ABSTRACT OF THESIS

FACTORS RELATING TO THE CHOICE OF TWO MAJORS IN CLEMSON COLLEGE-AGRICULTURAL EDUCATION AND TECHNICAL AGRICULTURE

> Submitted by William C. Bowen

In partial fulfillment of the requirements for the Degree of Master of Science Colorado State College

of

Agriculture and Mechanic Arts Fort Collins, Colorado

August, 1940

S-1-08A-20-02-020 & M. A.



378.788 A0 1940 560

ABSTRA CT

Title Factors Related to the Choice of Two Majors in Clemson College, Agricultural Education and Technical Agriculture.

Problem This study is a comparison between the Clemson College graduates of 1940 in agricultural education and technical agricultural fields.

Procedure Data were collected by the writer personally from the records in the Registrar's Office at Clemson College, and by personally interviewing 49 senior students enrolled in agricultural education, and 40 senior students enrolled in the School of Agriculture. The following data were collected:

- 1. The intelligence test scores made by the students
- 2. The high school and college grades made by students
- 3. The high school and college English grades made by the students
- 4. The high school and college training received by the students
- 5. The status of the parents of the students
- 6. The vocational opportunities at home of students
- 7. The home conditions of the students

- 8. The plans of the students for pursuing graduate work
- 9. The intentions of the students as to type of work expected to engage in after graduation

Findings The data were collected and arranged in tabular form, from which the comparisons were made.

The findings of this study are summarized as follows:

The agricultural education students, on the following base's of comparison outranked those students in the technical agricultural group:

- 1. The percentage of students that took vocational agriculture in high school
- 2. The percentage of parents that were farmers
- 3. Average number of brothers and sisters living at home
- 4. Average age of brothers and sisters living at home
- 5. Percentage of parents having farms mortgaged
- 6. Percentage of students expecting to inherit a farm in the near future
- 7. Percentage of homes receiving daily newspapers
- 8. Percentage of homes receiving farm papers
- 9. Percentage expecting to become engaged in the type of work that was in keeping with their training

The technical agricultural students, on the following bases of comparison outranked the students in the agricultural education group:

- 1. Scores made on psychological test
- 2. Percentage of students that took science subjects in high school
- 3. Average number of science subjects studied in high school
- 4. Percentage of parents that farmed in combination with some other occupation
- 5. Percentage of students that had an opportunity to farm in partnership with parents
- 6. Percentage of homes located on paved highways
- 7. Percentage of homes having telephones
- 8. Percentage of homes having running water
- 9. Percentage of students planning graduate work
- 10. Percentage of students planning to begin graduate work within one year after graduation

There were no significant differences between the two groups of students as to the following:

- 1. Average of grades made in high school, in college and the average of high school and college English grades
- 2. Average number of years of vocational agriculture taken in high school by students who had vocational agriculture in high school

- 3. Percentage of parents farming in combination with some other occupation but deriving a major part of their income from farming
- 4. Percentage of parents of students who farmed and were farm owners
- 5. Percentage of families of students owning automobiles
- 6. Percentage of homes of students having electricity and radios

Conclusions The findings of this study indicate that there is not enough difference existing between the two groups of students to show that one group was superior to another.

COLORADO STATE COLLEGE OF A. & M. A.
FORT COLLINS, COLORADO

THESIS

COLORADO STATE COLLEGE OF A. & M. A.

FACTORS RELATING TO THE CHOICE

OF TWO MAJORS IN CLEMSON COLLEGE—

AGRICULTURAL EDUCATION AND

TECHNICAL AGRICULTURE

Submitted by William C. Bowen

In partial fulfillment of the requirements

for the Degree of Master of Science

Colorado State College

of

Agriculture and Mechanic Arts
Fort Collins, Colorado

August, 1940

378.788 AO 1940 5

COLORADO STATE COLLEGE

. OF

AGRICULTURE AND MECHANIC ARTS

| | 8aly 1919:40 |
|---|--|
| I HEREBY REC | OMMEND THAT THE THESIS PREPARED UNDER MY |
| SUPERVISION BY WILLIAM | . BOMEN |
| ENTITLED PACTORS RELAT | ING TO THE CHOICE OF TWO MAJORS IN |
| CLEMSON COLLEGE AGR | CULTURAL EDUCATION AND TROUBLEAL |
| AGRICULTURE BE AUCEPTED AS FULFILLING | THIS PART OF THE REQUIREMENTS FOR THE |
| DEGREE OF MASTER OF SCIE | ica |
| MAJORING IN AGRICULTURA | 1 2 22 |
| CREDITS | (e) Joudann |
| | In Charge of Thesis |
| | LAND 1 |
| AD | PROVED |
| AP | PROVED Head of Department |
| 10 To | |
| 10 To | Head of Department |
| Recomm | Head of Department mendation concurred in ation Committee on Graduate Work About Teger A Devel |
| Recommendation Committee on Final Examination Sublember 2 Approvall E.R., Panday | Head of Department Mendation concurred in ation Committee on Graduate Work All All All All All All All All All Al |
| Recommendation Committee on Final Examination Sublestance of Appinwall Examination of Appinwall | Head of Department Mendation concurred in ation Committee on Graduate Work About They |
| Recommendation Committee on Final Examination Sublember 2 Approvall E.R., Panday | Head of Department Mendation concurred in ation Committee on Graduate Work All All All All All All All All All Al |

This thesis, or any part of it, may not be published without the consent of the Committee on Graduate Work of the Colorado State College

of Agriculture and Mechanic Arts

ACKNOWLEDGMENTS

The writer wishes to express his appreciation to Dr. G. A. Schmidt, his major professor at Colorado State College; to Dr. C. L. Mondart, Louisiana State University; and to Dr. G. L. Betts, Mr. James G. Hodgson, and Professor Andrew J. Clark, all of Colorado State College, for assistance in the preparation of this thesis. The writer is also indebted to Mr. G. E. Metz, Registrar at Clemson College, for assistance and advice in the collection of necessary data for this study.

CONTENTS

| I | Page |
|---|----------------------------|
| CHAPTER I: INTRODUCTION | 6 7 8 |
| CHAPTER II: REVIEW OF LITERATURE | 9 |
| Data needed | 13 13 14 14 15 |
| CHAPTER IV: FINDINGS AND DISCUSSION | 16 |
| CHAPTER V: SUMMARY, CONCLUSIONS, AND RECOMMENDA- TIONS | 35 |
| APPENDIX Bibliography | 39 4 3 |

LIST OF TABLES

| Table | | Page |
|-------|---|------|
| 1. | Scores made on psychological test by students majoring in vocational agriculture education and by those majoring in technical agriculture | 17 |
| 2. | Grades made in high school by students majoring in agricultural education and by students majoring in technical agriculture | 18 |
| 3. | Grades made during the first seven semesters of college work by students majoring in agricultural education and by students majoring in technical agriculture | 19 |
| 4. | Grades made in English by students majoring in agricultural education and by students majoring in technical agriculture | 20 |
| 5. | Courses pursued in high school by 49 students majoring in agricultural education and by 38 students majoring in technical agriculture | 22 |
| 6. | Parent status of 49 students majoring in agricultural education and of 40 students majoring in technical agriculture | 24 |
| 7. | The vocational opportunities of the students at home | 26 |
| 8. | The home conditions of the students | 28 |
| 9. | Plans for graduate work of 49 agricultural education and of 40 students in technical agriculture | 31 |
| 10. | Type of work expected to become engaged in after graduation by 49 agricultural education students and by 40 technical agricultural students | 32 |

Chapter I

INTRODUCTION

This study is concerned with a comparison of two different groups of students, one group in technical agriculture and one group in agricultural education,
who graduated from Clemson College in the class of 1940.

Clemson College is a Land-Grant institution.

It is the Agricultural and Mechanical College of South
Carolina. It is the only Institution in the State
offering college work in agriculture for white students.

It is, also, the only approved Institution in the State
to train white teachers of vocational agriculture. The
Negroes in this field are trained at South Carolina
State College for Negroes.

Clemson College has, among others, two schools from which those interested in agriculture may elect one in which to matriculate. The School of Vocational Education offers training to prospective teachers of vocational agriculture; while the School of Agriculture offers training in the technical fields of agriculture. With the exception of the requirement of a minimum of 18 semester credit hours in agricultural education for those enrolled in Agricultural Education in the School

of Vocational Education, the training of the two groups is essentially the same.

Graduates who have majored in Agricultural Education are eligible for certification as teachers of vocational agriculture in South Carolina. Graduates from the School of Agriculture are not qualified to teach vocational agriculture.

The men in charge of Agricultural Education at Clemson College have been interested for many years in the quality of the men preparing to teach vocational agriculture, and with the quality of the men taking only courses in technical agriculture. They are interested in knowing whether or not there are differences between these two groups of students, and the extent of these differences, if any.

Purpose of this study

In the 1940 class graduating from Clemson College, there were 49 graduates from the Department of Agricultural Education who were enrolled in the School of Vocational Education. All of these 49 young men were qualified to teach vocational agriculture in South Carolina.

In the 1940 class there were, also, 40 young men who had completed one of the curricula in agriculture offered in the School of Agriculture. None of these men was qualified to teach vocational agriculture.

The purpose of this study is to make a comparison of the graduates qualified to teach vocational agriculture from the School of Vocational Education with the graduates in technical agriculture from the School of Agriculture with a view of determining the differences, if any, existing between these two groups of young men.

The points of comparison used in this study are:

- 1. Scores made on intelligence test
- 2. High school and college grades
 High school training
- 3. English grades
- 4. Number of science subjects studied in high school
- 5. Status of parents as to occupation and farm ownership
- 6. Information that may determine the vocational opportunities at home
- 7. Home conditions
- 8. Plans for pursuing graduate work
- 9. Intentions as to the type of work expected to be engaged in after graduation

Chapter II REVIEW OF LITERATURE

As was mentioned in the close of Chapter I the purpose of this study was to make comparisons between young men enrolled in agricultural education preparing themselves to teach, and young men enrolled in technical agriculture at Clemson College.

The most popular opinion concerning teachers is that they are inferior to those in other professions. Regarding college students Learned and Wood (8:333) found that those students who planned to teach were below the average of all groups in achievement. However. the same study shows that, taken alone, the men who intended to teach actually averaged higher in achievement than any of the larger professional groups. They were surpassed only by the engineering students. Peik (11:80) as cited by Southern Association Joint Committee on Study of Curricula found that the poor students tend to prepare for teaching. The Joint Committee on Study of Curricula of the Southern Association of Colleges and Secondary Schools stated that, in spite of the general assumption concerning the relative quality of prospective teachers and other

students, convincing data were not available to sustain it. For example, Evenden (5:147-149) states that definite ideas of what constitutes successful teaching have not been developed and naturally there are no satisfactory measures of teaching success. Betts (2:107-116) arrived at essentially the same conclusion in a study concerned with the evaluation of teacher education through the measurement of teaching ability.

High school grades is one of the criteria by which it is thought that college achievement can be predicted. Sheeder (10:156) points out that high school grades are not sufficient for predicting college success. However, it was found by Walsh (12:201) that the achievement of students in the secondary school curricula is one of the most accurate bases for predicting success in college. It was also found that the use of high school grades to predict future accomplishment is a fair means of measurement, and that the chances are that a fair high school student will be a fair college student.

In studying the consistency of vocational and educational goals of university students, Brown (4:9) states that the interests, activities, and school subjects in high school were closely related to the majors, considered in this study, as were those of the university. The high school and university

interests and activities were consistent and continous from high school through the university. Evidence of patterns for the several majors was as definite in high school as it was in college.

The following studies show that students who have had vocational agriculture in high school compare favorably with other students in college. Farmer (6:64) in 1929 found that the former vocational students performed somewhat better than other students at Virginia Polytechnic Institute; the amount of agriculture that a student had in high school had little relation to the scholastic performance in college. There was, however, a slight increase in scholarship for those students who had the larger amount of high school agriculture. He also found that the students of vocational agriculture made higher grades in college than students who did not study agriculture in high school. Furthermore, he discovered that there was no significant difference between the performance of former vocational agricultural students and other students in scholastic standing in college history, mathematics, art, and languages. The vocational students performed better in agriculture and in the sciences.

Bradford (3:32) in making an analysis of achievements of certain University of Nebraska students who offered vocational agriculture as credit for

entrance, compared with achievements of a similar group who offered the traditional entrance subjects, found that twenty-nine per cent of the students who had studied vocational agriculture were graduated from college, whereas, only twenty-five per cent of the other group were graduated. He found that the average grade in all subjects made by members of the vocational group was 78.1, and the average grade for the check group was 76.8.

Reporting on 526 freshmen entering the University of Wisconsin Fay (7:65) found that a greater percentage of the boys entering the college of agriculture after having studied vocational agriculture in high school were more successful in their first year of college work than boys who entered with an academic high school preparation.

Maddox and Dickinson (9:14-15) as the result of a study to determine the comparative records in scholarship and in activities of graduates entering the College of Agriculture of the University of Missouri with and without credits in vocational agriculture reported that the average high school grade for the former vocational agricultural students was 2.51, as compared with 2.25 for the check group; the average college grade was 2.0 for the vocational group compared with 1.8 for the check group. (High score means high scholarship.)

Chapter III

MATERIALS AND METHODS

In this Chapter is discussed the ways and means used in this study to solve the problem. The kinds of data needed as well as the source of data, the method used in procuring the data, and a statement as to the accuracy of the data are included.

Data needed

The writer decided that the data needed to make a satisfactory comparison of the two groups of young men involved in this study include:

- 1. The intelligence test scores made by the students
- 2. The high school and college grades made by students
- 3. The high school and college English grades made by the students
- 4. The high school and college training received by the students
- 5. The status of the parents of the students
- 6. The vocational opportunities at home of students
- 7. The home conditions of the students
- 8. The plans of the students for pursuing graduate work

9. The intentions of the students as to type of work expected to engage in after graduation

Source of data

These data were collected by the writer personally from records in the Registrar's office at Clemson College, and by personally interviewing the students enrolled in agricultural education, and those enrolled in the School of Agriculture.

Information obtained from the Registrar includes:

- 1. High school and college grades
- 2. High school training
- 3. Scores made on the psychological test given by college authorities

Information obtained from the students

includes:

- 1. The vocational opportunities at home
- 2. Status of the parents of the students
- 3. Plans for pursuing graduate work
- 4. Intentions as to the type of work students expect to become engaged in after graduation

In order to systematically obtain and record the data needed an inquiry blank was formulated. A copy of this blank is included in the appendix.

Technique and procedure

These data were procured by the writer between

January 1 and June 7, 1940, after which they were assembled into tables which are given in Chapter IV.

Accuracy of the data

The information regarding these two groups of students, namely, the one enrolled in agricultural education and the one enrolled in the School of Agriculture, was obtained from the files in the registrar's office and is assumed to be sufficiently reliable.

The remaining information obtained personally from the men is also assumed to be sufficiently reliable, for there was nothing involved that would induce misstatements.

Chapter IV

FINDINGS AND DISCUSSION

In this Chapter are presented the findings which serve as bases for the comparison of the two groups of students concerned with this study, and a discussion of these findings. Tables are included that present the following data on the two groups of young men compared in this study:

- 1. Scores made on psychological test
- 2. Grades made in high school
- 3. Grades made in college
- 4. Grades made in high school and college English
- 5. Courses pursued in high school
- 6. Parent status
- 7. Information that may indicate the vocational opportunities of the students at home
- 8. The home conditions of the students
- 9. Plans of the students for graduate work
- 10. Work students expect to become engaged in after graduation

Scores made by students on the psychological test. -- At Clemson College a psychological test is given

to all entering students, including the two groups of young men considered in this study. This test was devised by the American Council on Education. Because some students were late in entering only 40 of the 49 agricultural education students and 33 of the 40 technical agricultural students took this test.

Table 1.--SCORES MADE ON PSYCHOLOGICAL TEST BY STUDENTS MAJORING IN VOCATIONAL AGRICULTURAL EDUCATION AND BY THOSE MAJORING IN TECHNICAL AGRICULTURE

| GROUPS | Number students | Average scores |
|--|--------------------|-------------------|
| Students majoring in agri- cultural education | 40 | 98.4 |
| Students majoring in technical agriculture | 33 | 113.4 |

As Table 1 shows, the students majoring in agricultural education made an average score of 98.4 on this test, as compared with a score of 113.4 for the students majoring in technical agriculture. This indicates that the students in technical agriculture were superior to the students in agricultural education in the elements of this test.

Grades made in high school. -- Table 2 shows the high school grade point ratio for the two groups of students considered in this study. The average grade point ratio made by agricultural education students was 5.380, as compared with an average grade point ratio

of 4.998 for the technical agricultural students.*

Table 2.--GRADES MADE IN HIGH SCHOOL BY STUDENTS MAJORING IN AGRICULTURAL EDUCATION AND BY STUDENTS MAJORING IN TECHNICAL AGRICULTURE

| GROUPS | Number students | Average grade point ratio |
|---|--------------------|---------------------------|
| Students majoring in agricultural education | 49 | 5.380 |
| Students majoring in tech- nical agriculture | 38 | 4.998 |

The difference between the high school grade point ratios of the agricultural education students and the technical agricultural students was slight. Therefore, the grades made in high school by the two groups of men considered in this study is not a differentiating factor.

Grades made in college. -- Table 3 records
the college grades made during the first seven semesters
of college work by the two groups of men considered in
this study.

^{*} High school grades were available for only 38 technical agricultural students.

Table 3.--GRADES MADE DURING THE FIRST SEVEN SEMESTERS OF COLLEGE WORK BY STUDENTS MAJORING IN AGRICULTURAL EDUCATION AND BY STUDENTS MAJORING IN TECHNICAL AGRICULTURE

| GROUPS | Number students | Average grade point ratio |
|---|--------------------|---------------------------|
| Students majoring in agricultural education | 49 | 3.453 |
| Students majoring in tech- nical agriculture | 40 | 3.501 |

The agricultural education students had an average grade point ratio of 3.453, as compared with an average grade point ratio of 3.501 for the technical agricultural group.

As has been stated, the curriculum in agricultural education and the several curricula in technical agriculture are very similar. Therefore, it must
again be concluded that there is no significant difference between the abilities of these two groups of
men to pursue college work.

Grades made in high school and college

English. -- Table 4 shows the average English grades
made in high school and college by the two groups of
students considered in this study.

Table 4.--GRADES MADE IN ENGLISH BY STUDENTS MAJORING IN AGRICULTURAL EDUCATION AND BY STUDENTS MAJORING IN TECHNICAL AGRICULTURE

| GROUP | No.students | High school grade point ratio | No.students - | College grade point ratio for 7 semesters |
|--|-------------|-------------------------------|---------------|---|
| Students major- ing in agricul- tural education Students major- | 49 | 4.867 | 4 9 | 1.790 |
| ing in tech- nical agriculture | 38 | 4.382 | 40 | 2.167 |

The high school English grade point ratio for the students in agricultural education was 4.867, as compared with 4.382 for the technical agricultural students.* The college English grade point ratio for the students in agricultural education was 1.790, as compared with 2.167 for the technical agricultural students.

As shown above, the agricultural education students had a slightly higher grade point ratio for high school English than did the technical agricultural students, while the technical agricultural students had a higher grade point ratio for college English than did the agricultural education students. However, a

* High school grades in English were available for only 38 technical agricultural students.

weighted average of the English grades made in high school and in college show the grade point ratio for the agricultural education students to be 3.328, as compared with 3.245 for the technical agricultural students. The English grades made by these two groups of students do not indicate any difference between the two groups as far as their achievements in English is concerned.

Courses pursued in high school. -- Table 5 shows the number of students of both groups who had studied vocational agriculture in high school, and the number of science subjects studied. Table 5 also shows the number of years the students had vocational agriculture in high school.

Table 5.-- COURSES PURSUED IN HIGH SCHOOL BY 49 STUDENTS MAJORING IN AGRICULTURAL EDUCATION AND BY 38 STUDENTS MAJORING IN TECHNICAL AGRICULTURE

| | | L. Ed. dents | Tech. Agri. students | | |
|--|------|-----------------|----------------------|---------|--|
| HIGH SCHOOL WORK | No. | Percent | No. | Percent | |
| Students who had voca- tional agri. in high school | 34 | 69.4 | 18 | 47.3 | |
| Average yrs. of vocational agri. for those who had vocational agri. in high school | 2.29 | | 2.11 | | |
| Students who had science in high school | 45 | 91.8 | 38 | 100.00 | |
| Average No. science subjects per student for those who had science in high school | 1.86 | | 2.25 | | |

Thirty-four, or 69.4 percent of the agricultural education students had vocational agriculture
in high school, as compared with 47.3 percent of the
technical agricultural students. The average number of
years of vocational agriculture in high school was 2.29
years for the agricultural education group, as compared
with 2.11 years for the technical agricultural group.
Of the agricultural education group 45, or 91.8 percent
had taken science subjects in high school, whereas, 38,*
or 100 percent, of the technical agricultural students

^{*} High school records were available for only 38 technical students.

had one or more science subjects in high school. The average number of science subjects studied per student was 1.86 for the agricultural education group, as compared with an average of 2.25 science subjects per student for the technical agricultural group.

Vocational agriculture and science subjects are classified as elective subjects in the high schools of South Carolina. If a student elects vocational agriculture he does so in preference to some other elec-Therefore, those students who had vocational agriculture in high schools did not have an opportunity to study as many science subjects as did the students who did not elect vocational agriculture. The number of science subjects studied in high school denotes a preference of the students as to the choice between additional science subjects and vocational agriculture. As has been previously stated, there seems to be a relationship between the students studying vocational agriculture in high school and the choice between agricultural education and technical agricultural majors in college.

The taking of vocational agriculture is a differentiating factor concerning the two groups of men considered in this study. The taking of science subjects are, also, differentiating factors concerning the two groups. The data show that the number of years

of vocational agriculture taken in high school is not a differentiating factor concerning these two groups of students.

Parent status. -- Table 6 records the status of the parents of the two groups of students.

Table 6.--PARENT STATUS OF 49 STUDENTS MAJORING IN AGRICULTURAL EDUCATION AND OF 40 STUDENTS MAJORING IN TECHNICAL AGRICULTURE

| STATUS | st | ri. Ed. udents Percent | Tech. Agri. students No. Percent | | |
|--|----|------------------------------|------------------------------------|--------|--|
| Parents were farmers | 45 | 91.8 | 32 | 80.00 | |
| Parents farmed in combina- tion with some other occupation | 16 | 32.6 | 16 | 40.00 | |
| Parents farmed in combina- tion with some other occupation but derived a major part of their in- come from farming | 11 | 24.4 | 5 | 12.5 | |
| Parents who farmed and were farm owners | 45 | 100.00 | 3 2 | 100.00 | |

Forty-five or 91.8 percent of the parents of agricultural students were farmers, as compared with 32 or 80 percent of the parents of technical agricultural students. Thirty-two and six-tenths percent of the parents of agricultural education farmed in combination with some other occupation, as compared with 40 percent of the parents of technical agricultural students.

Eleven or 24.4 percent of the parents of agricultural education students farmed in combination with some other occupation but derived a major part of their income from farming, as compared with five or 12.5 percent of the parents of technical agricultural students. In both groups all parents who were farmers were farm owners.

The data show that a higher percentage of parents of the students in agricultural education were farming than of those students taking technical agriculture.

The vocational opportunities of the students at home. -- Table 7 records information that indicates the vocational opportunities of the two groups of students at home.

Table 7.--THE VOCATIONAL OPPORTUNITIES OF THE STUDENTS AT HOME

| CONDITIONS AFFECTING VOCA- TIONAL OPPORTUNITIES AT HOME | Agri. Ed. students | Tech. Agri. students |
|--|-----------------------|-------------------------|
| Average number brothers per family at home | 1.3 | 1.0 |
| Average age of brothers | 17.2 | 16.1 |
| Average number sisters per family at home | 1.3 | 1.1 |
| Average age of sisters | 16.5 | 15.5 |
| Parents having farms mortgaged | 21.0 | 10.0 |
| Percent of parents that owned farms whose farm was mortgaged | 46.7 | 31.3 |
| Percent of students who expected to inherit a farm soon | 22.5 | 3. 3 |
| Percent of students having opportunity to work in partnership with parents | 30.6 | 37.5 |

Agricultural students had an average of 1.3 brothers and 1.3 sisters living at home. The average age of the brothers of the group was 17.2 years, and that of the sisters was 16.5 years. The technical agricultural students had an average of one brother and 1.1 sisters living at home. The average age of the brothers was 16.1 years, and the average age of the sisters was 15.5 years.

Parents of 21 of the agricultural education

students had their farms mortgaged, as compared with parents of ten technical agricultural students, or a percentage of 46.7 and 31.3, respectively.

Of the agricultural education students 22.6 percent expected to inherit a farm in the near future, as compared with 3.3 of the technical agricultural students.

Twenty and six-tenths percent of the agricultural education students reported that they had an
opportunity to farm in combination with their parents,
as compared with 37.5 percent for the technical agricultural students.

From these data it is apparent that there is a greater vocational opportunity at home for the technical agricultural students than there is for the agricultural education students.

The home conditions of the students. -- Table 8 gives information regarding the home conditions of the two groups of students considered in this study.

Table 8 .-- THE HOME CONDITIONS OF THE STUDENTS

| HOME | S | gri. Ed. tudents Percent | sti | |
|--|----|--------------------------------|-----|------|
| Homes located on hard-surfaced or paved highways | 26 | 53.1 | 25 | 62.5 |
| Families owned automobiles | 45 | 91.8 | 36 | 90.0 |
| Homes had telephones | 8 | 16.3 | 20 | 50.0 |
| Homes had running water | 27 | 55.1 | 28 | 70.0 |
| Homes had bath rooms with running water | 19 | 38.6 | 26 | 65.0 |
| Homes had electricity | 41 | 83.7 | 34 | 85.0 |
| Homes had radios | 48 | 97.9 | 38 | 95.0 |
| Homes received daily news- papers | 49 | 100.0 | 36 | 90.0 |
| Homes received farm papers | 48 | 97.9 | 34 | 85.0 |

Twenty-six or 53.1 percent of the agricultural education students came from homes located on a paved or hard-surfaced highway, as compared with 25 or 62.5 percent of the technical agricultural students. Forty-five or 91.8 percent of the families of agricultural education owned automobiles, as compared with 36 or 90 percent of the families of technical agricultural students. Eight or 16.3 percent of the homes of agricultural education had telephones, as compared with 20 or 50 percent of those homes of technical agricultural students. Twenty-seven or 55.1 percent of the homes of

agricultural education students had running water, as compared with 28 or 70 percent of those homes of technical agricultural students. Forty-one or 83.7 percent of the homes of agricultural education had electric lights, as compared with 34 or 85 percent of technical agricultural students, while 97.9 percent of the homes of agricultural students had a radio, as compared with 95 percent of the homes of technical agricultural students. Every home of the agricultural education students received a daily newspaper, as compared with 90 percent of the homes of technical agricultural students while 97.9 percent of the homes of agricultural education students received one or more farm papers, as compared with 85 percent of the homes of technical agricultural students.

From these data it is apparent that there was a difference in the home conditions of the students considered in this study. The homes of the agricultural education group were superior regarding:

- 1. The number of homes receiving daily newspapers
- 2. The number of homes receiving farm papers

The homes of the technical agricultural group was superior regarding:

- 1. The number of homes located on paved highways
- 2. The number of homes having telephones
- 3. The number of homes having running water

There was only a slight difference in the home conditions between the two groups of students regarding:

- 1. The number of families owning automobiles
- 2. The number of homes having electricity
- 3. The number of homes having radios

Therefore, no deduction can be made concerning the difference, if any, between the two groups of students as to home conditions on the whole.

Plans for pursuing graduate work. -- Table 9 records the plans of the two groups for pursuing graduate work.

Table 9.--PLANS FOR GRADUATE WORK OF 49 AGRICULTURAL EDUCATION AND OF 40 STUDENTS IN TECHNICAL AGRICULTURE

| PLANS | st | gri. Ed. udents Percent | st | h. Agri. udents Percent |
|---|------|-------------------------------|------|-------------------------------|
| | 110. | rel cent | 140. | T GT. CGILO |
| Students that planned to pursue graduate work | 7 | 14.3 | 8 | 20.0 |
| Students that planned to pursue graduate work and to continue in same major | 6 | 12.2 | 6 | 15.0 |
| Students that planned to begin graduate work within one year after graduation | 0 | 0.0 | 6 | 15.0 |

Seven or 14.3 percent of the agricultural education students planned to pursue graduate work, as compared with eight, or 20 percent of the technical agricultural students. Six, or 12.2 percent of the agricultural education students expected to continue graduate work in the same major, as compared with six or 15 percent of the technical agricultural students. None of the agricultural education students planned to begin graduate work within one year after graduation from Clemson, while six of the eight technical agricultural students planned to begin graduate work within one year after graduation from Clemson.

These data indicate that there was a larger percentage of technical agricultural students planning graduate work than of agricultural education group.

There was a slight difference between the percentage of

the two groups of students that planned to continue graduate work in the same major in which they completed their undergraduate work. The most significant finding was the difference between the two groups as to the time the students expected to begin graduate work.

Work expected to be engaged in after graduation. -- Table 10 shows the type of work that the students of these two groups considered in this study expect to become engaged in after graduation.

Table 10.--TYPE OF WORK EXPECTED TO BECOME ENGAGED IN
AFTER GRADUATION BY 49 AGRICULTURAL EDUCATION STUDENTS
AND BY 40 TECHNICAL AGRICULTURAL STUDENTS

| AND DI TO INCIMICAN ACMI | OOTIT OFFET | DIODEMIE | , | |
|---------------------------|-------------|-----------|-------------|----------|
| | % of | Agri. | | ch.Agri. |
| | Ed. s | tudents | student | s making |
| | | g choice* | | ice *** |
| | | Second | First | Second |
| TYPE OF WORK | choice | choice | choice | choice |
| | | | સ્ત્રસ્ત્રસ | **** |
| | | | | |
| Farming | 0 | 10.2 | 15.0 | 20 |
| Teaching Vocational Agri. | 95.9 | 2.0 | | 0 |
| Agri. Extension service | 0 | 16.3 | 22.2 | 15 |
| Experiment station work | 0 | 4.1 | 5.0 | 7 |
| Working with commercial | | | | |
| concern | 0 | 2.0 | 17.5 | 12.5 |
| Private bus. other than | 1 | | | |
| farming | 0 | 0 | | 10.0 |
| Farm security work | 0 | 63.3 | 5.0 | 17.5 |
| Soil conservation service | 0 | 0 | 7.5 | 2.5 |
| Military service | 0 | 0 | 2.5 | 0 |
| Rural electrification | 0 | 0 | 5.0 | 0 |
| College teaching | 0 | 0 | | 0 |
| Coaching | 2 | 0 | 0 | 0 |
| | | | L. | |

^{*} Two percent stated they were undecided ** Two percent stated they were undecided

^{*** 20.3} percent did not state first choice **** 15.5 percent did not state second choice

The agricultural education students gave the following types of work as that which they expected to become engaged in after graduation: Teaching vocational agriculture, 95.9 percent; coaching athletics, two percent; undecided, two percent. In the event that they were not employed as they expected they offered the following types of work as their second choice: Working with Farm Security Administration, 63.3 percent; working with Agricultural Extension Service, 16.3 percent; working with Agricultural Experiment Station, 4.1 percent; working with commercial concern, two percent; farming 10.2 percent; teaching vocational agriculture, two percent; undecided, two percent.

The technical agricultural students gave the following types of work as that which they expected to become engaged in after graduation: Working with Agricultural Extension Service, 22.2 percent; working with commercial concern, 17.5 percent; farming, 15 percent; working with Soil Conservation Service, 7.5 percent; working with Agricultural Experiment Station, five percent; working with Farm Security Administration, five percent, working with Rural Electrification Authority, five percent; in military service, 2.5 percent.*

^{*} Twenty and three-tenths percent failed to indicate choice.

These students likewise stated that in the event they were not employed in the work they expected to do, their second choices as to type of work were as follows: Farming, 20 percent; working with Agricultural Experiment Station, 17.5 percent; working with Farm Security Administration, 17.5 percent; working with Agricultural Extension Service, 15 percent; working with commercial concern, 12.5 percent; engaged in private business other than farming, 10 percent; working with Soil Conservation, 2.5 percent.*

Analysis of these date indicate that the agricultural education group had a more definite vocational objective than the technical agricultural group. These data also indicate that there is a distinct differentation between the two groups of students as to the type of work they expect to become engaged in after graduation.

^{*} Five percent failed to indicate choice.

Chapter V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The more pertinent findings of this study are summarized as follows:

The agricultural education students on the following bases of comparison outranked those students in the technical agricultural group:

- 1. The percentage of students that took vocational agriculture in high school
- 2. The percentage of parents that were farmers
- 3. Average number of brothers and sisters living at home
- 4. Average ages of the brothers and sisters living at home
- 5. Percentage of parents having farms mortgaged
- 6. Percentage of students expecting to inherit a farm in the near future
- 7. Percentage of homes receiving daily newspapers
- 8. Percentage of homes receiving farm papers
- 9. Percentage expected to become engaged in the type of work that was in keeping with their training

The technical agricultural students on the following bases of comparison outranked those students in the agricultural education group:

- 1. Scores made on psychological test
- 2. Percentage of students that took science subjects in high school
- 3. Average number of science subjects studied in high school
- 4. Percentage of parents that farmed in combination with some other occupation
- 5. Percentage of students that had an opportunity to farm in partnership with parents
- 6. Percentage of homes located on paved highways
- 7. Percentage of homes having telephones
- 8. Percentage of homes having running water
- 9. Percentage of students planning graduate work
- 10. Percentage of students planning to begin graduate work within one year after graduation

There were no significant differences between the two groups of students as to the following:

- 1. Average of grades made in high school, in college, and the average of high school and college English grades
- 2. Average number of years of vocational agriculture taken in high school by students who had vocational agriculture in high school

- 3. Percentage of parents of students farming in combination with some other occupation but deriving a major part of their income from farming
- 4. Percentage of parents of students who farmed and were farm owners
- 5. Percentage of families of students owning automobiles
- 6. Percentage of homes of students having electricity and radios

Conclusions. -- The findings of this study indicate that there is not enough difference existing between the two groups of students to show that one group was superior to another.

Limitations. -- The study is limited to those students who graduated in agricultural education and in technical agriculture from Clemson College during 1940. For this reason the author recognizes the limitations in making broad generalizations. There has been a large increase in the enrollment in agricultural education during the last five years. This should be kept in mind when examining this study. While the conclusions made are based only on the data concerning students who graduated during 1940 they may not be true for a similar study made during another period.

This study has not been made in the past, nor is a similar kind anticipated for succeeding years.

Whatever conclusions are drawn from the study will be based entirely on the data obtained from the 1940 class.

Recommendations. -- Agricultural education students and technical agricultural students pursue work in college that is similar in many respects. It appears that it would be a worthwhile undertaking for Clemson College to provide some means whereby those students interested in agriculture might learn the vocational opportunities in the various agricultural fields. They should be informed as to the qualifications thought to be necessary for success in any given field. This information should be given by persons that are not biased in their views.

The findings of this study suggest other problems that are closely related. The following are those thought to be relevant:

- 1. The relationship between the background of students and teaching success
- 2. The relationship between the psychological scores and vocational agricultural teaching success
- 3. The influence of the home conditions of students on their success as teachers of vocational agriculture

APPENDIX

| | | | | | | | | | | | | | | | | | | Page |) |
|---------------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------|---|
| Questionnaire | - | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | ~ | 40 | |
| Bibliography | - | - | - | - | - | | - | - | - | - | - | - | - | - | - | - | - | 43 | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

QUESTICNNAIRE

| (Ple | ase read each question carefully before answering) |
|------|--|
| Name | Major Course Class |
| 1. | Do you plan to pursue graduate work? (Answer yes |
| | or no) |
| 2. | If so, when do you plan to begin graduate work? |
| | (Answer giving year or state that it is uncertain |
| | |
| 3. | If you plan graduate work, would you continue in |
| | your present major? (Answer yes or no) |
| 4. | Is your home located on a hard-surfaced or paved |
| | road? (Answer yes or no) |
| 5. | Does your family own an automobile? (Answer yes or |
| | no) |
| 6. | Is there a telephone in your home? (Answer yes or |
| | no) |
| 7. | Is there running water in your home? (Answer yes |
| | or no) |
| 8. | Do you have a bathroom with running water in your |
| | home? (Answer yes or no) |
| 9. | Are there electric lights in your home? (Answer |
| | yes or no) |
| 10. | Is there a radio in your home? (Answer yes or no) |
| | |
| | |

| 11. | Does your family subscribe to a daily newspaper? |
|-----|---|
| | (Answer yes or no) |
| 12. | How many farm papers does your family subscribe to? |
| | (Give number) |
| 13. | Is your father, or guardian, a farmer? (Answer yes |
| | or no) |
| 14. | Does your father, or guardian, farm in combination |
| | with some other occupation? (Answer yes or no. |
| | Do not answer unless question number 13 is ans- |
| | wered yes.) |
| 15. | If your father, or guardian, has another occupation |
| | other than farming, does the major part of his |
| | income come from farming? (Answer yes or no) |
| | |
| | |
| 16. | Is your father, or guardian, a (1) farm owner; |
| 16. | Is your father, or guardian, a (1) farm owner; (2) farm tenant; (3) cropper; (4) non-farmer? |
| 16. | |
| | (2) farm tenant; (3) cropper; (4) non-farmer? |
| | (2) farm tenant; (3) cropper; (4) non-farmer? (Underline the one applicable) |
| | (2) farm tenant; (3) cropper; (4) non-farmer? (Underline the one applicable) How many brothers do you have at home? (Note: |
| | (2) farm tenant; (3) cropper; (4) non-farmer? (Underline the one applicable) How many brothers do you have at home? (Note: Include those in college as being at home) |
| 17. | (2) farm tenant; (3) cropper; (4) non-farmer? (Underline the one applicable) How many brothers do you have at home? (Note: Include those in college as being at home) List their ages:,,, |
| 17. | (2) farm tenant; (3) cropper; (4) non-farmer? (Underline the one applicable) How many brothers do you have at home? (Note: Include those in college as being at home) List their ages: |
| 17. | (2) farm tenant; (3) cropper; (4) non-farmer? (Underline the one applicable) How many brothers do you have at home? (Note: Include those in college as being at home) List their ages: |
| 17. | (2) farm tenant; (3) cropper; (4) non-farmer? (Underline the one applicable) How many brothers do you have at home? (Note: Include those in college as being at home) List their ages: |

| 19. Is the farm, or farms, of your father, or guardian, |
|---|
| mortgaged? (Answer yes or no) |
| 20. If so, what per cent of its value is mortgaged? |
| (Give per cent) |
| 21. Is there a probability that you will inherit a farm |
| sometime soon? (Answer yes or no) |
| 22. Do you have an opportunity to farm in partnership |
| with your father? (Answer yes or no) |
| 23. What type of work, provided there are sufficient |
| openings, do you intend to do upon completion of |
| your work at Clemson? (Note: Indicate your |
| first choice as A and your second choice as B.) |
| (1) Farming |
| (2) Teaching vocational agriculture |
| (3) Extension service |
| (4) Experiment station work |
| (5) Working for commercial concern |
| (6) Private business other than farming |
| (7) Farm security work |
| (S) (Give your choice if not listed above) |
| |
| |
| |
| |

BIBLIOGRAPHY

1. American vocational society, Agricultural section.

Research committee. Summaries of studies in agricultural education. Washington. U.S. Govt. printing off., 1935. 196 p. (U.S. Office of education. Vocational education bulletin, No. 180, Agricultural series, no. 18 ci e 47

Abstract of 375 studies in agricultural education.

- 2. Betts, Gilbert L. The education of teachers evaluated through measurement of teaching ability.

 In U.S. Office of education. National survey of the education of teachers. Washington, U.S. Govt. print. off., 1933. v. 4, p. 87-153. (Its Bulletin, 1933, no. 10, v. 4.
- 3. Bradford, Harry E. An analysis of Achievements of certain University of Nebraska students who offered vocational agriculture as credit for entrance; Compared with achievements of a similar group who offered the traditional entrance subjects. Thesis, Ph.D., 1932. Connell University.

Abstracted in entry No. 1.

- 4. Brown, Harry H. Consistency of vocational and educational goals of university students.

 Master's thesis, 1934. Colorado University.

 Abstract; Colorado university studies, 22:9-10, 1934.
- 5. Evenden, E. S. Summary and interpretation. U.S. Office of education. National survey of the education of teachers. Washington, U.S. Govt. print. off., 1935. v. 6. (Its Bulletin, 1933, no. 10, v. 6.
- 6. Farmer, Alfred Berkwood. The performance of Virginia secondary school graduates in college. Master's thesis, 1929, Virginia Polytechnic Institute. 19 p. ms.

Abstracted in entry No. 1.

7. Fay, Ivan Glen. High school preparation and college success. Master's thesis, 1932, University of Wisconsin. 29 p. ms.

Abstracted in entry No. 1.

- 8. Learned, Willam S. and Wood, Ben A. The student and his knowledge. A report to the Carnegie foundation on the results of the high school and college examination of 1928, 1930, and 1932. Nevgin, Carnegie foundation, 1938. 406 p. (Carnegie foundation. Bulletin 29.)
- 9. Maddox, Lester Donald and Dickinson, Sherman.
 Vocational agricultural graduates excel.
 Agricultural education, 1 12-16, February 1929.
- 10. Sheeder, F. I. College achievement of lower group secondary school students. Journal of education research, 31: 497-505, March 1938.
- 11. Southern association of colleges and secondary schools, Joint committee on study of curriculum. The education of secondary school teachers; Report..., Nashville, Tenn., Division of surveys and field studies, George Peabody college, 1936. 203 p. Doak S. Campbell, Director of the study.
 - P. 80 cites: Peik, W. Education of teachers in teachers colleges and universities and liberal arts colleges. American association of teachers colleges. Yearbook, 1934:99
- 12. Walsh, Genevieve Ann. Academic achievements of the graduates of Southwestern high school, Detroit, who attended institutions of higher learning, 1923-1933. Master's thesis, 1936. Detroit. 67 p. ms.

Annotation in U.S. Office of education. Bibliography of research studies in education 1936-37. Washington. U.S. Govt. print. off., 1938. p. 201.