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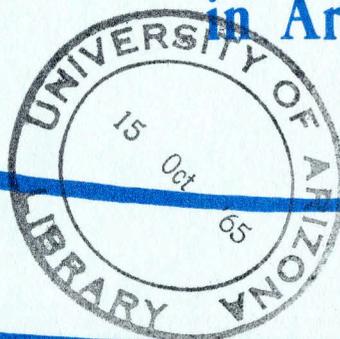
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Occupations

of Former Students
of Vocational Agriculture
in Arizona



Agricultural Experiment Station

The University of Arizona Tucson

Report

Number 227

OCCUPATIONS OF FORMER STUDENTS OF VOCATIONAL
AGRICULTURE IN ARIZONA

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Tucson, Arizona

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TABLE OF CONTENTS

	Page
LIST OF TABLES	iii
INTRODUCTION	1
The Problem	1
Procedure	1
Assumptions	2
Limitations	2
PRESENTATION AND INTERPRETATION OF DATA	3
Occupations of Former Students	3
Student Tenure in the Vocational Agriculture Program	5
Post-High School Education Received	6
Opinions of Former Students about Vocational Agriculture Program	7
Suggestions for Improvement	12
SUMMARY OF FINDINGS	14
APPENDIX	16
Survey of Former Students of Vocational Agriculture in Arizona	16
LIST OF REFERENCES	18

LIST OF TABLES

Table	Page
1. A Comparison of the Number and Percentage of Former Vocational Agriculture Students Employed or Anticipating Employment in Three Categories of Occupations	3
2. Number and Percentage of Former Arizona Vocational Agriculture Students Presently Employed in Various Categories of Production Agriculture	4
3. Positions Held by Former Arizona Students of Vocational Agriculture Who Are in Agricultural Occupations Other Than Production Agriculture	4
4. Positions Held by Former Arizona Students of Vocational Agriculture Who Are Employed in Non-Agricultural Occupations.	5
5. Reasons Given by Former Students for not Completing Four Years of Vocational Agriculture	6
6. Education Beyond High School Received by Former Students of Vocational Agriculture by Types of Institutions	6
7. Degrees Received by Former Vocational Agriculture Students Who Attended Colleges or Universities	7
8. Colleges and Universities Attended by Former Students of Vocational Agriculture	7
9. A Comparison of Opinions of Former Arizona Vocational Agriculture Students Who Are Now Employed in One of Three Categories of Occupations or Who Are Students Enrolled in an Institution of Higher Education Regarding the Effectiveness of the Vocational Agriculture Programs in Developing Selected Abilities	9
10. A Comparison of Opinions of Former Arizona Vocational Agriculture Students Who Are Now Employed in One of Three Categories of Occupations or Are Students Enrolled in an Institution of Higher Education Regarding the Effectiveness of Selected Areas of Instruction in Vocational Agriculture in Helping Them Enter and Advance in Their Present Occupation	10
11. Opinions of Former Students Regarding Their Satisfaction With The Amount of Vocational Agriculture They Studied in High School	11
12. Opinions of Former Students Regarding the Amount of Vocational Instruction, Other Than Agriculture, Offered in High Schools Today	12
13. Suggestions of Former Students for Improving Instruction in Vocational Agriculture	13

OCCUPATIONS OF FORMER STUDENTS OF VOCATIONAL AGRICULTURE IN ARIZONA

John R. Williams¹

INTRODUCTION

The Problem

The objectives of vocational education in agriculture have recently been expanded to include not only preparing young men for farming, but also preparing youth for any of the many occupations in the agricultural industry that require some knowledge of and abilities in production agriculture. Before embarking on new programs to meet the needs of youth preparing to enter occupations in the agricultural industry, it was felt that an effort should be made to learn the present occupations of former students of vocational agriculture, what additional post high school education they have received and their opinions about the effectiveness of selected phases of the present program of vocational education in agriculture in Arizona.

Procedure

All teachers of vocational agriculture in Arizona were asked to provide the names and current address of all former students who studied vocational agriculture in their departments for two or more years during the ten year period from September 1953 to June 1962. The names and addresses of 2,925 former students were furnished from thirty-two schools. A tentative questionnaire was developed to acquire the desired information about each former student and to enable the former students to express their opinions about the program. The tentative questionnaire was evaluated by members of the agricultural education state supervisory and teacher training staffs, revised to include their suggestions and tried out on thirty-nine former vocational agricultural students. Deficiencies identified by the tryout were corrected and the final form of the questionnaire prepared.² The questionnaire was sent to each former student requesting information on their present occupations, additional education they have received and their opinions on the effectiveness of the various phases of the vocational agriculture program in preparing them for their present occupation. Questionnaires were completed and returned by 669 former students.

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²See Appendix for a copy of the final questionnaire.

Assumptions

The following assumptions were used as a basis for this study:

1. Former Arizona students of vocational agriculture are interested in the vocational education program in agriculture and will be willing to furnish the information and opinions requested.
2. The responses and opinions of these former students will be valid data for evaluating the present program of vocational education in agriculture, will suggest improvements that can be made in that program and provide information helpful for planning new programs of vocational education in agriculture.

Limitations of the Study

1. It is recognized that the comparatively small number of former students who completed and returned questionnaires may not be a representative sample of all former students of vocational agriculture in Arizona, and therefore we cannot be certain that the occupations and additional education reported accurately represent the occupations and additional education of all former Arizona vocational agriculture students. However, it is believed that those former students who did respond have a greater than average interest in the program and therefore the facts they reported and the opinions they have expressed provide information that will be useful in evaluating the Arizona program of vocational education in agriculture.
2. The absence of an effective procedure for keeping an up-to-date address of former students made it extremely difficult for the cooperating teachers of vocational agriculture to furnish accurate addresses of all former students who enrolled for two or more years in their departments. Therefore a large number of former students who should have been included never received the questionnaire sent them.
3. Some of the questions on the questionnaire may not have been completely understood by some of the respondents; different interpretations of the questions may have altered the responses.

PRESENTATION AND INTERPRETATION OF DATA

Occupations of Former Students

The former students were asked to give the title of their present occupations if they were working at some job full-time or, if they were in some temporary occupation such as student or in the military service, to give the occupation for which they were preparing themselves or hoped to enter. The job titles or occupations given were classified in three categories:

1. Production agriculture, including such jobs as farmer, rancher, dairyman, farm manager, etc.
2. Agricultural occupations other than production agriculture, requires some knowledge of or ability in production agriculture, such as feed, fertilizer or insecticide salesman, farm machinery sales or services, county agent, soil scientist, etc.
3. Not related to agriculture, which includes all other occupations for which no knowledge of or abilities in production agriculture is required.

Table 1. Comparison of the Number and Percentage of Former Arizona Vocational Agriculture Students Employed or Anticipating Employment in Three Categories of Occupations.

Occupational Status	Production Agriculture		Agricultural Occupations		Not Related to Agriculture	
	Number	Percent	Number	Percent	Number	Percent
Presently employed	117	30.00	41	10.51	232	59.49
Student	39	22.29	50	28.57	84	48.00
Military, non-career ^a	25	37.88	12	18.18	19	28.79
Other temporary	5	18.52	5	18.52	14	51.85
TOTALS	186	28.27^b	108	16.41^b	349	53.04^b

Table 1 shows the number and percentage of those former students now employed in occupations grouped into the three categories and the number and percentage of the former students now occupied in temporary activities who are preparing themselves for or who expect to enter occupations in each of the three categories. These data show that 30 percent of those former students

^aThe respondents who are in one of the military services and said they expect to make a career of the service are included in the "Presently Employed" group under the heading "Not Related to Agriculture."

^bPercentage given is percent of total former students who responded. It does not add up to 100% because 15 or 2.28% of the former students now in one of the 3 temporary occupations were not certain what occupation they wished to enter.

of vocational agriculture who are presently employed are in the category of production agriculture and 10.51 percent are employed in agricultural occupations other than production agriculture. Responses from former students who are temporarily in the military services indicated that 37.88 percent hoped to enter production farming and 18.18 percent hoped to enter other agricultural occupations. Responses from former students who are continuing their education indicated that only 22.29 percent are preparing to go into production agriculture while 28.57 percent are preparing to go into other occupations in agriculture, including the agricultural professions. These data indicate that 44.68 percent of the former students who completed the questionnaire are either in some agricultural occupation or planning to enter an agricultural occupation.

Table 2. Number and Percentage of Former Arizona Vocational Agriculture Students Presently Employed in Various Categories of Production Agriculture

Category	Number	Percentage of Total
Owner-Operator	32	27.30
Partnership	24	20.51
Hired Hand (not at home)	15	12.82
Hired Hand (home farm)	14	11.97
Renter	14	11.97
Manager	13	11.11
Other	5	4.32
TOTAL	117	100.00

Table 2 shows the number and percent of the former students of vocational agriculture who are occupied in production agriculture, divided into various categories of responsibility. Although production agriculture in Arizona requires large amounts of capital and these men are all young, almost 40 percent of them are owner-operators or renters. Less than 25 percent of them fall into the hired hand category.

Table 3. Positions Held by Former Arizona Students of Vocational Agriculture who are in Agricultural Occupations Other than Production Agriculture

Occupation Group	Number	Percentage of Total
Professional	14	34.15
Salesmen, Clerks	10	24.39
Equipment Operator	7	17.07
Technician	5	12.20
Mechanics	3	7.32
Business (manager, foreman)	2	4.87
TOTALS	41	100.00

Table 3 lists broad categories of agricultural occupations related to production agriculture and shows the number and percentage of former students who are employed in each category. More than one third of these young men are

employed in agricultural professions including teachers of agriculture at both the high school and university levels, research scientists and other professions vital to agriculture.

Table 4. Positions Held by Former Arizona Students of Vocational Agriculture who are Employed in Non-Agricultural Occupations

Occupational Group	Number	Percentage of Total
Construction	53	22.84
Public Service	42	18.10
Business (manager, foreman)	24	10.34
Professional	21	9.05
Salesmen, Clerks	18	7.76
Military (career)	16	6.90
Drivers	13	5.60
Technician	12	5.17
Mechanics	11	4.74
Miscellaneous	22	9.50
TOTALS	232	100.00

Table 4 shows the broad categories of occupations not related to agriculture in which the 59.49 percent of these former students of vocational agriculture are employed. The largest percentage is employed in jobs in the construction business; carpenters, masons, electricians, etc. About 40 percent of the total time in vocational agriculture is devoted to instruction and practice in mechanics.

These data compare favorably with data collected in similar studies in other states. A ten-year study in New York State conducted by Bail (1959) found that 45 percent of former students were employed in agricultural occupations. A similar study conducted by the Agricultural Education Service in Alabama (1962) found that 51 percent of former students who had been out of school for five years were engaged in agricultural occupations. Wood (1958) found that 47.9 percent of former vocational agriculture students in Illinois, and Bender (1961) found that 60 percent of the same group in Ohio, were employed in agricultural occupations. Nelson (1961) found that 25 percent of the graduates in Minnesota, and Webb (1961) found that 49 percent of the graduates in Missouri went into farming, but no effort was made to find out how many went into other agricultural occupations.

Student Tenure in the Vocational Agriculture Program

Vocational agriculture is normally offered in all four grades of high school. Each student was asked how many years he studied vocational agriculture in high school. If he studied less than four years, he was asked to indicate why.

Table 5. Reasons Given by Former Students for not Completing Four Years of Vocational Agriculture

Reasons	Number	Percentage of Total
No reason given (took all 4 years)	400	59.79
Need for other subjects	72	10.76
Did not offer Voc-Ag all 4 years	66	9.87
No interest	33	4.93
Didn't take the first year	30	4.48
Quit school (service, marriage)	22	3.29
Dislike of teachers	13	1.94
Moved to another school	12	1.79
Didn't know what I was missing	6	.09
Other	15	3.06
TOTALS	669	100.00

Table 5 shows the number and percent of students who dropped out of the vocational agriculture program after two years and the reasons they gave for that action. The reason given by more students than any other was that they (or their parents or the high school counselor) felt they needed other subjects that were scheduled at the same time more than they needed agriculture.

Post-High School Education Received

There were 349 of the 669 former students who cooperated in the study who attended a college or university after completing high school. An additional 182 attended a junior college or a technical vocational school.

Table 6. Education Beyond High School Received by Former Students of Vocational Agriculture by Types of Institutions

Type of Institution	Number	Percentage of Total
College or University	349	52.16
Junior College	118	17.64
Technical-Vocational	64	9.57
Other types of Schools	110	16.44
Did not attend any institutions beyond high school	28	4.19
TOTALS	669	100.00

Table 6 gives a breakdown of the types of schools these former students attended. More than half attended a college or university and more than 95 percent participated in some kind of post-high school education.

Table 7. Degrees Received by Former Vocational Agriculture Students Who Attended Colleges or Universities

Degree	Number	Percentage of Total
None	493	73.69
B.S. or B.A.	88	13.15
Still attending-none yet	77	11.51
M.A. or M.S.	6	.90
Combination of B.S. or B.A. and advanced degrees other than M.A. or M.S.	2	.30
Ph.D. or D.Ed.	1	.15
Other	2	.30
TOTALS	669	100.00

Table 7 shows the number and percentage of various degrees received by these former students who attended colleges and universities.

Table 8. Colleges and Universities Attended by Former Students of Vocational Agriculture

Name of Institution	Number	Percentage of Total
Attended none	320	47.84
University of Arizona	105	15.70
Arizona State University	123	18.39
Arizona State College	16	2.39
Brigham Young University	21	3.14
Out of State	24	3.59
Combination of Arizona and out of state	25	3.74
Combination of two or more in Arizona	12	1.79
Grand Canyon College	5	.75
Did not name college	18	2.67
TOTALS	669	100.00

Table 8 shows the number and percentage of those former students who attended each of the more popular colleges and universities in Arizona and out-of-state. All four-year colleges in the state are included in the table. Brigham Young University is also included because almost as many former vocational agriculture students attended that institution as all other out-of-state institutions put together.

Opinions of Former Students about Vocational Agriculture Program

The former students of vocational agriculture were asked to indicate their opinions as to the value of the vocational agriculture program they experienced in high school in helping them develop specific abilities. Sixteen abilities that are generally accepted objectives of instruction in vocational agriculture were listed, and each student was asked his opinion on whether

instruction in vocational agriculture was very useful, of some value, or of little or no value in his development of each specific ability.¹ Space was provided for any additional comments anyone might wish to make. It was felt that these opinions would have more significance in the evaluation of the vocational agriculture program if the responses were tabulated according to the classification of the occupation of each respondent.

Table 9 shows the opinions of the former students now employed in some phase of production agriculture compared with the opinions of former students employed in agricultural occupations related to production farming, former students in occupations not related to agriculture and former students who are attending any institution of post high school education. All figures are percentages of the total in each category. Since space was limited, only the responses "very useful" and "little or no value" are shown. The percentage of respondents who checked in the "some value" column may be determined by adding the two figures shown for each occupational category and subtracting this figure from 100.

The abilities that scored highest by all four groups were: (1) work harmoniously with others; (2) exercise leadership; (3) perform farm mechanics skills effectively; (4) conserve natural resources; (5) understand the importance of agriculture in the national welfare; (6) maintain high standards of workmanship. The ability that they said instruction in vocational agriculture had the least effect on was the ability to study effectively. There was considerable variation in the responses of the men from the various categories regarding the development of an ability. For example, more than 52 percent of the men in the production category and the men in the agricultural occupations category indicated that the vocational agriculture program was very useful in the ability "Select, obtain and advance in your present occupation," while less than 21 percent of the men in occupations not related to agriculture said it was very useful. Almost 61 percent of the men in the agricultural occupations and 63 percent of the students said the vocational agriculture program was very useful in helping them "appreciate the need for post-high school education," while less than 44 percent of the men in the other categories rated it that high.

Very little use was made of the opportunity to add comments about each of the abilities listed. The Future Farmers of America organization was mentioned very often as being a very effective tool in helping boys develop most of the abilities. Another remark made almost as frequently for most abilities was "should be stressed more."

The former students were also asked to indicate their opinion of the contribution various phases of the vocational agriculture program had made in helping them enter and advance in their present job. They were asked to indicate their opinion by placing a check in one of three columns: (1) very useful; (2) some value, and (3) little or no value. Additional space was provided by each item where they could make any further comments if they wished.

¹See Appendix for exact form of questions.

Table 9. A Comparison of Opinions of Former Arizona Vocational Agriculture Students Who Are Now Employed in one of Three Categories of Occupations or Who Are Students Enrolled in an Institution of Higher Education Regarding the Effectiveness of the Vocational Agriculture Program in Developing Selected Abilities

Ability	Opinion *							
	Very Useful			Little or No Value				
	Production Agriculture	Agricultural Occupations	Not Related	Student	Production Agriculture	Agricultural Occupations	Not Related	Student
Accept responsibilities of Citizenship	41.88	63.41	56.48	54.71	5.98	4.88	7.41	5.29
Apply scientific principles in your work	52.14	41.46	35.65	30.00	6.84	7.32	17.13	11.18
Appreciate the need for post- high school education	43.59	60.98	43.98	62.94	10.26	4.88	12.96	8.24
Conserve natural resources	53.85	63.41	69.44	57.65	8.55	4.88	6.94	6.49
Exercise leadership	61.54	68.29	62.50	67.06	7.69	2.44	5.09	2.35
Locate, organize and use information	52.14	39.02	50.00	38.82	4.27	7.32	8.80	6.47
Maintain high standards of workmanship	64.96	60.98	62.04	55.29	1.21	2.44	5.09	3.53
Make decisions and solve problems	58.12	48.78	54.63	49.41	8.55	4.88	6.48	8.24
Manage money efficiently	44.44	41.46	51.39	43.53	14.53	7.32	11.11	14.12
Perform farm mechanics skills effectively	66.67	60.98	58.33	58.82	5.98	4.88	10.19	5.29
Perform farm and ranch skills effectively	59.83	51.22	54.17	52.35	6.84	2.22	10.19	.59
Select, obtain and advance in your present occupation	52.14	53.66	20.83	32.94	9.40	14.63	43.98	20.59
Study effectively	23.08	21.95	24.07	12.35	15.38	31.71	19.44	28.82
Understand importance of agri- culture in the national welfare	52.14	51.22	69.44	61.18	6.84	4.88	8.33	4.71
Use time effectively	42.74	31.71	44.44	24.12	7.69	7.32	11.11	11.76
Work harmoniously with others	64.10	78.05	65.74	64.71	4.27	0.00	3.70	1.76

*Each figure given is the percentage of the total in each category.

Table 10. A Comparison of Opinions of Former Vocational Agriculture Students Who Are Now Employed in One of Three Categories of Occupations or Are Students Enrolled in an Institution of Higher Education Regarding the Effectiveness of Selected Areas of Instruction in Vocational Agriculture in Helping Them Enter and Advance in Their Present Occupations.

Areas of Vocational Agricultural Program	Very Useful			Opinions*		Little or no Value		
	Production Agriculture	Agricultural Occupations	Not Related	Student	Production Agriculture	Agricultural Occupations	Not Related	Student
Basic Principles of Animal Life	55.56	53.66	20.37	37.65	11.11	12.20	43.98	12.35
Basic Principles of Plant Life	48.72	60.98	19.44	28.82	7.69	12.20	43.06	19.41
Cooperative Activities	32.48	34.15	32.41	44.12	10.26	9.76	16.67	8.24
Farm Management	58.97	36.59	19.91	34.71	5.98	19.51	37.50	17.07
Farm Mechanics Instruction	62.39	46.34	33.80	40.00	10.26	19.51	29.63	22.35
Field Crop Production Information	41.03	56.10	14.81	30.00	13.68	12.20	47.22	22.94
Future Farmers of America Activities	59.83	63.41	38.89	58.82	6.84	12.20	21.30	5.88
Livestock Production Information	52.14	48.78	22.69	39.41	9.40	14.63	43.98	12.94
Occupational Planning	36.75	21.95	31.02	38.82	14.53	17.07	23.15	11.18
Record Keeping and Analysis	58.97	39.02	51.39	48.82	5.98	14.63	13.43	11.18
Supervised Farming Program	52.14	48.78	19.91	45.29	8.55	14.63	41.63	11.76

*Each figure given is the percentage of the total in each category.

10

Table 10 shows the opinions of those former students who are now employed in some phase of production agriculture compared with the opinions of those former students who are employed in agricultural occupations related to production farming, former students in occupations not related to agriculture, and former students who are attending an institution of post-high school education. A column showing the opinions of all former students was not included on the table because it was felt that when the opinions of the men in such different occupations and, therefore, such different needs, were grouped together, the significance of the data was lost. All figures are percentages of the total in each category.

The two areas of the vocational agriculture program that all the former students rated as most useful were: (1) Future Farmers of America activities and (2) Record Keeping and Analysis. The men in production agriculture rated Farm Mechanics instruction highest, FFA activities second, with Record Keeping and Farm Management tied for third. The men in other agricultural occupations rated FFA activities highest and Basic Principles of Plant Life next. The men in occupations not related to agriculture rated Record Keeping and Analysis 12.5 percent higher than the next closest area, the FFA, while instruction in Farm Mechanics was rated the third most important. Areas that all former students felt had contributed least were: (1) Occupational Planning, (2) Cooperative Activities, and (3) Field Crop Production information.

As indicated by the data in Table 9, Table 10 also shows considerable variation in the responses of the men from the various categories regarding the value of an area. For example, the men in production agriculture and agricultural occupations related to production agriculture rated instruction in the "Basic Principles of Animal and Plant Life" quite high, but those in occupations not related to agriculture rated both areas quite low.

In a further effort to determine the satisfaction of the former students with the vocational agriculture program they took in high school, they were asked "If you were to repeat your high school education, would you study more, the same, or less vocational agriculture," and additional space was provided for them to tell why they responded as they did.

Table 11. Opinions of Former Students Regarding Their Satisfaction with the Amount of Vocational Agriculture They Studied in High School

Opinions	Number	Percentage of Total
Would study more	369	55.16
Would study the same	216	32.29
Would study less	75	11.21
No opinions given	9	1.34
TOTALS	669	100.00

Table 11 shows the number and percentage of former students who checked each choice. More than 87 percent indicated they would study more or the same amount, and 11.21 percent indicated they would have studied less vocational agriculture. Reasons given by those former students who said they would have studied less were: (1) more time should be devoted to basic subjects, (2) no

connection with agriculture in my present occupation, (3) disappointed or not interested in subject matter, (4) did not learn much.

The former students were also requested to indicate their opinions on whether more, the same amount or less vocational education subjects other than agriculture should be offered in high schools today. The responses to that question are reported in Table 12.

Table 12. Opinions of Former Students Regarding the Amount of Vocational Instruction, Other Than Agriculture, Offered in High Schools Today

Opinions	Number	Percentage of Total
Should offer more	517	77.28
Should offer same amount	95	14.20
Should offer less	25	3.74
No opinion given	32	4.78
TOTALS	669	100.00

More than three fourths of the former students indicated that there should be more vocational instruction in high schools and less than four percent said there should be less. Some of the reasons given for including more vocational education courses were: (1) gives a broader education, (2) better educate non-college bound students to earn a living, (3) gives an opportunity to choose one's life work sensibly, (4) schools should provide for all vocational interests, (5) gives an opportunity to learn a trade.

Reasons given for offering less vocational instruction included: (1) high schools should provide only general education (2) vocational courses should be taught in trade schools, (3) vocational skills can be learned on the job.

Suggestions for Improvement

The last item on the questionnaire sent to former students was an open end request for any suggestions they might have for improving the program. A total of 24.48 percent of the respondents made some comments and suggestions. Many of the remarks were most complimentary and were really testimonials on the high quality and value of the program and the teacher under whom they studied rather than suggestions for the improvement of the program. However, there were also many entries of constructive criticism. They have been grouped and are recorded in Table 13 in the order of the frequency of each suggestion.

Table 13. Suggestions of Former Students for Improving Instruction in Vocational Agriculture.

Suggestion	Frequency
Teach more about farm business and management	29
Teach more about related occupations	24
Stress more college preparation - science of agriculture	16
Conduct more field trips	15
Hire teachers that are better prepared	13
Provide facilities at school to give practice in farming skills	10
Stress practical studies more and theory less	10
Teaching material should be more thorough, more difficult	10
Teach more about farm machinery care and operation	9
Teach more farm shop skills	9
Stress the development of the individual more	9
Teach longer periods	8
Hire teachers that are more devoted, more enthusiastic	8
More on-the-job training	7
Better support of vocational agriculture program by school administrators	7
More emphasis on FFA activities	7
More emphasis on importance of going to college	7
Weed out loafers	6
Keep stricter discipline	5
More stress on supervised farming programs	4
Less emphasis on FFA	4
Better support of agriculture program by parents and community	3
More variety - make it more interesting	2
Teachers keep more up to date	2
More competitive activities	2
Better recruitment of vocational agriculture students in high schools	2
Have more research materials available	1
Less emphasis on farm work and maintenance	1
Shorter periods	1
Allow both boys and girls to take vocational agriculture	1
Teach more about Arizona water problem	1
Teach marketing	1
Teach two different programs - one for college bound and the other for those who will not go to college	2
TOTAL	236

SUMMARY OF FINDINGS

Responses from the 669 young men who studied vocational agriculture in Arizona for two or more years during the 10 year period from July 1953 to June 1962 and who returned useable questionnaire support the following summary statements:

Present Occupations

1. Sixty percent of the former students are employed in jobs that may be permanent, 26.60 percent are students enrolled in an institution of higher education, and 14.40 percent are in temporary positions such as the armed services, Peace Corps, etc.
2. Of those now employed in permanent jobs, 30.00 percent are in production agriculture, 10.51 percent are employed in an agricultural occupation related to production agriculture, and 59.49 percent are employed in occupations not related to agriculture.
3. Of the former students who are now enrolled in institutions of higher education, 22.29 percent are preparing for jobs in production agriculture, 28.57 percent are preparing for agricultural occupations related to production agriculture, and 48.00 percent are preparing for occupations not related to agriculture.
4. A total of 37.88 percent of the former students now temporarily in the armed services indicated they expect to enter production agriculture when they leave the service.

Post-High School Education

1. More than 95 percent of the former students attended some kind of post-high school educational institution. Fifty-two percent attended a college or university, 17.6 percent attended a junior college, 9.5 percent attended a technical-vocational school and 16.4 percent attended a variety of other schools.
2. Of the 349 former students who attended a college or university, 105 or 30.73 percent attended the University of Arizona, 123 or 35.96 percent attended Arizona State University and another 3.51 percent attended both institutions. Other institutions attended included Arizona State College, Grand Canyon College, Brigham Young University and other out of state institutions.

Opinions on Instruction Received

1. The vocational agriculture program was most useful in helping the former students develop the following abilities: (1) work harmoniously with others; (2) exercise leadership; and (3) perform farm mechanic skills. The instruction was least useful in helping them: (1) develop the ability to study effectively; (2) select and advance in an occupation and (3) manage money.

Opinions on Instruction Received (continued)

2. The areas of the program most useful in helping them enter and advance in their present jobs were: (1) FFA activities; (2) Record Keeping and Analysis; and (3) Farm Mechanics instruction. Areas that contributed least to helping them enter and advance in their present jobs were: (1) Occupational Planning; (2) Cooperative activities; and (3) Field Crop Production information.
3. If the former students were to repeat their high school education, 87.45 percent would study more vocational agriculture or the same amount, while 11.21 percent would study less. Only 1.35 percent expressed no opinion on the question.

Suggestions for Improving the Program

Suggestions for improving the vocational agriculture program, listed in the order of frequency, were as follows: (1) teach more about farm business, management and accounts; (2) teach more about related agricultural occupations; (3) stress preparation for college; (4) conduct more field trips; (5) hire more competent teachers; (6) provide school facilities to give practice in farming skills; (7) make instruction more practical; (8) provide more thorough, more difficult materials for teaching; (9) teach more about farm machinery care and operation; (10) teach more skills in agricultural mechanics; (11) stress development of the individual.

A P P E N D I X

SURVEY OF FORMER STUDENTS OF VOCATIONAL AGRICULTURE IN ARIZONA

Name _____ High School Attended _____ From 19__ to 19__

(If you would prefer that your name be deleted from this form before it is returned to the high school you attended, check here ____.)

OCCUPATION

1. If you are usually employed in some kind of a full time civilian occupation, other than farming and ranching, please complete the blanks below:
 - a. Your present job _____ b. No. of years on job _____
 - c. Nature of your work _____
 - d. Nature of business of your employer _____
 - e. What influenced you to go into this line of work? _____
2. If farming or ranching, check your status below:
 - a. Owner-operator _____ b. Manager _____ c. Renter _____ d. Partnership _____
 - e. Hired hand _____ f. Part time _____ g. Working on home farm _____
 - h. Other (Please describe): _____
3. If you are now attending some educational institution, please complete:
 - a. Technical school _____ Field of study _____
 - b. College or University _____ Field of study _____
 - c. Other (describe) _____ Field of study _____
 - d. What occupation do you expect to enter when you complete your studies? _____
4. If you are now in military service, please complete:
 - a. Do you expect to make a career of the service? Yes _____ No _____
 - b. If no, what occupation do you expect to enter when you complete your service? _____
5. If you are in an occupation (other than military service or school) that you consider to be temporary, such as the Peace Corps, LDS Mission, etc., what occupation do you expect to follow when you complete that temporary assignment? _____

EDUCATIONAL PREPARATION

1. Years of vocational agriculture completed _____ 9th _____ 10th _____ 11th _____ 12th
2. If you did not complete 4 years of vocational agriculture, please state briefly why _____
3. Year of high school completed _____ 9th _____ 10th _____ 11th _____ 12th
4. If you did not graduate from high school, please state briefly why _____
5. Did you attend a technical school? _____ If yes, how many years? _____
Field of study? _____ Name of technical school _____
6. Did you attend a junior college? _____ If yes, how many years? _____
Field of study? _____ Name of junior college? _____
7. Did you attend a college or university? _____ If yes, how many years? _____
Field of study? _____ Degrees received? _____
Name of college or university attended _____
8. Other education or training (Please describe) _____
9. What was the major factor that influenced you to select this field of study? _____

EVALUATION OF THE VOCATIONAL AGRICULTURE PROGRAM

Indicate the contribution you believe vocational agriculture made in helping you develop the following abilities: (Check in one of the first three columns for each ability and add any comments or suggestions in the fourth.)

Ability to:	Very Useful	Some Value	Little or no Value	Comments or Suggestions (Use other side if needed)
1. Accept responsibilities of citizenship				
2. Apply scientific principles in your work				
3. Appreciate the need for post high school education				
4. Conserve natural resources				
5. Exercise leadership				
6. Locate, organize and use information				
7. Maintain high standards of workmanship				
8. Make decisions and solve problems				
9. Manage money efficiently				
10. Perform farm mechanics skills effectively				
11. Perform farm and ranch skills effectively				
12. Select, obtain and advance in your present occupation				
13. Study effectively				
14. Understand importance of agriculture in the national welfare				
15. Use time effectively				
16. Work harmoniously with others				
17. Other (please list)				

Indicate the contribution that you believe the following areas of the vocational agriculture program made in helping you to enter and advance in your present job: (Check in one of the three columns for each area and make suggestions in the fourth.)

Areas of the Vocational Agriculture Program	Very Useful	Some Value	Little or no Value	Comments or Suggestions for Improvement of Program (Use other side if needed)
1. Basic Principles of Animal Life				
2. Basic Principles of Plant Life				
3. Cooperative Activities				
4. Farm Management				
5. Farm Mechanics Instruction				
6. Field Crop Production Information				
7. Future Farmers of America Activities				
8. Livestock Production Information				
9. Occupational Planning				
10. Record Keeping and Analysis				
11. Supervised Farming Program				

CONCLUSIONS

- If you were to repeat your high school education, would you study more _____ the same _____ less _____ vocational agriculture? Why? _____
- Do you believe that more _____ the same amount _____ or less _____ instruction in vocational subjects other than agriculture (such as building trades, commercial subjects, mechanics, etc.) should be offered in high schools today? _____ Why? _____
- Please give any suggestions you have for improving the vocational agriculture program: (Use back of this sheet if necessary.)

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- Webb, Earl S. "Educational and Employment Status of 1960 Graduates Who Were Enrolled in Vocational Agriculture with Implications for Vocational Guidance." Non-thesis, Department of Agricultural Education, University of Missouri, Columbia, 1961.
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