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A national look at important curricular aspects of agricultural education

Fred B. Gregg

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To the Graduate Council:

I am submitting herewith a thesis written by Fred B. Gregg entitled "A national look at important curricular aspects of agricultural education." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural and Extension Education.

George W. Wieggers, Major Professor

We have read this thesis and recommend its acceptance:

John Todd, C. Kenneth Taumer

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

143
August 30, 1971

To the Graduate Council:

I am submitting herewith a thesis written by Fred B. Gregg entitled "A National Look at Important Curricular Aspects of Agricultural Education." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Education.

George W. Wiggins, Jr.
Major Professor

We have read this thesis and
recommend its acceptance:

John D. Todd
C. Kenneth Tanner

Accepted for the Council:

Shelton A. Smith
Vice Chancellor for
Graduate Studies and Research

A NATIONAL LOOK AT IMPORTANT CURRICULAR ASPECTS
OF AGRICULTURAL EDUCATION

A Thesis
Presented to
the Graduate Council of
The University of Tennessee

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Fred B. Gregg
December 1971

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ABSTRACT

This study was an attempt to determine the situation on a national basis relative to important curricular aspects of agricultural education on the secondary level.

Data were collected from state supervisors of agricultural education through a mailed questionnaire. A response of 76 percent was received.

Production agriculture, even though declining in curricular emphasis, composed the single largest element of curriculum; and subject matter areas such as horticulture, agri-business, farm power and machinery, forestry, conservation, natural resources, and cooperative work experience were receiving increased emphasis.

Emphasis during the 70's was expected to be heavily directed toward subject matter areas which have implications of ecological importance. Ornamental horticulture was also expected to receive even greater emphasis. Eighty-four percent of the respondents indicated that special provisions were being provided for the disadvantaged, but little substantiative evidence of significant efforts was found.

A core curriculum was provided for local agricultural education departments by 60 percent of the respondents while the practice of developing and implementing common cores of curriculum for agricultural education and one or more other vocational service was found to be a rare practice.

Agricultural programs were found to be largely organized around one-hour classes granting one credit, with two years of basic agriculture followed by one or more specialized courses.

Granting of specific credit for cooperative work experience was found to be a common practice.

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CHAPTER I

THE PROBLEM AND ITS DEFINITION

I. INTRODUCTION

The fact that most people readily admit that agricultural education has a glorious history can and should be cause for alarm. Nobody kicks a dead dog! Compliments, however, often end with discussion of the past, and attitudes become somewhat pessimistic when agricultural education is considered in light of its relevance to the present generation and its potential for future generations.

But at this stage of development the writer finds that agricultural education is a vibrant field. It is a field much in need of direction as those forces that necessitate change tug and pull at the very foundation of the program. Gone are the so-called "Good Old Days" when proficiency in farming was the sole objective. Yes, according to one authority, we are in a new ballgame. Our objectives are three-fold: select the correct student, train the student, and place the student. Job-specific education is the answer (7, p. 144).

But at least one authority is not willing to subscribe to the job-specific approach. He indicates that much of what has gone on since 1963 has failed to tune him in. It is too job oriented, too centered on needs of big industry, and too programmed by Big Brother. To him broad-based occupational education geared to the individual needs and interest of students is the answer. The two conflicting philosophies

compose the most critical issue faced by vocational educators in recent years. With such a basic philosophical variation, implications for research in curriculum development cannot be over-emphasized (10, p. 113).

To say the least, agricultural education is far from dead, but is very much alive, capable of maintaining strong traditions and expanding to meet the positive needs of present and future generations. However, many questions must be answered as to which traditions will be maintained and within what philosophy expanded efforts will be directed. Perhaps then agricultural education can enjoy the stability of years past.

II. STATEMENT OF THE PURPOSE

This study was an analysis of the attitudes and opinions of 50 state supervisors in 50 states for the purpose of determining the status of important aspects of curriculum development.

The main objectives of this study were as follows:

1. To identify significant curriculum designs currently being used in the states.
2. To identify subject areas being de-emphasized in the states.
3. To identify subject areas that are receiving increased interest in the states.
4. To identify specific practices being employed for the benefit of the disadvantaged.

III. IMPORTANCE OF THE STUDY

During the first 50 years of the existence of the agricultural education field, only a total of \$7,000 was spent by all federal agencies for research. Since the initiation of the United States Office of Education Cooperative Research Program and the subsequent Vocational Education Act of 1963, the federal expenditure for research in agricultural education rose to \$221,000 in 1968. Even though a significant increase, this amount is hardly sufficient to maintain the credibility of a federal commitment (13, p. 107).

The need for research is great and the greatest need for research is in curriculum development (13, p. 13). It appears that the sign of the times is that new problems in curriculum planning arise faster than solutions to old ones can be found.

The agricultural education curriculum of today is no exception and is of necessity attempting to meet not only the needs of expanding agricultural production technology but the ever-increasing pressures to satisfy manpower needs of agriculture industry, and those special needs familiar to the rural underprivileged, oppressed, and handicapped.

What to add to the curriculum and what to delete poses a never ending dilemma for every individual with responsibilities in curriculum, the least of which is not the man in the classroom.

IV. PROCEDURE OF THE STUDY

The writer, upon conferring with his graduate committee, selected the vast field of curriculum for his study.

With graduate committee direction the decision was made that attitudes and opinions of state supervisors should comprise a valid picture of what has taken place in curriculum development and what the prospects for the next few years should be in light of apparent strengths and weaknesses of the Agricultural Education Program.

A subsequent decision was made that formation of a questionnaire (see Appendix B) to be mailed to a state supervisor in each state would comprise a practical means of collecting the needed data. The list of state supervisors to receive the questionnaire was available from the Agricultural Education Department in Knoxville.

Upon completion of several revisions of the questionnaire the mailing was made and included pre-addressed, stamped envelopes for the respondents convenience.

The graduate committee and writer were pleased with the resulting return of 36 questionnaires in less than two weeks. Two additional questionnaires were returned several days later to give a total response of 76 percent.

V. SCOPE AND LIMITATIONS OF THE STUDY

The study was national in scope as an attempt was made to collect attitudes and opinions representative of every state in the union. State supervisors were selected as respondents to a questionnaire.

The writer acknowledges that contributions from agricultural education instructors, teacher educators, and others could have been beneficial to the study. However, problems in sampling techniques, expense,

and additional complexities were more than sufficient to offset any advantages.

Perhaps a study in depth to establish a suggested national core curriculum is needed but such was not the purpose of this study, but rather to determine the status of significant aspects of curriculum development.

No attempt was made to include post high school or elementary work in the study but rather to concentrate on the secondary program.

VI. SOURCES OF DATA

An attempt was made to use the "Query" system of computer search at the Tennessee Research Coordinating Unit for Vocational Education to obtain sources of data on trends in curriculum; however, the computer broke down and alternative methods were employed.

Other thesis, books, and magazines were screened with no apparent shortage of material.

The writer found that the most valuable, pertinent, and up to date information came from The Agricultural Education Magazine readily available from his personal library.

VII. DEFINITION OF TERMS

Agricultural education. This term is used interchangeably with the term vocational agriculture.

Behavioral objectives. This term refers to specific performance expected of the student, how he will do it, under what circumstances,

and to what degree of proficiency. Objectives are observable and measurable during and upon completion of the course involved.

Broad-based education. This term relates to programs which have objectives designed to prepare students for a variety of occupational choices including the professions which require degrees.

Common cores of curriculum. This term refers to specific elements of curriculum that meet the needs of or have some value to students in more than one vocational service. These elements of curriculum result in learning that is transferable between one or more vocational services.

Competences. This term refers to a body of knowledge or performance know-how required for reasonable proficiency in a given occupation.

Core curriculum. This term refers to specific elements of curriculum that are considered essential or recommended for all agricultural education departments in a given administrative unit such as a state.

Course of study. This term refers to those elements of curriculum that comprise the program of studies such as a unit on animal science.

Curriculum. This term refers to three major areas of student learning in agricultural education: (1) program of studies, (2) program of activities, and (3) program of guidance. Emphasis is given to the area of studies or more commonly referred to as the course of study.

Curriculum design. This term refers to the pattern or relationship of the various elements of curriculum. For example, in the program of studies the design could be two years of basic agriculture with two specialized courses.

Disadvantaged student. All students who, for whatever reason, do not perform satisfactorily in the regular vocational program are referred to as disadvantaged.

Ecology. Ecology is a term used to represent the relationship of living things with each other and their environment.

Entry-level skills. This term refers to a competence level, for a given job, sufficient for job entry.

Interdisciplinary approach. This term refers to the implementation of the common cores of curriculum idea and results in learning that is transferable between one or more educational areas.

Job-specific education. This term refers to programs of education which have the objective of training students for a specific job in industry.

Vocational service. This term refers to the various areas of vocational education of which agricultural education is one area or one service.

CHAPTER II

REVIEW OF LITERATURE

Proficiency in farming has been the time-honored goal for agricultural education from the time of its inception. Soon after World War II it became evident that a broader objective was needed. Thus the Vocational Education Act of 1963 and the 1968 Amendments legalized the change to "proficiency in agricultural occupations," including farming. But Howard W. Martin (1969) said that isn't good enough. Martin indicated that much of what has happened since 1963 has failed to tune him in. It is too job oriented--too centered on the needs of big industry and too programmed by Big Brother (10, pp. 112-113).

Martin suggested that a new all-inclusive term be found. A term broad enough to include emphasis in: (1) agricultural production and marketing, (2) natural resource management, (3) environmental development, and (4) agricultural research and service. He recommended that a commission on agricultural education be formed to deal with the matter.

This issue, job-specific education versus broad-based occupational education geared to individual needs and interests of students, is the most critical issue to confront vocational education and particularly agricultural education in recent times (10, p. 113).

The issue becomes particularly serious when program objectives, program evaluation, and ultimately the allocation of funds, are considered (10, p. 113).

If programs are to be evaluated largely on the basis of the number accepting entry-level employment and staying on the job, it seems obvious that job specific educational programs will fare better (10, p. 113).

Agricultural education programs of the past have tended to be broad based. But with the increased interest at the Federal level in job-specific education, it may be that agricultural educators will be forced to decide between programs which meet their philosophy and support programs which can be readily funded (10, p. 113).

Research to date has produced little to resolve the vital issue of job-specific education versus broader-based education. Perhaps the problem does not lend itself well to the methods of research. But most certainly the job-specific orientation currently in vogue is not supported by research on career development (10, p. 113).

To know whether former students of highly job-oriented programs fared significantly better or worse than other students could be of great value to the United States economy. Also, it would be of value to know in what ways the issues may be affected by varying characteristics of students and of jobs (5, p. 4).

Considerable investigation has been done to resolve lesser issues relative to agricultural education programs (5, p. 4). Such work often includes comparisons of opinions of key people relative to the issues.

Herndon (1966) surveyed key people (school board presidents, school administrators, and parents) in New York to determine their opinions on certain aspects of the agricultural education program. He

concluded that the high school programs in agricultural education should:

(1) Benefit both terminal students and students who plan further study in agriculture, (2) provide good general education, (3) be beneficial to students with agricultural vocations other than farming, (4) provide the knowledge, skills, and experiences needed by those students who plan to enter farming, (5) offer supervised farming programs, (6) offer a broad course content based on the many types of farming in the area, and (7) not be restricted to the last two years of high school (5, p. 4).

It is evident from his findings that those key people would not favor a shift to job-specific education geared primarily toward entry employment (5, p. 4). Evidence seems to indicate that program objectives should place greater emphasis upon upward mobility after the students have accepted employment (5, p. 4).

It is obvious that much new research is needed to resolve the job-specific versus student-centered approaches to education. The issue is philosophical and is tied closely to program objectives and curricula. How this issue is resolved will prove paramount in determining the role of agricultural educators as well as the effectiveness of the program (5, p. 5). L. L. Sellers indicates the big question facing agricultural education in the 1970's is not whether we continue to exist but rather in what capacity.

Sellers states:

Let us be the first to admit that in order for agricultural education to remain a potent part of the education and agricultural complex, certain changes and adjustments must be made. This is not a trend toward weakening our program but rather a step toward broadening and strengthening it. It is awfully hard to push something that is outrunning you, but I think we have been gaining ground in the past few years. Many states have been conducting intensive workshops for short periods in areas where the greatest need exist; small gasoline engines, ornamental horticulture, welding, electricity, masonry, plumbing, pulpwood production, etc. (12, p. 145).

Dr. Cayce Scarbrough, in an address to the Agricultural Education Graduate School at Ohio University in February 1970 made these comments:

Looking at the future in a predictive fashion is fraught with risks. One of these is that we are never sure what questions people will be asking. In fact, questions may be asked that we would just as soon they not ask. One has just recently been asked in North Carolina, officially, for the first time. The question is, how many months will the agricultural education teacher be employed this year? It may be a good question, but it sure opens up a whole new can of worms, Pandora's Box, or however you want to say it for a "mess of trouble."

The agricultural education leader of the future must be . . . concerned about career development . . . "socio-econ" minded . . . creative and inventive in contrast to the authoritative defender of the status quo . . . a clarifier of issues that affect agricultural education. It may be more important for the teacher to know the trends in population mobility in an area than to know the latest trends in crop growing (11, p. 146).

Dr. Scarbrough reasoned that broader objectives are needed if agricultural education is to serve the vast field of agricultural occupations. He indicated that agricultural education is possessed with a determination to nail down objectives to such a degree that great portions of the service areas are excluded. For example, the term "individual occupations" is vast enough; but through further definition all those occupations requiring bachelors, masters, or doctoral degrees are eliminated (11, p. 147).

"To practice brotherhood, honor rural opportunities, and responsibilities and develop those qualities of leadership which a future farmer should possess" is a broad and challenging phrase, yet agricultural educators still insist upon nailing down to let future farmer mean literally the farmer of the future (11, p. 147).

Dr. Scarbrough states:

It is my considered opinion that we need pioneers in agricultural education in the 70's just as we needed them fifty years ago in the 20's. No the leadership of the 20's will not do now; neither will the leadership of the 60's. You cannot be duplicates of the present leaders; if you do, you will be forever trying to catch up. You must be a 1970, preferably a 1971 or 1975, model leader (11, pp. 146-147).

J. A. Barge of the Florida Department of Education states:

We are in the midst of basic social changes that increasingly affect all aspects of the education system. We find a substantial group of students who are not adequately served and who do not make normal progress in school. Predominately, these are students whose early experiences in the home, school, and community, whose motivation for learning and whose goals for the future handicap them in both school and work. They are often defined as disadvantaged and/or potential drop-outs (1, p. 140).

Barge indicated that in Florida, attempts have been made to design programs in agricultural education for the disadvantaged around horticulture and farm mechanics.

Curricula modifications are made to provide training for entry-level skills in several vast occupations, such as garden center worker, landscape worker, greensworker, landscape gardner, and groundskeeper (1, p. 140).

The programs provide instruction in blocks of time from two to three hours daily. Class loads are limited to a maximum of 15, with 10 or 12 being optimum. Flexibility is built into the programs to provide for individualized instruction, independent study, project activity and job placement. Adaptions are made to meet the individual needs of the student (1, p. 140).

Barge states:

In no sense are intellectual problems to be minimized. Disadvantaged students must have experience which will bring understanding of the humanities and sciences, but the approach for bringing about these understandings must be different from the traditional approaches. Problems of living in the home, in the school, and in the community must be a part of the curriculum. Field trips, movies, camping, parties, operating machines, creating models, role playing, and individualized packaged instruction are recognized as effective approaches conducive to working successively with the disadvantaged.

The aim of life itself must determine the curriculum. Every part of the school environment should be conducive to the overall development of students. The teacher needs to realize that he is responsible for giving guidance and seeing that effective communication skills are developed, that human relation skills are developed, that esthetic values are established, that new interests are created, that job entry skills are mastered and that the processes of thinking and problem solving are learned (1, p. 140).

Reports from across the nation indicate that many programs have been developed for the disadvantaged. Hamilton (1967) in Ohio made a study of the disadvantaged and found that the greatest numbers were intellectually, educationally, economically, or socially disadvantaged with relatively few physically or ethnically disadvantaged. He estimated that one out of seven of non-metropolitan ninth graders had special educational needs.

As a result of his study, Hamilton suggested the following guidelines for developing and conducting agricultural education programs for youth with special needs:

1. Identify the potential students early--before they enter high school.
2. Provide vocational guidance and counseling in the junior high school years to aid students in making realistic educational and occupational choices.

3. The vocational program should be designed especially for the type of students enrolled.
4. Direct the program toward preparing students for existing agricultural occupations that are realistic in terms of the students' potential.
5. Gear academic courses to the interest and ability level of the students enrolled.
6. Incorporate work for pay as an integral part of the program.
7. Employ teachers with special training.
8. Develop special teaching materials (5, p. 35).

Dawson states:

To neglect educating and training the disadvantaged portion of our society is a waste of human resources which is detrimental to the welfare of our nation. It is imperative that we place special emphasis on educating and training the more than 35 million disadvantaged persons in the country.

Forty-three percent of the nations poor live in rural areas and most rural schools have a program of agricultural education. Therefore, agricultural education must play a leading role in the education and training of the disadvantaged for employment (6, p. 242).

Dawson indicated in his article that with the exception of the fact that the teacher must develop a special understanding of the disadvantaged, the procedures for successful teaching are the same: determining the needs and developing a program (5, pp. 242-243).

Walker (1968) in reporting on a special needs program at Warsaw, Illinois writes:

Their attendance record is exceptional which indicates they want to come to school. They enjoy the program in which they are actively engaged. They understand the reason for performing each activity and they work at their highest level of capability. Each student

participates and feels that he is making a worthwhile contribution. He wants to cooperate. He enjoys school and he likes his teachers because they like him. He readily accepts and responds to the attention showered upon him (5, p. 35).

There are those who hold the belief that agricultural education should play a major role toward the objective of educating the youth concerning the environment.

Lewis indicated in his article that several types of programs should be developed to put added emphasis upon the "new conservation," that of preserving and maintaining the quality of the total environment. Emphasis should be put on education so that agricultural tasks may be performed with a minimum of environmental pollution (9, p. 213).

Grubough, Hefty, and Stump state:

We attempt to incorporate environmental management into the agricultural education curriculum with emphasis on the vocational opportunities existing and developing in the natural resources area. Our school is built on a 194 acre rural farm located adjacent to a State Game and Fish Management Area. This outdoor laboratory of crop, wood, and waste land acres coupled with our geographical setting provides ideal opportunities for natural resource education activities (8, p. 222).

Contact begins in junior high with emphasis upon general conservation. Junior high students assist in maintaining a mile-long nature trail established by the local Future Farmer of America Chapter (8, p. 222).

Freshmen and sophomore students receive instruction in forestry, wildlife, and conservation as part of their two-year high school introductory program. They learn to cruise timber, judge soil, manage trees, and apply soil conservation ideas (8, p. 222).

Advanced students may choose from four semester courses on natural resources. Titles include wildlife, soil and water, forestry, and resource conservation (8, p. 222).

There are those who feel a good job has been done in agricultural education through the years in an ecological effort.

Carlson states:

We need to communicate agriculture as a forerunner of conservation, of re-cycling, of reforestation long before it was the popular subject of the day. We need to tell the public, loud and clear, that our farmers and conservation minded people in agriculture and agricultural education, have as a whole, done more than any other segment of our society to improve the natural environment (12, p. 179).

Competences required for occupational success are important factors to consider in any curricula development program (5, p. 24).

Much work has been reported on competencies needed by farmers, and several states are working on competences required for off-farm agricultural occupations. Some of the studies have been directed toward narrow occupational groups such as greenhouse grower competencies (Parsons, 1966) while others have been directed toward the broader spectrum of agricultural occupations (5, p. 24).

Sjorgren and others at Colorado State University in 1967 made a competency study involving 47 agricultural occupations and 36 occupations in the metal fabricating industry. It was reported that production agricultural workers have a much higher intellectual requirement than do those in agricultural industry, and that agricultural industry and agri-business occupations exhibited more commonality with industrial

and business occupations in the metal fabricating industry than with production agriculture (5, p. 23).

As might be expected, the studies of narrow fields tend to result in more specific skills and knowledge to be derived from courses; whereas, broader-based studies have shown the value of a general knowledge of agriculture and human relations skills to occupational success. Both types of results are too important to ignore and, as such, are important in curriculum development (5, p. 23).

Several workers have added a new dimension to competency studies by attempting to determine how important a competency is to enter and to advance in an occupation. Three studies by Paules, Love, and Gunderson (in 1966) show that many of the same competences are important for both entering and advancing in an occupation with a higher degree of proficiency required to advance (5, p. 24).

In recent years interest has increased in preparation of common cores of curriculum for all students in vocational education. Two courses were taught in such a project in Poali, Kansas (Agan, 1968). The courses were "Commonalities in Occupations" for juniors and "Experience in Occupations" for seniors. Under this project, students were able to explore themselves and the world of work during the junior year and then enter one area of work as a work experience employee during the senior year. Team teaching was employed, and teachers and counselors supervised the work experience with assistance from business personnel. Students, parents, teachers, and businessmen approved of the interdisciplinary approach (5, p. 32).

Results from work at the Nebraska Research Coordinating Unit also lend support to the interdisciplinary approach to vocational education (Dillon and Horner, 1968). Data were collected from 1315 employees representing 384 different job titles. Of 144 activities and knowledge areas on a check list, 11 were checked as being used by 50 percent of the respondents (5, p. 32).

Five areas were checked by over 40 percent and 27 were checked by 33 percent of the workers. Other investigations have also found common elements which are crucial to success in a variety of jobs (5, p. 32).

In view of recent work it appears that agricultural educators should add another dimension to curriculum construction. This dimension would involve appropriate use of behavioral objectives. Work of Mager (1962) and more recent publications of Pophan and Baker (1970) offer sufficient encouragement for development of objectives stated in terms of specific, observable behaviors to be expected of students satisfactorily completing a course or unit. From such objectives educators could develop learning packages which should greatly exceed the effectiveness of most teacher-learning materials being used in agricultural education classes across the nation today. Development of objectives would involve an extensive amount of work by the most talented workers in the field, but the resulting objectives could be used for similar courses throughout the country (5, p. 25).

The typical curriculum builder considers results of competency studies of his own or of another, seeks out expert opinion by formal

or informal surveys, and uses experienced teachers to assist in developing curriculum outline and related teaching materials to meet the specific needs of his students.

The following generalizations are apparently applicable to most occupations because they appear in the summaries of most studies.

1. Human relation skills are considered by employers to be extremely important for job security and advancement.
2. The ability to use simple mathematics effectively and English correctly generally overshadows technical competency in importance for entering and advancing in off-farm agricultural occupation.
3. Many off-farm agricultural businesses are small and not susceptible to a high degree of specialization; thus, employees are expected to perform a wide variety of tasks.
4. The greatest demand is for workers who exhibit potential for moving up to managerial or sales positions.
5. Desirable character traits such as honesty, dependability and initiative are of utmost importance when selecting new employees.
6. Employers generally are anxious to cooperate with educational programs offered at school including making arrangements for on the job training stations (5, p. 24).

These generalizations emphasize the importance of a solid general educational background as preparation for the job market. But even more important is the serious philosophical question raised. Is not keeping youth sufficiently interested in school so that they maximize their general educational development the most important value of vocational

education? If this is true, then recent furor over the job specific approach to meet the skill and technical knowledge requirements of the labor market will have been largely senseless. Rather, students have been encouraged to pursue their strongest interest limited only by their efforts and abilities (5, p. 25).

Warmbrod in his article spoke of the emergence of a "new" vocational education. He indicated that in the past five years numerous study groups, individuals, and councils have given careful attention to the role of vocational education, general education and the relationship between them.

Warmbrod states:

The Advisory Council established by the Vocational Education Act of 1963 report that "there is no longer room for any dichotomy between intellectual competence and manipulative skills and, therefore, between academic and vocational education." The National Advisory Council on Vocational Education created by the Vocational Education Amendments of 1968 state in their first annual report that "a separate vocational school or a distinct vocational track should be exceptions, not rules, in a technical and changing society." Professor Rupert Evans of the University of Illinois warns that the numerous advantages of separate, parallel vocational schools may be offset by one tremendous disadvantage, namely, segregation of students by socio-economic level. The National Committee on Secondary Education of the National Association of Secondary School Principals similarly contends that "designating some schools as academic and others as vocational could ultimately lead to divisions among the students themselves" which would "largely coincide with social-class lines" resulting in "undesirable social stratification."

Another of the emerging points of view breaks sharply with the narrow, traditional concept held by some that skill training is the primary if not the exclusive concern of vocational education. The new concept is put clearly in the Advisory Council's 1968 report when they state "vocational education cannot be meaningfully limited to the skills necessary for a particular occupation." They list as appropriate aspects of vocational education to "help a person to discover his talents, to relate them to the world of work, to choose

an occupation, and to refine his talents and use them successfully in employment." They imply another rather general outcome with the proposal that vocational education "is also a teaching technique which may have even more to offer as method than as substance." The Massachusetts Institute of Technology's 1965 Summer Study of Occupational, Vocational and Technical Education concluded also that "current vocational education should be expanded and generalized" to provide for "intellectual growth along both academic and vocational paths." They emphasize that "education for vocational competence should build in flexibility and adaptability to produce transferable knowledge and skills."

A third emerging concept has to do with the clientele of vocational education. The MIT Summer Study recommends that "some of the new vocational education should be part of the educational experience of all students." The 1968 report of the Advisory Council states that "some type of formal occupational preparation must be a part of every educational experience" which means appropriate occupational education for students in elementary schools, junior high schools, and senior high schools. The Secondary School Principal's Committee on Secondary Education says "a complete program of vocational education begins when the individual enters school" (14, pp. 215-216).

Warmbrod indicated that the findings leave vast implications for new and expanded thinking in program development and implementation (14, p. 216).

Calton (1959) in his thesis to determine changes that would improve agricultural education in Tennessee found evidence of discontent and frustration among the agricultural education teaching ranks. Much of the concern was with the controlling purpose of agricultural education and the number of graduates actually entering farming.

It was found that agricultural education contributed much to its graduates but that more should be done to acquaint young men and women with the opportunities in agricultural pursuits other than farming.

The findings also indicated that Tennessee teachers were concerned that low I. Q. students were being guided into agricultural education and high I. Q. students were being guided out (3, pp. 42-47).

Bjoraker and Pumper from their mid-west study on curriculum make the following observations:

1. More agricultural related occupations subject matter such as service department operating procedures, merchandising, advertising, salesmanship, marketing, business finance, accounting, hydraulics, and others must be taught in the curricula so that there are more competent men available for employment in agricultural related occupations.
2. There is a need for a revision and expansion of preservice and in-service agriculture teacher education programs to increase the teacher's competency in the agricultural related occupations.
3. State curriculum guides or guidelines should be developed and/or revised to include more agricultural related occupations subject matter to aid teachers in curriculum development.
4. Continued and increased emphasis is needed on graduate study for agricultural instructors to increase their competencies.
5. Environmental factors such as small high school enrollment, location of the high schools in small municipalities, and one-man agriculture departments limit the offering of a complete vocational agriculture curriculum at the high school level.
6. The subject matter taught represents only one part of the total vocational agriculture curriculum. More information is needed to adequately measure the total vocational agriculture curriculum. Additional research is needed to determine the effects of parts of complete agricultural curricula such as supervised occupational experiences, supervised occupational visits, counseling of students, FFA activities, and the subject matter concepts taught.
7. There must be provided a fundamental type of agricultural curriculum which complements the general education curriculum of high school students. Research has shown a good vocational agriculture curriculum will prepare students for employment in a gainful occupation in agriculture, enrollment in two year technical agriculture curricula, and for successful pursuit of higher education in Colleges of Agriculture (2, pp. 294-295).

CHAPTER III

PRESENTATION AND DISCUSSION OF DATA

The purpose of this chapter is to present and discuss data compiled from the information contributed by the agricultural education state supervisors concerning important facets of the agricultural education program.

It is shown in Table 1 the identity and rank of the subject matter areas taught in the 36 responding states. The table shows that agricultural production with 150 points received more emphasis than any other subject matter area, followed by agricultural mechanics at 113 points, ornamental horticulture at 72 points, agricultural supplies and services at 69 points, agricultural products at 43 points, and agricultural resources and forestry at 4 points.

Table 2 shows the ranking by the 38 respondents of five important areas of instruction under agricultural production. Animal science was ranked first with a score of 172 points, followed closely by farm mechanics at 162 points, and plant and soil science at 152 points. Farm business management was fourth with 111 points, and leadership training was fifth with a score of 88 points.

Table 3 represents an attempt to identify those persons who exert the most influence in developing agricultural education curriculum. The table shows decisively that four groups of persons are most influential in curriculum development. Teacher educators exert the most

TABLE 1

SUBJECT MATTER BEING TAUGHT IN AGRICULTURAL EDUCATION
IN 38 STATES RESPONDING

Rank Order	Subject Area	Score*
1	Agricultural Production	150
2	Agricultural Mechanics	113
3	Ornamental Horticulture	72
4	Agricultural Supplies and Service	69
5	Agricultural Products	43
6	Agricultural Resources and Forestry	4

*Score was based on five points for first place, four points for second, etc.

TABLE 2

SUBJECT AREAS EMPHASIZED IN AGRICULTURAL PRODUCTION
IN 38 STATES RESPONDING

Rank Order	Subject Area	Score*
1	Animal Science	172
2	Farm Mechanics	162
3	Plant and Soil Science	152
4	Farm Business Management	111
5	Leadership Training	88

*Score was based on five points for first place, four points for second, etc.

TABLE 3

INFLUENCE OF PERSONS ON DEVELOPMENT OF AGRICULTURAL EDUCATION
CURRICULUM IN 38 STATES RESPONDING

Rank Order	Persons	Score*
1	Teacher Educators	249
2	Teacher Committees	238
3	State Staff	237
4	Individual Teachers	222
5	Local Advisory Committees	128
6	State Curriculum Committees	127
7	Students	88
8	Regional Supervisors	85
9	County Curriculum Committees	30
10	Other	15

*Score was based on ten points for first place, nine points for second, etc.

influence with 249 points, followed closely by teacher committees with 238 points, state staff members with 237 points, and individual teachers with 222 points. Local advisory committees with 128 points, and state curriculum committees with 127 points were ranked fifth and sixth respectively. Considerably less influence was exerted by students with 88 points, regional supervisors with 85 points, and county curriculum committees with 30 points.

Other unidentified groups exerted a combined score of 15 points. Influence range was from a high of 249 points for teacher educators to 15 points for unidentified groups.

Table 4 shows that 56 percent of the states do not provide written guidelines setting forth subjects or course areas that may be taught by the various vocational services. Forty-four percent indicated that written guidelines were provided.

Table 5 shows that 60 percent of the state departments provided a core curriculum to all the agricultural education departments within the state represented. Forty percent do not provide a core curriculum for use by the local agricultural education departments.

Table 6 shows that a majority, 65 percent, of those states which issue a core curriculum find favorable results in the usage of the curriculum in that 75 percent of the departments follow the core curriculum. Three states indicated that 90 percent of their departments follow the plan with four states indicating that 50 percent of the departments follow the plan. No state indicated that fewer than 50 percent of the departments followed the plan.

TABLE 4

USE OF GUIDELINES BY STATES TO DETERMINE COURSES
TO BE TAUGHT BY EACH SERVICE

Response	Number	Percent
Yes	18	44
No	23	56
Totals	41	100

TABLE 5

AVAILABILITY OF CORE CURRICULUM TO ALL LOCAL DEPARTMENTS

Response	Number	Percent
Yes	22	60
No	15	40
Totals	37	100

TABLE 6

USE OF CORE CURRICULUM BY LOCAL AGRICULTURAL EDUCATION
DEPARTMENTS IN STATES THAT PROVIDE ONE

Reported Percent of Departments that Use Core Curriculum in States Where Provided	Response by States	
	Number	Percent
25	0	0
50	4	22
75	15	65
Over 90	3	13
Totals	22	100

Table 7 shows that 67 percent of the states do not have or make available any common cores of curriculum while 33 percent do provide cores of curriculum common to agricultural education and one or more of the other vocational services.

Table 8 represents an attempt to identify and rank the various curriculum designs used in the 38 states responding. As shown by the table, the design of two years basic agriculture with one or more specialized courses received the first place rank with 212 points. The four-year cross-sectional or integrated approach design was ranked second with 173 points. Other designs in order of rank were: one year basic with one or more specialized courses, 105 points; three years basic with one or more specialized courses, 103 points; zero years basic with one or more specialized courses, 74 points; and three years cross-sectional or integrated, 71 points. Three designs, semester units in specialized courses, four years basic agricultural production, and two years basic with two years cooperative work experience received a total of 70 points.

Table 9 represents an attempt to identify and rank the most frequently used methods of instruction used in the 38 states responding. As shown by the table, the whole class approach received a first place ranking with a score of 160 points. The small group approach received a close second place rank with 141 points. The individualized approach was ranked third at 128 points.

The most significant feature of Table 10 is that 28 (80 percent) of the 35 respondent states had 50 percent or less of their departments

TABLE 7

AVAILABILITY OF COMMON CORES OF CURRICULUM FOR AGRICULTURAL
EDUCATION AND ONE OR MORE OTHER SERVICES

Response	Number	Percent
Yes	12	33
No	21	67
Totals	33	100

TABLE 8

CURRICULUM DESIGN BEING USED IN AGRICULTURAL EDUCATION
IN 38 STATES RESPONDING

Rank Order	Design	Score*
1	2 years basic--one or more specialized courses	212
2	4 years cross-sectional or integrated	173
3	1 year basic--one or more specialized courses	105
4	3 years basic--one or more specialized courses	103
5	0 years basic--one or more specialized courses	74
6	3 years cross-sectional or integrated	71
	Semester units in specialized courses 4 years basic agricultural production 2 years basic--2 years cooperative work experience	70

*Score was based on ten points for first place, nine points for second, etc.

TABLE 9

METHODS OF INSTRUCTION USED IN AGRICULTURAL EDUCATION
IN 38 STATES RESPONDING

Rank Order	Methods	Score*
1	Whole class approach	160
2	Small group approach	141
3	Individualized approach	128

*Score was based on five points for first place, four points for second, etc.

TABLE 10

STATES THAT OFFER CLASSES WITH MORE THAN 60 MINUTES
OF INSTRUCTION TIME

Percent of Departments that Offer Classes Last- ing More than 60 Minutes	Response by States	
	Number	Percent
100	2	6
75	5	14
50	9	26
25	12	34
Less than 25	7	20
Totals	35	100

to offer classes with more than 60 minutes of instruction time. Two states indicated that 100 percent of their departments offered classes lasting more than one hour.

Table 11 shows that 59 percent do not give specific credit for supervised occupational experience programs. Only 41 percent indicated that granting specific credit was practiced.

Response to a subordinate request to indicate the amount of credit given was incomplete with a range from 1/4 credit to one credit indicated, depending on a number of variables. One credit was indicated by six respondents with one of those requiring 300 clock hours of work. One-half credit was indicated by six respondents with one of those requiring 450 hours of placement work. One respondent indicated that 1/4 credit was given for production agriculture.

Two respondents made the specific statement that no credit was given because work experience was an integral part of the program. Yet another made the statement that no credit was given but that credit should be given.

Closely related to Table 2, page 24, is Table 12 which is concerned with the practice of awarding credit for work done either before or after regular school hours. Information here is relative to any one or all of the vocational services.

Fifty-seven percent indicated that credit could be awarded while 43 percent indicated that credit could not be awarded for work before or after school.

TABLE 11
 SPECIFIC CREDIT GIVEN FOR SUPERVISED OCCUPATIONAL
 EXPERIENCE PROGRAMS

<u>Response</u>	<u>Number</u>	<u>Percent</u>
Yes	15	41
No	22	59
Totals	37	100

TABLE 12
 CREDIT GIVEN FOR WORK EXPERIENCE BEFORE OR AFTER SCHOOL

<u>Response</u>	<u>Number</u>	<u>Percent</u>
Yes	20	57
No	15	43
Totals	35	100

Thirty-seven respondents gave information concerning various plans of awarding credit with several indicating more than one plan was used.

As shown in Table 13, 34 respondents, 92 percent, utilized the one hour, one credit plan while 22 respondents, 73 percent, utilized the two hour, two credit plan. The next most frequently used plan was two hours with one credit which was used by four states or 10 percent. Two states, 5 percent, indicated that a three-hour class with two credits plan was used. The table also shows that no other plan of the several listed was used by more than one responding state.

The most obvious feature of Table 14 is that more states, 15 (44 percent) evaluate annually than at any other interval, the next most frequently checked interval being that of five years which was checked by six states representing 17 percent. No definite plan for evaluation was given by three states. Five states indicated that an evaluation plan was in effect but did not give the frequency.

Concerning the publishing and distribution of evaluation results, Table 15 shows that evaluation results in 35 percent of the states responding were seldom made available. Nine states, representing 26 percent, indicated that evaluation results were never made available. Twenty-one percent checked that evaluation results were always made available. One respondent expressed his opinion that this was a bad question.

The purpose of Table 16 is to show the reaction of the states to weaknesses shown through evaluation procedures. Twenty-six (70 percent)

TABLE 13
PLANS OF AWARDING CREDIT

Plans	Number States	Percent
1 hour, 1 credit	34	92
2 hours, 2 credits	22	73
2 hours, 1 credit	4	10
3 hours, 2 credits	2	5
1 hour class, 3 hours work, 3 credits	1	3
4-1/2 hours class, 3 credits	1	3
1 hour class, 450 hours work, 1-1/2 credit	1	3
1 hour semester class, 1/2 credit	1	3

TABLE 14
FREQUENCY OF FORMAL EVALUATION OF LOCAL AGRICULTURAL
EDUCATION DEPARTMENTS IN STATES RESPONDING

Frequency	Number States	Percent
1 year	15	44
2 years	1	3
3 years	3	9
4 years	0	0
5 years	6	17
10 years	1	3
No definite plan	3	9
Other	5	15
Totals	34	100

TABLE 15
PUBLISHING AND DISTRIBUTING OF EVALUATION RESULTS

Treatment	Number States	Percent
Always	7	21
Usually	6	18
Seldom	12	35
Never	9	26
Totals	34	100

TABLE 16
TREATMENT OF EVALUATED WEAKNESSES

Treatment	Number States	Percent
Always Corrected	1	3
Usually Corrected	26	70
Sometimes Corrected	10	27
Rarely Corrected	0	0
Never Corrected	0	0
Totals	37	100

of the states responding indicated that evaluated weaknesses were usually corrected. Ten states representing 27 percent indicated that weaknesses are sometimes corrected, while one state indicated that weaknesses were always corrected. None of the states indicated that weaknesses were rarely or never corrected.

As indicated in Table 17, 32 of the 38 states responding indicated that special programs were in effect for the disadvantaged. Thirty-one of those 32 states have in effect a total of 455 local departments which provide special provisions for the disadvantaged. Further analysis of data indicates a mean average for the 31 states of 14.8 departments, a mode average of one department, and a median average of five departments. The greatest number of departments providing special provisions in any state was 100.

Respondents were asked to briefly describe their special program in various terms as follows:

Compensation for students. Replies ranged from none in most cases, use of work-study funds where possible, and participation in profits from sale of projects made. One respondent indicated that students received \$80 monthly.

Academic credit given. The most frequent reply was the same as for regular students. Indications of one credit for each hour in class were made.

Exemption from academic course requirements. No respondent indicated that students in special classes were exempted from academic credit requirements as a general rule; however, indications were made

TABLE 17
SPECIAL PROVISIONS AVAILABLE FOR THE DISADVANTAGED
IN AGRICULTURAL EDUCATION

<u>Response</u>	<u>Number</u>	<u>Percent</u>
Yes	32	84
No	6	16
Totals	38	100

that exemption could be made as a local option. Other comments indicated that mathematics and English courses were adapted to occupational objectives and that academic standards were lowered.

Time in class during school day. One-half day, indicated by eight respondents, was the most frequent reply. One respondent indicated that two hours of class time was a plan used.

Work experience after school hours. Eleven respondents indicated that work experience after school was or could be a part of the program but was not necessarily required.

Work experience during school hours. Eleven respondents indicated that work experience during the school hours could be arranged but was not necessarily mandatory. Two of the eleven respondents indicated that the work experience program was provided on a land laboratory.

Course of study. Twelve respondents indicated that a special course of study was used. Four of the twelve respondents indicated that the curriculum was ornamental horticulture. One indicated production agriculture, one mechanics, one basic science, and one ceramics.

Special teacher requirements. No special requirements, other than being a certified agricultural education teacher were given, with two exceptions. One respondent required 10 years experience and one required two years experience. Indications were made that teachers were screened more carefully to assure reasonable proficiency. Mention was also made by one respondent that teachers were required to attend regular work shops.

Extra teacher compensation. Seven responses were given to the teacher compensation section. Only one indicated that extra compensation was made and one indicated compensation to be optional.

Other unique factors. Use of teacher aides and a lower pupil-teacher ratio were comments made under this section.

One respondent indicated that special programs for the disadvantaged were planned and supervised through a cooperative effort between vocational education, rehabilitation, and special education.

The purpose of Table 18 was to show the trend to or from multiple teacher departments during the past three years. The table clearly indicates a trend toward more multiple teacher departments in that 73 percent of the respondents checked that multiple teacher departments were increasing. Five states or 14 percent indicated no change or trend while only one state indicated that multiple teacher departments were decreasing.

The purpose of Table 19 is to show if the total number of Agricultural Education Departments were increasing, decreasing, or remaining about the same over the past three years. Twenty-one (55 percent) of the 38 states responding indicated that the total number of agricultural education departments was increasing. Ten states representing 26 percent indicated no change while seven states or 19 percent of the states indicated a decrease in the total number of agricultural education departments.

Table 20 shows the relative merit of various Future Farmers of America contest. The data clearly indicate that the public speaking

TABLE 18
TREND IN MULTIPLE TEACHER DEPARTMENTS OVER THE
PAST THREE YEARS

Trend	Number States	Percent
Increasing	30	73
Decreasing	1	3
Same	5	14
Totals	36	100

TABLE 19
TREND IN NUMBER OF AGRICULTURAL EDUCATION DEPARTMENTS
DURING THE PAST THREE YEARS

Trend	Number States	Percent
Increasing	21	55
Decreasing	7	19
Remaining about the same	10	26
Totals	38	100

TABLE 20

MERIT OF FUTURE FARMER OF AMERICA CONTEST AS INDICATED BY
37 STATE SUPERVISORS OF AGRICULTURAL EDUCATION

Contest	Mean Score*
Public speaking	3.96
Parliamentary procedure	3.81
Mechanics	3.46
Livestock judging	3.29
Land judging	3.27
Dairy judging	3.24
Creed speaking	2.97
Crop judging	2.84

*Mean was determined by: Much merit--4 points
Some merit--3 points
No merit--2 points
Harmful--1 point



contest with a mean average of 3.96 and the parliamentary procedure contest with a mean average of 3.81 were the most valuable contest of those listed. Of median value were the following contests with their mean averages listed: mechanics 3.46, livestock judging 3.29, land judging 3.27, and dairy judging 3.24. Considerable less value was placed on creed speaking at 2.97 and crop judging at 2.84.

The purpose of Table 21 is to show the relative ability of agricultural education to hold its own, fend for itself, or gain the upper hand in those inside type battles usually of a political nature that determine to some extent the status of the service.

Twenty-four states representing 67 percent of the 36 respondents indicated that should a controversy arise between agricultural education and another vocational service as to which would be permitted to teach a given course, both services would be permitted to teach the course in question. Eight states, 22 percent, indicated that agricultural education would be permitted to offer the course while four states, 11 percent, indicated that the other service would be permitted to teach the course. One respondent indicated that the most qualified teacher would be permitted to teach the course. One respondent indicated a dislike for the question by calling it a bad question. And one respondent indicated thus:

This represents no problem for us. We cooperate, not compete. If the agriculture man is best, he may teach it to the agricultural class and the other service class or vice versa.

TABLE 21

VOCATIONAL SERVICE PERMITTED TO TEACH A GIVEN COURSE WHEN
COMPETITION OR CONTROVERSY BETWEEN SERVICES IS FOUND

Options	Number States	Percent
Agricultural Education	8	22
Other Service	4	11
Both	24	67
Totals	36	100

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study represents an attempt to determine the situation in regard to some of the more important aspects of the agricultural education program in relation to curriculum.

I. SUMMARY OF SELECTED LITERATURE

Possibly the most vivid conclusion that can be gained from the literature is the hard, cold, basic fact that agricultural education is estranged or involved in a deep seated controversy of a philosophical nature within the service to some intent, but to a greater extent with those which determine the policies of vocational education as a whole and those individuals who control the purse strings. Saddening to some extent is the fact that this situation is not necessarily a recent happening, but one that the service has drifted into over a decade or more, as indicated by Calton's study in Tennessee (1959) in which it was shown that Tennessee agricultural teachers were experiencing frustration and despair in that the relatively small number of graduates entering farming did not live up to or conform to the controlling purpose of agricultural education at that time. Teachers felt that additional emphasis should be placed on education to meet the needs of students entering the farm related segment of agriculture.

It would appear that a conscientious member of the agricultural education profession has cause for frustration if the curriculum and

controlling purposes of the profession do not meet and cannot be justified from the standpoint of funding.

Research clearly indicated that the job-specific approach to education has definite weaknesses and does not conform to the philosophical objectives of great numbers of the agricultural education profession. Agricultural educators clearly prefer a more broad-based education geared to the needs and interests of students rather than the needs of industry. Yet, clearly those that control the funding of programs prefer the job-specific approach, which in effect represents a collision course.

II. SUMMARY OF DATA

Production agriculture composes the single largest element of the agricultural education curriculum but areas such as mechanics, ornamental horticulture and agri-business received large and significant blocks of time in 38 states responding.

The study showed that animal science, farm mechanics, and plant and soil science, respectively, are the subject areas currently receiving greatest emphasis in the broad area of production agriculture.

The study clearly indicated that production agriculture has declined, although it is still the most important single area, in terms of curricular emphasis over the past 10 years; and that the following subject matter areas have respectively increased in curricular importance: horticulture, agri-business, farm power and machinery, forestry, conservation, natural resources, recreation, and cooperative experience.

The study also clearly indicated that emphasis in the 70's will be placed on ecology, wildlife, conservation, recreation, and ornamental horticulture.

Emphasis on production agriculture was expected to continue declining during the 70's as was also expected of general shop skills.

The study showed that, in order of greatest influence, teacher educators, teacher committees, state staff members, and individual teachers largely develop agricultural education curricula with no great difference in influence between the groups.

Only 44 percent of the respondents indicated that their state had written guidelines to determine the subject matter area to be taught by each vocational service.

Only 60 percent of the state departments provided a core curriculum for all the agricultural education departments within the state represented.

Sixty-five percent of the states that issued a core curriculum found favorable results in that 75 percent of their local agricultural education departments used them.

Only 12 states, 33 percent, provided education involving common cores of curriculum in agricultural education and one or more of the other vocational services.

Two years of basic agriculture with one or more specialized courses appeared to be the most prevalent curriculum design, holding a significant edge over the traditional four year cross-sectional or integrated design.

The whole class approach of teaching appeared to be the most prevalent technique with a score of 160; however, the combined score of two techniques, small group approach, and individualized approach, totaled 269 points.

Eighty percent of the respondents indicated that less than half of the local departments offered classes with more than 60 minutes instruction time. Forty-one percent of the respondents indicated that specific credit was given for supervised occupational experience programs.

A closely related finding shows that 57 percent of the states grant specific credit for work experience programs conducted before or after school.

The basic plan of awarding credit appears to be one hour credit for each hour in class. Ninety-two percent of the respondents indicated that one hour credit for one hour in class was a plan used. Seventy-two percent indicated two hours credit for two hours in class was used.

More states, 44 percent, hold formal evaluation each year than at any other interval, the next closest being two years by 3 percent of the states. Twenty-one percent of the respondents indicated that evaluation results are always published while 26 percent indicated that evaluation results are never published. Seventy percent indicated that evaluation weaknesses are usually corrected.

Thirty-two of the respondents, 84 percent, indicated that special provisions were provided for the disadvantaged, but the number of

departments occurring most frequently in these states was one. Response to specific questions about the programs for the disadvantaged follow:

1. Disadvantaged programs are frequently built around courses in ornamental horticulture.

2. Students in disadvantaged programs most often receive the same credit as other students, meet for a half day, and may or may not work before, during or after school as an integral part of the program.

3. Few, if any, special requirements are made of teachers for the disadvantaged. Neither do they receive extra compensation.

Use of teacher aides and a lower number of students per teacher are frequently positive aspects of the disadvantaged program.

Multiple teacher departments are definitely on the increase allowing for greater specialization in the curriculum. Also, the total number of departments have increased during the past three years as indicated by 55 percent of the respondents.

III. CONCLUSIONS

Based on the review of literature, the writer concluded that the greatest single issue contributing to frustration and despair being voiced within the agricultural education profession was due to philosophical differences between members of the agricultural education profession and a combination of other vocational services along with the current federal policy makers.

A collision course has been set in that agricultural education personnel attempt to develop programs that are broad based and student centered, while certain other vocational services and federal policy

makers insist on programs designed to develop specific skills to meet the needs of industry.

Other conclusions based on the data follow:

1. Agricultural education departments were putting less curricular emphasis on production agriculture, but it still was emphasized more than any other area of instruction. Animal science and agricultural mechanics were the areas of production agriculture receiving greatest curricular emphasis.
2. Increased curricular emphasis was being placed on ornamental horticulture, agricultural mechanics, agri-business, forestry, natural resources, conservation and development, and cooperative work experience.
3. The curriculum of the 70's was expected to grant greater emphasis to those areas of instruction that have ecological implications such as wildlife, conservation, and recreation. Ornamental horticulture was also to continue receiving greater emphasis during the 70's.
4. Emphasis on production agriculture will continue declining during the 70's.
5. Teacher educators exerted slightly greater influence than any other group of individuals on curriculum development.
6. There was a need for 40 percent of the state departments to adopt the desirable practice of providing a core curriculum for the local agricultural education departments.
7. The practice of developing common cores of curriculum was embryonic, and additional research should be performed.

8. Teaching was being done more through the whole class approach than through any other technique, but individualized instruction and small group instruction were close challengers.

9. Agricultural departments were most frequently based around two years of basic agriculture followed by one or more specialized courses.

10. Classes in agricultural education were largely based on one hour class periods.

11. Granting of specific credit for work experience programs was found to be a common practice.

12. The rule-of-thumb for awarding credit appeared to be one hour credit for each hour of class.

13. Practically all of the respondents liked to think they were providing special provisions for the disadvantaged yet little substantiating evidence was found.

IV. RECOMMENDATIONS

Based on the review of literature, the writer recommends that the agricultural education profession work actively to make the prevailing philosophy of the profession carry more weight in policy making processes at the national level.

The writer also recommends that agricultural educators exert the necessary influence to insure the protection of the agricultural education philosophy against certain undesirable elements of philosophy common to other vocational services.

Based on data, the writer recommends that the agricultural education profession take advantage of the vast opportunities or face up to the responsibilities for developing and implementing programs which meet the needs of the rural poor or under-privileged.

The writer also recommends that research efforts in regular program development and implementation be drastically increased.

Departments that are heavy on production agriculture and/or shop skills development should slowly de-emphasize those areas and incorporate elements of curriculum that emphasize ecological values. Such areas might include units on wildlife, conservation, and recreation. Efforts should also be made to incorporate units on ornamental horticulture.

All states should provide local departments with a core curriculum, and greater research in depth should be conducted to determine the feasibility of the common cores of curriculum idea.

Greater emphasis should be placed on use of individualized instruction and small group instructional methods. More research should be conducted to determine the feasibility of granting credit for experience programs of all kinds.

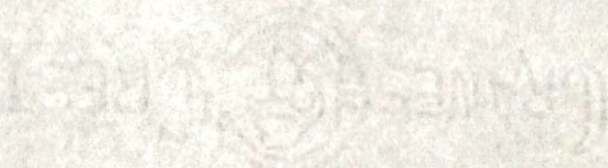
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APPENDIXES



APPENDIX A

LETTER TO PROSPECTIVE RESPONDENTS

The University of Tennessee
Knoxville 37916
College of Education

Department of
Agricultural Education
308 Morgan Hall

April 6, 1971

Across the nation, attempts are being made to revamp vocational agriculture programs to meet present-day needs. In order to meet these needs, new curricula are being designed and tested.

Some advocate the complete dismantling of vocational agriculture programs and starting again with new ideas, programs and personnel. Others are suggesting that change is not necessary, that old programs with the old ways and ideas are adequate. Still others are suggesting changes within a modified structure.

Certainly, there is a need in the field to make clear just what is being done nation-wide in curriculum that holds promise for the future. Our unstable atmosphere has motivated me to develop a study to determine curriculum changes that have received acceptance or have some potential that may prove relevant to present and future needs. I am requesting your help, believing that information received will best represent what is taking place in your state. The data will be used to complete a thesis and will help Dr. Wieggers and his staff conduct a curriculum workshop for teachers of vocational agriculture this summer.

Sincerely,

Fred B. Gregg, Teacher of Vocational Agriculture

George W. Wieggers, Jr., Professor and
Head of Department

Enclosures

APPENDIX B

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1. In determining what will be taught in the various vocational services in your state, are there adequate guidelines to minimize interservice problems and friction?
- A. Should a controversy arise between vocational agriculture and another vocational service in the same school as to which service would be permitted to teach electric welding for example, which service would most likely be permitted to teach electric welding?
Ve-Ag _____ Other Service _____ Both _____
- B. Does the state department of education have written guidelines setting forth subject or course areas to be taught by the various vocational services?
Yes _____ No _____
- C. Does your state department of education issue a core curriculum to all vocational agriculture departments?
Yes _____ No _____
- D. Approximately what portion of the local vocational agriculture departments follow the core curriculum if one is issued?
1/4 _____ 1/2 _____ 3/4 _____ Other _____
- E. Have any common core courses been developed in your state to serve one or more other vocational services including vocational agriculture?
Yes _____ No _____
2. How is the vocational agriculture curriculum developed in your state? (Please rank the following in order of their influence in determining what will be taught.)
- | | |
|---------------------------------|-------|
| 1. Regional supervisors | _____ |
| 2. Teacher educators | _____ |
| 3. Individual teachers | _____ |
| 4. Teacher committees | _____ |
| 5. County curriculum committees | _____ |
| 6. State curriculum committees | _____ |
| 7. Local advisory committees | _____ |
| 8. Students | _____ |
| 9. State staff members | _____ |
| 10. Others | _____ |

3. How is instruction given in the local departments of vocational agriculture? (Please rank in order of frequency of use.)

1. Individualized approach _____
2. Small group approach _____
3. Whole class approach _____
4. Other method: _____

4. What curriculum design is used in the vocational agriculture departments in your state? (Please rank as to frequency of use.)

1. _____ Four year cross-sectional or integrated courses
2. _____ Three years "basic" plus one or more specialized courses
3. _____ Two years "basic" plus one or more specialized courses
4. _____ One year "basic" plus one or more specialized courses
5. _____ Zero years "basic" with one or more specialized courses
6. _____ Three year cross-sectional or integrated courses (only three years offered)
7. _____ Two year cross-sectional or integrated courses (only two years offered)
8. _____ Other: _____
9. _____ Other: _____
10. _____ Other: _____

5. Have there been significant changes in the vocational agriculture courses of study during the past ten years?

A. Please list five subjects (broad areas) that were emphasized ten years ago but are not currently being emphasized:

1. _____
2. _____
3. _____
4. _____
5. _____

B. Please list five subjects (broad areas) that were not being emphasized ten years ago that are currently being emphasized:

1. _____
2. _____
3. _____
4. _____
5. _____

C. List three subjects (broad areas) that are not currently being emphasized but are likely to be emphasized during the 1970's:

1. _____
2. _____
3. _____

5. D. List three subjects (broad areas) that are currently being emphasized but will probably be deemphasized during the 1970's:
1. _____
 2. _____
 3. _____
6. What is being taught in your state? Please rank course areas according to the amount of class time delegated to the following categories:
1. _____ Agricultural Production
 2. _____ Agricultural Supplies and Services
 3. _____ Agricultural Mechanics
 4. _____ Agricultural Products
 5. _____ Ornamental Horticulture
7. Within Agricultural Production, how do the following rank in terms of amount of class time?
1. _____ Animal Science
 2. _____ Plant and Soil Science
 3. _____ Farm Mechanics
 4. _____ Farm Business Management
 5. _____ Leadership Training
 6. _____ Other
8. What plans of awarding credit are used? Check those that apply.
1. _____ 1-hour class - 1 high school credit per year
 2. _____ 2-hour class - 1 high school credit per year
 3. _____ 2-hour class - 2 high school credits per year
 4. _____ 3-hour class - 1 high school credit per year
 5. _____ 3-hour class - 2 high school credits per year
 6. _____ Other: _____
 7. _____ Other: _____
9. Is specific credit given for supervised agricultural experience programs? Yes _____ No _____
If so, how much per year _____
10. What proportion of vocational agriculture departments in your state offer classes lasting more than one hour?
1/4 _____ 1/2 _____ 3/4 _____ Other _____
11. In your state, can credit be awarded for work done after or before the regular school hours?
Yes _____ No _____

12. Rank the following in terms of their responsibility in evaluating the local agricultural education departments:

- 1. State supervisors _____
- 2. Regional supervisors _____
- 3. County supervisors _____
- 4. Teacher educators _____
- 5. Teacher committees _____
- 6. Local advisory committees _____
- 7. Individual teachers _____
- 8. Students _____
- 9. Other: _____

13. Formal evaluation is made of local vocational agriculture departments every 1 year _____ 2 years _____ 3 years _____
 4 years _____ 5 years _____ Other _____

14. Evaluation results are published and distributed:
 Always _____ Usually _____ Seldom _____ Never _____

15. When evaluation shows an educational weakness, what action is usually taken? The weakness is
 Always corrected _____
 Usually corrected _____
 Sometimes corrected _____
 Rarely corrected _____
 Never corrected _____

16. Are FFA activities used to strengthen the vocational agriculture instructional program in your state? Please indicate the merit of each of the following contests:

Contest	Much Merit	Some Merit	No Merit	Harmful
Public Speaking				
Parliamentary Procedures				
Creed Speaking				
Dairy Judging				
Livestock Judging				
Land Judging				
Crops Judging				
Mechanics				

17. List two contests you would recommend discontinuing in your state:
 1. _____
 2. _____
18. List a contest you would recommend starting in your state:
 1. _____
 2. _____
19. List two contests you would suggest be given greater emphasis in your state:
 1. _____
 2. _____
20. A. Does your state make any special provisions in vocational agriculture for the disadvantaged students? Yes _____ No _____
- B. How many vocational agriculture departments this year provide a special program for the disadvantaged? _____
- C. Briefly describe the special program for the disadvantaged in terms of:
- Compensation for students _____
- Academic credit given _____
- Exemption from academic course requirements _____
- Time in class during school day _____
- Work experience after school hours _____
- Work experience during school hours _____
- Course of study _____
- Special teacher education requirements _____
- Extra compensation for teachers _____
- Other unique features _____
21. During the past three years, multiple teacher vocational agriculture departments have (check one)
 increased in number _____ decreased in number _____
 remained the same _____

22. During the past three years, the total number of vocational agriculture departments has (check one)
increased _____ decreased _____ remained about the same _____
23. How many vocational agriculture departments are there in your state? _____
24. How many vocational agriculture teachers are there in your state?

25. Where can we write to receive curriculum guide information used in your state? Price lists would be helpful.

State: _____

Name: _____

Please return this information blank in the enclosed self-addressed envelope as soon as possible. Thank you.

VITA

Fred Blaine Gregg, the oldest of a family of five children, was born on December 4, 1936 on a tenant farm in Cocke County, Tennessee. He attended Oak Hill Elementary School through the third grade and transferred to Parrottsville School when his family purchased a 51-acre farm nearby.

He graduated from Parrottsville High in 1955, receiving the faculty scholarship and a J. W. Dean Scholarship to The University of Tennessee College of Agriculture.

While attending The University of Tennessee, he majored in Agricultural Education and minored in Dairy Production. He was active in the Alpha Gamma Rho Social Professional Fraternity, Agriculture Club, and Collegiate Future Farmers of America.

He graduated from The University of Tennessee in 1959, and subsequently became Agricultural Education Instructor and Future Farmer of America advisor at Charleston High School, Bradley County, Tennessee in the fall of the same year. While at Charleston he gradually devised an agricultural curriculum currently structured at 50 percent agricultural mechanics, 30 percent agricultural sciences, and 20 percent leadership.

He has been active in professional and civic activities serving as President of the Bradley County Education Association, Charleston Parent-Teacher Association, Charleston Ruritan Club, and Charleston-Calhoun Jaycees.

He is married to the former Virginia Duggan of Charleston, Tennessee and they have three children, Michael Shannon, Steven Wesley, and Christopher Eric.

He and his family attend the Charleston First Baptist Church where he has taught and served as assistant Sunday School Superintendent.

He received a Master of Science degree from The University of Tennessee in December 1971, with a major in Agricultural Education and a minor in Educational Administration and Supervision.