Agriculture (Whaley, 1992) and the Directory of State Advisors and Executive Secretaries of the National FFA Organization (U.S. Department of Education, 1992).

Development of the Instrument

A researcher designed instrument was developed with the fundamental goal of securing specific, high quality, demographic and perceptual information from Agricultural Education Administrators regarding international agricultural education. Guidelines used in the development of the survey instrument were provided by Worthen and Sanders (1987) and Key (1992). The questionnaire was designed to incorporate the following characteristics:

1. Easily readable with limited completion time required;
2. Dealt with a significant topic which respondents would perceive as important to the profession;
3. Limited to seven easily completed pages to promote response; and
4. Questions were organized in a logical manner leading from general to those requiring profound judgement and thought.

Table I reports the respondents and non-respondents to the questionnaire. A total of 125 (83.33 percent) of the Agricultural Education Administrators responded to the questionnaire, of which, 82 (85.42 percent of total by type)

were Institutional Administrators and 43 (79.63 percent of total by type) were State Administrators. Twenty-five (16.67 percent) of the Administrators were non-respondents, 14 (14.58 percent) Institutional and 11 (20.37 percent) State.

TABLE I
RESPONDENTS TO QUESTIONNAIRE

	<u>Frequency Distribution</u>	
	N*	%
Respondents	125	83.33
Non-Respondents	25	16.67
Total	<u>150</u>	<u>100.00</u>

* Institutional Administrators (N=82 or 85.42 percent)
State Administrators (N=43 or 79.63 percent)

The survey questions were organized into two general areas. The first area was designed to secure specific demographic information about the individual Administrators international experience, foreign language proficiency, assistance in international activity, and participation in

curriculum development. The second was designed to elicit information regarding Administrators' perceptions pertaining to selected international agricultural education topics, practices, and issues.

The questionnaire was researcher designed with a large amount of expert assistance. Invaluable assistance and guidance in the development and content of the survey instrument was provided by the researcher's major department, research committee, and other experts in the area of international agricultural education. Also, Dr. Ben Shaw, Assessment Specialist for Oklahoma State University was consulted and extended his expertise to the development of the final instrument.

In order to achieve validity, question content and format were reviewed by a panel of graduate research students and a panel of experts from the Division of Agriculture and Natural Resources and the College of Education of Oklahoma State University during the second week of February, 1993, upon whose recommendations modifications to question clarity and format were made.

Reliability of the instrument was achieved by pilot testing. The instrument was pilot tested by twenty members of the Agricultural Education 5980 class on March 2, 1993. Modifications were made to the instrument and on Monday, March 11, 1993 a discussion with the researcher's graduate committee was held to finalize the instrument's content and format.

Upon the completion of the final modifications, the instrument was printed and assembled in booklet form to provide a professional appearance. The questionnaire's length totaled eight, easily completed pages.

Conduct of the Study

A mailing list of Agricultural Education Administrators meeting the targeted population criteria was developed utilizing the 1992-1993 Directory of Teacher Educators in Agriculture (Whaley, 1992) and the Directory of State Advisors and Executive Secretaries of the National FFA Organization (U.S. Department of Education, 1992).. An initial mailing to those Administrators was made on March 16, 1993, with a second, follow-up, mailing on April 11, 1993. Cover letters for both mailings were included and respectfully requested the Administrators to complete and return the instrument. First responses were returned on March 21, less than one week later. Instruments were collected until April 26, 1993, the identified return deadline, and data were immediately analyzed.

Analysis of the Data

The booklet (instrument) consisted of 18 questions and was developed to elicit both qualitative and quantitative information. Questions in the instrument were designed to address both demographic and perceptual aspects of international agricultural education. The following

discussion is a detailed analysis, question by question, of how the data were analyzed.

Question one addressed the Administrators' level of international experience. The Administrators were requested to check only one of four responses. Responses were analyzed utilizing frequency counts and percentages.

Question two addressed those Administrators that reported having "no international experience" in question one. Three options were provided relative to their interest in obtaining international experience. The data were analyzed through the use of frequency counts and percentages.

Question three was directed to those Administrators that reported having international interest in question one. The respondents were asked to identify the type of international experience they had obtained from a list of six options. The responses were analyzed through the use of frequency counts and percentages.

Question four prompted those Administrators with international experience to identify the country or region where they acquired their experience. The question was open-ended and was analyzed through the frequency of similar response.

Question five addressed both Administrators with and without international experience. Administrators were asked to identify the type of international experience they would

most prefer from a list of six responses. The data were analyzed via frequency counts and percentages.

Question six addressed those Administrators who responded to question five. Administrators were presented with an open-ended question that asked them to identify the country or region they would most prefer to gain international experience. Responses were analyzed through frequency of response.

Question seven sought to determine those Administrators that speak a foreign language and to identify the language (or languages). Through this yes/no question, responses were analyzed via frequency counts and percentages.

Question eight further addressed the topic of foreign language, by asking those Administrators who speak a foreign language to identify their perceived proficiency level. Responses were limited to five levels of language proficiency and were analyzed with frequency counts and percentages.

Question nine addressed the topic of requests for international assistance. Administrators were provided nine options and requested to identify all types of requests for assistance in international activity. Responses were calculated through frequency counts and percentages.

Question ten was a yes/no question that addressed whether or not Administrators had participated in the development of instructional material and/or courses of instruction to internationalize the secondary and/or post-

secondary agricultural education curriculum. Responses were analyzed utilizing frequency counts and percentages.

Question eleven addressed Administrators' perceptions regarding the importance of infusing international topics into the agricultural education curriculum. Administrators were provided four options ranging from very important to not important. The responses were analyzed using frequencies and percentages.

Question twelve sought to determine Administrators' perceptions regarding the requirement of college level international courses designed specifically for agricultural education majors. Respondents were provided three options yes, no, or uncertain. Data were analyzed with frequencies and percentages.

Question thirteen was a two part question that addressed those Administrators who supported required international courses. Part one asked them to identify their preferred course type from six options. Part two sought to determine their perceptions regarding the minimum required semester hours of international study. Responses were calculated utilizing frequency counts and percentages.

Question fourteen addressed all Administrators. A list of ten international topics was presented and Administrators were asked to rank them from one to ten on their perceived importance (one being the most important). Data were analyzed as mean scores and ranked according to those means.

Question fifteen addressed additional topics Administrators' perceived to be as important, or more important, than those identified in question fourteen. This was an open-ended question and responses were reported as frequencies of similar response.

Question sixteen was a two part question that addressed Administrators' perceptions regarding the advantage of undergraduate and graduate minors in international agricultural education. Respondents were provided three options in each part. Responses were calculated using frequency counts and percentages.

Question seventeen addressed Administrators' perceptions regarding selected aspects of the current status of agricultural education. To permit statistical treatment of the data, numerical values were assigned to response categories, thus permitting mean and standard deviation to be calculated. The following scale was developed and utilized for the analysis and interpretation of the data: Category 1, "Strongly Agree" with a value of 5 and limits of 4.50 to 5.00; Category 2, "Moderately Agree" with a value of 4 and limits of 3.50 to 4.49; Category 3, "Undecided", with a value of 3, limits were 2.50 to 3.49; Category 2, "Moderately Disagree", with the limits of 1.50 to 2.49 and the value of 2; and Category 5, "Strongly Disagree" with the value of 1 and limits from 1.00 to 1.49.

Question eighteen addressed Administrators' perceptions regarding what could be done to further improve the quality of international education provided to high school, undergraduate, and graduate students. Responses were qualitative and analyzed and grouped according to similarity.

Computer Analysis

The computer statistical program System for Statistics (SYSTAT) and the Lotus 123 Spreadsheet program were utilized to manipulate the quantitative data for this study. The following types of data were analyzed and reported: frequencies, percentages, means, and standard deviations.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The purpose of this chapter is to present the findings of the study. As previously indicated, the data for the study were collected by means of a researcher designed questionnaire mailed to state and institutional Agricultural Educational Administrators (hereafter referred to as Administrators). The study was designed to elicit specific demographic information about Administrators relating to: 1) level of professional international experience; 2) desire for gaining personal international experience; 3) foreign language fluency; and to determine Administrators perceptions regarding various aspects of international agricultural education as they apply to the secondary, undergraduate, and graduate levels.

Findings of the Study

The following section was included to present the analysis of the data collected relative to the objectives of the study. The findings are reported three ways: 1) the responses of the total population of Agricultural Education Administrators; 2) responses of Institutional Agricultural

Education Administrators; and 3) responses of State Agricultural Education Administrators.

Demographic Data

Administrators of Agricultural Education were asked to identify their personal level of professional international experience according to the scale provided in the questionnaire (refer to Appendix A).

The distribution of professional Administrators international experience is reported in Table II. The majority of Administrators, 74 (59.20 percent), indicated they had "no professional international experience", 35 (28.00 percent) reported having "short term" international experience (less than 6 months), and 8 (6.40 percent) indicated they had from one to three years of experience (intermediate term). The remaining 8 Administrators (6.40 percent) possessed "long term experience" (more than three years). Institutional Administrators responded that 40 (48.78 percent) had "no professional international experience", 27 (32.93 percent) reported "short term international experience", and 8 (9.77 percent) reported "intermediate term" (one to three years of) international experience. The final group of 7 (8.54 percent), indicated they possessed "long term" international experience. The data indicated that 34 (79.07 percent) of State

TABLE II
DISTRIBUTION OF ADMINISTRATORS' PROFESSIONAL
INTERNATIONAL EXPERIENCE

International Experience	Frequency Distribution					
	Institutional Administrators (n=82)		State Administrators (n=43)		Total (N=125)	
	n	%	n	%	N	%
No Professional International Experience	40	48.78	34	79.07	74	59.20
Short Term (less than six months)	27	32.93	8	18.61	35	28.00
Intermediate Term (one to three years)	8	9.76	0	0.00	8	6.40
Long Term (more than three years)	7	8.54	1	2.33	8	6.40
Totals	82	100.00	43	100.00	125	100.00

Administrators had "no international experience" and 8 (18.61 percent) possessed less than six months of international experience ("short term"). None (0.00 percent) of the remaining State Administrators reported having "intermediate term" international experience (one to three years) and only 1 (2.33 percent) indicated he/she possessed "long term" experience (more than three years).

Table III represents the distribution of Administrators' interest in obtaining professional international experience. Administrators reporting "no professional international experience" were asked to identify if they were: interested in obtaining international experience; not interested in obtaining international experience; or uncertain about the matter. Thirty-six (48.65 percent) reported they were "interested" in acquiring international experience, 16 (21.62 percent) were "not interested", and 22 (29.73 percent) were "uncertain". 18 (46.15 percent) of those Institutional Administrators reporting no professional international experience) indicated they were "interested in obtaining international experience", 9 (23.08 percent) were "not interested", and the remaining 12 (30.77 percent) were "uncertain". Of the 34 State Administrators reporting no professional international experience, 10 (51.43 percent) indicated they were "interested in obtaining experience", 6 (17.65 percent) were "not interested", and the remaining 10 (28.57 percent) were "uncertain".

TABLE III
DISTRIBUTION OF ADMINISTRATORS' INTEREST IN OBTAINING
PROFESSIONAL INTERNATIONAL EXPERIENCE

Interest in Obtaining International Experience	Frequency Distribution					
	Institutional Administrators (n=39)		State Administrators (n=35)		Total (N=74)	
	n*	%	n*	%	N*	%
Interested in obtaining International Experience	18	46.15	18	51.53	36	48.65
Not Interested in obtaining International Experience	9	23.08	7	20.00	16	21.62
Uncertain	12	30.77	10	28.57	22	29.73
Totals	39	100.00	35	100.00	74	100.00

* n varies due to not all respondents responded to the question.

The distribution of Administrators by types of professional international experience is reported in Table IV. 31 (26.1 percent) reported experience in consulting, 11 (9.24 percent) in research and development, 27 (22.69 percent) teaching, and 17 (14.29 percent) in administration. Of the remainder, 15 (12.61 percent) had experience in extension and the 18 (15.13 percent) reported international experience in areas other than those identified above. Of the 42 Institutional Administrators reporting, 28 (26.17 percent) had experience in consulting, 11 (10.28 percent) research and development, 25 (23.36 percent) teaching, and 16 (14.95 percent) had administrative experience. Fourteen Institutional Administrators (13.08 percent) were internationally experienced in extension and the remainder, 13 (12.15 percent) listed other experience (i.e.- program evaluation and design, FFA Organization projects, project management, and curriculum development. Twelve State Administrators' indicated personal international experience. Of those 3 (25.00 percent) had experience in consulting, 2 (16.67 percent) in teaching, and 1 (8.33 percent) had administrative experience. One (8.33 percent) reported experience in extension and none (0.00 percent) indicated they possessed experience in research and development. The remaining 5 (41.67 percent) reported other international experience (i.e. - FFA Organization projects, and National Council for Agricultural Education projects).

TABLE IV
DISTRIBUTION OF ADMINISTRATORS BY TYPE OF
PROFESSIONAL INTERNATIONAL EXPERIENCE

Type of International Experience	Frequency Distribution					
	Institutional Administrators (n=107)		State Administrators (n=12)		Total (N=119)	
	n*	%	n*	%	N*	%
Consulting	28	26.17	3	25.00	31	26.05
Research and Development	11	10.28	0	00.00	11	9.24
Teaching	25	23.36	2	16.67	27	22.69
Administration	16	14.95	1	8.33	17	14.28
Extension	14	13.08	1	8.33	15	12.61
Other	13	12.15	5	41.67	18	15.13
Totals	107	100.00	12	100.00	119	100.00

* n varies due to respondents identifying all types of professional international experience possessed.

Question four sought to determine the countries or regions of the world where Administrators had gained their international experience. Administrators identified 72 countries or regions of the world in which they had obtained international experience. A complete listing of these countries and their frequencies are reported in Appendix B.

Table V reports the distribution of Administrators by types of professional international experience desired. Administrators reporting a desire to gain international experience and those with international experience were requested to identify what types (or types) of experience they would prefer to acquire. 62 (41.61 percent) responded they would like to be involved in international consulting, 8 (5.37 percent) in research and development, and 18 (12.08 percent) in administration. 42 (28.19 percent) desired international experience in teaching and 12 (8.05 percent) in extension. The remaining 7 (4.70 percent) reported they desired experience in other areas but failed to identify those areas. 15 (38.46 percent) of the Institutional Administrators indicated a desire for experience in consulting, 14 (35.90 percent) in teaching, 8 (20.15 percent) in administration, and 2 (5.13 percent) in extension. None of the Institutional Administrators (0.00 percent) reported a desire for international experience in research and development or any other type. Of the State Administrators, 42.73 percent (47) indicated a desire for international consulting, 28 (25.46 percent) for teaching

TABLE V
DISTRIBUTION OF ADMINISTRATORS BY TYPE OF PROFESSIONAL
INTERNATIONAL EXPERIENCE DESIRED

Type of International Experience Desired	Frequency Distribution					
	Institutional Administrators (n=110)		State Administrators (n=39)		Total (N=149)	
	n*	%	n*	%	N*	%
Consulting	47	42.73	15	38.46	62	41.61
Research and Development	8	7.27	0	00.00	8	5.37
Teaching	28	25.46	14	35.90	42	28.19
Administration	10	9.09	8	20.51	18	12.08
Extension	10	9.09	2	5.13	12	8.05
Other	7	6.36	0	000	7	4.70
Totals	110	100.00	39	100.00	149	100.00

* n varies due to respondents identifying all types of international experience they desire.

experience, and 10 (9.09 percent) each desired experience in administration and extension. Seven (6.36 percent) indicated a desire for experience in areas other than listed above but failed to identify the types of experience they desired.

Administrators were requested to identify the country or countries in which they would most like to gain (or continue to be involved in) international experience. A total of 49 countries or regions were identified by Administrators. The complete listing of those countries and their frequency of occurrence is reported in Appendix C.

An additional area of interest was foreign language proficiency. Table VI reports the distribution of Agricultural Education Administrators by whether or not they speak a foreign language or languages. Seventeen (13.60 percent) of the Administrators responded "Yes" to speaking at least one foreign language. One hundred eight (86.40 percent) responded "No", they did not speak a foreign language. Of which 15 (18.29 percent) of the Institutional Administrators responded "Yes" to speaking a foreign language and 67 (81.71 percent) responded "No" they did not speak a foreign language. Two (4.76 percent) of State Administrators responded "Yes", they spoke at least one foreign language and the remaining 41 (95.24 percent) responded "No". Eight languages were identified as being spoken by Administrators. Eleven (50.00 percent) Administrators, that speak a foreign language, reported they

TABLE VI
DISTRIBUTION OF ADMINISTRATORS BY WHETHER OR
NOT THEY SPEAK A FOREIGN LANGUAGE

Foreign Languages	Frequency Distribution					
	Institutional Administrators (n=82)		State Administrators (n=43)		Total (N=125)	
	n	%	n	%	N	%
Yes	15	18.29	2	4.76	17	13.60
No	67	81.71	41	95.24	108	86.40
Totals	82	100.00	43	100.00	125	100.00

spoke Spanish, 3 (13.64 percent) spoke French, 2 (9.09 percent) Portuguese, 2 (9.09 percent) German, and 1 (4.55 percent) each reported they spoke Indonesian, Persian, Swahili, or Arabic. Ten (50.00 percent) of the Institutional Administrators that spoke a foreign language speak Spanish. Three (15.00 percent) spoke French and 2 (10.00 percent) Portuguese. Five Institutional Administrators (1 each) indicated they spoke German, Indonesian, Persian, Swahili, and Arabic. Of the 2 State Administrators who spoke a foreign language, 1 (50.00 percent) spoke Spanish and 1 (50.00 percent) spoke German.

Table VII presents the distribution of Administrators by level of foreign language proficiency. Four (23.53 percent) reported they could "understand the language", 2 (11.77 percent) could "read the language", 1 (5.88 percent) could "write the language", and 4 (23.53 percent) could "speak the language". Six (35.29 percent) reported they could "read, write, and speak the language". As was reported previously, 15 Institutional Administrators' spoke a foreign language, of those 4 (26.67 percent) could "understand the language", 1 (6.67 percent) could "read the language", 1 (6.67 percent) could "write the language", and 5 each (33.33 percent) could "speak" or "read write and speak the language". One (50.00 percent) State Administrators reported "reading the language" and 1 (50.00 percent) "could read, write, and speak the language".

TABLE VII
DISTRIBUTION OF ADMINISTRATORS BY LEVEL OF
FOREIGN LANGUAGE PROFICIENCY

Foreign Language Proficiency	Frequency Distribution					
	Institutional Administrators (n=15)		State Administrators (n=2)		Total (N=17)	
	n	%	n	%	N	%
Understand the language	4	26.67	0	0.00	4	23.53
Can read the language	1	6.67	1	50.00	2	11.77
Can write the language	1	6.67	0	0.00	1	5.88
Can speak the language	4	33.33	0	0.00	4	23.53
Can read, write, and speak the language	5	33.33	1	50.00	6	35.29
Totals	15	100.00	2	100.00	17	100.00

A distribution of Administrators' by types of agencies requesting assistance regarding international activity is reported in Table VIII. Administrators were asked to identify all requests and report them according to the categories provided. Forty-six (24.73 percent) of Administrators indicated they had been contacted by the United States Government. Of which 27 (58.70 percent) of the government requests were from the United States Agency for International Development, 11 (23.91 percent) from the Peace Corp, 1 (2.17 percent) from the Fulbright Program, and 7 (15.22 percent) from other governmental agencies but failed to identify the sources of the contacts. Nineteen (10.22 percent) of the Administrators had received requests for assistance from private firms and foundations, 27 (14.52 percent) from United States universities, 15 (8.06 percent) from foreign universities, and 6 (3.23 percent) from foreign governments. Twelve Administrators (6.45 percent) had received requests from international organizations, 2 (1.06 percent) from religious organizations, and 6 (3.23 percent) from other contacts. The remaining 53 (28.49 percent) indicated they had not received requests for assistance concerning international activity. Thirty-eight (29.01 percent) of the Institutional Administrators reported having been contacted for assistance in international activity by the United States Government. The majority of those requests for assistance, 23 (60.53 percent) were from the U.S. Agency for International Development. In addition, 11

TABLE VIII
DISTRIBUTION OF ADMINISTRATORS' RESPONSES BY TYPES OF AGENCIES
REQUESTING ASSISTANCE REGARDING INTERNATIONAL ACTIVITY

Types of Agencies Requesting Assistance Regarding International Activity	Frequency Distribution					
	Institutional Administrators (n=131)		State Administrators (n=59)		Total (N=186)	
	n*	%	n*	%	N*	%
United States Government:						
Agency for Int.Development	23	17.56	4	7.27	27	14.52
Peace Corp	11	8.40	0	0.00	11	5.91
Fulbright Program	1	0.76	0	0.00	1	0.54
Other	3	2.29	4	7.27	7	3.76
Private firms and foundations	16	12.21	3	5.45	19	10.22
U.S. Universities	22	16.79	5	9.10	27	14.52
Universities outside the U.S.	13	9.92	2	3.64	15	8.06
Foreign Governments	5	3.82	1	1.82	6	3.23
International organizations	8	6.11	4	7.27	12	6.45
Religious organizations	0	0.00	2	3.64	2	1.07
Other	3	2.29	3	5.45	6	3.23
No assistance has been requested	26	19.85	27	49.09	53	28.49
Totals	131	100.00	55	100.00	186	100.00

* n varies due to respondents identifying all requests regarding international activity.

(28.95 percent) received requests from the Peace Corp, 1 (2.63 percent) from the Fulbright Program, and 7.90 percent (3) from other government departments or agencies not identified. Sixteen (12.21 percent) of the Administrators reported requests from private firms and foundations, 22 (16.79 percent) from American universities, 13 (9.92 percent) from foreign universities, and 5 (3.82 percent) requests from foreign governments. Eight Institutional Administrators (6.11 percent) reported requests from international organizations, no (0.00 percent) requests from religious organizations, and 3 (2.29 percent) from other sources (i.e. - UNDP, private citizens, and an unidentified source. The remainder of Institutional Administrators, 26 (19.85 percent), reported that no assistance had been requested. 8 State Administrators (14.55 percent) identified requests for assistance from the U.S. Government. Of those 4 (50.00 percent) were from the U.S. Agency for International Development and 4 (50.00 percent) from other agencies of the U.S. government including the Department of Interior and requests not identified. None (0.00 percent) of the State Administrators reported requests for assistance from the Peace Corp or the Fulbright Program. Three (5.45 percent) reported requests from private firms and foundations, 5 (9.09 percent) from American Universities, and 2 (3.64 percent) from foreign universities. In addition, 1 (1.82 percent) request was reported from a foreign government, 4 (7.27 percent) from international

organizations, 2 (3.64 percent) from religious organizations, and 3 (5.45 percent) from other sources (i.e. - National FFA Association and Agricultural Cooperatives). The remaining 27 (49.09 percent) of the State Administrators reported no requests for assistance regarding international activity.

Table IX reports the distribution of Administrators by whether or not they have been involved in international curriculum development. 52 (41.60 percent) of the Administrators responded "Yes," thus indicating they had participated in the development of international materials and/or courses. The remaining 73 (58.40 percent) responded "No", they had not participated. Of the Institutional Administrators 33 (40.24 percent) responded "Yes" to participating in the development of materials and/or courses and 49 (59.76 percent) "No", they had not. Nineteen State Administrators (44.19 percent) replied "Yes", they had participated in the development of international materials and/or courses, while 24 (55.81 percent) responded "No" to participating in that type activity.

Perceptual (Opinion) Data

Table X reports the distribution of Administrators regarding their perceived level of importance toward infusing international topics into secondary and/or post-secondary instructional materials or courses of study in agricultural education. Fifty-five Administrators (44.0

TABLE IX

DISTRIBUTION OF ADMINISTRATORS BY WHETHER OR NOT THEY HAVE BEEN
INVOLVED IN INTERNATIONAL INSTRUCTIONAL CURRICULUM DEVELOPMENT

Involvement in International Curriculum Development	Frequency Distribution					
	Institutional Administrators (n=82)		State Administrators (n=43)		Total (N=125)	
	n	%	n	%	N	%
Yes	33	40.24	19	44.19	52	41.60
No	49	59.76	24	55.81	73	58.40
Totals	82	100.00	43	100.00	125	100.00

TABLE X

DISTRIBUTION OF ADMINISTRATORS REGARDING THE PERCEIVED IMPORTANCE
OF INFUSING INTERNATIONAL TOPICS INTO INSTRUCTIONAL
MATERIALS OR INTERNATIONAL COURSES OF INSTRUCTION

Importance of Infusing International Topics	Frequency Distribution					
	Institutional Administrators (n=82)		State Administrators (n=43)		Total (N=125)	
	n	%	n	%	N	%
Very Important	36	43.90	19	44.19	55	44.00
Important	29	35.37	18	41.86	47	37.60
Somewhat Important	17	20.73	5	11.63	22	17.60
Not Important	0	0.00	1	2.33	1	0.80
Totals	82	100.00	43	100.00	125	100.00

\bar{X} = Institutional Administrators, Important ($X = 1.77$, $SD = 0.77$), State Administrators, Important ($X = 1.72$, $SD = 0.76$).

$\bar{X}\bar{X}$ = Important, (1.75 , $SD = 0.77$)

percent) responded that the infusion of international topics was very important, 47 (37.6 percent) felt that it was important, 22 (17.6) responded that it was somewhat important, and 1 (0.80 percent) felt that the infusion of international topics was not important. As a whole, state and institutional Administrators felt that the infusion of international topics into the curriculum was important ($\bar{X}=1.75$). 36 (43.9 percent) of the Institutional Administrators responded that the infusion of international topics was very important, 29 (35.37 percent) felt it important, 17 (20.73 percent) somewhat important, and none (0.00 percent) indicated they felt it was not important. As a group, Institutional Administrators perceived the infusion of international topics to be important ($\bar{X}=1.77$). Nineteen State Administrators (44.19 percent) perceived the infusion of international topics to be very important, 18 (41.86 percent) as important, 5 (11.63 percent) somewhat important, and 1 (2.33 percent) not important. State Administrators, as a group, perceived the infusion of international topics into the existing agricultural education curriculum to be important ($\bar{X}=1.72$).

The distribution of Administrators by whether or not they perceive international courses should be required for agricultural education majors is reported in Table XI. Forty-eight Administrators (38.4 percent) responded "Yes", that such courses were needed, 52 (41.6 percent) responded "No", they did not feel courses were needed, and 25 (20.0

TABLE XI
DISTRIBUTION OF ADMINISTRATORS BY WHETHER OR NOT THEY
PERCEIVE INTERNATIONAL COURSES SHOULD BE REQUIRED
FOR AGRICULTURAL EDUCATION MAJORS

International Courses Should be Required for Ag. Ed. Majors	Frequency Distribution					
	Institutional Administrators (n=82)		State Administrators (n=43)		Total (N=125)	
	n	%	n	%	N	%
Yes	21	25.61	27	62.79	48	38.40
No	42	51.22	10	23.26	52	41.6
Uncertain	19	23.17	6	13.95	25	20.00
Totals	82	100.00	43	100.00	125	100.00

percent) reported they were "uncertain". 21 Institutional Administrators (25.61 percent) responded "Yes", indicating they perceived the international requirement to be needed, 42 (51.22 percent) responded "No", that such a requirement was not needed, and 19 (23.17 percent) were "uncertain". Twenty-seven (62.79 percent) of the State Administrators responded "Yes", they felt that the requirement was needed, 10 (23.26 percent) responded "No", and indicated that the requirement was not needed, and 6 (13.95 percent) were "uncertain".

Table XII reports the distribution of Administrators by international course type preferred specifically for agricultural education majors. 16 (34.04 percent) of Administrators indicated they preferred a theory (lecture) type course, 15 (31.92 percent) preferred a travel/study type, 3 (6.38 percent) preferred an independent or correspondence type course, 5 (10.64 percent) an internship, and 3 (6.38 percent) Administrators preferred an exchange program type course. Five (10.64 percent) of the Administrators responded they preferred a course type other than those presented. Eight (38.01 percent) Institutional Administrators identified theory (lecture) type as their preference, 6 (28.57 percent) travel/study, 1 (4.76 percent) independent or correspondence, 4 (19.01 percent) internship, and zero (0.00 percent) preferred exchange programs. The remaining 2 (9.52 percent) identified other course types (i.e. - seminar, and combination of lecture and laboratory).

TABLE XII
DISTRIBUTION OF ADMINISTRATORS BY TYPES OF INTERNATIONAL
COURSES PREFERRED SPECIFICALLY FOR
AGRICULTURAL EDUCATION MAJORS

International Course Type Preferred	Frequency Distribution					
	Institutional Administrators (n=21)		State Administrators (n=27)		Total (N=48)	
	n	%	n*	%	N*	%
Theory course (lecture type)	8	38.10	8	30.77	16	34.04
Sponsored travel/study course	6	28.57	9	34.61	15	31.92
Independent or correspondence study course	1	4.76	2	7.69	3	6.38
Internship	4	19.05	1	3.85	5	10.64
Exchange program with other countries	0	0.00	3	11.54	3	6.38
Other	2	9.52	3	11.54	5	10.64
Totals	21	100.00	26	100.00	47	100.00

* n varies because some administrators chose not to respond to a course type.

Eight (30.77 percent) State Administrators preferred the theory (lecture) course type, 9 (34.62 percent) travel/study, 2 (7.69 percent) independent or correspondence, 1 (3.85 percent) internship, and 3 (11.54 percent) exchange programs. The remaining 3 (11.54 percent) preferred an activity based or combination of lecture and lab type course.

A distribution of Administrators by their perceived minimum required semester hours of international study specifically for agricultural education majors is reported in Table XIII. Twenty-seven Administrators (56.25 percent) reported that from "one to three semester hours" would be best, 14 (29.17 percent) responded "three to four hours" of credit, and 7 (14.58 percent) preferred "five or more hours" credit. Eleven (52.38 percent) State Administrators preferred "1 to 3 credit hours", 5 (23.81 percent) indicated "3 to 5 credit hours", and 5 (23.81 percent) suggested "5 or more credit hours". Of the State Administrators, 16 (59.26 percent) preferred from "one to three hours" of international credit, 9 (33.33 percent) "three to four hours", and 2 (7.41 percent) "five hours or more" of international credit.

Table XIV reports the rank of international topics perceived most important by Administrators based on mean scores. According to the total population of Administrators, global food and fiber systems ranked first in importance ($\bar{X}=2.54$), technology transfer techniques

TABLE XIII

DISTRIBUTION OF ADMINISTRATORS BY THEIR PERCEIVED MINIMUM REQUIRED
SEMESTER HOURS OF INTERNATIONAL STUDY SPECIFICALLY
FOR AGRICULTURAL EDUCATION MAJORS

Perceived Minimum Semester Hours	Frequency Distribution					
	Institutional Administrators (n=21)		State Administrators (n=27)		Total (N=48)	
	n	%	n	%	N	%
One to three hours	11	52.38	16	59.26	27	56.25
Three to four hours	5	23.81	9	33.33	14	29.17
Five hours or more	5	23.81	2	7.41	7	14.58
Totals	21	100.00	27	100.00	48	100.00

TABLE XIV

RANK OF INTERNATIONAL TOPICS PERCEIVED
MOST IMPORTANT BY ADMINISTRATORS
BASED ON MEAN SCORES

International topics	<u>Administrators</u>		<u>Rank</u>
	<u>X</u>	<u>SD</u>	<u>(N=125)</u>
Global food and fiber systems.	2.54	2.17	1
International agribusiness opportunities and involvement	5.26	2.71	6
Political aspects of food and fiber production	4.89	2.58	4
Social contributors/constraints to food and fiber production	4.91	2.28	5
Economic contributors/constraints to food and fiber production	4.49	2.08	3
Technology transfer techniques (education, extension, communication)	4.35	2.57	2
Appropriate technology	6.54	2.31	8
Environmentalism	6.34	2.53	7
Energy	8.07	2.07	10
Employment opportunities	7.58	2.67	9

(education, extension, and communication) ranked second ($\bar{X}=4.35$), third was economic contributors and/or constraints to food and fiber production ($\bar{X}=4.49$), the fourth ranked topic was the political aspects of food and fiber production ($\bar{X}=4.89$), and fifth was the social contributors and/or constraints to food and fiber production ($\bar{X}=4.91$). The sixth most important international topic was international agribusiness opportunities and involvement ($\bar{X}=5.26$), the seventh ranked topic was environmentalism ($\bar{X}=6.34$), eighth was the topic of appropriate technology ($\bar{X}=6.54$), ninth, employment opportunities ($\bar{X}=7.58$), and tenth and last was energy ($\bar{X}=8.07$).

Table XV reports the rank of International topics perceived most important by Institutional Administrators based on mean scores. The Institutional Administrators identified global food and fiber production as the most important international topic ($\bar{X}=2.50$) followed by: (2) technology transfer ($\bar{X}=4.07$); (3) economic contributors/constraints to food and fiber production ($\bar{X}=4.63$); (4) social contributors/constraints to food and fiber production ($\bar{X}=4.79$); (5) political aspects of food and fiber production ($\bar{X}=4.86$); (6) international agribusiness opportunities and involvement ($\bar{X}=5.67$); (7) environmentalism ($\bar{X}=6.32$); (8) appropriate technology ($\bar{X}=6.43$); (9) employment opportunities ($\bar{X}=7.76$); and (10) energy ($\bar{X}=7.93$).

Table XVI reports the rank of international topics perceived most important by State Administrators based on

TABLE XV
RANK OF INTERNATIONAL TOPICS PERCEIVED
MOST IMPORTANT BY INSTITUTIONAL
ADMINISTRATORS BASED
ON MEAN SCORES

International topics	Institutional Administrators		Rank (N=82)
	\bar{X}	SD	
Global food and fiber systems.	2.50	2.12	1
International agribusiness opportunities and involvement	5.67	2.72	6
Political aspects of food and fiber production	4.86	2.60	5
Social contributors/constraints to food and fiber production	4.79	2.33	4
Economic contributors/constraints to food and fiber production	4.63	2.04	3
Technology transfer techniques (education, extension, communication)	4.07	2.57	2
Appropriate technology	6.43	2.45	8
Environmentalism	6.32	2.69	7
Energy	7.93	2.31	10
Employment opportunities	7.76	2.71	9

TABLE XVI
RANK OF INTERNATIONAL TOPICS PERCEIVED
MOST IMPORTANT BY STATE
ADMINISTRATORS BASED
ON MEAN SCORES

International Topics	State Administrators		Rank (N=43)
	\bar{X}	SD	
Global food and fiber systems.	2.61	2.27	1
International agribusiness opportunities and involvement	4.45	2.62	3
Political aspects of food and fiber production	4.95	2.63	5
Social contributors/constraints to food and fiber production	5.16	2.24	6
Economic contributors/constraints to food and fiber production	4.21	2.24	2
Technology transfer techniques (education, extension, communication)	4.92	2.52	4
Appropriate technology	6.76	2.19	8
Environmentalism	6.40	2.38	7
Energy	8.34	1.90	10
Employment opportunities	7.21	2.80	9

mean scores. State Administrators selected global food and fiber production as the most important international topic ($\bar{X}=2.61$) followed by: (2) economic contributors/constraints to food and fiber production ($\bar{X}=4.21$); (3) international agribusiness opportunities and involvement ($\bar{X}=4.45$); (4) technology transfer ($\bar{X}=4.92$); (5) political aspects of food and fiber production ($\bar{X}=4.95$); (6) social contributors/constraints to food and fiber production ($\bar{X}=5.16$); (7) environmentalism ($\bar{X}=6.40$); (8) appropriate technology ($\bar{X}=6.76$); (9) employment opportunities ($X=7.21$); and (10) energy ($\bar{X}=8.34$).

Appendix F provides a comprehensive listing of the international topics and/or areas of study perceived by Administrators to be as important (or more important) than those identified in Table XIV.

Table XVII reports the distribution of Administrators by whether or not they perceive undergraduate minors in international agricultural education would be advantageous. 38 (30.89 percent) of the Administrators responded "Yes", it would be advantageous for undergraduates to minor in international agricultural education, however, 55 (44.72 percent) responded "No", it would not be an advantage. The remaining 30 (24.39 percent) of the Administrators were "uncertain". With regard to Institutional Administrators, 27 (33.33 percent) responded "Yes", 35 (43.21 percent) "No", and 19 (23.46 percent) were "uncertain". Eleven (26.19

TABLE XVII

DISTRIBUTION OF ADMINISTRATORS BY WHETHER OR NOT THEY PERCEIVE
UNDERGRADUATE MINORS IN INTERNATIONAL AGRICULTURAL
EDUCATION WOULD BE AN ADVANTAGE

Advantage of minor in International Agricultural Education	Frequency Distribution					
	Institutional Administrators (n=82)		State Administrators (n=43)		Total (N=125)	
	n*	%	n*	%	N*	%
Yes	27	33.33	11	26.19	38	30.89
No	35	43.21	20	47.62	55	44.72
Uncertain	19	23.45	11	26.19	30	24.39
Totals	81	100.00	42	100.00	123	100.00

* n varies because some administrators chose not to respond to the question.

percent) State Administrators replied "Yes", 20 (47.62 percent) "No", and 11 (26.19 percent) were "uncertain".

A distribution of Administrators by whether or not they perceive graduate level minors or specializations in international agricultural education would be advantageous is reported in Table XVIII. 74 Administrators (60.17 percent) responded "Yes", it would be advantageous for graduate students to minor in or specialize in international agricultural education, 11 (8.94 percent) responded "No", it would not be an advantage, and 38 (30.89 percent) were "uncertain". Forty-eight (59.26 percent) Institutional Administrators responded "Yes", 9 (11.11 percent) "No", and 24 (29.63 percent) were "uncertain". With regard to State Administrators, 26 (61.91 percent) replied "Yes", 2 (4.76 percent) "No", and 14 (33.33 percent) were "uncertain".

Table XIX reports the mean response and interpretation of Administrators' perceptions regarding the current status of international agricultural education. The Administrators indicated they "agree" that: additional international agricultural curriculum and/or courses are needed ($\bar{X}=3.75$); and post-secondary agricultural education departments should offer some type of course that focuses on international agriculture ($\bar{X}=3.72$). "Disagreement" was indicated that there are sufficient resources (financial, curricula, etc.) to implement an international requirement at the secondary or post-secondary level ($\bar{X}=2.45$). The Administrators responded they were "uncertain" about the following: high

TABLE XVIII

DISTRIBUTION OF ADMINISTRATORS BY WHETHER OR NOT THEY PERCEIVE
GRADUATE LEVEL MINORS OR SPECIALIZATION IN INTERNATIONAL
AGRICULTURAL EDUCATION WOULD BE AN ADVANTAGE

Advantage of minor or specialization in International Agricultural Education	Frequency Distribution					
	Institutional Administrators (n=82)		State Administrators (n=43)		Total (N=125)	
	n*	%	n*	%	N*	%
Yes	48	59.26	26	61.91	74	60.17
No	9	11.11	2	4.76	11	8.94
Uncertain	24	29.63	14	33.33	38	30.89
Totals	81	100.00	42	100.00	123	100.00

* n varies because some administrators chose not to respond to the question.

TABLE XIX
MEAN RESPONSE AND INTERPRETATION OF
ADMINISTRATORS PERCEPTIONS REGARDING
THE CURRENT STATUS OF
INTERNATIONAL
AGRICULTURAL
EDUCATION

Perceptions of Current Status	<u>Administrators</u>		<u>Interpretation</u> (N=125)
	<u>X</u>	<u>SD</u>	
High School agricultural teachers perceive infusion of international components are valuable and contribute to their students education.	3.00	0.98	Uncertain
Collegiate agricultural education faculty consider international involvement and/or courses to be imperative.	3.22	0.98	Uncertain
Additional international agricultural curriculum and/or courses are needed.	3.75	0.91	Agree
Secondary agricultural education departments should offer some type of course that focuses on international agriculture.	3.31	1.14	Uncertain
Post-secondary agricultural education departments should offer some type of course that focuses on international agriculture.	3.72	1.01	Agree
There are sufficient resources (financial, curricula, etc.) to implement an international requirement at the secondary or post-secondary level.	2.45	1.13	Disagree
Secondary students should become proficient in a foreign language.	2.92	1.26	Uncertain
Post-secondary students should become proficient in a foreign language.	3.20	1.24	Uncertain

school agriculture teachers perceive infusion of international components are valuable and contribute to their students education ($\bar{X}=3.00$); collegiate agricultural education faculty consider international involvement and/or courses to be imperative ($\bar{X}=3.22$); that secondary agricultural education departments should offer some type of course that focuses on international agriculture ($\bar{X}=3.30$); secondary students should become proficient in a foreign language ($\bar{X}=2.92$); and post-secondary students should become proficient in a foreign language ($\bar{X}=3.20$).

The mean response and interpretation of Institutional Administrators' perceptions regarding the current status of international agricultural education are reported in Table XX. Institutional Administrators "agree" that: additional international agricultural curriculum and/or courses are needed ($\bar{X}=3.66$); and that post-secondary agricultural education departments should offer some type of course that focuses on international agriculture ($\bar{X}=3.55$).

"Disagreement" was indicated that there are sufficient resources (financial, curricula, etc.) to implement an international requirement at the secondary or post-secondary level ($\bar{X}=2.39$). The Administrators responded they were "uncertain" about the following: high school agriculture teachers perceive infusion of international components are valuable and contribute to their students education ($\bar{X}=2.89$); collegiate agricultural education faculty consider international involvement and/or courses to be imperative

TABLE XX
 MEAN RESPONSE AND INTERPRETATION OF
 INSTITUTIONAL ADMINISTRATORS
 PERCEPTIONS REGARDING THE
 CURRENT STATUS OF
 INTERNATIONAL
 AGRICULTURAL
 EDUCATION

Perceptions of Current Status	Institutional Administrators		<u>Interpretation</u> (N=82)
	<u>X</u>	SD	
High School agricultural teachers perceive infusion of international components are valuable and contribute to their students education.	2.89	0.97	Uncertain
Collegiate agricultural education faculty consider international involvement and/or courses to be imperative.	3.16	0.99	Uncertain
Additional international agricultural curriculum and/or courses are needed.	3.70	0.88	Agree
Secondary agricultural education departments should offer some type of course that focuses on international agriculture.	3.23	1.15	Uncertain
Post-secondary agricultural education departments should offer some type of course that focuses on international agriculture.	3.55	1.06	Agree
There are sufficient resources (financial, curricula, etc.) to implement an international requirement at the secondary or post-secondary level.	2.39	1.15	Disagree
Secondary students should become proficient in a foreign language.	2.99	1.31	Uncertain
Post-secondary students should become proficient in a foreign language.	3.13	1.29	Uncertain

(\bar{X} =3.16); that secondary agricultural education departments should offer some type of course that focuses on international agriculture (\bar{X} =2.32); secondary students should become proficient in a foreign language (\bar{X} =2.99); and post-secondary students should become proficient in a foreign language (\bar{X} =3.13).

Table XXI reports the mean response and interpretation of State Administrators' perceptions regarding the current status of international agricultural education. State Administrators "agree" with respect that: additional international agricultural curriculum and/or courses of study are needed (\bar{X} =3.93) and that post-secondary agricultural education departments should offer some type of course that focuses on international agriculture (\bar{X} =4.05). State Administrators responded they were "uncertain" about: high school agriculture teachers perceive the infusion of international components are valuable and contribute to their student's education (\bar{X} =3.21); collegiate agricultural education faculty consider international involvement and/or courses to be imperative (\bar{X} =3.33); that secondary agricultural education departments should offer some type of course that focuses on international agriculture (\bar{X} =3.47); there are sufficient resources (financial, curricula, etc.) to implement and international requirement at the secondary or post-secondary level (\bar{X} =2.56); secondary students should become proficient in a foreign language (\bar{X} =2.79); and post-

TABLE XXI
MEAN RESPONSE AND INTERPRETATION OF STATE
ADMINISTRATORS PERCEPTIONS REGARDING
THE CURRENT STATUS OF
INTERNATIONAL
AGRICULTURAL
EDUCATION

Perceptions of Current Status	State Administrators		<u>Interpretation</u> (N=43)
	<u>X</u>	SD	
High School agricultural teachers perceive infusion of international components are valuable and contribute to their students education.	3.21	0.95	Uncertain
Collegiate agricultural education faculty consider international involvement and/or courses to be imperative.	3.33	0.93	Uncertain
Additional international agricultural curriculum and/or courses are needed.	3.93	0.93	Agree
Secondary agricultural education departments should offer some type of course that focuses on international agriculture.	3.47	1.09	Uncertain
Post-secondary agricultural education departments should offer some type of course that focuses on international agriculture.	4.05	0.78	Agree
There are sufficient resources (financial, curricula, etc.) to implement an international requirement at the secondary or post-secondary level.	2.56	1.09	Uncertain
Secondary students should become proficient in a foreign language.	2.79	1.15	Uncertain
Post-secondary students should become proficient in a foreign language.	3.33	1.14	Uncertain

secondary students should become proficient in a foreign language ($\bar{X}=3.33$).

Administrators were requested to respond to an open-ended question that was designed to elicit, "what can be done to further improve the quality of international education provided to: high School Students; undergraduate Students; and graduate students. Their responses are presented as follows:

High School Students. Institutional Administrators responded that, in order to improve the international education provided to high school students, Agricultural Educators must: (responses are reported in the order of most frequent response to least frequent) infuse international concepts into the existing curriculum; provide for teacher in-service and experience in international education; develop international curriculum; assist teachers and students in developing a positive attitude toward international education; provide for and promote teacher and student cultural exchange programs; develop an awareness of global agricultural markets; provide teacher recognition programs; identify student needs in international agriculture; utilize guest speakers with international experience; and team teach with social studies teachers. State Administrators responded that high school international education could be improved by: infusing (integrating) international issues into the existing

curriculum; developing international curriculum; providing in-service training and experience for teachers; promoting a positive attitude toward international agricultural education; making international education a priority; developing cultural awareness; using the FFA as an instrument in program development; keeping current on international issues; providing teacher education program in international education; and team teaching with global education teachers.

Undergraduate Students. Institutional Administrators indicated that international education at the undergraduate level could be improved through: the infusion of international topics throughout the agricultural education curriculum; student exchange; creating a positive attitude (student and faculty) toward international education; providing and encouraging faculty to gain international experience; providing international courses; providing students with hands-on experience; providing elective courses in international education; curriculum development; promoting international education through association with international students; education about the global aspects of the agricultural economy; faculty in-service; providing international agriculture minors; requiring courses in sociology, anthropology, and gender issues; and participation in multi-cultural events and programs. State Administrators responded that improvements in international

education at the undergraduate level could be made through: provide courses in international education; providing and promoting undergraduate travel experiences; stressing the impact of the international economy on American agriculture; infusing international issues throughout the curriculum; international curriculum development; promoting cultural awareness; providing optional (elective) international courses; developing an understanding and appreciation for international education; providing and promoting international experience for faculty; international internships; providing involvement with international students; and teacher recognition programs in international education.

Graduate Students. With respect the improvement of international education at the graduate level of agricultural education, Institutional Administrators indicated that: international travel, exchange, or internships programs would help to improve international education; also; required courses in international education; providing minors and specializations in international agricultural education; infusing international topics throughout the curriculum; faculty and student research in international areas and topics; optional international courses; development of international curriculum; foreign language requirement; faculty in-service; providing short term experience; provide and

participate in international seminars; utilize international student body; provide faculty experience; provide independent study options; use the national council materials; develop specialized program centers throughout the U.S.; and participate in AIAEE and other international organizations. State Administrators responded that improvements in graduate level international education could be made through: providing and promoting internships and international experience; infusing international topics throughout the curriculum; foreign language requirements; providing courses in international education; educating students about international opportunities; providing minors or specialization in international agriculture; promoting international awareness; promoting and providing international experience; post-doctorate work; and providing optional courses in international education.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Since the mid 1970's Agricultural Educators have been proclaiming the need to incorporate an international dimension into post-secondary agricultural education. Since that time many agricultural education programs have strived to provide that international dimension. Agricultural Educators do not agree, however, on how or if international topics should be incorporated into the curriculum.

It was the intent of the author to determine the demographics and perceptions of Administrators of Agricultural Education regarding selected aspects of international agricultural education. The purpose of this chapter was to present the purpose and objectives of the study, summarize the rationale, design, methodology, and major findings of the study, and to present the conclusions and recommendations.

Rationale for the Study

Administrators of Agricultural Education, both institutional and state, are those persons primarily responsible for the development, operation, and enhancement of present and future programs in agricultural education. It is conceivable then, considering the impact Administrators have upon programs, a better understanding of the Administrators' background in, and perceptions of, international education could help other agricultural educators to better understand their superiors perspectives regarding international studies.

It was determined that, based upon the input of the Administrators, recommendations could be made and shared with present and future agricultural educators.

Statement of the Problem

Relatively little specific information is available about Agricultural Education Administrators' background in, and perceptions of, international education. It became apparent that, in order for agricultural education to implement international components or to further improve and expand existing international components, it was vital that research be conducted to identify and describe those backgrounds and perceptions. Therefore, this study was deemed necessary to determine specific information regarding the perceptions of Agricultural Education Administrators

toward the enhancement of international studies and to determine the perceived opportunities for Agricultural Education students and faculty.

Purpose of the Study

The purpose of this study was to determine the perceptions of selected Agricultural Education Administrators regarding the enhancement of international studies and to determine the opportunities for Agricultural Education students and faculty.

Objectives of the Study

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

1. To determine specific Agricultural Education Administrators' demographic information regarding:
 - a. Level of professional international experience;
 - b. Interest in obtaining international experience;
 - c. Types of professional international experience;
 - d. Countries or regions where Administrators' international experience was obtained;
 - e. Types of international experience desired;
 - f. Countries or regions preferred to obtain international experience;
 - g. Ability to speak a foreign language; and
 - h. Foreign language proficiency level;

2. To determine if, and from whom, requests for assistance regarding international activity had been received.

3. To determine if Administrators had participated in the development of instructional materials and/or courses of instruction in order to internationalize the secondary and/or post-secondary agricultural education curriculum.

4. To determine Administrators' perceptions regarding the importance of infusing international topics into the existing instructional materials and/or courses at the secondary and/or post-secondary level of agricultural education.

5. To determine Administrators' perceptions of whether or not undergraduate agricultural education majors should be required to have completed a college level international course specifically for agricultural education majors.

6. To determine the international course type and minimum required semester hours of international study most preferred by Administrators supporting required international agricultural education courses.

7. To determine the international topics perceived most important by Administrators.

8. To determine if Administrators perceive it would be an advantage for undergraduate and graduate agricultural education students to minor or specialize in international agricultural education.

9. To determine Administrators' perceptions regarding selected aspects of the current status of international agricultural education.

10. To determine Administrators' perceptions of what can be done to further improve the quality of international education provided to high school, undergraduate, and graduate agricultural education students.

Design of the Study

A researcher designed questionnaire was selected and developed with the fundamental goals of securing specific, high quality, demographic and perceptual information from Agricultural Education Administrators regarding international agricultural education (See Appendix A). Numerous individuals were consulted concerning the format and content of the instrument. Oklahoma State University faculty and graduate students from the Division of Agricultural Sciences and Natural Resources, the College of Education, and University Assessment assisted in the design of the study.

In order to achieve validity, the question content and format were examined by a graduate panel and members of the faculty. Reliability of the instrument was achieved by conducting pilot tests. After validity and reliability were ascertained, the instrument was organized into booklet form.

As for the conduct of the study, the questionnaires were first mailed on March 16, 1993 to the Administrators,

completed, and returned to the researcher. A follow-up mailing to non-respondents was made on April 11, 1993. The booklets contained 18 questions designed to elicit both qualitative and quantitative data. A large proportion of the questions elicited demographic information regarding the international experience of the Administrators and/or their desire to obtain international experience. The remainder of the questions were designed to determine Administrators' perceptions regarding selected aspects of international agricultural education.

The computer statistical program System for Statistics (SYSTAT) and the Lotus 123 spreadsheet program were utilized to manipulate the quantitative data. The following types of analyses were conducted: frequencies, percentages, means, and standard deviations. It was deemed necessary, due to the nature of the study, to differentiate, analyze, and report the data according to: the total population of Agricultural Education Administrators; Institutional Administrators; and State Administrators. The qualitative data were grouped by the researcher and analyzed and reported according to frequency of similar response.

Major Findings of the Study

Table XXII reports the Agricultural Education Administrators' responses regarding selected aspects of international experience. The findings indicate that the majority of Agricultural Education

TABLE XXII

SUMMARY TABLE OF AGRICULTURAL EDUCATION
ADMINISTRATORS RESPONSES REGARDING
SELECTED ASPECTS OF INTERNATIONAL
EXPERIENCE

Selected Aspects of International Experience	Frequency Distribution	
	N	%
International Experience?		
No Professional International Experience	74	59.20
Short Term (less than six months)	35	28.00
Intermediate Term (one to three years)	8	6.40
Long Term (more than three years)	8	6.40
Total	125	100.00
Interest In Obtaining International Experience?:		
Interested	36	48.65
Not Interested	16	21.62
Uncertain	22	29.73
Total	74	100.00
Types of International Experience?		
Consulting	31	26.05
Research and Development	11	9.24
Teaching	27	22.68
Administration	17	14.29
Extension	15	12.61
Other	18	15.13
Total	119	100.00
Type of International Experience Desired?		
Consulting	62	41.61
Research and Development	8	5.37
Teaching	42	28.19
Administration	18	12.08
Extension	12	8.05
Other	7	4.70
Total	149	100.00

Administrators (74 or 59.20 percent) had "no professional international experience". The remainder of Administrators reported having professional international experience, of which, 35 (38.00 percent) indicated "short term" experience (less than six months), 8 (6.40 percent) had obtained "intermediate term" (one to three years) international experience, and 8 (6.40 percent) had acquired "long term" experience (more than five years).

Thirty-six (48.65 percent) Administrators that reported no international experience were "interested in obtaining experience". Sixteen (21.62 percent) were "not interested in obtaining experience" and the remaining 22 (29.73 percent) were "uncertain".

Of the Agricultural Education Administrators that reported being internationally experienced 31 (26.05 percent) gained all or part of their international experience through "consulting", 27 (22.68 percent) in "teaching", 15 (12.61 percent) from "extension", and 17 (14.29 percent) had international experience in "administration". The remainder of the Administrators reported international experience in "research and development" (11 or 9.24 percent) and "other" types of international experience (i.e. - program evaluation and design, FFA Organization projects, the National Council for Agricultural Education projects, project management, and curriculum development).

The sizable proportion (62 or 41.61 percent) of the agricultural education Administrators who desired to obtain international experience wished to obtain that experience through "consulting". Forty-two (28.19 percent) desired to obtain their experience in "teaching", 18 (12.08 percent) in "administration", 12 (8.05 percent) in "extension", and 8 (5.37 percent) in "research and development". The remaining 7 (4.70 percent) indicated they desired experience in "other" areas but failed to identify the types of experience they desired to obtain.

Table XXIII reports the summary of Administrators' responses regarding foreign language proficiency, requests for assistance, and participation in international curriculum and/or course development. The majority (108 or 86.40 percent) of Agricultural Education Administrators responded "No", they did not speak a foreign language. The remaining 17 (13.60 percent) responded "Yes", they spoke a foreign language. Of those Administrators 11 (50.00 percent) spoke Spanish, 3 (13.64 percent) French, 2 (9.09 percent) Portuguese, 2 (9.09 percent) German, 1 each (4.55 percent) spoke Indonesian, Persian, Swahili, or Arabic.

Administrators that reported speaking a foreign language, identified their foreign language proficiency level as a capability to: "understand the language" (4 or 23.53 percent); "read the language" (2 or 11.77 percent); "write the language" (1 or 5.88 percent); "speak the

TABLE XXIII

SUMMARY TABLE OF AGRICULTURAL EDUCATION ADMINISTRATORS'
FOREIGN LANGUAGE PROFICIENCY, REQUESTS FOR ASSISTANCE,
AND PARTICIPATION IN INTERNATIONAL
CURRICULUM AND/OR COURSE
DEVELOPMENT

Foreign Language Proficiency, Assistance, and curriculum Development	<u>Frequency Distribution</u>	
	N	%
Speak a Foreign Language?		
Yes	17	13.60
No	108	86.40
Total	<u>125</u>	<u>100.00</u>
Level of Foreign Language Proficiency?		
Understand the Language	4	23.53
Can Read the Language	2	11.77
Can Write the Language	1	5.88
Can Speak the Language	4	23.53
Can Read, Write, and Speak the Language	6	35.29
Total	<u>17</u>	<u>100.00</u>
Types of Agencies Requesting Assistance in International Activity?		
United States Government:		
Agency for International Development	27	14.52
Peace Corp	11	5.91
Fulbright Program	1	0.54
Other	7	3.76
Private Firms and Foundations	19	10.22
U.S. Universities	27	14.52
Universities outside the U.S.	15	8.06
Foreign Governments	6	3.23
International Organizations	12	6.45
Religious Organizations	2	1.07
Other	6	3.23
No Assistance has been Requested	53	28.49
Total	<u>186</u>	<u>100.00</u>
Participant in International Curriculum Development?		
Yes	52	41.60
No	73	58.40
Total	<u>125</u>	<u>100.00</u>

language" (4 or 23.53 percent); and to "read, write, and speak the language" (6 or 35.29 percent).

Fifty-three (28.49 percent) Agricultural Education Administrators reported they had "not" received requests for assistance in international activity, 27 (14.52 percent) had been requested for assistance from U.S. universities, 19 (10.22 percent) from private firms and foundations, 15 (8.06 percent) from foreign universities, 6 (3.23 percent) from foreign governments, 12 (6.45 percent) from international organizations, and 2 (1.07 percent) from religious organizations. Administrators reported requests for international assistance from the United States government, of which, 27 (14.52 percent) were from the Agency for International Development, 11 (5.91 percent) from the Peace Corp, 1 (0.54 percent) from the Fulbright program, and 7 (3.76 percent) from "Other" governmental entities (i.e. - Department of the Interior and other unidentified sources. 6 (3.23 percent) of the Administrators responded they had received requests for assistance from "other" sources (i.e. - UNDP, private citizens, National FFA Organization, and agricultural cooperatives).

The majority of Administrators (73 or 58.40 percent) responded "No", they had not participated in the development of international instructional materials or courses of study. The remaining 52 (41.60 percent) responded "Yes", to being involved in that activity.

Table XXIV reports the Agricultural Education Administrators' perceptions regarding selected aspects of international agricultural education. Fifty-five (44.00 percent) of the Administrators' perceived the infusion of international topics into secondary or post-secondary agricultural education instructional materials to be "Very Important". 47 (37.60 percent) perceived the infusion to be "Important", 22 (17.60 percent) "Somewhat Important", and only 1 administrator felt that the infusion of international topics was "Not Important".

Forty-eight (38.40 percent) of the Agricultural Education Administrators responded "Yes", they felt international courses should be required for agricultural education majors. However, 52 (41.60 percent) responded "No", international courses should not be required and 25 (20.00 percent) were "uncertain" about the requirement.

Of those Administrators supporting an international course requirement, 16 (34.14 percent) perceived a "theory course (lecture type)" would be most appropriate, 15 (31.92 percent) indicated a "sponsored travel/study course" would be most appropriate, 5 (10.64 percent) an "internship" program, 3 (6.38 percent) an "independent or correspondence course", and 3 (6.38 percent) an "exchange program". The remaining 5 (10.64 percent) Administrators identified "other" type courses (i.e. - combination lecture/lab and activity based courses).

TABLE XXIV

SUMMARY TABLE OF ADMINISTRATORS' PERCEPTIONS
REGARDING SELECTED ASPECTS OF INTERNATIONAL
AGRICULTURAL EDUCATION

Perceptions of Selected Aspects of International Agricultural Education	<u>Frequency Distribution</u>	
	N	%
Perceived Importance of Infusing International Topics?		
Very Important	55	44.00
Important	47	37.60
Somewhat Important	22	17.60
Not Important	1	0.80
Total	125	100.00
Should International Courses Should be Required for Ag. Ed. Majors?		
Yes	48	38.40
No	52	41.60
Uncertain	25	20.00
Total	125	100.00
Preferred International Course Type?		
Theory Course (lecture type)	16	34.04
Sponsored Travel/Study Course	15	31.92
Independent or Correspondence Course	3	6.38
Internship	5	10.64
Exchange Program with other Countries	3	6.38
Other	5	10.64
Total	47	100.00
Perceived Minimum Semester Hours of Required International Study?		
One to Three Hours	27	56.25
Three to Four Hours	14	29.17
Five or More Hours	7	14.58
Total	48	100.00
Advantage of Undergraduate Minor in International Agricultural Education?		
Yes	38	30.89
No	55	44.72
Uncertain	30	24.39
Total	123	100.00

TABLE XXIV (Continued)

Perceptions of Selected Aspects of International Agricultural Education	<u>Frequency Distribution</u>	
	N	%
Advantage of Graduate Minor or Specialization in International Agricultural Education?		
Yes	74	60.17
No	11	8.94
Uncertain	38	30.89
Total	<u>123</u>	<u>100.00</u>

* N=125, N varies because not all questions pertained to all 125 respondents.

Twenty-seven (56.25 percent) of the Agricultural Education Administrators that supported an international course requirement perceived that a minimum of from "one to three" semester hours of international study to be most appropriate. 14 (29.17 percent) felt that "three to four hours" credit is most appropriate, and 7 (14.58 percent) believed that "five hours or more" of international credit was needed.

With regard to international agricultural education minors at the undergraduate level, 55 (44.72 percent) of the Administrators responded "No", indicating they did not consider them to be advantageous. Thirty-eight (30.89 percent) responded "Yes", and perceived them to be an advantage, and 24.39 percent (30) Administrators were "uncertain" about their advantage.

However, the majority (74 or 60.17 percent) of Agricultural Education Administrators responded "Yes", indicating they perceived international minors and specialization at the graduate level to be advantageous. Only 11 (8.94) Administrators responded "no", they did not perceive them to be an advantage, and 38 (30.89 percent) of the Administrators were "uncertain".

The summary of ranked international topics perceived most important by Administrators is presented in ascending order by their mean in Table XXV. The international topic ranked most important by Administrators ($\bar{X}=2.54$) was "Global food and fiber production", the second ranked topic was

TABLE XXV
 SUMMARY TABLE OF RANKED INTERNATIONAL
 TOPICS PERCEIVED MOST IMPORTANT BY
 ADMINISTRATORS BASED ON
 MEAN SCORES

Topics Presented in Ascending Order by X	Rank	Mean X
Global Food and Fiber Systems	1	2.54
Technology Transfer Techniques (Education, Extension, Communications)	2	4.35
Economic Contributors/Constraints to Food and Fiber Production	3	4.49
Political Aspects of Food and Fiber production	4	4.89
Social Contributors/Constraints to Food and Fiber Production	5	4.91
International Agribusiness Opportunities and involvement	6	5.26
Environmentalism	7	6.34
Appropriate Technology	8	6.54
Employment Opportunities	9	7.58
Energy	10	8.07

"Technology transfer techniques" ($\bar{X}=4.35$), third was "Economic contributors/constraints to food and fiber production" ($\bar{X}=4.49$), fourth, "Political aspects of food and fiber production" ($\bar{X}=4.89$), fifth, "Social contributors/constraints to food and fiber production" ($\bar{X}=4.91$), and sixth, "International agribusiness opportunities and involvement" ($\bar{X}=5.26$). The seventh most important topic was "Environmentalism" ($\bar{X}=6.34$), eighth was "Appropriate technology" ($\bar{X}=6.54$), ninth, "Employment opportunities" ($\bar{X}=7.58$), and tenth and last was "Energy" ($\bar{X}=8.07$).

Table XXVI reports, in descending order by mean, the summary of Administrators' perceptions regarding the current status of international agricultural education. Administrators "Agree" ($\bar{X}=3.75$) that additional international curriculum and/or courses are needed". Administrators also "Agree" ($\bar{X}=3.72$) that "post-secondary agricultural education departments should offer some type of course that focuses on international agriculture". Administrators were "Uncertain" regarding: "secondary agricultural education departments should offer some type of course that focuses on international agriculture" ($\bar{X}=3.31$); "collegiate agricultural education faculty consider international involvement and/or courses to be imperative" ($\bar{X}=3.22$); "post-secondary students should become proficient in a foreign language" ($\bar{X}=3.20$); "high school agricultural teachers perceive that the infusion of international

TABLE XXVI
SUMMARY TABLE OF ADMINISTRATOR'S PERCEPTIONS
REGARDING THE CURRENT STATUS OF
INTERNATIONAL AGRICULTURAL
EDUCATION

Topics Presented in Descending Order by X	Interpretation	Mean (\bar{X})
Additional International Agricultural Curriculum and/or Courses are Needed	Agree	3.75
Post-secondary Agricultural Education Departments Should Offer Some Type of Course that Focuses on International Agriculture	Agree	3.72
Secondary Agricultural Education Departments Should Offer Some Type of Course that Focuses on International Agriculture	Uncertain	3.31
Collegiate Agricultural Education Faculty Consider International Involvement and/or Courses to be Imperative	Uncertain	3.22
Post-secondary Students Should Become Proficient in a Foreign Language	Uncertain	3.20
High School Agricultural Teachers Perceive that the Infusion of International Components are Valuable and Contribute to their Students Education	Uncertain	3.00
Secondary Students Should Become Proficient in a Foreign Language	Uncertain	2.92
There are Sufficient Resources (financial, curricula, etc.) to Implement an International Requirement at the Secondary or Post-secondary Level	Disagree	2.45

components are valuable and contribute to their students education" (\bar{X} =3.00); and "secondary students should become proficient in a foreign language" (\bar{X} =2.92). Administrators "Disagree" (\bar{X} =2.45) that "there are sufficient resources (financial, curricula, etc.) to implement an international requirement at the secondary or post-secondary level".

Qualitative Summary of the Findings

Administrators reporting having professional international experience were requested to identify the countries or regions in which their experience was obtained. The countries or regions are listed in descending order along with their frequency of occurrence for the countries/regions identified six or more times by Administrators. Administrators reported international experience in: Japan (10); Mexico (10); China (9); France (7); Germany (7); and Nigeria (6). A complete list of the countries/regions may be found in Appendix B.

The Agricultural Education Administrators reporting a interest in obtaining international experience were requested to identify the country or region where they would most prefer to obtain experience. Those countries are listed in descending order of frequency for those countries identified five or more times. Administrators indicated a desire to obtain international experience in: Mexico (20); Germany (18); Africa (17); Australia (17); Russia (14); Europe (11); South America (12); Japan (9); Asia (7);

Central America (7); Canada (5); Pacific Islands (6); no particular preference (6); Latin America (5); and New Zealand (5). A complete listing of the countries/regions may be found in Appendix C.

In addition to ranking ten international topics in the order of their perceived importance, Administrators were requested to identify other international topics they perceived to be as important (or more important) than those they ranked in the previous question. The Administrators responded that: cultural differences; community development; sustainable agriculture and farming systems; indigenous knowledge systems; and food dissemination and preservation in third world countries were some of the international topics as or more important to them. A complete list of the topics identified may be found in Appendix F.

Administrators were requested to respond to an open-ended question that was designed to elicit, "what can be done to further improve the quality of international education provided to: high school students; undergraduate students; and graduate students. Their responses are presented as follows:

High School Students. Administrators responded that, in order to improve the international education provided to high school students, Agricultural Educators must: (the top five responses are reported in order of frequency of response) infuse international concepts into the existing

curriculum (19); provide for teacher in-service and experience in international education (15); develop international curriculum (13); assist teachers and students in developing a positive attitude toward international education (8); and provide for and promote teacher and student cultural exchange programs (5).

Undergraduate Students. Administrators indicated that international education at the undergraduate level could be improved through: the infusion of international topics throughout the agricultural education curriculum (15); providing international courses (12); student exchange/travel (8); creating a positive attitude (student and faculty) toward international education (6); and providing and encouraging faculty to gain international experience (5).

Graduate Students. With respect to the improvement of international education at the graduate level of agricultural education, Administrators indicated that: international travel, exchange, or internships programs would help to improve international education (25); also; required courses in international agricultural education (14); providing minors and specializations in international agricultural education (10); infusing international topics throughout the curriculum (10); and faculty and student research in international areas and topics (5).

Conclusions

Based on the objectives, the questions presented, and the major findings of the study, the following conclusions were drawn.

1. An overwhelming majority of Administrators do not have professional international experience and it is further concluded that those with international experience have limited experience.

2. A notable proportion of Administrators are interested in obtaining international experience. It is further concluded that perhaps those others that are uncertain might, at a later date, choose to pursue international experience.

3. Although a sizable proportion of Administrators with international experience gained their experience through consulting and teaching, it is concluded that those Administrators with international experience have diverse international experiences, both geographically and professionally.

4. Although a notable proportion of Administrators would prefer to consult, it is concluded that Administrators have a diverse professional interest in a variety of international activities.

5. Administrators who desire to obtain experience or to continue to be professionally involved internationally, desire to obtain their experience in a wide range of

geographical locations. It is further concluded that a notable proportion of those Administrators desire to obtain their international experience in Africa, Australia, Germany, Mexico, or South America.

6. Based on the overwhelming majority of Agricultural Education Administrators that do not speak a foreign language, it is concluded that the ability to speak a foreign language is not a priority issue to Administrators..

7. Based on a the relatively small proportion of Administrators which indicated foreign language proficiency, it is concluded that, for the most part, Administrators of Agricultural Education have no foreign language proficiency.

8. Although requests to Administrators for assistance regarding international activity came from a diverse group, a remarkable proportion were from agencies of the U.S. government. It is concluded that, for the most part, requests for international assistance came from the U.S. government (primarily USAID) or no assistance was requested.

9. It is concluded that, considering the limited international experience of Administrators, a relatively high level of Administrator involvement in international curriculum and/or course development has occurred .

10. Based on the findings, an overwhelming majority of Administrators perceive the infusion of international topics into the agricultural education curriculum to be very important or important. Therefore, it can be concluded that the Administrators are proponents of the infusion of

international topics into the agricultural education curriculum.

11. Based on the findings, it is concluded that Administrators of Agricultural Education are not in agreement with regard to an international course requirement for Agricultural Education majors.

12. Although Administrators preferred a variety of international course types, a notable proportion preferred a theory (lecture type) international course.

13. Based on the findings, the majority of Administrators supporting required international courses perceive that a minimum of from one to three semester hours of international study should be required.

14. It can be concluded that Administrators are not in agreement regarding the advantage of undergraduate minors in international agricultural education.

15. The majority of Administrators perceive graduate minors or specialization in international agricultural education to be advantageous.

16. Based on the findings, it is concluded that Administrators perceive the top five international topics (global food and fiber systems, technology transfer techniques, economic contributors/constraints to food and fiber production, political aspects of food and fiber production, and social contributors/constraints to food and fiber production) of greater importance and the lower ranked topics important, but their perceived need as relevant.

17. It is concluded that Agricultural Education Administrators perceive additional international agricultural curriculum and/or courses are needed.

18. Based on the findings, it can be concluded that Administrators are uncertain if secondary agricultural education programs should offer some type of international course.

19. Administrators are uncertain whether collegiate agricultural education faculties consider international involvement and/or courses to be imperative.

20. Based on the findings, it can be concluded that Administrators are uncertain that secondary and post-secondary agricultural education students should become proficient in a foreign language.

21. It can be concluded that Administrators are uncertain that high school agricultural education teachers perceive the infusion of international components as valuable and contribute to their students education.

22. Administrators feel that there are not sufficient resources to implement an international requirement at the secondary or post-secondary level.

Recommendations

Based on the conclusions, the following recommendations are presented.

1. It is recommended that, since the majority of Administrators do not have international experience, it

would benefit both the profession and the Administrators to gain international experience.

2. Those Administrators without international experience but who are interested in obtaining international experience, should actively pursue their choice of opportunities available in international activity.

3. It is recommended that Administrators with prior international experience should continue to be involved in international activities in order to further diversify their international expertise.

4. Administrators should pursue the international opportunities available in the geographic locations of their choice.

5. Administrators interested in obtaining international experience, or continuing to be involved internationally should re-assess the benefits and need for foreign language fluency in the international arena.

6. Administrators who speak a foreign language might wish to re-assess the need for improving their foreign language proficiency level.

7. It is recommended that Administrators continue to assist the U.S. government and other public and private organizations and agencies in developing, conducting, and assessing international activities.

8. Administrators should continue to be involved in the development of international teaching materials and/or courses of instruction. It is further recommended that

Administrators obtain or enhance their international experience in order to develop quality international curriculum and/or courses.

9. Administrators should use their influence and experience to promote the infusion of international topics throughout the secondary and post-secondary agricultural education curriculum.

10. The infusion of international topics throughout the agricultural education curriculum should be a priority issue for Administrators.

11. Administrators should assess the strengths, weaknesses, need, and limitations of courses in international agricultural education, set aside personal bias, and form a conclusion as to whether or not they can or will support international Agricultural Education courses.

12. It is recommended that required international courses should be designed and developed utilizing the course type that best suits the needs of students and the department.

13. Administrators who support and international course requirement should design and develop international courses that require a minimum of from one to three semester hours to complete.

14. Considering the importance being placed on international agriculture, Administrators should re-analyze the concept of international undergraduate minors and determine their strengths and weaknesses.

15. International Graduate minors and areas of specialization should be provided for those students who desire to concentrate in international Agricultural Education.

16. The five international topics ranked most important (global food and fiber systems, technology transfer techniques, economic contributors/constraints to food and fiber production, political aspects of food and fiber production, and social contributors/constraints to food and fiber production) by Administrators should be included in all agricultural education coursework that is deemed appropriate for the inclusion of those topics.

17. Additional quality international agriculture curriculum and/or courses should to be developed and disseminated throughout the discipline.

18. Agricultural Education Administrators should re-analyze and determine the strengths and weaknesses of international agriculture courses at the secondary level in order to make a sound decision regarding whether or not international courses are warranted.

19. Administrators need to become better informed about the perceptions and beliefs of collegiate agricultural education faculties regarding whether or not international agricultural education involvement and/or courses are deemed imperative to the discipline.

20. Administrators need to become more informed regarding whether or not there is a need for secondary and

post-secondary students to become fluent in a foreign language.

21. Administrators need to become more informed regarding secondary agriculture teacher's perceptions of international education and its potential value to their student's education.

22. Administrators that wish to incorporate an international component into their respective programs or enhance an existing component must work toward securing the necessary resources to develop and support those components. It is further recommended that those administrators actively pursue funding and other needed resources from public and private international organizations and agencies.

Recommendations for Additional Research

1. A replication of this study should be attempted within the next few years to determine if the demographics and perceptions of the Administrators has changed relative to further exposure to international issues and pressures.

2. Research should be conducted to compare the demographics and perceptions of the Institutional and State Administrators of Agricultural Education regarding international studies and to determine if significant differences are present and if so why.

3. Additional research should be conducted to compare demographics and perceptions of Agricultural Education Administrators of the land grant institutions and other

institutions of higher education as they apply to international studies.

4. Research should be conducted to determine the most effective means to disseminate international agricultural education and to determine the success of the dissemination.

5. Research should be conducted to determine secondary, undergraduate, and graduate students' perceptions regarding the value of international agricultural education.

6. Additional research should be conducted to determine potential employer's perceptions regarding the need for employees with international expertise.

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APPENDIXES

APPENDIX A

QUESTIONNAIRE



Oklahoma State University

DEPARTMENT OF AGRICULTURAL EDUCATION
DIVISION OF AGRICULTURE

STILLWATER, OKLAHOMA 74078-0484
448 AGRICULTURAL HALL
405-744-5129
FAX: 405-744-9693

February 11, 1993


Dear Agricultural Education Administrator:

Please find enclosed a questionnaire which is being sent to you in order that research may be completed that will enable us to determine and analyze State and Institutional Agricultural Education Administrator's perceptions of International Agricultural Education and related factors here in the United States.

The findings of the research serves three major purposes. First, it will enable Mr. Stapper to complete partial requirements of the Doctoral Degree in Agricultural Education. Secondly, the findings of this research should prove valuable in determining opportunities available for Agricultural Education students to gain international expertise. Thirdly, the findings of the research should enable us to make recommendations, based upon your input, regarding the enhancement of the international studies and/or opportunities presently available.

Please help us by taking a few minutes to complete and return the questionnaire, in the enclosed return envelope, by April 1, 1993. Should you have any questions or concerns pertaining to this research, please feel free to contact us. Furthermore, we would like to extend to you our deepest appreciation for taking the time from your busy schedule to respond to questions asked. Because you were especially selected to be included in this research effort, your input is essential to the success of this study. Thanking you in advance for your attention to this request, we remain,

Sincerely,


Michael Stapper
Graduate Teaching Associate


Eddy Finley
Professor



Oklahoma State University

DEPARTMENT OF AGRICULTURAL EDUCATION
DIVISION OF AGRICULTURE

STILLWATER, OKLAHOMA 74078-0484
448 AGRICULTURAL HALL
405-744-5129
FAX: 405-744-9693

April 12, 1993

Dear Agricultural Education Administrator:

Recently you were sent a questionnaire regarding State and Institutional Agricultural Education Administrator's perceptions of International Agricultural Education and related factors here in the United States. It was, and is, our desire that the study reflect the views of all Agricultural Education Administrators. For one reason or another, we have not received your response. We realize that this is a very busy time of year and that many other pressing items are on your agenda; however, we sincerely wish to include your views in this study because we value your opinions.

Please find enclosed another questionnaire. If at all possible, please take a few minutes to complete and return the questionnaire, in the enclosed return envelope, by April 26, 1993. Should you have any questions regarding this research please feel free to contact us. Thank you for your attention to this request.

Sincerely,

Mich Stapper
Michael Stapper
Graduate Teaching Associate

Eddy Finley
Eddy Finley
Professor

QUESTIONNAIRE

Please read each question and/or statement carefully. Place a check mark in the space that you believe "best" represents facts and/or your opinion. Also, please respond to the open-ended questions in as much detail as you feel is necessary to properly convey your opinions.

1. Please indicate the extent of professional international experience you have acquired.

☐ (1) No professional international experience
☐ (2) Short term (less than six months)
☐ (3) Intermediate term (one to three years)
☐ (4) Long term (more than three years)

2. If you checked "No international experience" on the previous question, then are you...

... ☐ (1) Interested in obtaining experience?
 ... ☐ (2) Not interested in obtaining experience?
 ... ☐ (3) Uncertain?

3. If you have professional international experience, which type of experience was it? (Check all that apply)

☐ (1) Consulting?
☐ (2) Research development?
☐ (3) Teaching?
☐ (4) Administration?
☐ (5) Extension?
☐ (6) Other, please specify: _____

4. If you have international experience, in which country (or countries) did you acquire this experience? Please list the country (or counties).

5. If you would like to obtain (or continue to be involved in) international experience, which type of experience would you most prefer? (Check only one)

☐ (1) Consulting
☐ (2) Research development
☐ (3) Teaching
☐ (4) Administration
☐ (5) Extension
☐ (6) Other, please specify: _____

6. In which country (or counties) would you most prefer with regard to obtaining (or continue to be involved in) international experience. Please list the country (or counties).

7. Do you speak a foreign language?

___ (1) Yes Please list the foreign language(s) you speak. _____

___ (2) No _____

8. If you answered "Yes" to the previous question, then indicate your proficiency level with regard to your most proficient foreign language. (Check only one)

___ (1) Understand the language (level 1)

___ (2) Can speak the language (level 2)

___ (3) Can read the language (level 3)

___ (4) Can write the language (level 4)

___ (5) Can read, write, and speak the language (level 5)

9. Which of the following has requested your assistance regarding international activity within the last five years? (Check all that apply)

___ (1) United States Government
 ___ (1.1) Agency for International Development
 ___ (1.2) Peace Corps
 ___ (1.3) Fulbright Program
 ___ (1.4) Other, please specify _____

___ (2) Private Firms and Foundations

___ (3) U.S. Universities

___ (4) Universities (located outside the U.S.)

___ (5) Foreign Governments

___ (6) International Organizations

___ (7) Religious Organizations

___ (8) Other, please specify: _____

___ (9) No assistance has been requested

10. Have you participated in the development of instructional materials or courses of instruction in order to the internationalize secondary and/or post-secondary agricultural education curriculum?

___ (1) Yes

___ (2) No

11. How important do you believe it to be that secondary and/or post-secondary instructional materials or courses of instruction include the infusion of international topics?
- ___ (1) Very Important
 ___ (2) Important
 ___ (3) Somewhat Important
 ___ (4) Not Important
12. In your opinion, should undergraduate students majoring in agricultural education be required to have completed a college level international course designed specifically for agricultural education majors?
- ___ (1) Yes
 ___ (2) No
 ___ (3) Uncertain
13. If you answered "Yes" to the previous question, (A) which of the following most accurately describes the type of international course you believe would be most appropriate? AND, (B) Indicate the minimum required semester college hours.
- A. ___ (1) Theory course (lecture type)
 ___ (2) Sponsored travel/study course
 ___ (3) Independent or correspondence study course
 ___ (4) Internship
 ___ (5) Exchange program with other countries
 ___ (6) Other, please specify _____
- B. ___ (1) One to three hours of college credit
 ___ (2) Three to four hours of college credit
 ___ (3) Five hours or more of college credit
14. Please rank the following topics (one through ten with one being the most important) according to their importance as topics and/or areas of international study for agricultural education majors.
- ___ (1) Global food and fiber system
 ___ (2) International Agribusiness opportunities and involvement
 ___ (3) Political aspects of food and fiber production
 ___ (4) Social contributors/constraints to food and fiber production
 ___ (5) Economic contributors/constraints to food and fiber production
 ___ (6) Technology transfer techniques (education, extension, communication)
 ___ (7) Appropriate technology
 ___ (8) Environmentalism

- ___ (9) Energy
 ___ (10) Employment opportunities

15. Please list the topics and/or areas of international study you believe are as important (or more important) than those you ranked in the previous question.

16. In your opinion, would it be an advantage for either undergraduate or graduate agricultural education students to minor or specialize in international agricultural education?

Undergraduate
Students

- ___ (1) Yes
 ___ (2) No
 ___ (3) Uncertain

Graduate
Students

- ___ (1) Yes
 ___ (2) No
 ___ (3) Uncertain

17. With regard to the current status of agricultural education in the U.S., do you believe... (Please circle your response)

- ... high school agricultural teachers perceive infusion of international components are valuable and contribute to their students education? 5 4 3 2 1
- ... collegiate agricultural education faculty consider international involvement and/or courses to be imperative? 5 4 3 2 1
- ... additional international agricultural curriculum and/or courses are needed? 5 4 3 2 1
- ... that secondary agricultural education departments should offer some type of course that focuses on international agriculture? 5 4 3 2 1

- ... that post-secondary agricultural education departments should offer some type of course that focuses on international agriculture? 5 4 3 2 1
- ... there are sufficient resources (financial, curricula, etc.) to implement an international requirement at the secondary or post-secondary level? 5 4 3 2 1
- ... secondary students should become proficient in a foreign language? 5 4 3 2 1
- ... post-secondary students should become proficient in a foreign language? 5 4 3 2 1
18. What, in your opinion, what can be done to further improve the quality of international education provided to ...
- A. ... High School Students? _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- B. ... Undergraduate Students? _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- C. ... Graduate Students? _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

APPENDIX B

**LISTING OF COUNTRIES WHERE AGRICULTURAL
EDUCATION ADMINISTRATORS HAVE
OBTAINED INTERNATIONAL
EXPERIENCE**

Institutional Administrators

Frequency of Response	Country, Region, or Continent
1	Afghanistan
1	Africa
2	Australia
1	Belgium
1	Bolivia
3	Botswana
4	Brazil
1	Bulgaria
1	Cameroon
1	Central America
1	Chile
7	China
2	Colombia
4	Costa Rica
1	Czechoslovakia
4	Dominican Republic
3	Ecuador
2	Egypt
1	El Salvador
3	England
1	Europe
6	France
6	Germany

Institutional Administrators (Continued)

Frequency of Response	Country, Region, or Continent
1	Guam
3	Guatemala
1	Holland
1	Hong Kong
3	India
3	Indonesia
2	Iran
2	Italy
5	Jamaica
7	Japan
2	Kenya
3	Korea
1	Lebanon
1	Lesotho
2	Malaysia
1	Malawi
1	Mali
8	Mexico
1	Middle East
1	Morovia
1	Nicaragua
1	Netherlands

Institutional Administrators (Continued)

Frequency of Response	Country, Region, or Continent
2	New Zealand
6	Nigeria
1	Pacific Islands
1	Paraguay
1	Peru
1	Philippines
1	Poland
1	Portugal
1	Puerto Rico
1	Qatar
1	Rumania
1	Rwanda
1	Russia
1	Saint Vincent
2	Saudi Arabia
2	South America
1	Singapore
1	Sri Lanka
2	Swaziland
3	Switzerland
1	Tanzania
3	Thailand
3	Taiwan

Institutional Administrators (Continued)

Frequency of Response	Country, Region, or Continent
2	Venezuela
1	Ukraine
1	Western Samoa
1	Yemen
1	Zambia

State Administrators

Frequency of Response	Country, Region, or Continent
2	Belgium
2	China
2	France
2	Germany
3	Japan
1	Mexico
1	Pacific Islands
1	Saint Vincent
1	Saudi Arabia

APPENDIX C

**LISTING OF COUNTRIES WHERE AGRICULTURAL
EDUCATION ADMINISTRATORS ARE
INTERESTED IN OBTAINING
INTERNATIONAL EXPERIENCE**

Institutional Administrators

Frequency of Response	Country, Region, or Continent
15	Africa
5	Asia
11	Australia
1	Austria
2	Belize
1	Botswana
2	Brazil
1	Bulgaria
4	Canada
2	Caribbean
7	Central America
1	China
1	Colombia
2	Costa Rica
3	Eastern Europe
2	Egypt
1	El Salvador
2	England
7	Europe
1	Federated States of Micronesia
2	Former U.S.S.R.
3	France
11	Germany

Institutional Administrators (Continued)

Frequency of Response	Country, Region, or Continent
2	Guatemala
1	Holland
1	India
1	Iran
1	Italy
1	Israel
6	Japan
1	Jordan
1	Korea
1	Laos
5	Latin America
15	Mexico
2	Namibia
1	Nicaragua
4	New Zealand
4	Pacific Islands
1	Pakistan
1	Panama
1	Peru
1	Puerto Rico
9	Russia
11	South America
2	Spain
1	Sweden

Institutional Administrators (Continued)

Frequency of Response	Country, Region, or Continent
4	English Speaking Countries
6	No particular preference
1	One with no conflict
1	Any developed country

State Administrators

Frequency of Response	Country, Region, or Continent
2	Africa
2	Asia
6	Australia
2	Canada
1	Central America
1	Eastern Europe
4	Europe
2	Former U.S.S.R.
1	Federated States of Micronesia
7	Germany
1	India
3	Japan
5	Mexico
1	New Zealand

State Administrators (Continued)

Frequency of Response	Country, Region, or Continent
2	Pacific Islands
5	Russia
2	South America
1	South East Asia
1	Spain
2	Sweden

APPENDIX D

AFFILIATION OF STATE AGRICULTURAL
EDUCATION ADMINISTRATORS
REPRESENTED IN STUDY
POPULATION

STATE

Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
District of Columbia
Delaware
Florida
Georgia
Hawaii
Idaho
Illinois
Indiana
Iowa
Kansas
Kentucky
Louisiana
Maine
Maryland
Massachusetts
Michigan
Minnesota

STATE

Mississippi
Missouri
Montana
Nebraska
Nevada
New Hampshire
New Jersey
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
Rhode Island
South Carolina
South Dakota
Tennessee
Texas
Utah
Vermont
Virginia
Washington

STATE (Continued)

West Virginia

Wisconsin

Wyoming

TERRITORIES

Guam

Puerto Rico

Virgin Islands

APPENDIX E

**AFFILIATION OF INSTITUTIONAL AGRICULTURAL
EDUCATION ADMINISTRATOR REPRESENTED
IN STUDY POPULATION**

<u>STATE</u>	<u>INSTITUTION</u>
Alabama	Alabama A&M University Auburn University Tuskegee University
Alaska	University of Alaska
Arizona	University of Arizona
Arkansas	Arkansas State University Southern Arkansas University University of Arkansas University of Arkansas at Pine Bluff
California	California State University, Chico California State University, Fresno California State Polytechnic, Pomona California State Polytechnic, S. Obispo University of California, Davis
Colorado	Colorado State University
Connecticut	University of Connecticut
Delaware	Delaware State College University of Delaware
Florida	Florida A&M University University of Florida
Georgia	Fort Valley State College University of Georgia
Hawaii	University of Hawaii at Manoa
Idaho	University of Idaho

Institutional Affiliation of Respondents (Continued)

Illinois	Illinois State University
	Southern Illinois University
	Western Illinois University
	University of Illinois
Indiana	Purdue University
Iowa	Iowa State University
Kansas	Kansas State University
Kentucky	Morehead State University
	Murray State University
	Western Kentucky University
	University of Kentucky
Louisiana	Louisiana State University
	Louisiana Tech University
	Southern University
	University of Southwestern Louisiana
Maryland	University of Maryland, Eastern Shore
Massachusetts	University of Massachusetts
Michigan	Michigan State University
Minnesota	University of Minnesota, Crookston
	University of Minnesota, St. Paul
	University of Minnesota, Waseca
Mississippi	Alcorn State University
	Mississippi State University
Missouri	Northwest Missouri State University
	Southwest Missouri State University

Institutional Affiliation of Respondents (Continued)

	University of Missouri
Montana	Montana State University
Nebraska	University of Nebraska
Nevada	University of Nevada
New Hampshire	University of New Hampshire
New Jersey	Cook College, Rutgers University
New Mexico	New Mexico State University
New York	Cornell University
	State University of New York
North Carolina	North Carolina Ag. and Tech. State Univ.
	North Carolina State University
North Dakota	North Dakota State University
Ohio	Ohio State University
	Kent State University
Oklahoma	Cameron University
	Panhandle State University
	Oklahoma State University
Oregon	Oregon State University
Pennsylvania	Pennsylvania State University
Puerto Rico	University of Puerto Rico
Rhode Island	University of Rhode Island
South Carolina	Clemson University
South Dakota	South Dakota State University
Tennessee	Middle Tennessee State University
	Tennessee State University

Institutional Affiliation of Respondents (Continued)

	Tennessee Technological University
	University of Tennessee, Knoxville
	University of Tennessee, Martin
Texas	East Texas State University
	Prairie View A&M University
	Sam Houston State University
	Southwest Texas State University
	Stephen F. Austin State University
	Tarleton State University
	Texas A&I University
	Texas A&M University
	Texas Tech University
Utah	Utah State University
Vermont	University of Vermont
Virginia	Virginia Polytechnic Inst. and Univ.
	Virginia State University
Washington	Washington State University
West Virginia	West Virginia University
Wisconsin	University of Wisconsin, Madison
	University of Wisconsin, Platteville
	University of Wisconsin, River Falls
Wyoming	University of Wyoming

APPENDIX F

SUPPLEMENTAL TOPICS AND/OR AREAS OF
INTERNATIONAL STUDY PERCEIVED AS
IMPORTANT BY ADMINISTRATORS

Institutional and State Administrator Responses:

Cultural differences

Community development

Sustainable agriculture and farming systems

Entrepreneur training

The role of religions in international relationships

The multi-national nature of American agribusiness

Multi-culturalism

International trade and marketing

Firewood production

Irrigation

Understanding social systems

Research centers

Indigenous knowledge systems

Applied research collaboration and centers

Marketing products in an international environment

Multi-cultural sensitivity

International agricultural brokering

Communications

Cultural impacts of agriculture

Respecting other cultures

Local languages

Leadership training

Food dissemination and preservation in third world countries

APPENDIX G

INSTITUTIONAL REVIEW BOARD

APPROVAL CERTIFICATION

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
FOR HUMAN SUBJECTS RESEARCH

Date: 02-24-93

IRB#: AG-93-015

Proposal Title: PERCEPTIONS OF SELECTED AGRICULTURAL EDUCATION
ADMINISTRATORS REGARDING THE ENHANCEMENT INTERNATIONAL STUDIES
AND OPPORTUNITIES FOR AGRICULTURAL EDUCATION STUDENTS AND FACULTY

Principal Investigator(s): Eddy Finley, Michael W. Stapper

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

APPROVAL STATUS SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW
BOARD AT NEXT MEETING.

APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A
CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR
BOARD APPROVAL. ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO
BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for
Deferral or Disapproval are as follows:

COMMENTS:

A one or two sentence statement regarding the
confidentiality of responses and identities should be added
to the cover letter of the questionnaire.

Signature:

Maria L. Tilley
Chair of Institutional Review Board

Date: March 1, 1993

2
VITA

Michael Wilks Stapper

Candidate for the Degree of
Doctor of Education

Thesis: PERCEPTIONS OF SELECTED AGRICULTURAL EDUCATION
ADMINISTRATORS REGARDING THE ENHANCEMENT OF
INTERNATIONAL STUDIES AND OPPORTUNITIES FOR
AGRICULTURAL EDUCATION STUDENTS AND FACULTY

Major Field: Agricultural Education

Biographical:

Personal Data: Born in San Antonio, Texas, April 8,
1948, the son of Harold Milton and Zella Mae
Stapper.

Education: Graduated from Pleasanton High School,
Pleasanton, Texas, May, 1966; received the
Bachelor of Science degree from Texas A&I
University, Kingsville, Texas, December, 1971;
received the Master of Education degree from
Southwest Texas State University, San Marcos,
Texas, December 1989 with a major in Agricultural
Education; completed the requirements for the
Doctor of Education degree at Oklahoma State
University in July, 1993.

Professional Experience: Vocational Agriculture
Instructor, Lyford, Texas, August, 1971 to July,
1975 and Rio Hondo, Texas, August, 1975 to
December, 1979; Assistant Ranch Manager, CJ Ranch,
Leona, Texas, January, 1980 to June, 1988;
Graduate Teaching Assistant, Southwest Texas State
University, San Marcos, Texas, January, 1988 to
July, 1989; Instructor of Animal Science,
Southwest Texas State University, San Marcos,
Texas, August, 1989 to July, 1990; Graduate
Teaching Associate, Oklahoma State University,
January, 1991 to June, 1993.

Professional Organizations: The American Association
for Agricultural Education, Association for
International Agricultural Education, Alpha Tau
Alpha, Phi Delta Kappa, and Graduate Student
Council.