

THE PERCEIVED TRAINING NEEDS OF VOCATIONAL  
AGRICULTURE TEACHERS WITH FIVE YEARS OR  
LESS TEACHING EXPERIENCE WHO ARE  
CONDUCTING YOUNG/ADULT FARMER  
PROGRAMS IN THE WESTERN  
ONE-HALF OF OKLAHOMA

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## TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION. . . . .	1
Statement of the Problem . . . . .	4
Purpose of the Study . . . . .	4
Objectives . . . . .	5
Assumptions. . . . .	5
Scope of the Study . . . . .	6
Definitions. . . . .	7
II. REVIEW OF LITERATURE. . . . .	9
History and Development of Young and Adult Farmer Education . . . . .	9
The Priority of Young and Adult Farmer Education .	11
Procedures for Involvement in Adult Education. . .	11
Adult Learning Techniques. . . . .	12
Demands Regarding Teaching Time. . . . .	14
Administrative Support . . . . .	15
Summary. . . . .	17
III. DESIGN AND METHODOLOGY. . . . .	19
Design of the Study. . . . .	19
The Population . . . . .	20
Development of the Instrument. . . . .	22
Collection of Data . . . . .	22
Analysis of Data . . . . .	23
IV. PRESENTATION AND ANALYSIS OF DATA . . . . .	25
Introduction . . . . .	25
Background of Population . . . . .	25
Selected Characteristics of Responding Teachers. . . . .	26
Teaching Experience . . . . .	27
Age of Responding Teachers. . . . .	28
Degree(s) Held by Teacher Respondents . . . . .	28
Single/Multiple Teacher Departments . . . . .	29
Conducting Young/Adult Farmer Education Programs. . . . .	31
Findings of the Study. . . . .	34
Analysis of Data . . . . .	34
Farm Business Management. . . . .	34

Chapter	Page
Animal Science . . . . .	37
Agronomy and/or Plant Science . . . . .	37
Entomology . . . . .	40
Agriculture Mechanics . . . . .	40
Horticulture. . . . .	40
Veterinary Skills . . . . .	49
Professional Education. . . . .	45
Comparison of Major Areas . . . . .	45
 V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS . . . . .	 49
Summary. . . . .	49
Purpose . . . . .	49
Objectives. . . . .	49
Design of the Study . . . . .	50
Major Findings of the Research. . . . .	51
Conclusions. . . . .	53
Recommendations. . . . .	54
Recommendations for Additional Research. . . . .	55
 SELECTED BIBLIOGRAPHY. . . . .	 56
 APPENDIXES . . . . .	 58
APPENDIX A - QUESTIONNAIRE. . . . .	59
APPENDIX B - COVER LETTER . . . . .	63

LIST OF TABLES

Table	Page
I. Teaching Experience of Respondents by District. . . . .	27
II. Age Distribution of Respondents by District . . . . .	29
III. A Summary of Education Levels of Respondents by District. . . . .	30
IV. A Summary of Respondents Teaching in Single or Multiple Teacher Departments by District. . . . .	32
V. Distribution of Respondents in the Various Stages of Implementing Young/Adult Farmer Education Programs by District . . . . .	33
VI. A Summary of Absolute Terms Arranged in a Likert-type Scale by Importance, Selected Competencies and Quality Preservice and Need of Inservice Training, Degrees of Importance, Quality and Need . . . . .	35
VII. A Summary of Mean Responses With Reference to Importance of Selected Competencies and Preservice and Inservice Training Needs by Skill Area in Farm Management . . . . .	36
VIII. A Summary of Mean Responses with Reference to Teachers' Perception of Selected Competencies and Preservice and Inservice Training Needs by Skill Areas in Animal Science . . . . .	38
IX. A Summary of Mean Responses with Reference to Teachers' Perceptions of Selected Competencies and Preservice and Inservice Training Needs by Skill Area in Plant Science . . . . .	39
X. A Summary of Mean Responses with Reference to Teachers' Perceptions of Importance of Selected Competencies and Preservice and Inservice Training Needs by Skill Areas in Entomology . . . . .	41
XI. A Summary of Mean Responses with Reference to Teachers' Importance of Selected Competencies and Preservice and Inservice Training Needs by Skill Areas in Agriculture Mechanics . . . . .	42

Table	Page
XII. A Summary of Mean Responses with Reference to Perceptions of Selected Competencies and Preservice and Inservice Training Needs by Skill Areas in Horticulture. . . . .	43
XIII. A Summary of Mean Responses with Reference to Teachers' Perceptions of Importance of Selected Competencies and Preservice and Inservice Training Needs by Skill Areas in Veterinary Science. . . . .	44
XIV. A Summary of Mean Responses with Reference to Teachers' Perceptions of Importance of Selected Competencies and Preservice and Inservice Training Needs by Skill Areas in Professional Education. . .	46
XV. A Summary of Overall Mean Responses with Reference to Perceived Importance, Preservice, and Inservice Training Needs by Major Competency Area . . . . .	46



FIGURE

Figure	Page
1. Location of Vocational Agriculture Supervisory Districts and the Distribution of Teachers with Five Years or Less Teaching Experience by District. . . . .	21

## CHAPTER I

### INTRODUCTION

In the past five years television and newspapers have reported seemly almost continuously the need for a larger industrial base in Oklahoma. Government officials have made frequent trips overseas to try to bring new businesses into the state and add to the industrial sector. There has been an ever increasing push to train or retrain workers to fill the positions developed by these businesses.

Even though agriculture remains a major industry in the state, profit margins have declined to a point which has forced a large number of farmers out of business. The cost of fixed expenditures has increased while the price for raw agricultural goods has decreased at the farm level. However, the young/adult farmer who manages an operation efficiently through difficult times will continue to have a voice in the food and fiber business that's necessary for a large, wholesome, and affordable food supply.

Fifty years ago there were 6.5 million farmers in the United States and 13 million farm workers who each produced enough food and fiber for 11 people. Farmers now produce enough food and fiber for nearly 80 people, while employing the resources of only 2.3 million farms; and 3.7 million farm workers (1).

Although fewer farms and farm workers are needed the need for sound educational programs has not diminished. Today's farmer must be

a highly trained technician, mechanic, and scientist; well-versed in the efficient production of agriculture commodities and a good businessman. Therefore, program and individual needs should be the basis for sound agricultural education programs.

Several groups aid the farmer in his effort to increase production efficiency and stay competitive. Magazine writers, newspaper editors, radio and television farm directors, representatives of commercial concerns, and government agricultural agencies continue to supply the farmer with the up-to-date technical information he needs (2). Furthermore, vocational agriculture teachers stand as ever present advocates of farmers and their vocation. These teachers have contributed much by providing the opportunity for farmers to take advantage of agricultural educational programs and experiences. Young and established farmers have always had a need for up-to-date educational programs that helped them to manage their farm businesses more efficiently. These programs vary in methodology, yet provide farmers with useful information.

Educators must continue to upgrade technical skills and knowledge if they expect to be able to influence farmers who have become oriented to a more competitive agriculture environment. Educators must expand their realm of influence in order to meet the needs of their out of school constituents. Several studies have shown that these needs can be met if educators keep abreast of new information and technical skills. In addition, educators should be able to communicate with adults. Preparation for working with adults involves training in planning, budgeting, record keeping, analysis, financing, and the other

areas associated with farm management. The business of farming has become increasingly complex; product changes occur daily, new and more efficient machinery competes for the farmer's dollar, foreign competition, interest rates fluctuate constantly; all demanding that the farmer be able to make decisions quickly (3).

The primary purpose of young and adult agriculture programs is to help farm families increase the efficiency of their farm operations and achieve family goals (4). Adult education in agriculture has been a record of success, however with recent problems the agriculture sector has experienced an ever increasing need for information and new skills.

Oklahoma has long been recognized as a leader in young and adult farmer education programs. Programs that have had a vital part of the school's overall vocational agriculture training for individuals established in farming and those in the process of becoming established. Oklahoma vocational agriculture teachers are expected to provide approximately 20 clock hours of instruction for young and adult farmers in their local communities. Furthermore, teachers of vocational agriculture employed by public schools have the dual responsibility for: (1) teaching courses for all-day high school students and (2) organizing and conducting instructional programs for young and adult farmers. Many teachers who have large secondary student programs have little time nor the training and background in technological and scientific agriculture to organize instructional materials for adult courses.

Teachers of vocational agriculture should have had some training relative to each of the many areas of agriculture. Therefore, when

they attempt to provide assistance to a specialized livestock producer, a specialized crop farmer, or a highly mechanized farmer, they usually find themselves trying to assist someone who knows more than they do about the particular situation.

The never-ending need for updating farmers so that they can successfully keep abreast of new information and technical skills has been evident. This need must be met so that farmers can increase both efficiency and profitability. Many agricultural producers and agribusiness managers have expressed the desire to have organized courses that will enable them to acquire new skills and competencies.

#### Statement of the Problem

The present need for a more adequate young/adult agriculture education program has been limited to the lack of resources and trained resource personnel with technical and management skills. In many situations this has placed increased pressure on the local vocational agricultural instructor to fill the void which has developed. This has also increased the need for up-to-date information and educational programs for vocational agriculture instructors where the expectation exists of teaching many areas of young/adult agricultural classes.

#### Purpose of the Study

The main purpose of this study was to determine the perceived training needs of vocational agriculture teachers with five years or less teaching experience conducting young/adult farmer education programs in the western half of Oklahoma.

## Objectives

In order to accomplish the purpose, it was necessary to achieve the following objectives.

1. To determine demographic information concerning local coordinators of the young/adult farmer education programs who participated in this study.
2. To determine the importance of selected competencies needed to coordinate/teach young/adult farmer programs as perceived by vocational agricultural instructors with five years or less teaching experience who conduct adult education programs.
3. To determine the undergraduate training needed to effectively conduct young/adult farmer education programs as perceived by vocational agriculture instructors with five years or less teaching experience conducting adult education programs.
4. To determine in-service training needs of teachers with five years or less teaching experience who conduct young/adult farmer education classes.

## Assumptions

For the purposes of this study, the following assumptions were formulated by the researcher.

1. The younger teachers in the western half of the state were representative of the more experienced teachers in the central, southwest, and northwest districts which conduct adult farmer education programs.
2. The teachers provided accurate evaluations of their

experiences concerning young/adult farmer programs.

3. Teachers' responses to statements favorable and unfavorable to young/adult farmer program would serve as indicators of their perceptions.

4. That the opinions expressed by the teachers were honest and fair.

5. The teachers represented in this study were similar with regard to agricultural experiences, community needs, and the educational needs of a rural clientele.

#### Scope of the Study

This study was limited to teachers with five years or less teaching experience in the central, southwest, and northwest vocational agriculture supervisory districts. In addition, only the 89 teachers who were identified as presently conducting young/adult farmer education programs were included in the study. Furthermore, teachers from the central, southwest, and northwest districts were selected as a result of several similarities associated with the researcher's personal teaching situation.

A questionnaire was developed with the approval of the author's thesis committee and field tested with the assistance of the Guthrie and Crescent vocational agriculture departments. After minor revisions, the investigator surveyed teachers in 52 single and 37 multiple teacher departments. Eighty-nine were asked to respond to a survey instrument categorized by three major areas: (1) importance of selected competencies needed to conduct adult education programs,

(2) training to conduct adult education programs during pre-service education experience, and (3) in-service training needs for conducting adult agricultural education programs.

#### Definitions

For better understanding of the content presented in this study, the following definitions seemed relevant.

Vocational Agriculture - Refers to courses of instruction designed to train high school students and adults for careers in production agriculture as well as agribusiness occupations.

Vocational Agriculture Teacher - Licensed or certified personnel employed by secondary school districts to direct programs in vocational agriculture education programs designed to meet the needs of all-day and young/adult farmer students.

Teacher Tenure - Length of time teacher has remained under contract in a specific local school district.

Licensed or Certified Teacher - Teachers having met the educational requirements and standards set forth by the State Department of Education and legislative mandate (H.B. 1706).

Supervisory Districts - Sub-divisions of Oklahoma vocational agriculture partitioned according to geographical location and population for the purpose of facilitating administrative responsibilities and teacher supervision.

Young Farmer - For purposes of holding district and state offices, a person under 41 years of age actively engaged in the business of farming or related agri-business. As a local chapter participant, no restriction regarding age is observed.



Young Farmer Program - A series of organized educational, leadership, recreational, and community service activities designed for young/adult farmers or persons interested in any phase of agriculture.

Adult Farmer - Anyone who has entered into, or is preparing to enter into, the work of the farm or farm home, or any occupation involving knowledge and skills in agriculture subjects, whether or not such occupation involves work of the farm or farm home.

Young/Adult Farmer Education - An integral part of a school's overall vocational agriculture training for individuals established in farming or in the process of becoming established in this occupation.

## CHAPTER II

### REVIEW OF LITERATURE

The purpose of this chapter was to present background information and related research efforts pertinent to this study. The presentation of this review was divided into five major areas and a summary to facilitate clarity and direction. The major areas addressed were: (1) History and Development of Young and Adult Farmer Program, (2) The Priority of Young and Adult Farmer Education as a Duty of Vocational Agriculture Teachers, (3) Procedures for Involvement, (4) An Assessment of Learning Experiences by Young/Adult Farmers, and (5) Limitations Encountered by Vocational Agriculture Teachers.

#### History and Development of Young and Adult Farmer Education

Adult education can be traced back to the Pilgrims; however, with the passage of the Smith-Hughes Act in 1917, vocational education in agriculture came into existence. Included in vocational education in agriculture were young and adult farmer education provisions. In 1926 the American Association for Adult Education (6) was organized and adult education was publicly defined as follows:

An international definition of adult education was propounded in 1926 at a meeting of twenty-six educators representing eight countries. Their conclusion was that . . . adult education is a process whereby persons who no longer attend school on a regular and full-time basis (unless full time programs are especially designed for

adults) undertake sequential and organized activities with the conscious intention of bringing about changes in information, knowledge, understanding, skills, appreciation, and attitudes (6, p. 9).

Although adult education began as a social supplementation to deficient education, it has become an important aspect of our society.

It is therefore necessary that teachers of vocational agriculture assume the responsibility for adult education programs for adult farmers, ranchers, and agri-businessmen. State staff members in vocational agriculture strongly recommend that vocational agriculture teachers use the Young Farmer organization to meet his contractual requirements for providing young and adult farmer education.

The Student Teaching Manual (7), in the Agriculture Education Department at Oklahoma State University, listed ten areas in which a student teacher should receive training and gain experience. These areas are: (1) appraising the educational and agricultural needs of high school students and adults, (2) teaching high school students, (3) teaching young and adult farmers, (4) participating in school and community affairs, (5) counseling students, (6) planning and organizing physical facilities for vocational agriculture, (7) develop and internalize the ethical standards and ideas best characterizing the teaching profession, (8) further clarifying the aims and objectives of the formal and informal patterns of adult education in our society, (9) developing a fuller understanding and greater appreciation of the role of the vocational agriculture teacher in the local community, and (10) better understanding the important role of related agricultural organizations and business to the social and economic welfare of the local community.

## The Priority of Young and Adult Farmer Education

Since adult education has become a priority of vocational-technical education in Oklahoma, agricultural educators including teachers, supervisors, and teacher educators are in general agreement that an effort must be made to further the cause of agricultural education among adults (4). A mechanism must be developed to expand this level of education to assist teachers in their efforts to provide educational programs to the adults in their communities across the state. It has been shown that although new techniques and ideas are discovered everyday and presented in young and adult farmer classes, they prove no value to a student or teacher unless it is kept on a useful basis and practicability can be shown (8). The Department of Education and the Division of Vocational Education (9) indicated in a published bulletin that "in communities where adult farmer educational programs have been most effective they have been based upon the needs of the local farmers" (p. 1). The changes that are made in student/farmer operations can be evaluated to determine the effectiveness of the program. Deyoe (10, p. 128) stated that, "if farmers are to benefit from adult farmer classes, which are appropriate for a particular course, they must also use methods which are effective in securing these kinds of carryover to the farmers of the enrollees."

### Procedures for Involvement in Adult Education

The adult agriculture education program in Oklahoma has been based

primarily upon the selection and assistance of volunteer resource personnel both within and without the local community (5). The selection of these individuals has been based largely upon the needs of local adults.

The major emphasis of early adult education in agriculture has been directed toward the young farmer. Many programs are directed at this group, with the idea of getting young adults off to a good start in farming and/or agri-business. The emphasis on the young adult has merit, but a look at the older adult must also be considered due to the average age of the farm population. The farm population as a whole was older and thus a higher median age than the non-farm population. According to the 1982 U.S. Bureau of Census, the median age of farm residents was about 35 years compared to 30 years for the non-farm population.

Thus, a careful evaluation of the program being developed and the age of the group to be served should be considered. Although older adults have more experience and they may not adopt every new idea. However, generally they make changes when profitable incentives and benefits can be shown. The ability of the adult to learn declines only slightly with age, so the rapid changes in agricultural technology make adult education in agriculture for older adults just as feasible as adult education in agriculture for young adults (11).

#### Adult Learning Techniques

Adults need as much gratification and rewards as other learners. They must also be able to see meaningful progress or they will become disgusted and quit. Most adults attend classes because they want to

and they do so on a part-time basis. Adults have opinions, experience, and knowledge that children do not have. Adults want to be responsible for their own actions and activities and desire involvement in directing their own education program.

It is also important to remember that detail be taken into account when establishing adult education classes. The location and arrangement of the classroom has great significance. Adults often feel out of place in a classroom, so importance in scheduling classes in a secure learning environment will assist in putting the adult learner at ease. Elementary classrooms would not be ideal places to hold meetings for adults. While this may seem trivial to the educator, adult learners have a tendency to stay away from these kinds of situations. Often the adult learner comes to class, having worked all day; therefore, the learning atmosphere should be relaxing, yet functional.

Instructors in adult education programs should also realize that adults learn at different rates, and by different methods, and be able to recognize the needs and/or characteristics of the adult learner. Application to immediate problems and practicality have long been considered the real differences in encouraging adults to adopt new methods. Many instructors have perceived the most appropriate way to organize classes has been to encourage the "learning by doing" concept (12). Hence, it is important that all learners in adult classes be challenged by the instruction they received.

Instructors must believe in the importance of a quality young farmer or adult program, and more importantly, they must believe in their own ability to conduct such a program. Many put off teaching

young farmer or adult education classes because they do not think they can teach adults. To overcome this difficulty, Cavey (13, p. 20) recommended that, "the instructor be involved with the agricultural affairs of the community, making it easier to identify possible young/adult farmer needs."

#### Demands Regarding Teaching Time

Demands of the vocational agriculture instructor include several things, however, time has become an important priority. How he spent his time has made a great deal of difference in the way classes were organized and conducted as well as the total vocational agriculture program.

In addition, the emphasis placed on preparing prospective teachers at the state and university levels to conduct adult education programs should be examined (14). Guiler (15, p. 313) observed that, "conducting young and adult farmer programs has always caused considerable concern for new teachers until they experience some success with this responsibility." Teacher educators have an obligation to provide training in this area. A major component of teacher preparation programs has been the student teaching experience (12). If the supervising teacher would permit the student teacher to really get involved with adults, it would be an experience that could prove to be the difference in whether that student teacher conducts young/adult farmer classes when he starts his career.

Beginning teachers who plan new young/adult farmer programs, or assume existing ones, should have a basic understanding and experience regarding production agriculture and agri-business. Also, they need to

understand the important role of continuing education relative to the total program. Furthermore, teachers need to understand that adults do not want an endless barrage of topics such as how adults learn, but they do need basic information in program philosophy and concepts such as; value of continuing education in agriculture; scheduling options for instruction time during days and evenings; use of resource personnel; working with adult planning groups; basic adult instructional methods; and appropriate resource materials (16).

Many opponents to adult education programs in agriculture state that preservice training programs have already become overburdened and that students are not ready to learn about adult education. Barrett (16, p. 22) stated that, "students in preservice training just need the concepts of adult education to be planted and the seeds will sprout in their own time."

Three ways of providing student teachers with adult education competencies have been outlined as follows: (1) to place students in cooperating centers that offer agricultural education programs for adults, (2) a minimum requirement that the students spend several days in a quality young/adult farmer education programs, or (3) encourage undergraduate seniors to enroll in graduate courses dealing with the basics of young/adult farmer education.

#### Administrative Support

Gott and Claycomb's (17) study revealed that another important facet of young/adult farmer education was to involve the total administrative group in young/adult farmer programs. Involvement of



not only vocational agriculture teachers, but also the vocational technical school directors, principals and superintendents of secondary public schools with vocational agriculture programs, state supervisors of vocational agriculture and teacher educators. However, superintendents placed young/adult farmer education programs in the lowest priority category.

Hollenback (5, p. 28) stated that, "adult and/or young farmer programs must not only have the approval of the school administration but also have its support." There has been a seemly lack of support for young/adult farmer education among the leadership of many local secondary school systems. Positive and progressive leadership has been a key element in sound agricultural education programs (16).

Currently many states are experiencing declines in adult education programs. Declining numbers of students with agricultural backgrounds and non-farm students have been acquiring experience by utilizing several ways to become successful teachers at the secondary level. One example utilized by non-traditional teacher educators in Oklahoma has been "pre-clinical" experiences specifically in adult education, while teacher educators in other states have utilized adult farm management experiences (12). However, further consideration should be given to meeting needs of students with non-farm backgrounds. Programs offering experience through agricultural internships could be a viable solution.

Kiesling (18) found that coordinating and advising young/adult farmers rated relatively low as a priority for vocational agriculture teachers. Vocational agriculture teachers seemed to favor the program, they just did not fully accept it as an area of responsibility.

## Summary

This review of literature covered major areas pertinent to the study. The review as it was conducted was to furnish background information pertinent to the preservice and inservice training needs of young teachers conducting adult farmer education programs.

The development of young/adult farmer education has seemly been a slow evolutionary process. However, the time has come to emphasize preservice and inservice training for all vocational agricultural instructors (19). Since participation in adult education is voluntary, the vocational agriculture instructor is challenged to develop programs that are relevant to local needs (20). Current needs exist for the utilization of "baseline" research to be used in shaping adult education programs in agriculture, while the adult populations continue to express desires to continue their education (21). Adult educators need to convince their colleagues, clientele, administrators, and policy makers of the positive attributes and contributions of adult education programs.

In addition, there has been a need for some time now for educators to recognize the need for adequate preservice and inservice training among new teachers. The current lack of success being voiced in many areas seems to focus on, (1) inability to secure the services of qualified resource personnel, (2) lack of time to adequately service adult programs, (3) a feeling of inadequacy concerning technical knowledge and the perceived inability to effectively teach adults, (4) inability to secure and maintain attendance of young/adult farmers, and (5) discouragement by school administration (5).

Persons (22) writing in the June, 1981 issue of the Agricultural Education Magazine stated: "The aim has shifted to the management of resources. Adult education in agriculture must shift with the aim or it will no longer be a functional contribution to agricultural production or the vast industry it serves" (p. 6).

## CHAPTER III

### DESIGN AND METHODOLOGY

The primary intent of this chapter was to describe the methods utilized and procedures followed in conducting this research effort. In order to acquire data which would provide information relevant to the purpose and objectives of this study, it was necessary to perform the following: (1) determine the population from which the data was secured, (2) develop an instrument for obtaining the data, (3) develop a procedure for return of the survey instruments, and (4) to determine procedures for analysis of the information.

#### Design of the Study

The primary purpose of this study was to determine the training needs of vocational agriculture teachers with five years or less teaching conducting young/adult farmer education programs in the western one-half of Oklahoma. Four specific objectives were formulated to serve as guidelines for the design and conduct of the study.

1. To determine demographic information relative to the coordinators of local young/adult farmer programs who participated in this study.
2. To determine the importance of selected competencies needed to coordinate/teach young/adult farmer programs as perceived by vocational agricultural instructors who conduct adult education programs.

3. To determine the undergraduate training needed to effectively conduct young/adult farmer education programs as perceived by vocational agriculture instructors conducting adult education programs.

4. To determine inservice training needs of teachers who conduct young/adult farmer classes.

### The Population

The population for this study consisted of vocational agriculture teachers in the Northwest, Southwest, and Central Vocational Agriculture Supervisory Districts in Oklahoma with five years or less of teaching experience. A list of teachers was acquired through the Oklahoma State Department of Vocational-Technical Education regarding vocational agriculture teachers in the western one-half of the state with five years or less teaching experience. A total of 89 vocational agriculture teachers were identified as having five years or less teaching experience.

Teachers with five years or less teaching experience made up 34 percent of the teachers (26) in the Northwest, Southwest, and Central Supervisory Districts. Approximately 58 percent or 51 teachers participated in the study.

The population distributed by districts was as follows: 23-Northwest District; 37-Southwest District; and 29-Central District (See Figure 1).

The respondents, when broken down by years of teaching experience, were categorized into five experience groups as follows:

6-one year experience; 10-two years experience, 10-three years experience, 8-four years experience, and 17-five years experience.

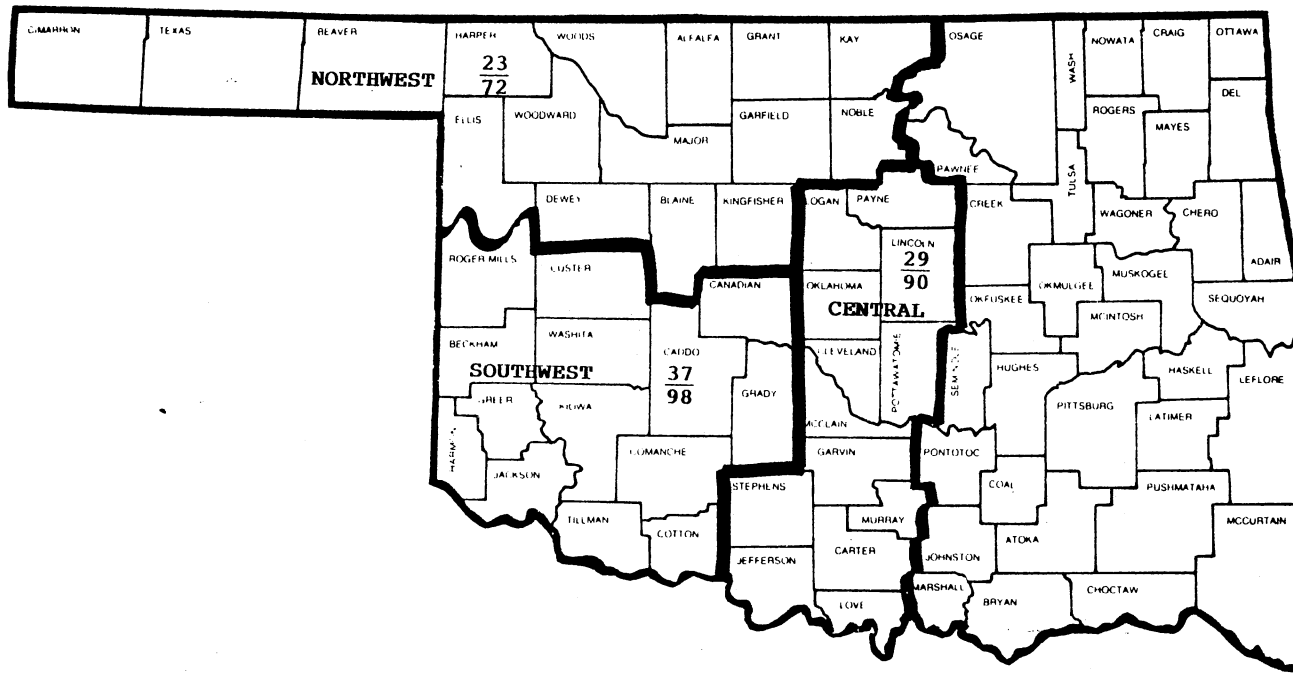


Figure 1. Location of Vocational Agriculture Supervisory Districts and the Distribution of Teachers with Five Years or Less Teaching Experience by District

### Development of the Instrument

The most effective means of obtaining information relative to this study was the mail questionnaire. This was due to the time constraints affecting both the researcher and potential respondents (population of the study).

The initial steps in developing statements used in the questionnaire was a review of related literature and instruments developed by other researchers. The questionnaire used for this study was a closed type instrument forcing specific responses.

The format of the questionnaire also included a six-point Likert type scale of selected categories for teachers to indicate their responses. The selected categories were used to describe the factors teachers perceived as influential concerning their competencies and training to conduct young/adult farmer education programs.

In addition to statements ascertaining demographic responses, eight major competency areas were incorporated in the questionnaire soliciting replies on a Likert-type scale. The competency areas were as follows: farm business management, animal science, agronomy and/or plant science, entomology, agriculture mechanics, horticulture, veterinary skills, and professional education. These eight areas were separated into 59 items with a possible 177 responses.

### Collection of Data

The researcher chose to administer the instrument to vocational agriculture teachers through the mail. A personal letter explaining the need to complete the questionnaire was enclosed along with a self-

addressed stamped envelope. Deadlines were established for the return of the questionnaire. Personal telephone calls were made to ask those who had not returned the questionnaire to please do so. All the data collected were gathered in the spring semester of 1987. A cover letter encouraging teachers to respond and an explanation of how the survey should be completed were included.

### Analysis of Data

The population of this study included vocational agriculture teachers in the Northwest, Southwest, and Central Districts with five years or less teaching experience. Information obtained from the questionnaire provided a procedure for identifying competency areas and categories of importance, as well as, levels of perceived training and future inservice needs of teaching experience for those conducting young/adult farmer programs. The questionnaire also contained short answer items.

The instrument was hand scored by the researcher following collection of the data. The data were analyzed utilizing an ordinal scale. The Likert-type scale was used to secure responses concerning the degrees of importance and teacher perceptions of their levels of preservice training and the need for inservice assistance. For each of the statements listed under major competency categories a frequency count of responses for the degree of importance and perceived level of training was determined utilizing a six-point interval scale. Mean responses for each statement were listed under major categories and calculated on an overall basis. In addition, demographic data was treated utilizing descriptive statistics. Frequency distributions,



percentages, and arithmetic means were used to analyze the data.

A six-point Likert-type scale was used to secure teacher responses according to their perceptions regarding importance of major categories, level of perceived training and need of future support. As a result numerical values were assigned the following degrees of importance: "Very Important" = 5; "Important" = 4; "Moderately Important" = 3; "Some Importance" = 2; "Little Importance" = 1; and "No Importance" = 0. Furthermore, perceived levels of quality concerning preservice training and the need for inservice training were also allotted the respective numerical ratings: "Excellent" = 5; "Good" = 4; "Average" = 3; "Fair" = 2; "Poor" = 1; and "Unsatisfactory" = 0 regarding perceived quality of preservice training, while inservice training needs were labeled: "Very High" = 5; "High" = 4; "Moderate" = 3; "Low" = 2; "Very Low" = 1, and "None" = 0 respectively.

Real limits were established for the importance of selected competencies as follows: 4.5 and above for "Very Important"; 3.5 to 4.49 for "Important", 2.5 to 3.49 for "Moderately Important"; 1.5 to 2.49 for "Some Importance", .5 to 1.49 for "Little Importance"; and 0 to .49 for "No Importance", while absolute values were also established for perceived level or quality of preservice training: 4.5 and above for "Excellent"; 3.5 to 4.49 for "Good"; 2.5 to 3.49 for "Average"; 1.5 to 2.49 for "Fair"; .5 to 1.49 for "Poor"; and 0 to .49 for "Unsatisfactory." In addition, real limits were also set for perceived needs of future inservice training: 4.5 and above "Very High"; 3.5 to 4.49 as "High"; 2.5 to 3.49 as "Moderate"; 1.5 to 2.49 as "Low"; .5 to 1.49 as "Very Low"; and 0 to .49 as "None."

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

#### Introduction

The purpose of this study was to determine the training needs of vocational agriculture instructors with five years or less teaching experience conducting young/adult farmer education programs in the western one-half of Oklahoma.

Data collected involved the responses of 51 "Western" Oklahoma vocational agriculture teachers with five years or less teaching experience. The purpose of this chapter was to describe information revealed by the analysis of the data compiled as results of this research effort.

#### Background of Population

The population of this study included 89 teachers with five years or less teaching experience employed in Oklahoma vocational agriculture programs in the Northwest, Southwest, and Central Supervisory Districts as of October 15, 1986. The 89 teachers were dispersed among the three supervisory districts as follows: 29 - Central District; 37- Southwest District; and 23 - Northwest District. However, the major source of data for this study was the 59 item questionnaire completed by the 51

teachers returning instruments. Of this number, 19 were teaching in the Central District, 19 were teaching in the Southwest District, and 13 were teaching in the Northwest District. These 51 respondents represented 31 single teacher departments and 20 multiple teaching departments.

### Selected Characteristics of Responding Teachers

Tables I, II, and III summarized selected characteristics of responding teachers from the Northwest, Southwest, and Central Supervisory Districts by years of teaching experience, age, and degrees held. The smallest number of teachers responding percentage wise were from the Southwest District, 51.3 percent, while the Central District had the largest percentage of responding, 65.5 percent, and 56.5 percent of the Northwest District teachers returned questionnaires.

### Teaching Experience

Fifty-one teachers comprising 58 percent of the 89 teachers participated in this study. Teachers with five years or less teaching experience made up over one-third (32.2 percent) of the 260 teachers in the Northwest, Southwest, and Central Supervisory Districts under contract as of October 15, 1986. As Table I revealed, the responding teachers taught an average of 3.30 years. The Northwest District had the largest percentage of teachers with five years of experience (38.46 percent), while the Southwest District had the least amount of teachers with 5.26 percent in the one year experience category. The Central and Southwest Districts were nearer to the overall mean as the overall mean years of teaching experience was 3.36 years. Over 33 percent of the

TABLE I

## TEACHING EXPERIENCE OF RESPONDENTS BY DISTRICT

Number Years Experience	Northwest (N=13)		Southwest (N=19)		Central (N=19)		Total (N=51)	
	N	%	N	%	N	%	N	%
One	2	15.38	1	5.26	3	15.79	6	11.16
Two	2	15.38	5	26.32	3	15.79	10	19.61
Three	2	15.38	4	21.05	4	21.05	10	19.61
Four	2	15.38	4	21.05	2	10.53	8	15.69
Five	5	38.46	5	36.32	7	36.84	17	33.33
	(3.43)*		(3.36)*		(3.36)*			
Total	13	98.98	199	100.00	19	100.00	51	100.00

Mean = 3.3

\*Mean Scores by District

teachers participating in this study had five years of teaching experience.

#### Age of Responding Teachers

Table II revealed that the average age of teachers teaching Oklahoma vocational agriculture with five years or less teaching experience in the Northwest, Southwest, and Central Supervisory Districts was 28.6 years of age. Seventy-six percent of the respondents in this study were under 30 years of age while four teachers were 41 and above.

The Central District had the largest percentage of teachers in the 21-25 years of age category with 36.84 percent, while the Northwest District had the least number of teachers in the 21-25 years of age category (23.08 percent). The Southwest District had the largest number of older teachers of 41 and above (10.52 percent). The age category of 31-35 years was almost the same for each district. The Southwest and Central Districts each had three, while the Northwest District had two. None of the respondents surveyed fell into the 35-40 years of age category.

#### Degree(s) Held by Teacher Respondents

Table III showed that the Central District had two teachers with M.S. degrees while the Northwest and Southwest Districts each had one teacher with an M.S. degree. Of the respondents surveyed, there were no Ed.D. or Ph.D. degrees reported.

TABLE II  
AGE DISTRIBUTION OF RESPONDENTS BY DISTRICT

Age Group	Northwest (N=13)		Southwest (N=19)		Central (N=19)		Total (N=51)	
	N	%	N	%	N	%	N	%
21 - 25	3	22.08	6	31.58	7	36.84	16	31.37
26 - 30	7	53.85	8	42.11	8	42.11	23	45.10
31 - 35	2	15.38	3	15.79	3	15.79	8	15.69
36 - 40	-	-----	-	-----	-	-----	--	-----
41 and above	1	7.69	2	10.52	1	5.26	4	7.84
Total	13	100.00	19	100.00	19	100.00	51	100.00
	(28.3)*		(2.93)*		(28.3)*			

Mean = 28.6 years

\*Mean Scores by District

TABLE III  
A SUMMARY OF EDUCATION LEVELS OF RESPONDENTS BY DISTRICT

Degree Held	Northwest (N=13)		Southwest (N=19)		Central (N=19)		Total (N=51)	
	N	%	N	%	N	%	N	%
Bachelor of Science	12	92.31	18	94.74	17	89.47	47	92.16
Master of Science	1	7.69	1	5.26	2	10.53	4	7.84
Total	12	100.00	19	100.00	19	100.00	51	100.00

### Single/Multiple Teacher Departments

According to the data presented in Table IV, 31 teachers of the 51 teachers responding teach in single teacher departments, while the remaining 20 teach in multiple teacher departments. The Central District had the largest percentage of "younger" teachers teaching in multiple teacher departments (57.89 percent), while the Southwest District had the most teachers with five years or less experience teaching together in the same multiple teacher departments (four of the six responded).

### Conducting Young/Adult Farmer Education Programs

Table V revealed that the Northwest District had the least number (4) of respondents conducting young/adult farmer programs. However, the Central District had the largest number (11) respondents conducting young/adult farmer programs, while the Southwest District had 11 (57.86 percent) respondents conducting young/adult farmer programs.

Table V also showed that of the respondents surveyed, the Northwest District was the most apathetic towards Young Farmer Programs with over 30 percent indicating that Young Farmer Programs were not applicable to their situations. Furthermore, 8 (42.1 percent), in the Southwest District indicated they had no plans to establish a Young Farmer Program. However, the Central District had the largest percentage (36.84 percent) of active Young Farmer Programs, while the Northwest District reported only one active Young Farmer program. The Southwest District was split almost evenly between respondents who had an active Young Farmer Program (21.05 percent) or planned (26.31 percent) to establish a Young Farmer Program. Of the 51 respondents



TABLE IV

A SUMMARY OF RESPONDENTS TEACHING IN SINGLE OR  
MULTIPLE TEACHR DEPARTMENTS BY DISTRICT

Departments	Northwest (N=13)		Southwest (N=19)		Central (N=19)		Total (N=51)	
	N	%	N	%	N	%	N	%
Single Teacher	10	76.92	13	68.42	8	42.11	31	60.78
Multiple Teacher	3	23.08	6	31.58	11	57.89	20	39.22
Total	13	100.00	19	100.00	19	100.00	51	100.00

TABLE V  
 DISTRIBUTION OF RESPONDENTS IN THE VARIOUS STAGES OF  
 IMPLEMENTING YOUNG/ADULT FARMER EDUCATION  
 PROGRAMS BY DISTRICT

Stages of Implementing Programs	Northwest (N=13)		Southwest (N=19)		Central (N=19)		Total (N=51)	
	N	%	N	%	N	%	N	%
<u>Part A:</u>								
Conducting Young Farmer and/or Adult Education	4	30.76	11	57.89	14	73.68	29	56.86
Not conducting adult education programs	9	69.23	8	42.11	5	26.32	22	43.14
Total	<u>13</u>	<u>100.00</u>	<u>19</u>	<u>100.00</u>	<u>19</u>	<u>100.00</u>	<u>51</u>	<u>100.00</u>
<u>Part B</u>								
Active Young Farmer Program	1	7.69	4	21.05	7	36.84	12	23.53
Planning to establish a Young Farmer Program	3	23.08	5	26.32	5	26.32	13	25.49
No plans to establish a Young Farmer Program	5	38.46	8	42.11	7	36.84	20	39.22
Not Applicable	4	30.77	2	10.52	--	-----	6	11.76
Total	<u>13</u>	<u>100.00</u>	<u>19</u>	<u>100.00</u>	<u>19</u>	<u>100.00</u>	<u>51</u>	<u>100.00</u>

respondents surveyed, only three reported that their chapter took part in the 1986 National Young Farmer Institute which was held in Oklahoma City, while seven of the 12 active Young Farmer programs said that they took part in the 1986 State Young Farmer Convention.

As described in Chapter III, a six-point Likert-type scale was used to secure teacher perceptions as to the importance of quality of training of selected competencies, received in college and inservice training needs to conduct young/adult farmer education programs.

#### Findings of the Study

The purpose of this chapter was to present and analyze the data collected relative to the perceptions of the teaches participating in this study. Findings of the study were presented within the major competency categories containing selected skill areas and the perceived training needed to conduct young/adult farmer education programs. The six-point interval scale contained in Table VI assigned absolute values to the degree of importance and ratings regarding preservice and inservice training.

#### Analysis of the Data

##### Farm Business Management

The summary of teacher responses presented in Table VII concerning the skill areas included within the major category of Farm Business Management revealed that teachers rated the importance of the competency needed to conduct young/adult farmer education programs in "record keeping" the highest of any area in the study. It rated 4.28

TABLE VI

A SUMMARY OF ABSOLUTE TERMS ARRANGED IN A LIKERT-TYPE SCALE BY IMPORTANCE,  
 SELECTED COMPETENCIES AND QUALITY, PRESERVICE AND NEED OF INSERVICE  
 TRAINING, DEGREES OF IMPORTANCE, QUALITY AND NEED

Competencies	4.5-5.0	3.5-4.49	2.5-3.49	1.5-2.49	.5-1.49	0-.49
Importance of Selected Competencies	Very Important	Important	Moderately Important	Some Importance	Little Importance	No Importance
Training Received in College	Excellent	Good	Average	Fair	Poor	Unsatisfactory
Inservice Training Needs	Very High	High	Moderate	Low	Very Low	None

TABLE VII

A SUMMARY OF MEAN RESPONSES WITH REFERENCE TO IMPORTANCE  
OF SELECTED COMPETENCIES AND PRESERVICE AND  
INSERVICE TRAINING NEEDS BY SKILL AREA  
IN FARM MANAGEMENT

Farm Business Management	Importance of Selected Competencies	Training Received in College	Inservice Training Needs
Record Keeping	4.28	3.16	3.21
Tax Management	4.00	2.13	3.35
Future's Marketing	3.67	2.70	3.08
Estate Planning	3.22	1.74	2.97
American Agriculture Policy	3.39	1.92	3.03
Agriculture Credit	4.03	2.82	3.64
International Trade	3.05	1.97	2.90
Land Appraisal	3.23	2.05	3.13
Government Programs	4.07	2.11	3.24
Agriculture Legislation	3.80	2.03	2.80
Overall Mean	3.67	2.26	3.14

compared to the overall mean of 3.67 for Farm Business Management. "Estate Planning" training that teachers received in college was "poor" while "record keeping" training was rated "good". Furthermore, teachers indicated that inservice training needs to conduct young/farmer education programs in the major area of Farm Business Management were "moderate".

#### Animal Science

Table VIII revealed that teachers placed "animal nutrition" as the "important" area of selected competency. "Animal nutrition" also rated the highest of the areas surveyed for training that teachers received in college. In the category of Animal Science, "artificial insemination" and "embryo transplants" were rated the highest on the needs for inservice training needed to conduct young/adult farmer education programs.

#### Agronomy and/or Plant Science

Table IX showed that teachers perceived that soil and water conservation programs were "important" with regards to competency. On-farm storage was considered the area to be "moderately important". "Soil testing" training that the teachers received in college was "average" while on-farm storage of agriculture products was "fair". Inservice training needs overall were "moderate" for the major category of Agronomy and/or Plant Science needed to conduct young/adult farmer education programs.

TABLE VIII

A SUMMARY OF MEAN RESPONSES WITH REFERENCE TO TEACHERS'  
 PERCEPTION OF SELECTED COMPETENCIES AND  
 PRESERVICE AND INSERVICE TRAINING  
 NEEDS BY SKILL AREAS IN  
 ANIMAL SCIENCE

Animal Science	Importance of Selected Competencies	Training Received in College	Inservice Training Needs
Animal Nutrition	3.95	3.89	3.00
Animal Breeding & Genetics	3.80	3.84	2.90
Embryo Transplants	3.30	2.92	3.18
Electronic Marketing	3.25	2.39	2.97
Artificial Insemination	3.65	3.18	3.18
Overall Mean	3.59	3.24	3.05

TABLE IX

A SUMMARY OF MEAN RESPONSES WITH REFERENCE TO TEACHERS' PERCEPTIONS  
OF SELECTED COMPETENCIES AND PRESERVICE AND INSERVICE  
TRAINING NEEDS BY SKILL AREA IN PLANT SCIENCE

Agronomy and/or Plant Science	Importance of Selected Competencies	Training Received in College	Inservice Training Needs
Soil and Water Conservation Programs	3.83	3.14	3.19
Soil Testing	3.58	3.18	3.19
Variety Selection	3.39	2.73	3.03
Plant Diseases	3.56	2.89	3.03
Weed Control	3.75	3.08	3.14
Tillage Practices	3.45	3.05	3.03
Harvest Practices	3.41	2.71	3.06
On-Farm Storage	3.20	2.61	2.97
	—	—	—
Overall Mean	3.52	2.92	3.08



### Entomology

Table X revealed that Entomology was rated the lowest in terms of competency needed to conduct young/adult farmer education programs, while "Apiculture (Beekeeping)" also had the lowest rating with regard to training teachers received in college. Inservice training needs for the major category of Entomology was also the lowest of the eight major categories surveyed.

### Agriculture Mechanics

Table XI illustrated that teachers perceived that "farm shop skills" were "important" to conduct young/adult farmer education programs, while the area of "farm shop skills" also had a "good" training base in college. "Irrigation" was considered to be "moderately important" with an "average" background training in college. However, teachers would like to see more inservice training in "small engine repair".

### Horticulture

Table XII showed that Horticulture was perceived as being of "moderate importance" in conducting young/adult farmer education programs, while the respondents seem to perceive their college training in horticulture as "fair". Inservice training needed in Horticulture was "moderate" in each of the seven skill areas surveyed.

### Veterinary Skills

Table XIII revealed a summary of responses concerning selected

TABLE X

A SUMMARY OF MEAN RESPONSES WITH REFERENCE TO TEACHERS'  
 PERCEPTIONS OF IMPORTANCE OF SELECTED COMPETENCIES  
 AND PRESERVICE AND INSERVICE TRAINING NEEDS  
 BY SKILL AREAS IN ENTOMOLOGY

Entomology	Importance of Selected Competencies	Training Received in College	Inservice Training Needs
Household and Structural Pests	2.68	2.43	2.45
Insect Damage and Control	3.13	2.62	2.73
Apiculture (Bee Keeping)	1.68	1.42	1.95
Overall Mean	2.50	2.16	2.38

TABLE XI

A SUMMARY OF MEAN RESPONSES WITH REFERENCE TO TEACHERS'  
 IMPORTANCE OF SELECTED COMPETENCIES AND PRESERVICE  
 AND INSERVICE TRAINING NEEDS BY SKILL AREAS IN  
 AGRICULTURE MECHANICS

Agriculture Mechanics	Importance of Selected Competencies	Training Received in College	Inservice Training Needs
Tractor and Machinery Maintenance	3.38	2.50	2.82
Farm Structures	3.15	2.63	2.79
Irrigation	2.90	2.11	2.63
Farm Electrification	3.23	2.92	3.00
Farm Shop Skills	3.68	3.87	2.87
Small Engine Repair	3.48	2.92	2.89
Overall Mean	3.30	2.83	2.83

TABLE XII

A SUMMARY OF MEAN RESPONSES WITH REFERENCE TO TEACHERS'  
 PERCEPTIONS OF SELECTED COMPETENCIES AND PRESERVICE  
 AND INSERVICE TRAINING NEEDS BY SKILL AREAS  
 IN HORTICULTURE

Horticulture	Importance of Selected Competencies	Training Received in College	Inservice Training Needs
Vegetable Production	2.71	2.16	2.60
Green House Management	2.46	1.58	2.42
Plant Propagation	2.44	2.19	2.55
Retail and Wholesale Marketing	2.79	2.05	2.71
Nursery and Landscape	2.33	2.03	2.50
Tree, Fruit, and Nut Production	2.36	1.81	2.50
Turf Management	2.41	2.05	2.55
Overall Mean	2.50	1.98	2.55

TABLE XIII

A SUMMARY OF MEAN RESPONSES WITH REFERENCE TO TEACHERS'  
 PERCEPTIONS OF IMPORTANCE OF SELECTED COMPETENCIES  
 AND PRESERVICE AND INSERVICE TRAINING NEEDS BY  
 SKILL AREAS IN VETERINARY SCIENCE

Veterinary Skills	Importance of Selected Competencies	Training Received in College	Inservice Training Needs
Implanting	4.05	3.66	2.92
Worming	4.17	3.76	2.89
Herd Health	4.25	3.88	2.95
Dehorning	3.90	3.62	2.84
Castration	4.00	3.61	2.88
Vaccination	4.15	3.68	2.92
Maternity Skills	4.25	3.64	2.78
Overall Mean	4.11	3.69	2.88

factors included in the major category of Veterinary Skills. As a result of this summary, it was illustrated that this category was "important" in all seven skill areas with "herd health" and "maternity skills" having the most importance of the selected competencies needed to conduct young/adult farmer education programs. Respondents also revealed that they rated the training they received in college as being "good" (3.69 percent). "Herd Health" was the skill area in which respondents desired more inservice training.

#### Professional Education

Table XIV showed a summary of responses concerning selected variables within the major category of Professional Education. This summary revealed that "developing community support" was the most "important" area for selected competencies needed to conduct young/adult farmer education programs. Furthermore, all 12 variables surveyed fell in the "important" category. Teachers perceived their college training in "micro-computers" as being "fair" while "agriculture leadership" and "conducting meetings" were "good". "Communications skills" was another area where teachers indicated a desire for inservice training.

#### Comparison of Major Areas

The summary presented in Table XV illustrated the teachers' perceived importance with regard to conducting young/adult farmer education programs as well as their rating of preservice training and inservice training needs. Veterinary skills was perceived as being the most "important" of the selected competencies, while Entomology was

TABLE XIV

A SUMMARY OF MEAN RESPONSES WITH REFERENCE TO TEACHERS'  
 PERCEPTIONS OF IMPORTANCE OF SELECTED COMPETENCIES  
 AND PRESERVICE AND INSERVICE TRAINING NEEDS BY  
 SKILL AREAS IN PROFESSIONAL EDUCATION

Professional Education	Importance of Selected Competencies	Training Received in College	Inservice Training Needs
Human Relations	3.86	3.40	2.92
Stress Management	3.97	2.64	3.16
Microcomputers	3.97	2.03	3.24
Young Farmer Program Administration and Funding	3.63	2.74	2.87
Farm Organizations	3.62	2.62	2.82
Working with School Administration	3.93	2.79	3.03
Developing Community Support	4.18	3.03	3.11
Rural Development	3.82	2.84	2.89
Time Management	3.97	2.44	3.21
Agricultural Leadership	4.00	3.42	3.00
Conduct of Meetings	3.70	3.42	2.90
Communication Skills	3.95	3.28	3.42
Overall Mean	3.88	2.89	3.05

TABLE XV

A SUMMARY OF OVERALL MEAN RESPONSES WITH REFERENCE TO  
PERCEIVED IMPORTANCE, PRESERVICE AND INSERVICE  
TRAINING NEEDS BY MAJOR COMPETENCY AREA

Competency Area	Importance of Selected Competencies	Training Received in College	Inservice Training Needs
Farm Business Management	"Important" 3.67	"Fair" 2.26	"Moderate" 3.14
Animal Science	"Important" 3.59	"Average" 3.24	"Moderate" 3.05
Agronomy and/or Plant Science	"Important" 3.52°	"Average" 2.92	"Moderate" 3.08
Entomology	"Moderately Important" 2.50	"Fair" 2.16	"Low" 2.38
Agriculture Mechanics	"Moderately Important" 3.30	"Average" 2.83	"Moderate" 2.83
Horticulture	"Moderately Important" 2.50	"Fair" 1.98	"Moderate" 2.55
Veterinary Skills	"Important" 4.11	"Good" 3.69	"Moderate" 2.88
Professional Education	"Important" 3.88	"Average" 2.89	"Moderate" 3.05



last with regard to importance selected competencies. The teachers rated responded their preservice training in Veterinary Skills as "good" while preservice training in Horticulture was considered as being only "fair". Farm Business Management was the major competency area in which teachers desire more inservice training, while Entomology was not high on the list of the teachers perceived inservice training needs.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this chapter was to present a concise review of the study, its design and procedures and major findings. Conclusions and recommendations based on the summarization of data collected and analyzed were also presented.

#### Summary

##### Purpose

The purpose of this study was to determine the perceptions of vocational agriculture teachers with five years or less teaching experience conducting young/adult farmer education programs in the Western one-half of Oklahoma concerning the importance of selected agricultural competencies, quality preservice education, and need for inservice training.

##### Objectives

In order to accomplish the intent of this study it was necessary to develop the following objectives.

1. To acquire demographic data that described the typical local coordinator of young/adult farmer education programs who participated in this study.

2. To ascertain the importance of selected agriculture

competencies needed in teaching young/adult farmer education programs as perceived by the teachers conducting continuing education programs.

3. To determine the quality of undergraduate training (preservice education) for conducting adult education programs in agriculture as perceived by teacher respondents in this study.

4. To determine the inservice training needs of teachers conducting young/adult farmer education programs.

#### Design of the study

A list of teachers was acquired through the Oklahoma State Department of Vocational-Technical Education regarding vocational agriculture teachers in the western one-half of the State with five years or less teaching experience. There were a total of 89 vocational agriculture teachers who had five years or less teaching experience. The population for this study consisted of vocational agriculture teachers in the Northwest, Southwest, and Central Supervisory Districts in Oklahoma.

Teachers with five years or less teaching experience made up 34 percent of a total of 260 teachers in the Northwest, Southwest, and Central Districts.

The major source of data for this research effort was a 59-item questionnaire mailed to 89 Oklahoma teachers during the spring of 1987. The 89 teachers were dispersed among the three supervisory districts as follows: 23 - Northwest District; 37 - Southwest District; and 29 - Central District. The 51 teachers responding to the survey represented 31 single teacher departments and 20 multiple teacher departments. The

overall average age of those teachers was 28.6 years of age. These teachers have taught an average of 3.3 years.

The format of the questionnaire included a six-point Likert-type scale for teachers to indicate their responses. Information obtained from the questionnaire provided a procedure to secure teacher perceptions as to the training they perceived as important and needed to conduct young/adult farmer education programs.

Major competency areas of the questionnaire were: Farm Business Management, Animal Science, Agronomy and/or Plant Science, Entomology, Agriculture Mechanics, Horticulture, Veterinary Skills, and Professional Education.

The frequency of responses in each category were determined and means obtained on each individual factor as well as an overall mean.

#### Major Findings of the Research

In addressing the major findings of this study, the researcher made reference to eight major areas included in presentation and analysis of data. They are as follows.

1. Farm Business Management - It was revealed that teachers rated the importance of competency needed to conduct young/adult farmer education programs in "record keeping" the highest of any in the study. The training that teachers received in college to teach "estate planning" was "poor."

2. Animal Science - Teachers placed "animal nutrition" as the highest of the areas surveyed for training that teachers received in college. "Artificial insemination" and "embryo transplants" were rated the highest on the needs for inservice training needed to conduct

young/adult farmer education programs.

3. Agronomy and/or Plant Science - Teachers perceived that "soil and water conservation programs" were the most "important" in the plant and soil science area, however, training received in college and inservice training needs overall were considered "average" and "moderate."

4. Entomology - Teachers indicated this area was lowest in terms of competency needed to conduct young/adult farmer education programs. Entomology was also the lowest of the eight major areas surveyed.

5. Agriculture Mechanics - It was revealed that teachers perceived that farm shop skills as being "important" to conduct young/adult farmer education programs. Furthermore, teachers would like to see more inservice training with regard to small engine repair.

6. Horticulture - Horticulture was considered as being of "moderate importance" in conducting young/adult farmer education programs. However, teachers felt that they had a "fair" background in Horticulture in college. In addition, they perceived inservice training needs in Horticulture to be "moderate."

7. Veterinary Skills - this major competency area was the most "important" of the eight categories surveyed. The teachers seemed to indicate that they were the most competent in areas of "herd health" and "maternity skills", while respondents also perceived that the training they received in college was considered "good."

8. Professional Education - "Developing community support" was the most "important" for selected competencies needed to conduct young/adult farmer education programs among the selected skills listed in

professional education. Furthermore, all 12 variables surveyed fell in the "important" range. In addition, the teachers felt that their college training in agriculture leadership and conducting meetings was "good."

### Conclusions

The interpretation and findings of this research effort prompted the formulation of the following conclusions.

1. Based on the findings, it was obvious that a small number of teachers do not see the need for educational programs that will benefit adults in their local communities.

2. Apparently it made no difference where teachers taught or the number of years of experience in terms of how they perceived the need to conduct young/adult farmer education programs.

3. It was concluded that the major competency areas considered in this study were of some importance in conducting young/adult farmer education classes.

4. As a result of the overall findings, veterinary skills, farm management, and animal science seemed to be the areas of perceived importance for teachers conducting young/adult farmer education programs.

5. A comparison of the findings led the writer to believe that the teachers do not perceive the need to include entomology as a "priority" in developing educational programs for young/adult farmers.

6. Apparently the emphasis on record keeping in today's agricultural setting makes it a priority among many agricultural clientele.

7. It was further concluded that conducting/teaching young/adult farmer education programs did not merit the emphasis of other professional education areas during undergraduate training.

8. The writer concluded that a majority of the teachers perceived their preservice training in the specific skill areas of record keeping, animal nutrition, animal breeding, artificial insemination, farm shop, and veterinary skills as being "good."

9. Based on the findings it was apparent that the teachers perceived a need for future inservice training only in a few "specialty" areas--artificial insemination, embryo transplants, herd health, small engine repair, and communication skills.

#### Recommendations

As a result of the analysis of the data and major findings of the study it was recommended that:

1. The development of positive attitudes with young/adult farmer programs receive more emphasis in undergraduate training programs.
2. Younger teachers should be encouraged and assisted in the development and/or continuation of young/adult farmer education programs.
3. District supervisors should encourage and emphasize the development of special inservice training opportunities for those who conduct young/adult farmer programs.
4. Teachers should be made aware of the opportunities and benefits of conducting young/adult farmer education programs.

### Recommendations for Additional Research

The following recommendations were made by the researcher in regard to additional research as a result of having conducted this research effort. The recommendations were judgments based on the findings and suggestions resulting from this research effort.

1. Research be conducted to determine factors other than those studied here.

2. A study be conducted to determine the differences between single and multiple teacher departments in conducting young/adult farmer education programs.



## SELECTED BIBLIOGRAPHY

- (1) Thompson, Les. "Importance of Quality Vocational Agriculture Adult/Young Farmer Programs in America Today." The Agricultural Education Magazine, Vol. 56 (August, 1983), p. 5.
- (2) Frank, Harry Elmer, Jr. "The Development and Evaluation of an Adult Farmer Educational Program in the Tryon, Oklahoma Community." (Unpub. M.S. thesis, Oklahoma State University, 1957.)
- (3) Harrington, Pat. "From Barn Doors to Printouts: Teaching Adults to Use Computers." The Agricultural Education Magazine, Vol. 57 (April, 1985), p. 16.
- (4) Richardson, Vic. "The Critical Role of the Vocational Agriculture Teacher." The Agricultural Education Magazine, Vol. 56 (August, 1983), p. 14.
- (5) Hollenback, E. F. "Bill". "Perceptions of Oklahoma Young/Adult Farmers and Teachers as to Need, Feasibility, and Possible Acceptance of a Proposed Adult Agricultural Education Specialist Program." (Unpub. Ed.D. dissertation, Oklahoma State University, 1975.)
- (6) Klevins, Chester. Materials and Methods in Adult Education. New York, NY: Klevens Publications, Inc., 1972.
- (7) "Student Teaching in Vocational Agriculture." Stillwater, OK; Department of Agricultural Education, Oklahoma State University, 1969.
- (8) Arthur, Charles Bee. "An Evaluation of the Missouri Adult Farming Cooperative Programs and Their Influence on Those Enrolled." (Unpub. M.S. thesis, Oklahoma State University, 1975.)
- (9) Federal Board of Vocational Education. Training, Objectives in Vocational Education in Agriculture. Vocational Division Bulletin Number 153. Washington, DC: Government Printing Office, 1961.
- (10) Devoe, George P. "Supervising Farming Activities for Adult Farmers." The Agricultural Education Magazine, Vol. 26 (December, 1953), p. 128.

- (11) Drueckhammer, David C. and White, James D. "Considering the Older Adult in Agriculture." The Agricultural Education Magazine, Vol. 57 (November, 1984), pp. 22-23.
- (12) Marvin, Paul. "Preparing to Teach Agriculture to Adults." The Agricultural Education Magazine, Vol. 56 (July, 1983), pp. 8-9.
- (13) Cavey, Mike. "Teachers Benefit from Teaching Adults." The Agricultural Education Magazine, Vol. 56 (August, 1983), pp. 20-21.
- (14) Miller, W. Wade and Scheid, Carl L. "Problems of Beginning Teachers of Vocational Agriculture in Iowa." The Journal of the American Association of Teacher Educators in Agriculture, Vol. 25 (Winter, 1984), p. 6.
- (15) Guiler, Gilbert S. "How First-Year Teachers Perceive Their Abilities." The Agricultural Education Magazine, Vol. 42 (June, 1970), p. 313.
- (16) Barrett, Leverne. "Teacher Educators and Supervisors: A Critical Role in Young/Adult Farmer Education." The Agricultural Education Magazine, Vol. 56 (August, 1983), pp. 21-22.
- (17) Gott, Richard E. and Claycomb, Donald M. "Perceptions of the Value of Adult/Young Farmer Education Competencies Needed by Vocational Agriculture Teachers." The Journal of the American Vocational Association of Teacher Educators in Agriculture, Vol. 23 (March, 1982), pp. 48-56.
- (18) Kiesling, Leeroy W. "The Relationship Between the Vocational Agriculture Teacher's Attitude Toward Coordinating and Advising the Young Farmer Organization and His Attitude Toward his Other Duties." (Unpub. Ed.D. dissertation, Oklahoma State University, 1971.)
- (19) McCracken, Jay. "Serving Adults Through Vocational Agriculture Education." The Agricultural Education Magazine, Vol. 56 (August, 1983), p. 4.
- (20) Bender, R. E., McCormick, R. W., Woodin, R. T., Cunningham, C. T., and Wolf, W. H. Adult Education in Agriculture. Columbus, OH: Charles E. Merrill Publishing Company, 1972.
- (21) Burhoe, Steven A. and Steward, Bob R. "The Identification of Instructional Priorities for Future Programming in Adult Education in Agriculture." The Journal of the American Association of Teacher Educators in Agriculture, Vol. 24 (Spring, 1983), p. 26.
- (22) Persons, Edgar. "Management Education: Old McDonald's Farm Is Good!" The Agricultural Education Magazine, Vol. 53 (June, 1981), p. 6.

APPENDIXES

APPENDIX A

QUESTIONNAIRE

1. District in which you teach (Circle One) NW, C, SW ?
2. Your Age \_\_\_\_\_?
3. Number of Years Teaching Vocational Agriculture \_\_\_\_\_?
4. Tenure at Your present School \_\_\_\_\_?
5. What College Degrees do you hold? B.S. M.S. Ed.D. (Circle Degrees Held)
6. Do You teach in a Single \_\_\_\_\_ or Multiple \_\_\_\_\_ teacher department?
7. Do You conduct a Adult Education Class \_\_\_\_\_ or Young Farmer Program \_\_\_\_\_?
  - A. If yes is it Affiliated with the State Young Farmer Association (Check One) Yes \_\_\_\_\_ No \_\_\_\_\_?
8. Does Your Chapter have a Member who is a State Young Farmer Officer? Yes \_\_\_\_\_ No \_\_\_\_\_.
9. Does Your Chapter Participate in the State Young Farmer Awards Program? Yes \_\_\_\_\_ No \_\_\_\_\_.
10. How long (Years) has Your Young Farmer Program been in existance? \_\_\_\_\_ yrs.
11. Did Your Chapter take part in the 1986 State Young Farmer Convention? Yes \_\_\_\_\_ No \_\_\_\_\_.
12. Did Your Chapter take part in the 1986 National Young Farmer Institute which was held in Oklahoma City? Yes \_\_\_\_\_ No \_\_\_\_\_.
13. If You if you do not have a Young Farmer Chapter at the present time are You trying to establish a Chapter? Yes \_\_\_\_\_ No \_\_\_\_\_.

Please mark each of the Competency Areas Listed. Mark the answer as it pertains to you and your position as a Young Farmer Advisor. Indicate your answers by marking the appropriate squares [x] in Columns I, II, and III.

	I Rate the Importance of Selected Competency needed to conduct Adult/Young Farmer Education Programs.						II Rate the Training You received in College for Conducting Adult/Young Farmer Programs.						III Rate Your Inservice Training needs for Conducting Adult/Young Farmer Programs.					
	5. Very Important	4. Important	3. Moderately Important	2. Some Importance	1. Little Importance	0. No Importance	5. Excellent	4. Good	3. Average	2. Fair	1. Poor	0. Unsatisfactory	5. Very High	4. High	3. Moderate	2. Low	1. Very Low	0. None
Farm Business Management	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Record Keeping	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Tax Management	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Future's Marketing	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Estate Planning	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
American Agriculture Policy	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Agriculture Credit	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
International Trade	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Land Appraisal	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Government Programs	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Agriculture Legislation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Animal Science	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Animal Nutrition	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Animal Breeding and Genetics	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Embryo Transplants	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Electronic Marketing	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Artificial Insemination	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Agronomy and/or Plant Science	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Soil and Water Conservation Programs	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Soil Testing	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Variety Selection	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Plant Disease's	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Weed Control	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Tillage Practices	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Harvest Practices	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
On Farm Storage	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Entomology	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Household and Structural Pests	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Insect Damage and Control	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Apiculture (Bee Keeping)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Agriculture Mechanics	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Tractor and Machinery Maintenance	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Farm Structures	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Irrigation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Farm Electrification	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Farm Shop Skills	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Small Engine Repair	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Please mark each of the Competency Areas Listed. Mark the answer as it pertains to you and your position as a Young Farmer Advisor. Indicate your answers by marking the appropriate squares [x] in Columns I, II, and III.

	COLUMN I Rate the Importance of Selected Competency needed to conduct Adult/Young Farmer Education Programs.						COLUMN II Rate the Training You received in College for Conducting Adult/Young Farmer Programs.					COLUMN III Rate Your Inservice Training needs for Conducting Adult/Young Farmer Programs.					
	5. Very Important	4. Important	3. Moderately Important	2. Some Importance	1. Little Importance	0. No Importance	5. Excellent	4. Good	3. Average	2. Fair	1. Poor	0. Unsatisfactory	5. Very High	4. High	3. Moderate	2. Low	1. Very Low
Horticulture	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
Vegetable Production																	
Green House Management																	
Plant Propagation																	
Retail and Wholesale Marketing																	
Nursey and Land Scape																	
Tree Fruit and Nut Production																	
Turf Management																	
Veterinary Skills	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
Implanting																	
Worming																	
Herd Health																	
Dehorning																	
Castration																	
Vaccination																	
Maternity Skills																	
Professional Education	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
Human Relations																	
Stress Management																	
Microcomputers																	
Young Farmer Program Administration and Funding																	
Farm Organizations																	
Working with School Administration																	
Developing Community Support																	
Rural Development																	
Time Management																	
Agricultural Leadership																	
Conduct of Meetings																	
Communication Skills																	

APPENDIX B

COVER LETTER



March 1, 1987

Fellow Vo-Ag teacher, I know that this is a busy time of year for all of us, but, I would like to ask for your help. Please take a few minutes now and answer the Questionnaire which I have enclosed.

The purpose of this study is to identify the areas of instruction which need to be added or improved for Vo-Ag teachers to aid them in conducting young/adult farmer education programs. If you fall within this range of teaching experience your input is vital.

Even if you do not have a Young Farmer Program please go ahead and complete the questionnaire. Your cooperation in this effort is greatly appreciated. I would like to thank you in advance for your help and prompt return of the questionnaire in the envelope enclosed.

Thank you,

Gary Larman  
Vo-Ag Instructor  
Mulhall-Orlando

2  
VITA

Gary B. Larman

Candidate for the Degree of

Master of Science

Thesis: THE PERCEIVED TRAINING NEEDS OF VOCATIONAL AGRICULTURE  
TEACHERS WITH FIVE YEARS OR LESS TEACHING EXPERIENCE  
WHO ARE CONDUCTING YOUNG/ADULT FARMER PROGRAMS IN THE  
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