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**A STUDY OF THE FACTORS ASSOCIATED
WITH ESTABLISHMENT IN FARMING**

**BY
DONALD T. TUPPER**

**A thesis submitted
in partial fulfillment of the requirements for the
degree Master of Science, Department of
Education, South Dakota State
College of Agriculture
and Mechanic Arts**

June, 1959

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**A STUDY OF THE FACTORS ASSOCIATED
WITH ESTABLISHMENT IN FARMING**

This thesis is approved as a creditable, independent investigation by a candidate for the degree, Master of Science, and acceptable as meeting the thesis requirements for this degree; but without implying that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Thesis Adviser

Head of the Major Department

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D. T. T.

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INTRODUCTION

There is currently much conjecture over the factors concerned with selection of farming as a vocation. It is recognized with validity that the central objective of agricultural educators should not be one of attempting to keep all boys on the farm. Rather, it would be more defensible to guide and instruct youth in order that those for whom farming is best suited enter that vocation. Our shrinking farm population represents effective evidence that, with fewer and larger farms the number of persons required in farming does not justify a pattern of education characterized by retaining all youth possible for the farm.

The federal government, recognizing the decreasing farm numbers and increased technology in agriculture, passed the Smith Hughes Act in 1917. This act provided federal aid for vocational education in agriculture. Since that date vocational agriculture has been operating under Smith Hughes and subsequent legislation.

Persons for whom vocational education in agriculture is offered are divided into three major groups. The first is represented by classes for the high school farm youth preparing to farm. These individuals are enrolled in the public secondary schools attending all day classes. As an adjunct the students carry on supervised farming programs under the supervision of the teacher and parents.

The goal of supervised farming is satisfactory establishment in farming.¹ Some agriculture instructors say that the hardest part of their job is supervising the farming programs. Yet the writer maintains that this is the heart of the vocational agriculture program. If the supervised farming program is accepted as the heart of vocational agriculture a valid evaluation would include the number of boys who become established in farming, the quality of their accomplishment, and length of time they will remain on the farm. An integral part of the curriculum for high school classes in vocational agriculture is the Future Farmers of America organization. This organization is an intra-curricular educational, non-profit, non-political farm youth organization of voluntary membership. It is designed to develop agricultural leadership, character, thrift, scholarship, cooperation, citizenship and patriotism of its members.

A second phase of vocational agriculture is the young farmer program for out of school farm youth who are becoming established in farming. Generally these are young men engaged in farming, usually on their home farms or else as farm workers looking forward to full establishment as independent farm operators.

¹Lloyd J. Phipps and Glen Charles Cook, Public Law No. 347, Sixty Fourth Congress, S. 703, Section 10, A Handbook on Teaching Vocational Agriculture, p. 940, Interstate: Danville, Illinois, 1956.

The third and final phase is the adult farmer program. These classes are for farmers who are fully established as farm operators, either as owners or as tenants. In this program the vocational agriculture instructor is able to gain knowledge from men long established in farming in the community. Also, the instructor is able to offer learnings of some of the more recent developments in agriculture and their application to the community.

This study attempts to ascertain some of the factors which are associated with establishment in farming. It concerns only boys who graduated from South Dakota high schools in the year 1953, and who had studied vocational agriculture while in high school. The year 1953 was selected primarily for its recency and also for the provision of a period of six years in which the respondents could become at least partially established in farming. It is the writer's belief that a time lapse of six years would enable the persons involved to reach a decision concerning occupations they would pursue. Likewise, military obligations and further education would be less disruptive for purposes of this study.

PURPOSE

This thesis purposes to investigate the circumstances surrounding the occupational choices of students in high school vocational agriculture who graduated in 1953 from South Dakota high schools. What factors have caused those who entered farming to select that occupation? What have been the factors that have caused classmates to choose occupations outside of farming? What is the relative importance of gross income? What relationship, if any, exists between mental age, education, and a young man's proneness to enter farming or not to enter it?

The foregoing questions prompted the writer to conduct a survey study to ascertain such facts as they pertain to South Dakota. The writer, having had experience in the vocational agriculture teaching field, believes a study of this nature will be of value to instructors in the field. It is intended that the information concerning young farmers and adult farmer programs will also be of value to the vocational agriculture instructor in his counseling and guidance work. The experience and knowledge of these farmers and the methods they used in becoming established in farming can be an asset to the instructor in his guidance work. It would be of benefit to the writer in counseling high school students to be able to identify the factors associated with home and environment, vocational agriculture development of farming

programs and the establishment of such students in farming.

It is the belief of the writer that some boys are enrolled in vocational agriculture who never intend to farm, and who have no possibilities of ever farming. Many students have been counseled or guided into vocational agriculture by individuals who have had the best interests of the students at heart, but yet have failed to fulfill that responsibility properly because of the lack of knowledge of the factors associated with establishment in farming. It is the intent of this study to find methods of locating the students who show the greatest indications of possibilities for farming. Information of this nature would enable the instructor to better plan his curriculum to fit the needs of the students and would also help the instructor to do proper counseling and guidance work in agriculture.

REVIEW OF LITERATURE

Agriculture education with which we are concerned shall be designed to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm.² The Handbook For Vocational Agriculture Instructors³ points out that the primary aim of vocational agriculture is to train present and prospective farmers for proficiency in farming. Many agricultural educators have written concerning vocational agriculture and the various fields within it, but only a few have dealt with factors associated with establishment in farming.

A study⁴ was made of juniors and seniors in Minnesota high schools who expressed desires to farm in an attempt to locate factors associated with the level of desire to remain on the farm. It was pointed out in this study that there was a relationship between the size

²Lloyd J. Phipps and Glen Charles Cook, Public Law No. 347, Sixty Fourth Congress, S. 703, Section 10, A Handbook On Teaching Vocational Agriculture, p. 940, Interstate: Danville, Illinois, 1956.

³Ibid., p. 230.

⁴Walter T. Bjoraker, A Study of Upper Classmen In Vocational Agriculture To Identify Certain Factors Associated With The Level of Desire To Remain On The Farm, Thesis, Ph. D., University of Minnesota, Library, University of Minnesota: Minneapolis, 1952.

of the farm upon which a student lived and his desire to remain on the farm. It was also pointed out in the Minnesota study that there was no relationship between measured mental ability, socioeconomic level of farm family, size of family, formal educational level attained by parents, or farm ownership by the parents, and the son's desire to remain on the farm.

The young man who is the only son of a farm owner, according to Beard,⁵ has merely to wait until his father is ready to retire in order to get established in farming. The son then takes over the farm and eventually inherits it. The next easiest way to become a farmer, other than being the only son of a farm owner, according to Beard, is to marry the daughter of a farm owner who has no other children. In marrying the only daughter one might find himself in the same position as an only son.

A student cannot become established in farming by "projecting around". The individual who has not developed his supervised farming program is in excellent condition to leave the farm and take a job elsewhere. He has nothing to tie him to the farm, to keep up his interest in farming, or to give him a start in becoming established in farming. A student who has "projected around" lacks the essential

⁵W. P. Beard, Starting to Farm, p. 42, Interstate: Danville, Illinois, 1956.

features of accumulating assets and developing increased efficiency of production, both of which are highly essential to establishment in farming.⁶

In a study conducted at Ohio State University by Ritchie,⁷ vocational and non-vocational agriculture graduates were compared. The results disclosed a highly significant difference in rate of establishment in farming in favor of vocational agriculture graduates. During the 12 year period studied the incomes of the students who had vocational training increased \$532 per year, while non-vocational students' incomes increased at the rate of \$357 per year, or an annual difference of \$175.

In some vocational agriculture departments supervised farming programs have ceased to be effective. There are two basic reasons for the lack of effective supervised farming programs, according to Scarborough.⁸ First, the teacher fails to get on the home

⁶William Paul Gray, "Establishment in Farming Through Long Term Planning," Agricultural Education Magazine, vol. 27, p. 274, Interstate Publishing Company: Danville, Illinois.

⁷Austin E. Ritchie, "Influence of High School Vocational Agriculture On the Rate Of Establishment of Graduates In Farming," Agricultural Education Magazine, vol. 30, p. 83.

⁸C. C. Scarborough, "On Farm Instruction", Agricultural Education Magazine, vol. 30, p. 1.

farm of the student; secondly, there is little or no connection between what takes place at school and what takes place at home. Schaal,⁹ in a study of school board members and their knowledge of vocational agriculture, states that there is a positive correlation between home visits and size of farming programs.

A study of the benefits gained by FFA speech contestants was made by Kasten.¹⁰ Of the speech contestants surveyed he established that those who were in the upper one fourth of the high school graduating class had the largest number attending college, and also the largest number entering work outside agriculture. Lefors¹¹ found a correlation exists between marks received by pupils and the income earned after leaving school. The income earned, number of years of

⁹Gerhardt Schaal, School Board Members' Attitudes Toward Vocational Agriculture and Their General Knowledge Concerning Vocational Agriculture Programs in Their Schools, Research Problem, South Dakota State College: Brookings, South Dakota, August, 1958.

¹⁰Loren Kasten, An Evaluation Of The Benefits Received By The Participants In The South Dakota FFA Speaking Contest And Methods of Preparation of Contestants, Research Study, p. 12, South Dakota State College: Brookings.

¹¹Neill Lefors, A Study of 322 Students of Vocational Agriculture Relative to Marks Received, Supervised Farm Training and Leadership, Present Occupation and Income Received, Thesis, M. S., Oklahoma Agriculture and Mechanical College: Stillwater, Oklahoma, 1952.

college and Future Farmer leadership scores tend to drop in the same ratio as the school marks received go down. Alexander¹² found a definite relationship between grade score and employment status. On the average, the students with the highest grades enrolled in college and those with the lowest grades remained in farming.

A study was made by Ahalt and Murray¹³ of young farmers who have become established in farming in Maryland. The educational level of the young farmers studied averaged 10.7 grades, with 86 per cent graduating from high school. Livestock alone was the most predominant type of home farming program. The next most important was a combination of livestock and crops. The average annual labor income for all types of programs was \$445. It was disclosed in this study that the two most frequent steps used in becoming established in farming were the son at home without a definite wage and the son at home with a definite wage. Of the young farmers studied, 73 per cent had participated, in their paths toward establishment, in a father son working relationship, and 48 per cent started as a partnership.

¹²Ralph Alexander, Employment Status of Former Students in Vocational Agriculture, Who Have Graduated From The Sturgis High School, Special Problem, University of Kentucky: Lexington, 1955.

¹³Arthur M. Ahalt and Ray A. Murray, How Young Farmers Become Established, pp. 29-31, University of Maryland Agricultural Experiment Station: College Park, Maryland.

The average age at which the young men made their initial decision to farm was 17 years. They were sure they would farm at an average age of 21 years and they became farm operators at an average age of 23 years. The major problems encountered by young farmers in becoming established were indicated in order of their importance as: finances, labor, and land. Over half the young farmers indicated the local vocational agriculture departments could help them further by offering evening class instruction.

Steeves¹⁴ identified eleven factors which appear to be influential in predicting probable success or failure for beginning farmers.

They are:

1. Liking for farm work
2. Ambition and determination
3. Knowledge of agriculture
4. Farm experience
5. Organization and decision making
6. Wife's cooperation
7. Family health and ability to work
8. Wise and full use of credit
9. Effective use of credit
10. Effective use of farm records
11. Mechanical ability

¹⁴Jack W. Steeves, Personal Factors That Influence Success or Failure in Beginning Farmers, Thesis, M. S., University of Minnesota, Library, Department of Agricultural Education, University of Minnesota; St. Paul, Minnesota, 1955.

Sanders,¹⁵ in a study of vocational agriculture in Virginia between the years of 1918 to 1955, revealed that the percentage of ex-students engaged in farming is consistently declining. This may indicate that it may be desirable to give more attention to placement and follow-up of boys studying vocational agriculture. Sanders also pointed out that ex-students tend to farm in the communities in which they are trained. Hence it would seem that the established practice of training in terms of local situations and needs should be continued. According to Sanders there seems to be a direct relationship between the years a student is enrolled in agriculture and the chances of his engaging in farming.

From the literature cited it is apparent that there is no easy solution to identifying the individuals most likely to succeed in farming. Yet, it is the intent of the writer to continue this study in South Dakota in an effort to add to the information already known concerning the factors associated with establishment in farming. The more that is known in this regard the more skillful educators will be in guiding students contemplating enrollment in vocational agriculture.

¹⁵H. W. Sanders, A Follow-Up Study of Students of Vocational Agriculture In Virginia, 1918-1955, Virginia Polytechnic Institute: Blackburg, Virginia, January, 1959.

PROCEDURE

The names of 398 former vocational agriculture students who graduated in 1953 were obtained from the present agriculture instructors. A letter (Appendix A) was sent to the 81 vocational agriculture departments in South Dakota requesting the names and present addresses of such students. There was some difficulty in locating present addresses as in some cases the family was no longer in the community. A second letter was sent to the instructors who did not reply. A total of 71 replies were received, representing 87.6 per cent of the inquiries mailed.

A survey questionnaire (Appendix B) and a personal letter (Appendix C) were sent to 200 of the former vocational agriculture students whose names were provided by the vocational agriculture instructors in the state, selected at random. Following two mailings, 130 questionnaires, or 65 per cent, were returned. Among the responses, in addition to the foregoing 65 per cent, were 12 letters with incorrect addresses.

Also, a letter (Appendix D) was sent to the superintendents of the 130 respondents requesting individual I. Q. scores. A total of 102 scores, or 78.4 per cent, were received. Such I. Q. scores were available for all except 21.6 per cent of the students studied in this research.

Because of the diversity in occupations of the students the questionnaire sent to them was divided into three categories: (I) to be answered by all receiving it; (II) to be answered by those who are farming or who have farmed; and (III) to be answered by those who have not farmed since high school graduation. In other words, all were requested to respond to the questions in Part I. In addition, those currently farming or who had farmed following graduation were requested to complete Part II; and those who had not farmed since high school graduation were requested to complete Part III.

The information thus secured was tabulated and analyzed to provide the data interpreted for purposes of this study. The individuals who are presently in military service were classified as farmers if they indicated they had farmed prior to military service and intended to return to the farm following military service. If they did not fulfill the two foregoing requirements they were classified as non-farmers. The interpretations as indicated in the results of this study are based on the data collected by the questionnaire and on the mental ability scores of the respondents provided by the school administrators.

FINDINGS

I. Effects of Home and Environment

Establishment in farming is the goal of many farm youth.

Yet it is recognized that there are not enough farms for all farm youth enrolled in vocational agriculture. Some students have greater managerial ability than others, some have more opportunity to gain the necessary financial aid than others, while some are at the right age to take over the farm when the parents are ready to retire. These and other factors related to establishment in farming will be analyzed in the following tables and interpretations.

**TABLE I. THE PRESENT OCCUPATIONAL STATUS OF SOUTH
DAKOTA VOCATIONAL AGRICULTURE STUDENTS
GRADUATING FROM HIGH SCHOOL IN 1953**

Occupational status	Number	Per cent
Farmers	57	43.8
Non Farmers	73	56.2
Total	130	100.0

Returns received show that 43.8 per cent of the vocational agriculture students graduating in 1953 are presently established in farming, as indicated in Table I. It will be noted from Table II that,

**TABLE II. FUTURE OCCUPATIONAL PLANS OF SOUTH DAKOTA
VOCATIONAL AGRICULTURE STUDENTS GRADUATING FROM
HIGH SCHOOL IN 1953 WHO ARE PRESENTLY ENGAGED
IN OCCUPATIONS OTHER THAN FARMING**

Occupational plans	Number	Per cent
Plan to return to farm	16	24.2
Do not plan to return to farm	39	59.1
Presently undecided	11	16.7
Total	66	100.0

of the 56.2 per cent not presently established in farming 24.2 per cent at some future date plan to return to the farm, and 16.7 per cent indicated that they are still undecided. The students planning to return to the farm and those presently undecided could materially increase the farmer group at a future time.

It is interesting to observe the number of siblings in a family and their influence on the respondents' establishment in farming. It is generally assumed that children within the same family are born with equal opportunities. If the foregoing assumption were true, the number of siblings in the family should not affect the possibilities of a student becoming established in farming.

TABLE III. THE MEAN NUMBERS OF THE SIBLINGS OLDER OR YOUNGER THAN THE RESPONDENTS, AND THEIR APPARENT INFLUENCE UPON OCCUPATIONAL STATUS

Siblings		Mean
Farmers	Older Brothers	.96
	Younger Brothers	.96
	Older Sisters	.63
	Younger Sisters	<u>.96</u>
	Total	3.51
Non Farmers	Older Brothers	1.01
	Younger Brothers	.75
	Older Sisters	.80
	Younger Sisters	<u>1.20</u>
	Total	3.76

The number of siblings in the family as revealed in Table III affects the students' establishment in farming. The boys in the farmer group had fewer older brothers and also came from smaller families. Even though the difference is not great it implies that individuals from smaller families have greater opportunity to start farming. It is apparent that the student with fewer older brothers has greater

opportunity to start farming. With the trend toward larger and fewer farms it is quite evident that if the oldest son takes over the farm or goes into partnership with his father there is very little opportunity for other members of the family to become established on the same farm.

TABLE IV. THE HIGHEST LEVEL OF FORMAL EDUCATION
ATTAINED BY THE MOTHERS OF THE
STUDENTS STUDIED

Level of education	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Less than eighth grade	6	8.2	2	3.6
Eighth grade graduate	33	45.2	21	38.2
High school graduate	26	35.6	23	41.8
College graduate	8	11.0	9	16.4
Work beyond college	0	0.0	0	0.0
Total	73	100.0	55	100.0

The education of the mother favorably affects the establishment of the student on the farm as borne out in Table IV. In the farmer group more than 58 per cent of the mothers had a high school education or more, while in the non-farmer group only 46 percent of the mothers had at least a high school education.

TABLE V. THE HIGHEST LEVEL OF FORMAL EDUCATION
ATTAINED BY THE FATHERS OF THE
STUDENTS STUDIED

Level of education	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Less than eighth grade	14	19.2	6	10.7
Eighth grade graduate	46	63.0	39	69.6
High school graduate	13	17.8	11	19.7
College graduate	0	0.0	0	0.0
Total	73	100.0	56	100.0

The education of the fathers, as shown in Table V, also was of a higher level in the farmer group than in the non-farmer group. In the farmer group 19.7 per cent had a high school education or more while in the non-farmer group only 17.8 per cent had at least a high school education. It may be assumed that the parents with a higher level of education made farming a more favorable way of life and at the same time provided, in larger measure, the opportunities necessary for their sons to become established in farming. Today the trend is toward more years of academic training before entering an occupation. Vocational agriculture in the classroom for the high school students enables the boy to gain experience and knowledge in the field of agriculture while furthering the individual's education in other fields.

**TABLE VI. THE HIGHEST LEVEL OF FORMAL EDUCATION
ATTAINED BY THE STUDENTS STUDIED**

Level of Education	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
High school graduate	32	44.4	44	77.2
Less than 4 years of college	22	30.6	8	14.0
College graduate	13	18.1	5	8.8
Work beyond a 4 year college degree	5	6.9	0	0.0
Total	72	100.0	57	100.0

A greater percentage of the young men in the non-farmer group continued their education beyond high school than in the farmer group, as is indicated in Table VI. In the non-farmer category, 55.6 per cent did work beyond high school, while in the farmer group only 22.8 per cent did so. The foregoing seems quite reasonable in this age of sputniks and missiles when other fields are calling for specialists and scientifically trained minds. However, the need for scientifically trained and skilled individuals on today's farms has not been reduced. The farmer of today must constantly be on the alert for changes and innovations in agriculture. The efficient farmer must be furthering his education daily by reading, talking with neighbors and

evaluating agricultural research. Vocational agriculture instructors can be of great value in helping the farmers evaluate research and improve their farming operations. The vocational agriculture instructor is in a position to carry out this service in his young farmer and adult farmer programs.

TABLE VII. THE MEDIAN I. Q.'S OF THE RESPONDENTS
AS INDICATED BY SCHOOL ADMINISTRATORS

Occupational status	Number of Respondents	Median I. Q.
Non-farmers	57	105.6
Farmers	45	101.5

The median I. Q. of the non-farmer respondents is 105.6 while the median I. Q. of the farmer respondents is 101.5, as is indicated in Table VII. It is logical to assume from the foregoing information that many students with high I. Q.'s tend to leave the farm for other occupations. The trend of thinking for many years has been that the more mentally capable should go on to college and those with lower I. Q.'s should farm. It is the responsibility of the vocational agriculture instructor to change the idea that the individuals with lower mental ability are the only ones that should farm. The farms of South Dakota

and the nation need young men who are capable of thinking through operational problems and of making decisions for the benefit of agriculture. Farming today is a very technical and specialized occupation and requires individuals who are capable of analyzing and coping with present day problems.

TABLE VIII. THE HOME CONVENIENCES PROVIDED IN THE FARMERS' AND NON-FARMERS' HOMES IN 1953

Home conveniences	Number of Non-Farmers		Number of Farmers	
	Yes	No	Yes	No
Mechanical refrigeration	62	4	51	2
Electricity	64	2	55	0
Indoor bathroom facilities	36	33	37	13

Data were gathered on only a few home conveniences, as shown in Table VIII. Yet it is believed that these are indicative of the general improvements and facilities in the homes. It is interesting to note that nearly all the respondents in both groups had electricity and a very high percentage had mechanical refrigeration. On the other hand, considering indoor bathroom facilities, there is considerable difference between the non-farmer group and the farmer group. In the non-farmer group only 52.1 per cent had indoor bathroom facilities

while in the farmer group 74.0 per cent had indoor bathrooms. The relationship shown here indicates the importance of improvement projects in vocational agriculture. Installing indoor bathroom facilities, painting of farm buildings, building yard fences and providing other improvement projects all add to the convenience of farm living and make it more enjoyable. The continual improvement of the farm and its facilities supports the portion of the FFA creed: "I believe that to live and work on a good farm is pleasant as well as challenging."¹⁶

TABLE IX. THE RELATIONSHIP BETWEEN THE FAMILY OWNERSHIP OF THE HOME FARM IN 1953 AND THE PRESENT OCCUPATIONAL STATUS OF THE RESPONDENTS

Ownership of farm	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Farm owned	40	61.5	50	87.7
Farm not owned	25	38.5	7	12.3
Total	65	100.0	57	100.0

¹⁶Future Farmers of America Creed, Official Manual, Future Farmers of America, p. 11, Future Farmers Supply Service: Alexandria, Virginia.

Farm ownership by parents reveals a realistic relationship to establishment in farming on the part of the respondents. It will be noted from Table IX that 61.5 per cent of the non-farmer parents owned their farms while 87.7 per cent of the parents in the farmer group did so. There are several factors which underly this relationship. One is the pride of ownership and of working on a good farm. Secondly, farm ownership by the parents provides a better opportunity for the son to start farming with his father. It would seem likely that if the father owned the farm he would be financially more capable of helping the son start farming.

Annual gross incomes estimated by the respondents indicated that the larger the gross income from the home farm the more likely it is that the boy will go into farming. Of the farms of the farmer group, 45.3 per cent had more than \$10,000 annual gross income, as revealed in Table X, while in the non-farmer group there were only 34.4 per cent whose incomes exceed this figure.

Many have analyzed size of farm in a number of different ways, such as acreage, productive work units, net income, and gross income. The writer chose gross income because of differences in types of agriculture in South Dakota: dairying, diversified farming, ranching and irrigation. Gross income represents a very acceptable indication of the productive ability of each farming unit under the management

TABLE X. THE RESPONDENTS' ESTIMATIONS OF PARENTS' ANNUAL GROSS INCOMES AND THE INFLUENCE OF SUCH INCOMES ON ESTABLISHMENT IN FARMING

Gross income	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
\$ 500-\$1,000	0	0.0	0	0.0
\$ 1,000-\$5,000	17	27.9	13	24.5
\$ 5,000-\$10,000	23	37.7	16	30.2
\$10,000-\$15,000	9	14.8	11	20.8
\$15,000-\$20,000	6	9.8	8	15.1
\$20,000 -More	6	9.8	5	9.4
Total	61	100.0	53	100.0

provided. The writer did not feel it was necessary to delve into net income in this study because it is not intended to determine what the farm netted but rather the productive potential of the farm as estimated by the respondents. It is apparent that the students from the farms with the larger gross incomes felt the financial reward was satisfactory. Also, the farms with the larger gross incomes are generally in the best financial position to provide the assistance necessary for the sons to become established in farming.

II. Effects of Vocational Agriculture

The vocational agriculture program is recognized throughout the nation for the benefit it provides present and prospective farmers in becoming established in farming. It involves the cooperation of the parent, student, and the vocational agriculture instructor in providing the essential preparation toward establishment in farming. Supervised farming is essentially the core of the classroom program. The effectiveness of the instructional program rests upon the quality and scope of supervised farming activities. Research in vocational agriculture shows that in many cases parents are not aware of what the instructor expects of students, and consequently dissatisfactions and misunderstandings are imminent in some cases. However, it is true that most dissatisfactions result from misunderstanding or lack of understanding of the supervised farming program.

Most parents are satisfied with the supervised farming program as it is conducted, according to the evidence appearing in Table XI. However, it should be noted that 19.4 per cent of the parents of the non-farmer group and 13.2 per cent of the parents of the farmer group were dissatisfied with the present supervised farming program. It is impossible to satisfy everyone, yet with the number of parents dissatisfied with this program it is conceivable that such dissatisfaction could have contributed to the recent attempts for changes in allocations of financial

TABLE XI. THE RESPONDENTS' APPRAISALS OF THE ATTITUDES OF THEIR PARENTS TOWARD THE SUPERVISED FARMING PROGRAM WHILE ENROLLED IN VOCATIONAL AGRICULTURE

Attitudes of parents	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Satisfied with supervised farming program	54	80.6	46	86.8
Dissatisfied with supervised farming program	13	19.4	7	13.2
Total	67	100.0	53	100.0

assistance for vocational agriculture.

The use of an advisory council could relieve some of this dissatisfaction. Parents would undoubtedly assume greater freedom to register their complaints with laymen than to complain to the instructor or the administration. The advisory council members should also be constantly inquiring into the attitudes of parents in order that the vocational agriculture department can provide the type of educational program best adapted to its respective community.

Most students were satisfied with their supervised farming programs as is disclosed in Table XII, although it is readily recognized that approximately one-fourth of the students were dissatisfied. The vocational agriculture instructors need to be alert to detect those per-

TABLE XII. THE SENTIMENTS OF THE RESPONDENTS TOWARD
THEIR SUPERVISED FARMING PROGRAMS

Sentiments	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Satisfied with supervised farming program	43	65.2	46	80.7
Dissatisfied with supervised farming program	23	34.8	11	19.3
Total	66	100.0	57	100.0

sons who are dissatisfied with the program and attempt to determine the cause of dissatisfaction. These causes of dissatisfaction should be used as possible methods of improving the present vocational agriculture curriculum.

A cooperative relationship between parents, son and instructor is very important to the successful operation of the supervised farming program. An instructor should not rely solely on the students to relay all the information to his parents. If this is done the parents may get a false idea of the farming program.

Tours of supervised farming programs are very effective methods for creating interest in students' farming programs. These meetings develop understandings, attitudes, ideas, and appreciations favorable to supervised farming. In some cases students indicated

they had no supervised farming program and had not lived on a farm. In such cases the instructors could help such students develop programs of placement for farm experience. It is the responsibility of the instructor to work with the student in an effort to find a farm where the student is able to increase his knowledge and experiences in agriculture.

If vocational instructors accept supervised farming as the heart of vocational agriculture program, much more must be done in order to establish students in farming. In the non-farmer group, six per cent reported they had had no home supervised farming visits, as shown in Table XIII, while more than nine per cent in the farmer group had had no home supervised farming visits. Furthermore, 25.4 per cent of the non-farmer group and 25.4 per cent of the farmer group reportedly averaged only one visit each per year. The obvious lack of visits deprives some students of the benefits which are to be afforded them in the form of home supervised farming instruction. However, it is possible that some of these home supervised farming visits have been forgotten by the respondents due to their insignificance and, therefore, were not long remembered. The effective use of home supervised farming visits can be an asset to classroom instruction by relating classroom teaching to actual experiences. It is on the farm where the instructor can actually bring to life that which can only be talked about

TABLE XIII. THE AVERAGE NUMBER OF REPORTED YEARLY SUPERVISED FARMING VISITS MADE TO THE FARMS OF THE RESPONDENTS BY THEIR VOCATIONAL AGRICULTURE INSTRUCTORS

Average number of visits	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
0	4	6.0	5	9.1
1	17	25.4	14	25.4
2	16	23.8	17	30.9
3	17	25.4	10	18.2
4	9	13.4	6	10.9
5	3	4.5	0	0.0
6	1	1.5	3	5.5
Total	67	100.0	55	100.0

in the classroom. It is here that the student should receive individualized instruction, in order that he may grow in knowledge of agriculture as rapidly as can be expected, and at the same time develop a well rounded, effective supervised farming program.

The number of years of vocational agriculture in which the student is enrolled beyond the first year has some effect on his probability of establishment in farming, although the difference is slight. It will be noted from Table XIV that 71.2 per cent of the non-farmers

TABLE XIV. THE NUMBER OF YEARS OF VOCATIONAL AGRICULTURE COMPLETED BY THE RESPONDENTS AND ITS RELATIONSHIP TO ESTABLISHMENT IN FARMING

Years of Instruction	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
One	7	9.7	2	3.6
Two	5	6.8	5	8.9
Three	9	12.3	7	12.5
Four	52	71.2	42	75.0
Total	73	100.0	56	100.0

completed four years of vocational agriculture, while 75 per cent of the farmers did so. Despite the slight difference indicated, those with four years of vocational agriculture have greater possibilities of becoming established in farming. The large proportion of students taking four years of vocational agriculture indicates the emphasis the students placed upon agriculture. The experience and knowledge gained in vocational agriculture are of continuous value to both the farmers and non-farmers.

The number of years of FFA membership during high school enrollment has no effect on establishment in farming, as can be noted in Table XV. In the non-farmer group, 65.8 per cent held FFA

TABLE XV. THE NUMBER OF YEARS FFA MEMBERSHIP WAS HELD BY SOUTH DAKOTA VOCATIONAL AGRICULTURE STUDENTS GRADUATING IN 1953

Years of membership	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
One	7	9.6	3	5.2
Two	8	10.9	5	8.8
Three	7	9.6	9	15.8
Four	48	65.8	35	61.5
Five	1	1.4	2	3.5
Six	2	2.7	3	5.2
Total	73	100.0	57	100.0

membership for four years, while in the farmer group 61.5 per cent did so. However, the number of years of FFA following high school did affect establishment in farming. It will also be noted from Table XV that five and two tenths per cent of the farmers held FFA membership through the sixth year, while only two and seven tenths per cent of the non-farmers held FFA membership for a like period. Vocational agriculture students are permitted to hold active membership in FFA until the age of twenty one or three years following graduation from high school.

TABLE XVI. A COMPARISON OF THE NUMBER AND LEVEL OF FFA OFFICES HELD BY STUDENTS OF THE FARMER AND NON-FARMER GROUPS

Level of Office	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Local	35	92.2	27	79.4
District	1	2.8	3	8.8
State	0	0.0	3	8.8
National	0	0.0	1	3.0
Total	36	100.0	34	100.0

More offices were held by those in the non-farmer group than by those in the farmer group. It is also noteworthy that in the non-farmer group were 17 FFA presidents representing 64.7 per cent of the members of the group. The foregoing information indicates that individuals with the largest amount of experience and training in leadership are leaving the farms and are engaging in other occupations. Such individuals do not all leave the community but may become outstanding citizens within the community, working either directly or indirectly with agriculture. It seems apparent from the foregoing information that the efforts expended toward training in leadership abilities and parliamentary procedure should be devoted to the entire class rather than to limited groups or individuals.

TABLE XVII. THE HIGHEST FFA DEGREE EARNED
BY THE RESPONDENTS AND ITS AFFECT
ON ESTABLISHMENT IN FARMING

Degree	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Green Hand	10	15.6	12	22.3
Chapter Farmer	46	71.9	32	59.2
State Farmer	8	12.5	7	13.0
American Farmer	0	0.0	3	5.5
Total	64	100.0	54	100.0

FFA degrees earned did influence the probability of establishment in farming. In the non-farmer group 12.5 per cent earned the State Farmer degree or higher degree, as is shown in Table XVII; whereas in the farmer group 18.5 per cent of the farmers had reached that goal. Size of farming enterprise is an important factor in the selection of recipients of State Farmer degrees. Thus it is indicated that the students with the larger supervised farming programs have a tendency to remain on the farm. The student who is working toward establishment in farming while in high school will possibly become established in farming, while the student with projects only large enough to fulfill requirements will probably eventually become engaged in some other occupation.

**TABLE XVIII. AN INDICATION OF THE SHOP EQUIPMENT
PRESENT IN THE VOCATIONAL AGRICULTURE
DEPARTMENTS IN SOUTH DAKOTA**

Shop equipment	Number of Non-Farmers		Number of Farmers	
	Yes	No	Yes	No
Arc welder	68	2	55	0
Acetelyene welder	27	35	22	27
Motor maintenance equipment	40	27	29	22
Equipment and training aids for electricity	17	44	13	38

Only one vocational agriculture department in the state did not have a shop in 1953; therefore it was impossible, in this study, to determine the effect of departments with shops opposed to those without shops on establishing the student in farming. However, the equipment within the school shop had no influence concerning whether the boy farmed or not. The equipment surveyed in Table XVIII was chosen to give an indication of facilities within a vocational agriculture shop. This does not mean that vocational agriculture instructors can get along without these facilities in their shops, but on the contrary, if they are to teach vocational agriculture the shop should have the equipment which an average home farm shop would contain. The school

farm shop should be an ideal situation which the students should desire at home rather than an antiquated shop with facilities that are excelled by every student's home farm shop. Knowledge gained in the school farm shop will definitely give the student valuable experience for future work in agriculture and related occupations.

TABLE XIX. THE ESTIMATED MONETARY VALUES OF THE SUPERVISED FARMING PROGRAMS OF THE STUDENTS DURING THEIR SENIOR YEAR

Value	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
\$0-\$250	28	44.4	15	30.0
\$250-\$500	17	27.0	14	28.0
\$500-\$1000	14	22.2	14	28.0
\$1000-\$2500	4	6.4	3	6.0
\$2500-More	0	0.0	4	8.0
Total	63	100.0	50	100.0

The value of a student's supervised farming program is a factor which is definitely associated with establishment in farming. As shown in Table XIX, only 28.6 per cent of the non-farmer group had five hundred dollars or more invested in their supervised farming programs during their senior year. In the farmer group 42 per cent

valued their supervised farming programs at more than five hundred dollars. This comparison points out the importance of the value of the time spent on supervised farming programs. Desirable supervised farming programs do not just happen, but are programs with many hours of planning and study by the student, parents and vocational agriculture instructor. As freshmen, students should not only plan their programs for that year but should set up a long range progressive program plan that moves from where the student is to the ultimate goal of establishment in farming. However, it will be noted that 10 students, or nearly eight per cent, had no supervised farming program, and many indicated they had never lived on a farm. These individuals who had had no means of carrying out supervised farming programs and who had never lived on a farm would, in all probability, have been better fitted in some course other than vocational agriculture. School officials have failed in their obligation to the students in their communities in some cases by requiring all male students to take one or more years of agriculture. More effective curriculum planning would involve offering vocational agriculture as an elective for those who are actually interested in agriculture. Under such a plan the students lacking the desire to farm and to learn more about agriculture would have selected another subject.

TABLE XX. THE NUMBER OF YEARS AFTER HIGH SCHOOL GRADUATION AT WHICH THE RESPONDENTS STARTED TO FARM ON A FULL TIME BASIS

Time Lapse (years)	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Immediately	8	66.7	21	42.0
One	3	25.0	6	12.0
Two	0	0.0	4	8.0
Three	0	0.0	5	10.0
Four	0	0.0	9	18.0
Five	1	8.3	5	10.0
Total	12	100.0	50	100.0

The number of years following high school that elapsed prior to the student's start in farming did affect his decision on whether he remained on the farm. The largest group, comprising 42 per cent of the farmers and 66.7 per cent of the non-farmers who did farm, started to farm immediately following high school graduation, as is shown in Table XX. In all probability these students made the decision to farm while under the guidance of the vocational agriculture instructor.

The guidance director and the vocational agriculture instructor should work together in guiding the students in making their decisions.

The vocational agriculture instructor can supply anecdotal information concerning the students' farm and family background, while the guidance director can accumulate test scores and other information pertaining to the students. The vocational agriculture instructor should become fully familiar with the information gathered about each of his students so they can be guided as individuals. Frequently students will come to the vocational agriculture instructor for advice as it is the vocational agriculture instructor who is most familiar with his problems. In many cases the vocational agriculture instructor has worked more closely with the students than other instructors within the school system. The vocational agriculture students should be referred to the guidance director in areas where the vocational agriculture instructor is unable to give sound advice. The vocational agriculture instructor is expected to be proficient in a wide variety of areas in agriculture; therefore it is not probable that he would also be an expert in guidance.

It will be noted that in all cases except one the individuals who did start to farm following the second year remained on the farm. It is also interesting to observe that in the farmer group there have been several individuals returning to the farm each year during the past five years. It would be logical to assume that this pattern will continue. Those who delayed their start in farming for several years will, in many cases, have furthered their education, fulfilled their

military obligations, worked in other occupations, or experienced a combination of such accomplishments.

Parents ranked first in the order of sources of economic assistance granted the students in the farmer group as well as in the group of non-farmers who had previously farmed, and banks ranked second, as will be noted in Table XXI. Here again the parents' assistance is a factor relating to establishment in farming. Such evidence points out the importance of a father and son partnership at an early age, and the development of a cooperative relationship in the farming business between father and son. Government lending agencies and friends or neighbors helped the least in assisting the student to become established in farming. The sources of assistance listed under 'others' in Table XXI were earnings from other employment such as military service and from working as hired hands.

The securing of financial aid and the use of borrowed money should be an important part of the farm management training in vocational agriculture. The securing of finances is one of the large problems for the beginning farmer and also for the established farmer. Each farming program is different and requires individual attention in order to evaluate the economic principles that should be followed, yet with the few that made use of the governmental lending agencies it would seem that in some instances this program might have been

**TABLE XXI. THE FREQUENCY, IN RANK ORDER, IN APPRAISAL
OF THE ECONOMIC ASSISTANCE RECEIVED WHILE
BECOMING ESTABLISHED IN FARMING**

Rank	1st	2nd	3rd	4th	5th	6th	None
NON-FARMER GROUP							
Parents	42	5	0	1	0	0	2
Brothers and Sisters	0	6	6	2	1	0	37
Other relative	1	3	4	1	0	0	43
Bank	3	22	3	0	2	0	22
Government lending agencies	2	1	0	0	0	0	49
Friend or neighbor	0	0	4	3	0	0	47
Others	0	2	0	0	0	1	50
FARMER GROUP							
Parents	13	2	0	0	0	0	0
Brothers and Sisters	2	4	1	0	0	0	8
Other relative	0	2	0	2	0	0	11
Bank	0	3	0	0	0	1	11
Government lending agencies	0	0	0	0	0	0	15
Friend or neighbor	0	0	0	1	0	0	10
Others	0	0	0	0	0	1	14

used more extensively. If through the supervised farming program both father and son have learned to work out their problems together, the parents will, in all probability, be anxious to help establish the student in farming, provided funds are available and the young man has that as his objective.

TABLE XXII. THE PRESENT OWNERSHIP STATUS OF THE FARMS ON WHICH THE RESPONDENTS ARE PRESENTLY FARMING OR HAVE FARMED

Ownership Status	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Owned by student	0	0.0	4	7.5
Owned by parent	13	86.7	35	66.1
Owned by father-in-law	0	0.0	4	7.5
Owned by relatives	0	0.0	2	3.8
Others	2	13.3	8	15.1
Total	15	100.0	53	100.0

It is interesting to observe, from Table XXII, that 66.1 per cent of the students in the farmer group are presently farming on their parents' farms. This again illustrates the importance of progressive supervised farming programs and the effects of father and son partnerships. It should also be noted that 11.3 per cent of the farms were

owned by the fathers-in-law or other relatives. The son-in-law in some cases takes over the farm and a partnership is formed in much the same way as in a father and son partnership. It appears that there are very few other methods of getting started other than with the help of parents or relatives. There is no information in this study concerning how the students who own their farms started but it would seem probable that they also might have started with their parents' assistance.

TABLE XXIII. THE PROPORTION OF VOCATIONAL AGRICULTURE DEPARTMENTS INDICATED AS PROVIDING ADULT AGRICULTURE CLASSES

Whether classes were provided	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Yes	6	42.9	16	30.8
No	8	57.1	36	69.2
Total	14	100.0	52	100.0

Adult classes in South Dakota are at an early stage of development. Of the 52 students in the farmer group answering the question concerning whether adult farmer classes were offered in their schools, only 30.8 per cent responded affirmatively as shown in Table XXIII. If vocational agriculture instructors in South Dakota are to provide effective education for present and prospective farmers there is a

great challenge in reaching the goal of 100 per cent of the departments offering adult agriculture classes. From the total group of 57 farmers, five failed to answer the question regarding adult agriculture classes. From the lack of information it would be logical to assume that many of these students had never been informed of the adult farmer classes.

TABLE XXIV. THE REGULARITY OF ATTENDANCE BY
THE STUDENTS AT ADULT AGRICULTURE
CLASSES WHERE PROVIDED

Regularity of Attendance	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Regularly	0	0.0	2	12.5
Occasionally	0	0.0	5	31.3
Seldom	0	0.0	1	6.2
Never	6	100.0	8	50.0
Total	6	100.0	16	100.0

Attendance at adult classes is very small, as will be noted in Table XXIV. In the farmer group only 43.8 per cent attended regularly or occasionally. This leaves the vocational agriculture instructor room for improvement if classes are to be conducted for all who are presently established in farming. None of the non-farmers who did farm for a short period of time attended any adult classes.

It is generally assumed that the success or failure of adult classes in vocational agriculture is dependent upon the vocational agriculture instructor. Much planning and preparation must take place prior to conducting the class, both by the instructor and advisory council. The vocational agriculture instructor and advisory council must work together in planning a program, selecting outside speakers when they are used, and in evaluating the program. It has been found that if the farmers within the community are included in the cooperative planning of their classes and topics that will be discussed they will take a very active interest in them. It is very important that meeting dates and the topics to be discussed be established well in advance of the meetings and publicized so all farmers within the community are contacted.

TABLE XXV. ENROLLMENT BY THE STUDENTS IN VETERANS
ON-THE-FARM TRAINING CLASSES

Whether enrolled	Non-Farmers		Farmers	
	Number	Per cent	Number	Per cent
Yes	1	7.1	5	9.1
No	13	92.9	50	90.9
Total	14	100.0	55	100.0

Veterans on-the-farm training classes had little effect on establishment in farming in this study. Veterans on-the-farm training classes were attended by 9.1 per cent of the farmer group, as shown in Table XXV. In the non-farmer group, 7.1 per cent did attend veterans on-the-farm training classes. The reason for such a small number can be accounted for, at least in part, by the fact that the respondents had to be in service shortly after their graduation in 1953 in order to be eligible for free tuition to attend such classes. It was also mandatory that they be farming for themselves in order to qualify for enrollment in the program.

III. Reasons for Leaving the Farm

TABLE XXVI. FREQUENCY OF REASONS WHY THE
NON-FARMERS LEFT THE FARM

Reason	Frequency
No desire to farm	12
No method of getting started	31
Farmers have to work too hard	3
Income not large enough	13
Other brothers and sisters took over farm	6
Discouraged by friends	2
Discouraged by family	7
Physical handicap	4
Interest in other occupations	43
Desire for higher social standards	9
Others	1
Total	131

The four reasons indicated most frequently for leaving the farm as shown in Table XXVI were: interested in other occupations; no method of getting started; income not large enough; and no desire to

farm. Interest in other occupations and no desire to farm are closely related, and therefore account for the largest single number of reasons. It will also be noted that the desire for higher social standards was indicated nine times as a reason for leaving the farm. Tradition has left imbedded in the minds of many the idea that a farmer is rated low on the social scale. In this era of scientific farming a farmer can no longer be thought of as a poor manager but as a true business man in every sense of the word. In many cases the individual farmer has more invested in his land, equipment, and livestock than several businessmen on the main streets of average towns in South Dakota. Farming today is big business and it takes a very capable, well trained individual to make a beginning and advance in it. Many found it difficult to farm unless they were to start on their parents' farms. This fact is borne out in Table XXII. In this age of mechanized agriculture, more and more father and son partnerships, and even some family corporations are being formed. It is by this close interrelationship that capital investments can be brought together with labor investments for the mutual benefit of all concerned.

SUMMARY AND CONCLUSIONS

This thesis had as its purpose the investigation of the circumstances surrounding the occupational choices of students in high school vocational agriculture who graduated in 1953 from South Dakota high schools. The study was intended to reveal the factors that have caused those who have selected occupations outside of farming to enter their chosen fields. Also, it was the intent of the study to reveal the relative importance of gross income and the relationship, if any, that exists between mental age and education, and a young man's proneness to enter farming or not to enter it.

The vocational agriculture instructors in South Dakota furnished the names of the vocational agriculture students graduating in 1953. These students were sent a questionnaire concerning the effects of home and environment and vocational agriculture in becoming established in farming. For the students who did not return to the farm an attempt was made to locate the reasons for leaving the farm.

The home and its environment had a definite effect on establishment in farming. Students from small families and those with fewer older brothers have a better opportunity to farm than have those from large families having older brothers. The education of the parents favorably affected the establishment of the students in farming. The more education the parents had, the more likely it was for the

student to farm.

The students with the higher I. Q.'s tend to leave the farm for other occupations. Similarly, students with few home improvements tend to seek employment other than farming. The relationship of home improvements to establishment in farming indicates the importance of the continued efforts in home improvement projects. Farm ownership by the parents was an important factor relating to the establishment of the son in farming. The farms providing the larger gross incomes were in the best position financially to provide possibilities to establish the boy in farming. Gross income also indicated that students in the farmer group felt the financial reward was sufficient to choose farming as an occupation.

According to this survey, vocational agriculture does have a part in the establishment of the young men in farming. Most of the parents are satisfied with the supervised farming programs presently carried out. Yet some indicated dissatisfaction and it is understandable that individuals that were dissatisfied with the vocational agriculture program were the advocates of recent legislation for a change in federal financial assistance for vocational education. It was found that many students are being deprived of the privilege of home visits and supervision of their farming programs. It is the supervised farming program that actually makes vocational agriculture truly vocational in nature.

The number of years of enrollment in vocational agriculture did affect the probability of establishment in farming. However, those who did not chose to remain in farming would likely make use of their vocational agriculture experiences at a later time in other occupations. A large proportion of the students did complete all four years of agriculture which shows the importance the students placed upon the subject. The number of years of FFA membership had no affect on establishment in farming. However, the degrees held by members indicated that the higher the degree the more likely the student was to farm. More FFA offices were held by non-farmers than by farmers. This indicated that even though this leadership ability does not always leave the community it is not directly connected with agriculture. Also, the leadership training that is provided in the vocational agriculture classroom should be devoted to all the members rather than to a selected few.

The larger the monetary value of the supervised farming program during the senior year of high school the more likely the student was to enter farming. This shows the importance of a long range progressive program while a student is in high school. The number of years following high school that elapsed prior to the student's start in farming had no effect on whether he remained on the farm.

The number of adult classes provided in South Dakota is

small. If vocational agriculture instructors are to provide educational instruction for present and prospective farmers 14 years of age and older there is a great challenge for vocational agriculture instructors to provide such classes.

The reasons listed most frequently for leaving the farm were: interest in other occupations; no desire to farm; no method of getting started; and income not large enough. Farming today is a rapidly changing industry. The individual who enters this occupation must have a considerable amount of capital on hand, along with proficiency in a number of different skills. Young men wishing to start farming today must start with the help of their fathers or other interested persons. Therefore, it is important for them to start at an early age to develop a very close working relationship with their parents. The best way in which this can be accomplished is through a supervised farming program with parent, son and the vocational agriculture instructor working together with the common interest of helping the boy become established in farming.

RECOMMENDATIONS

Agriculture in the United States is progressing rapidly, and vocational agriculture instructors are likewise facing the need for progressing in accordance with a renewed emphasis on some of the basic concepts of vocational agriculture. From the interpretation of the data obtained from the survey and the I. Q. scores furnished, the following recommendations are presented:

1. A larger portion of the vocational agriculture instructors' time should be spent on the students' farms. Adequate time should be spent with students and the parents working out progressive supervised farming programs. A farming program should have as its objective the establishment of the boy in farming. It should also include the development of home improvement projects.
2. The vocational agriculture instructors should develop a better understanding within the community of the total vocational agriculture program, including the high school classes, young farmer classes, and adult farmer classes.
3. Further use of advisory councils should be made by vocational agriculture instructors in developing the vocational agriculture program.
4. Leadership training ought to be provided for all students in agriculture rather than for a selected few.
5. The vocational agriculture students planning to remain on the farm and parents should be encouraged to develop partnerships.
6. The curriculum within the school system should be planned so that vocational agriculture is an elective and not a required course.

7. Time should be spent in farm management classes on different methods of financing a farming business. Different types of partnership agreements should also be studied to help the students to develop workable plans for their situations.
8. The farm mechanics phase of vocational agriculture should cover home improvements and methods of their practical application on the students' farms.
9. The school guidance director and vocational agriculture instructor ought to work in close cooperation in guiding individuals anticipating the selection of vocational agriculture classes.
10. As one method of evaluating the program, the vocational agriculture instructor should maintain contact with former students.
11. Young farmer classes should be started where enough students are available. These classes should provide a connecting link between all day classes and adult farmer classes.
12. Adult farmer classes should be established in all vocational agriculture departments. These classes should cover the areas of technical agriculture, farm living and community betterment.
13. Adult farmers and young farmers should be visited by the vocational agriculture instructor and provided assistance with their farming programs.

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APPENDICES

APPENDIX A

October 6, 1959

Mr. Lloyd Holland
Vocational Agriculture Instructor
Waubay, South Dakota

Dear Sir:

I am presently securing information to be used for a research thesis entitled, "To Ascertain the Factors Associated with Establishment in Farming". The purpose of this thesis is to determine the factors which have influenced former Vocational Agriculture students to become established in farming.

For this study I have selected all students graduating in 1953, who were at that time enrolled in Vocational Agriculture or who had previously been enrolled in Vocational Agriculture while in high school. I would appreciate your help in compiling a complete list of these Vocational Agriculture students graduating from your high school in 1953. Please return their names and present addresses in the enclosed self-addressed envelope by October 20.

If no students with Vocational Agriculture training graduated from your high school in 1953 please check the statement below and return this letter before the date indicated above.

I wish to thank you for your co-operation in this study.

Sincerely,

Donald T. Tupper



There were no 1953 graduates enrolled or previously enrolled in Vocational Agriculture.

APPENDIX B

Questionnaire To Ascertain the Factors Associated
With Establishment in Farming

Directions: Please be sure to answer all questions in Part I. Then, if you are presently engaged in farming, or if you have farmed at any time since graduation from high school, answer also the questions in Part II. If you are presently employed in some occupation other than farming, and have not farmed since high school graduation, answer questions in Part I and III only.

All questions are to be answered as they related to you as a senior in high school, 1952-1953, unless otherwise stated.

PART I. If you are farming or are employed in some other occupation answer the following questions:

1. What is your present occupation? If farming or in military service check (x) the appropriate box.

Farming

☐

Military service

☐

Others (specify) _____

2. Since your graduation from high school have you ever engaged in farming as a full time occupation?

Yes _____

No _____

3. If the answer to question 2, above, is yes, how many years did you farm?

4. Indicate the number of brothers and sisters in your family by using the appropriate blanks below:

Brothers: Older _____

Younger _____

Sisters: Older _____

Younger _____

5. Formal education obtained by parents. Check (x) the appropriate box for each, indicating the highest educational level attained:

	Mother	Father
Less than eighth grade	<input type="checkbox"/>	<input type="checkbox"/>
Eighth grade graduate	<input type="checkbox"/>	<input type="checkbox"/>
High school graduate	<input type="checkbox"/>	<input type="checkbox"/>
College graduate	<input type="checkbox"/>	<input type="checkbox"/>
Work beyond college (specify)	_____	_____

6. Formal education you have attained: Indicate the highest level attained by checking (x) the appropriate box.

High school graduate	<input type="checkbox"/>
Less than 4 years of college	<input type="checkbox"/>
College graduate	<input type="checkbox"/>
Graduate work beyond a 4-year college degree	<input type="checkbox"/>

7. If you hold a college degree, indicate the degree:

8. If you attended college, indicate the major field or fields:

9. Did you have the following conveniences on your home farm? Check (x) the appropriate box.

	Yes	No
Mechanical refrigeration	<input type="checkbox"/>	<input type="checkbox"/>
Electricity	<input type="checkbox"/>	<input type="checkbox"/>
Indoor bathroom facilities	<input type="checkbox"/>	<input type="checkbox"/>

10. Was the family home farm on which you lived during 1952-53

Owned by your family	<input type="checkbox"/>
Rented by your family	<input type="checkbox"/>
Farmed under other arrangements (Specify) _____	<input type="checkbox"/>

11. In your estimation what was the gross income on your home farm in 1952-53?

\$500-\$1000	<input type="checkbox"/>	\$10,000-\$15,000	<input type="checkbox"/>
\$1000-\$5000	<input type="checkbox"/>	\$15,000-\$20,000	<input type="checkbox"/>
\$5000-\$10,000	<input type="checkbox"/>	\$20,000-or more	<input type="checkbox"/>

12. In your estimation, did your parents consider farming as a way of life to be satisfactory or unsatisfactory? Check (x) appropriate box.

Satisfactory	<input type="checkbox"/>
Unsatisfactory	<input type="checkbox"/>

13. In your estimation, did the attitude of your parents indicate satisfaction toward the supervised farming program. Check (x) appropriate box.

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

14. Number of years parents had farmed by 1952-53: _____
15. Did your home farm situation offer you the opportunities to develop a supervised farming program with which you were satisfied?
- Yes _____
- No _____
16. Did you introduce new methods into the farming operation while enrolled in Vocational Agriculture such as fertilizing, seed treatment, spraying, etc.?
- Yes _____
- No _____
17. Indicate by checking (x) what you consider to be the average yearly number of farm visits made to your farm by the Vocational Agriculture Instructor while you were enrolled in high school Vocational Agriculture classes: one ____ two ____ three ____ four ____ five ____ more than five ____.
18. Indicate by checking (x) the number of years you were enrolled in high school Vocational Agriculture:
- one ____ two ____ three ____ four ____
19. Indicate by checking (x) the number of years you held membership in FFA: one ____ two ____ three ____ four ____ five ____ six ____
20. Indicate by checking (x) the appropriate box the highest degree you received in FFA:

Green Hand

☐

Chapter Farmer

☐

State Farmer

☐

American Farmer

☐

21. If you held an FFA office, indicate the name of the office or offices held at:

Local level _____

District level _____

State level _____

National level _____

22. If you held membership in other farm youth organizations, indicate the number of years you belonged to:

4-H _____

YMW _____

Others (specify) _____

23. Was your high school Vocational Agriculture department equipped with a shop?

Yes _____

No _____

24. If the answer to question 23 is yes, indicate by checking (x) appropriate blanks whether your high school farm mechanics shop was equipped with:

Arc Welder Yes ___ No ___

Acetylene welder Yes ___ No ___

Equipment for general maintenance and servicing of farm motors Yes ___ No ___

Equipment and training aids for electricity (such as electric panel board, motors, etc.) Yes ___ No ___

25. Indicate your estimation of the amount of your investment in supervised farming projects during your senior year of school:

Less than \$250	<input type="text"/>
\$250 to \$500	<input type="text"/>
\$500 to \$1000	<input type="text"/>
\$1000 to \$2500	<input type="text"/>
\$2500 or more	<input type="text"/>

26. List the extra-curricular activities in which you participated while in high school.

<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

PART II. If you are presently farming or have farmed since graduation from high school answer the following questions.

- How soon after graduation did you begin farming on your own?
Immediately ___ 1 year ___ 2 years ___ 3 years ___
4 years ___ 5 years ___
- At what age did you begin farming on your own? _____
- Rank in order the following who assisted you most, from an economic standpoint, to become established in farming; the one assisting the most circle (1), the one providing the second largest amount of assistance circle (2), etc. If no assistance was granted circle a zero.

Parents	0	1	2	3	4	5	6
Brother and/or sister	0	1	2	3	4	5	6
Bank	0	1	2	3	4	5	6
Other relative	0	1	2	3	4	5	6
Government lending agencies	0	1	2	3	4	5	6

Friend or neighbor 0 1 2 3 4 5 6

Others (specify) _____ 0 1 2 3 4 5 6

4. Is the farm on which you live (or lived):

Owned by you ☐

Owned by your father ☐

Owned by your father-in-law ☐

Owned by other relatives ☐

Owned by others (specify) _____ ☐

5. Have there been adult agriculture classes in the Vocational Agriculture department of your local school during the time you farmed?

Yes _____

No _____

6. If the answer to question 5, above, is yes, did you attend:

Regularly ☐

Occasionally ☐

Seldom ☐

Never ☐

7. Have you ever attended Veterans-On-The-Farm training classes?

Yes _____

No _____

8. If the answer to question 7, above, is yes, for how many months? _____

PART III. If you are presently employed in some occupation other than farming and have not farmed since high school graduation answer the following:

1. Check (x) the reason or reasons for leaving the farm.

No desire to farm ☐

No method of getting started ☐

Farmers have to work too hard ☐

Income not great enough ☐

Other brothers or sisters took over farm ☐

Discouraged by friends ☐

Discouraged by family ☐

Physical handicap ☐

Interest in other occupations ☐

Desire for higher social standards ☐

Others, (indicate) _____

2. Do you plan to return to the farm?

Yes ☐

No ☐

APPENDIX C

November 24, 1959

Mr. Dale Olson
Sioux Falls,
South Dakota

Dear Dale:

The enclosed questionnaire is being sent to you, as a member of the graduating class of 1952-53. I would like to solicit your help in a study of the graduates of that class. You were selected from the group of boys who had been enrolled in Vocational Agriculture while in high school.

As only a selected group is being questioned your answers are essential to the success of this study. I would appreciate it if you would return the completed questionnaire in the enclosed envelope by December 8th.

This study is designed to ascertain why Vocational Agriculture boys stay on the farm or leave it for other occupations. Other factors associated with establishment in farming are also included.

I wish to thank you in advance for your cooperation, and assure you that all information will be handled in a confidential manner. You need not sign the questionnaire.

Sincerely,

Donald T. Tupper

APPENDIX D

January 17, 1959

Mr. W. B. Herbold, Superintendent
Alcester Public School
Alcester, South Dakota

Dear Mr. Herbold:

I am presently studying factors associated with vocational agriculture boys becoming established in farming.

I would like to ask if you will send me the most recently recorded I. Q. score of the boy listed below, who graduated in the class of 1952-53 at your school. This is very important to the success of this study, and an immediate reply would be received with appreciation.

Thank you in advance for your cooperation, and may I assure you all information will be handled confidentially. A stamped, addressed envelope is enclosed for your convenience in replying.

Sincerely,

Donald T. Tupper

Enclosure -2