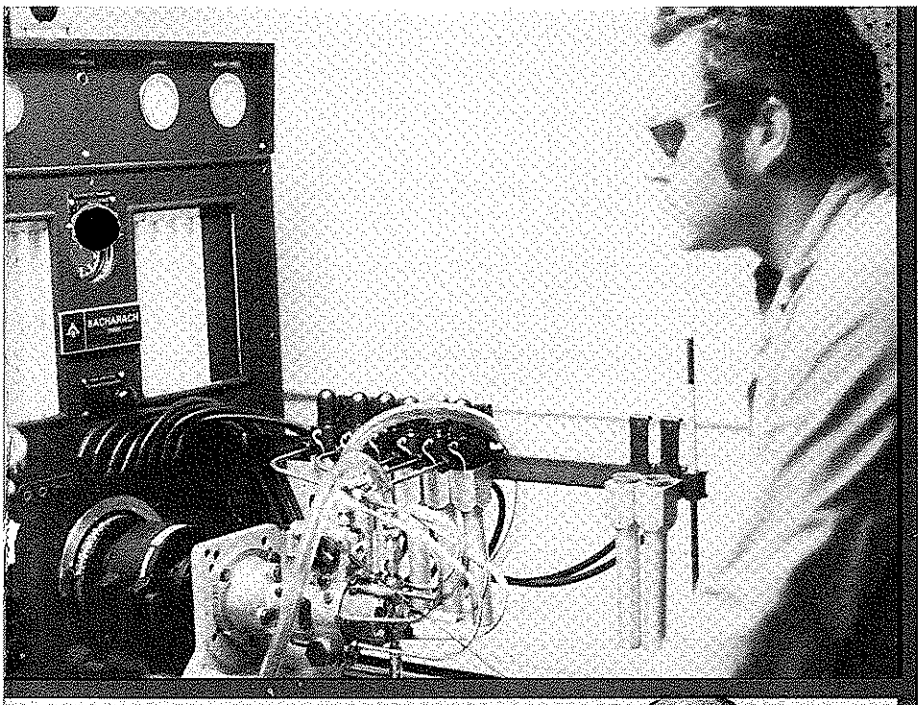

Theme—Secondary Programs for the Talented

AGRICULTURAL EDUCATION

Volume 49 Number 2

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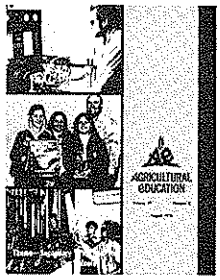

The cover photographs depict a variety of activities in agricultural education. The top photo (courtesy Forrest Bear, University of Minnesota) shows Gordon Jindra of Mankato (Minnesota) Area Vocational-Technical Institute testing a diesel pump on a Bocharach Diesel Fuel Injection Pump Calibration Test Stand. The center photo (courtesy Lloyd Dowler and Larry Rathbun, California) shows the First Place Dairy Products Judging Team at the FFA Field Day held at California State University, Fresno. The bottom photograph (courtesy Bob Veltri, Virginia, and Larry Miller, University of Missouri) shows students at R. E. Aylor (Virginia) Junior High School as they study hand tools in an exploratory agriculture class.

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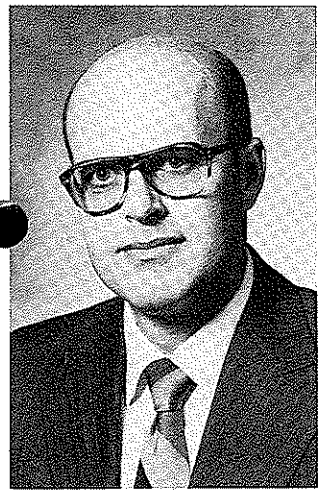


FROM YOUR EDITOR

Martin B. McMillion

High School Ag. for the Advantaged

Does your ag program attract the student with academic ability, motivation, and the advantages needed to become established in farming or to succeed in the land-grant ag college of your state? Do you have in your agriculture classes the people who can and will become the future owner-managers of farms and agricultural businesses? Or, has your school been so eager for 100 percent funding available for teaching disadvantaged students that the department has lost sight of the need by agriculture for the very best persons available? Has what you teach been simplified and brought down to lower and lower levels so much that the good farmers' sons pass up high school agriculture and wait and study agriculture in the land-grant university? Has your FFA chapter had trouble winning contests in recent years because you do not have the kind of students anymore who can compete favorably against students from other schools?

What would the world's food and fiber situation be, if all the people in agriculture were the kind that have come through your ag department in recent years? Would there be an excess of farm products to export and keep the country in a trade surplus situation?

"Agriculture cannot afford to run short on brainpower," said an author of an article in *Agricultural Research*.[1] I might add that agriculture cannot afford to run short on leadership, and it cannot afford to run short of manpower and competencies needed at all levels.

Vocational agriculture programs in high school should serve students from the whole continuum of abilities and occupational interests in agriculture. We should not recruit the department full of disadvantaged students just because more reimbursement is available for them. We should not sit idly by while a guidance counselor makes the vocational agriculture department a dumping ground. The counselor should not be allowed to unknowingly tamper with his food supply.

We should not turn an agricultural science program into a shop skills course just because that is what the students we get like to do. We should actively recruit students into the vocational agriculture programs who can make a substantial contribution to agriculture. High school vocational agriculture is pre-professional, or pre-college, as well as vocational and technical.

Agriculture has to have scientists as well as technicians, teachers, owner-managers, managers, and operatives. "Agricultural progress is greatly dependent upon the achievements of scientists . . . .[2] Do you, the teachers of agriculture, meet in your classes or elsewhere the bright students who like to probe for deeper meanings and ponder their causes and consequences? The community of agriculture scientists is looking for this kind of talent.

Vocational agriculture has a long history of preparation of owner-managers of farms. Any preparation program aimed at self-employment will require students with ability. The farmland of North America and the world requires talented owner-managers if the population is to have the food and fiber it needs. Many other agricultural occupations are conducive to self-employment. By training for self-employment, teachers of vocational agriculture will remain aware of the need for students with ability—at least enough ability and responsibility to handle the necessary records and decisions that go with self-employment. The objective of self-employment is appropriate and useful in nearly every specialty in education in agriculture.

Teachers of agriculture should be talent scouts, but they should also be developers of talent, ambition, and a devotion to the industry of agriculture and its mission. Our efforts to put former vocational agriculture students and FFA members into the leadership positions in government and elsewhere have been worthwhile and appropriate in my opinion. It is an aspect of professionalism. Included in our enrollment must be persons of ability, and we must encourage and develop that ability and the predisposition to use it for the good of mankind through agriculture.

The theme of this issue of the MAGAZINE was specifically chosen to counter the emphasis that had come to be placed upon programs for the disadvantaged in relation to the programs for the advantaged. Specifically, I was concerned because emphasis was moving so far away from the traditional program for helping young people become established as owner-managers of agricultural businesses.

Recently, many separate classes for the disadvantaged and handicapped have been discontinued, and "mainstreaming" (mixing them in with regular students) is more prevalent than it was. Without separate classes, it is not necessary for teachers to try to find a roomful of disadvantaged. Mainstreaming, whether we think it is good or bad for learning, has tipped the balance of emphasis in many schools back toward agriculture for the more advantaged. The degree of emphasis on vocational agriculture for the disadvantaged in Virginia has lessened considerably since 1974 when in the orientation to supervisors of our student teachers, they were admonished by me not to give the student teachers the impression that programs for the disadvantaged were the primary emphasis of vocational agriculture. The situation has changed considerably, especially since the theme of this issue of the MAGAZINE was chosen.

(Concluded on page 34)

Attracting the Talented Students

I. W. Diehl
Ag Teacher
Broadway, Virginia

I. W. Diehl

Vocational agriculture is in a better position today to attract the talented student than it has been at any time during its past history. I might elaborate by saying the days are long past when the skeptical farmer of old did things just like his grandfather did them. Farmers today are an enlightened group of businessmen living in an advanced technological period when change is not only accepted, but necessary, if they hope to stay in business. Bright, young, rural students today see the bustling activities going on and they are being swept up into the meaningful place of agriculture in the world. No longer are the past methods a guarantee to a successful future.

The sixties reflected an entirely different attitude, for the vogue then was catching up with the sputniks. Public schools were geared and funded to sway bright students to prepare for the scientific space age. We lived through this era and saw potential talented youth being herded into these programs at the expense and erosion of our own program. Many ag. teachers were rightfully despondent during this decade because their departments became the dumping grounds for less talented students, and rural America was sending its more talented off to the drawing boards.

However, I feel the "new day has dawned" that we have been talking about all these years. The American farmer has made his mark. Most of the world is looking to him to feed them or show them how to feed themselves.

Agriculture is the oldest industry with the newest look, and many young people are looking for ways they can serve. How are all in vo-ag going to capture this moment of truth and expound on it in such a way that our programs reflect the high place in which agriculture now finds itself? First, I believe we have to start early in the child's schooling. Nearly every grade school student has some idea of what they want to be when they grow up—usually for boys it's truck drivers and for girls, nurses. The *Food for America* program has great possibilities as an inroad to suggest other career opportunities to these young children. The farm becomes a pleasant part of their early life and transforms their thinking from a dirty old farmer image into a life style that they want to become associated with.

After the *Food for America* program, which is suggested for 4th graders, we need to bring them up to date before they register for the first year of agriculture. For instance, we use several capable chapter officers, along with the adviser, to visit our feeder school. Together, we present a slide program that expresses what we have to offer, both from an instructional program and the FFA activities conducted by our chapter members.

I feel the new options available have certainly been an asset in broadening our program for students with variable interests. We, at Broadway High School, include two years of Agriculture Science & Mechanics, three years of Agriculture Production, two years of Agriculture Business, and one year of Agriculture Mechanics. However, I believe our program would be definitely weakened if we didn't have a strong FFA program to challenge these young, talented people to develop their abilities.

An understanding school administration is essential in order to conduct a worthwhile comprehensive program in vo-ag. At Broadway High School, we are very fortunate in this respect. Without their support, the FFA's status would be severely limited. One period is scheduled for FFA officers and their adviser to get together to plan worthwhile programs that will involve all members.

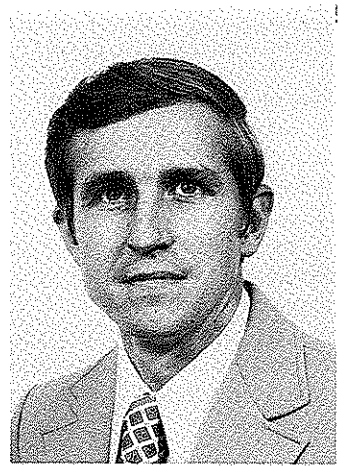
Our recruiting program, like a college coach looking for raw talent, never ends until the student graduates. We have enrolled some of our best students up to and including the senior year. Students with alert minds and untapped potential often find out that the FFA has a program to fulfill their talents. We appear before each class registration and talk about the exciting future of agriculture with satisfying results. Once you have and hold a student of good capability, the program is continuous by word of mouth from one student to another.

Now you have sold your program to a group of eager recruits who are looking forward to an enlightened and challenging program; what is your next step? First, you must provide top notch *Instruction* with many innovative techniques to satisfy their inquisitive minds. I find myself working harder on my classroom instruction now than ever before in my long teaching career. The quality students demand more than we have sometimes been willing to provide for them in the past. Second, you must *include* them in the group. Everyone, regardless of age, likes personal attention. This can be done by taking an individual interest in their welfare by visiting their homes and learning to know them as well as their families. The ag teachers have a tradition of keeping the classroom and related activities of students on a personalized basis. Third, you get them *involved*. The FFA program opens so many doors to students at all levels. Their accomplishments can only be limited to how much they are willing to give. Returning students invariably point to their FFA activities as the best stepping stone

(Concluded on page 42)

Teaching Talented Students in Vocational Agriculture

Jasper S. Lee
Department of Agriculture and Extension Education
Mississippi State University



Jasper S. Lee

Vocational agriculture classes have traditionally had a high number of talented students. It is unfortunate, however, that these students are not always recognized for their talents. Sometimes the talented have been labeled as "disadvantaged" or "slow learners." In fact, anyone who has been involved in the agricultural education profession for several years has probably heard on numerous occasions stories about slow students being sent to vocational agriculture classes. Further, these stories would lead one to believe that in some schools no talented students ever enroll in vocational agriculture.

The purpose of this article is to show that many talented students do enroll in vocational agriculture. Furthermore, the extent of the talent often goes unrecognized, and this is an unfortunate occurrence indeed. It is time to reappraise how teachers of vocational agriculture view their students. When this is done, it will be obvious that, by and large, students enrolled in vocational agriculture are talented.

The Nature of Talent

Educators have become increasingly concerned about providing instruction that is oriented to the needs and capabilities of students. Much of this concern has focused on exceptional students, primarily those who are said to be disadvantaged or handicapped. Special programs have been developed for those who are said to be socially, educationally, or economically deprived. In a few cases, programs have been developed for those who are said to be gifted or talented. Placement in such classes has primarily been based upon outstanding achievement in academic areas or high scores on achievement or intelligence tests.

Talent appears in many different forms and can be found in every cultural group and at every level of society. Talented students are those who have unusual ability in certain areas and consistently perform in an outstanding manner in those areas. A student who is talented in music, for example, may not be talented in art or mechanics. The traditional definition of talent in the area of education has been primarily related to outstanding academic pursuits. Persons who were mentally talented are said to have the ability to perform mental tasks of a high degree of difficulty. Scores on intelligence tests have frequently been used as the basis for identifying students with academic talent. Those who achieved intelligence quotient (I.Q.) scores of 130 or 140 and higher have been considered to be talented. The credibility of scores on intelligence tests has come under considerable scrutiny in recent years. The end result of this has been that less reliance is now placed in such scores in analyzing the potential of students.

Talent may appear in many different forms and is evidenced by special abili-

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COMING ISSUES COMING ISSUES COMING ISSUES

COMING ISSUES

SEPTEMBER — Planning and Managing School Facilities for Ag

OCTOBER — Preparing Teachers of Vocational Agriculture

NOVEMBER — Teacher Organizations and Professionalism

DECEMBER — More Effective Teaching

JANUARY — Production Agriculture — Preparing to Feed the World

FEBRUARY — FFA — The Intracurricular Activity

MARCH — Agricultural Mechanics — Keeping the Wheels Turning

APRIL — Supervised Experience Programs — Learning by Doing

MAY — Agricultural Products — Preparing Agricultural Processors

JUNE — Camping and Summer Activities

JULY — Facilities — Planning, Maintenance and Improvement

COMING ISSUES

ties of a high order. Some of the areas in which students may be talented are science, mechanics, art, social relations, leadership, and academic achievement. The key to identifying talented students is to assess whether or not the performance of a student is consistently superior in an area. If it is consistent, it can be said that the student is talented in that area. Students in agricultural education who consistently perform in an outstanding manner in areas such as welding, small engine repair, plant propagation, landscape design, exhibiting livestock, operating farm machinery, and cruising timber are talented in these areas. Thus, the nature of talent is very broad and applicable to all areas of human endeavor.

Providing for Talented Students in Agricultural Education

Once it is recognized that there may be a number of talented students enrolled in agricultural education, the problem becomes one of how to provide learning activities which will make optimum use of the abilities of the students. In recent years, most of the effort has been expended in meeting the needs of students who were said to be disadvantaged. How does providing for the talented differ from providing for the disadvantaged?

Many of the same principles apply to teaching both the disadvantaged and talented. One of these is that learning activities should be designed with the learner in mind and involves assessing previous learning and the potential for new learning. Some of the same provisions used in teaching the disadvantaged also apply to teaching the talented students. Some of the ways of providing for talented students include grouping, advanced placement (also known as acceleration), elective classes or activities, and enrichment of regular classes. Each of these has advantages and is workable, depending on the situation in which it is to be used.

Grouping—Special classes or groups may be provided for talented students. The groups may be within regular classes which are comprised of students with the usual ranges in ability. Intraclass grouping may also involve mixing students with talents in various levels so that they learn from each other. Any method of grouping which completely isolates a group of students from other students is to be avoided. The number of students with talent in any particular area of agricultural education in a school is often too small to merit special classes. Therefore, some type of intraclass grouping may be utilized.

Advanced Placement—Students who are talented in a particular area may be permitted to skip a learning unit, activity, or class. This does not mean that the students are permitted to remain idle while other students are involved in learning activities. Rather, it means that talented students are provided with learning activities which are more in keeping with their previous learnings and their ability to perform. For advanced placement, or acceleration, to occur, a teacher should be absolutely sure that the talented student has sufficient knowledge and skill so that the advanced placement will not result in the omission of essential learnings. It must also be handled so that students remain in touch with reality and do not develop feelings of superiority. After all, their talent may be only in one or two areas while in other areas they are not talented, and they should realize that this is the case.

Elective Courses or Activities—Talented students may be encouraged to participate in elective courses or pursue activities which are not a regular part of the classroom instruction. Since agricultural education courses are normally elective, this approach is best suited to providing activities which supplement or substitute for the regular classroom instruction. Such activities may be provided during the regular class time or conducted on an individual or small group basis after school hours. It is a common practice in agricultural education for students to have "after school" activities and it is the nature of these activities which will vary and not whether or not such activities are provided.

Enrichment in Regular Classes—Students who are talented in given areas may remain in the regular classes but be provided with different learning activities or problems to be solved. This approach works well with classes which utilize an individualized approach to instruction. Independent and self-paced learning packages are often used in enriching regular class instruction. With the enrichment approach, talented students may perform the same learning activities as the other students and since they will usually move through the activity faster and finish before the others, the enrichment activity would follow participation with the other students. This approach has often been used in agricultural education, especially with laboratory activities.

The Role of the Teacher

The teacher has a significant role in providing instruction for talented students. The first step in fulfilling this role is to recognize that human abilities may vary considerably. A person who is talented in one area may be a slow learner in another area. Further, teachers need to recognize that talent in areas outside of the academic areas may be just as useful to society as talent in academic areas.

The behavior of the teacher has much to do with the environment that may exist in a classroom. The level at which students achieve is closely related to the level of expectation held for the students by the teacher. Also, the kind of environment which exists in a classroom is a product of the expectations of the teacher and the learning activities provided by the teacher and how the students react to these. It is very much a possibility that talented students will go unrecognized or fail to achieve at the level of which they are capable. The role of the teacher includes attempting to identify talented students and the areas in which talent exists. Teachers must attempt to provide all students the opportunities they need to develop in harmony with their potentialities for growth.

Summary

The challenge to a teacher is to see that each student is given the opportunity to develop in harmony with the potential for learning. It is well for teachers to remember that human abilities vary. The student who is a slow learner or branded a trouble-maker in one area might be talented in some other area. There are many talented students in agricultural education classes. Their talent, however, may be in the areas of science, mechanics, human relations, and leadership commonly taught in agriculture classes rather than in the traditional academic areas. ◆◆◆

The Mason Valley FFA

Buster High, NVATA Region I
U.S. Steel Award Winner, 1975
Yerington, Nevada

The Mason Valley FFA Chapter calls Yerington, Nevada home. Yerington, a small agriculture community of approximately one thousand people, is located ninety miles south of Reno. Our major agriculture commodity is alfalfa hay and cattle.

The vocational agriculture program has one hundred and fourteen students who take at least one class and up to three classes daily. The curriculum includes, Farm Power and Machinery, Basic Agriculture, Horticulture, Vet Science and Project Construction. Along with the classes offered in the high school, each student is required to have a supervised farming or a work experience project.

Because of long distances between projects, the agriculture instructor uses an airplane for some home visits. When traveling to Zone FFA meetings the chapter officers spend time flying instead of driving.

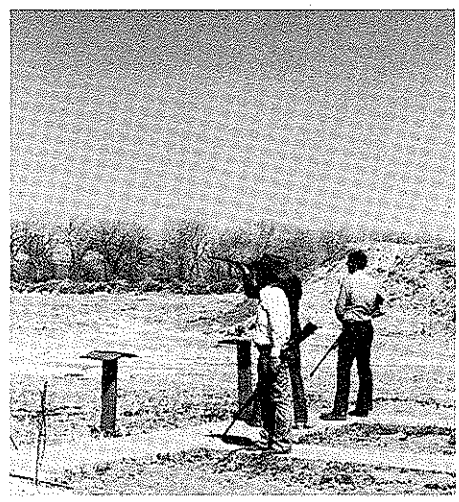
The students in the Mason Valley Chapter are very active with FFA functions whether it is competing in a state or national farm mechanics contest or participating in an FFA trap shoot for recreation. Mason Valley FFAer's are always attempting to excel. Projects such as farm equipment safety or BOAC are attacked with zeal that only young agriculture students have.

To finance the projects the chapter undertakes, the students have varied ideas for making money. The chapter prepares an annual Kick-off Barbeque for the community at the home football game. This activity along with skeet shoots, nursery sales, and equipment rebuilding provide the necessary funds for the banquet, judging trips, and livestock chains.

The grand finale of the year is the Chapter banquet. Along with distinguished guests, such as a national officer, the governor of the state of Nevada, and the many people that support the local program, the members of the Mason Valley FFA say thank you to their parents. They realize that without the help of mom and dad they wouldn't succeed in their chosen fields. ◆◆◆

Because of vast distances between communities, Mason Valley FFAer's learn to fly small aircraft. Here they are pre-flighting an airplane in preparation to go to a Zone FFA meeting.

Where else, but the Future Farmers of America, could a 17 year old Agriculture Occupations student borrow $20,000 for a piece of equipment and succeed in business? Mike Stewart, Mason Valley FFAer, came from a non-agricultural family, and today after two years in the custom hay business has a net worth in excess of $70,000.



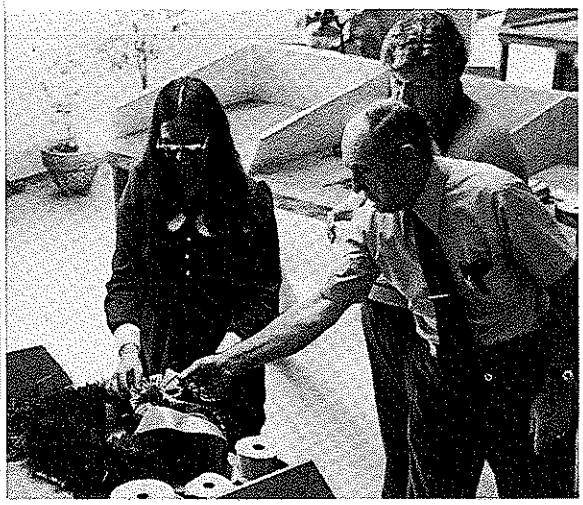
Mason Valley FFAer's combine business with pleasure. At the annual FFA trap shoot, gun safety is stressed while members are having fun. This money making event usually nets the chapter around $700.

Secondary Program in Ornamental Horticulture for the Talented Student

C. C. Beam
Instructor of Ornamental Horticulture
Herndon, Virginia

C. C. Beam

Since its inception in 1968 the purpose and the implementation of the Herndon High School program in ornamental horticulture has been to provide the academic and the non-academic student with a course offering in which he might attain a certain degree of success. Ideally the goal of the program is to afford the student independence in the future by offering him many opportunities for placement in related fields such as floriculture, greenhouse, landscaping, sales and service, etc. Hopefully, he will learn to appreciate more fully the ecological values of horticulture and its effectiveness in the community.



C. C. Beam, teacher of horticulture at Herndon, Virginia, assists student with "finishing touches" on a Christmas wreath.

With the availability of varied activities, including individual projects, hobbies, field trips, parallel readings, problem solving, in depth reports through both research and experimentation, the student may pursue the program in ornamental horticulture independently. With specific goals in mind, it is possible for the student to proceed beyond the requirements necessary for successful completion of the program. This provides a dual approach with a provision for the non-academic student and acceleration for the academically oriented or exceptionally talented student. There are various ways in which the more talented student might be challenged in an accelerated program and at the same time allow for interaction among students of varying levels.

Since the competitive spirit motivates learning and creativity, one of the most effective methods utilized in our horticulture class is the contest approach. To augment the interaction between the students of differing academic levels, competitive teams are formed with the talented or highly motivated students as the team leaders. This gives the talented student an opportunity to show leadership qualities and at the same time help the less talented student attain a degree of success in the class. After the class contests are completed, the winning teams from each class compete with other top teams at FFA meetings. Then the winning team from FFA competes in the state horticulture judging contest. Hence the talented student has been challenged and has completed extra work, while the less talented student has been able to perform successfully.

Though the teaching methods in ornamental horticulture may vary, the principles and concepts in horticulture remain constant. It is the student's needs and goals which are instrumental in the objectives and methods employed to utilize the principles of horticulture. For example, the student's retention of facts, his visual concepts, and problem solving experiences are applied to relative situations. His approach may differ and the manner used to teach these concepts of horticulture may differ, but the result is the same. In essence, he recognizes a problem, applies the principle and effects the solution. Some of the methods used are as follows:

Class Discussion—The talented student may lead the discussion or perhaps set up a seminar in which he involves the less talented student.

Visits to natural environments such as parks—Here the more creative student may determine the best method of maintaining a more natural environment by applying the principles of horticulture.

Field trips to nearby greenhouses, garden centers and nurseries—This offers the students an opportunity to see first hand the newest and most innovative methods employed in horticulture today.

The study of landscaped environments and practice in landscaping—This provides all levels of students with the latest and most popular landscaping techniques as well as gives them an opportunity to formulate their own creative landscaping designs.

Development and use of slide-tape shows and other audiovisual materials—This enables the student to update information on the latest techniques in horticulture. Also the creative student may create his own audiovisual materials on his experimental projects in horticulture.

Specialized reports—These may be formulated through extensive research, experimentation, problem solving, and student creativity.

Greenhouse laboratories—This not only affords the student an opportunity for the practical application of the principles of horticulture, but it also gives him an opportunity to pursue his creative talents through experimentation.

Thus, these methods help promote good study habits and interest with a practical application for the future, and at the same time allow talented and highly motivated students to pursue creative endeavors.

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Critique of Research in Agricultural Education

Earl S. Webb and Don R. Herring
Agricultural Education
Texas A&M University

Much criticism has been directed toward research in agricultural education in past years. Most of it has been constructive, however, and aimed at improving the quality and quantity of efforts toward the discovery of knowledge and better ways of doing things. Love (1) took the position in 1968 that much of the research in agricultural education was good. He did suggest, however, that (a) more staff time should be devoted to research, (b) experimental studies should be expanded, (c) unsampled simple surveys be limited, and (d) that parametric statistics be used more frequently.

McCracken (2) reviewed the critiques of Carpenter and Rodgers, Warmbrod and Phipps, Love and Hamlin and found that the major criticisms of these men fell into four major areas: hesitancy to tackle major problems of the profession; lack of involvement in long-range programmatic research; failure to use sophisticated research design, resulting in questionable validity, and little effort toward effective dissemination and implementation of research findings. He concluded that these criticisms were valid.

Kahler (3), after his review in 1973, was of the opinion that research in agricultural education was providing practitioners with ways to solve problems on a limited scale. He proposed that (a) a quicker response was needed to solving current and emerging problems, (b) the scope of research should be expanded to include more regional and national studies, (c) greater involvement was needed in basic problems, (d) knowledge and expertise from related disciplines should be included in research, (e) more staff time should be devoted to research, and (f) more sophisticated research methods should be used.

The same criticisms seem to persist through the years. Lathrop (4) in 1935 criticized research in agricultural education for (a) inaccuracy because of faulty data, faulty treatment of data, errors in calculations and unsound assumptions, (b) lack of control of emotional bias in opinion-type research, (c) lack of variable control, (d) lack of continuity because of problematic rather than programmatic research, (e) an excessive amount of research being conducted by graduate students to meet requirements for theses, (f) a general lack of scientific attitude toward research design, (g) a lack of implementation of research findings, and (h) a lack of statistical treatment of data.

If, after 40 years, the same criticisms are voiced, suggestions are needed to organize an attack upon the causes rather than the symptoms. Therefore, the following recommendations are offered to improve both the quality and quantity of research in agricultural education.

While the major function of research is to discover new knowledge, it is also the primary means of developing scholarship. Therefore, the first recommendation is that most members of an agricultural education faculty be responsible for a research program. Advantages inherent in this recommendation seem to merit its value.

1. Most faculty are employed by universities that emphasize teaching, research and extension. Historically, research has provided content for teaching and extension; it still serves that function. Whether we like it or not, the recognized scholars within the academic community are those involved in research and who publish frequently. Promotions, tenure and salary increases are often tied to research and publications.
2. Research contributes to good teaching. Research is the means by which a teacher can continually bring new things to his classes. His only unique contribution is the product of his research; everything else is borrowed from someone else. A teacher's status is enhanced through research; students like to read what their professors publish; they like to hear about their research. Students hear about research in animal science, agronomy, and other areas of scientific agriculture. Why not in agricultural education?
3. Research is the means by which faculty members become specialists. Far too many of us know a little about a lot, but not much about anything. The specialist can focus his research, his reading, and other professional activities. He has direction in the development of scholarship.
4. Professors involved directly in research set good examples for graduate students. How can good attitudes toward research be developed if professors are not involved, directly? Research conducted for a thesis or a dissertaitoin under a professor not involved in research may appear to graduate students as a penalty for earning an advanced degree.
5. A research program provides a basis for students being assigned to a specific professor. Students should conduct research in the area of their interests; therefore, they should be allowed to work

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CONTINUED CRITIQUE OF RESEARCH . . .

with the person in the department who has the greatest degree of expertise in that area. What other good reason exists for assigning a student to work with a faculty member?

The second recommendation is that research be developed on a programmatic rather than a problematic basis. Research programs can be built around teaching responsibilities. If a course is taught in an area that does not lend itself to a continuous research program, it is probably not worth teaching. In this context, projects may be relatively small at first but no magic exists in bigness. In fact, most big research projects in agricultural education have produced limited results.

Research programs built around teaching areas will, to some degree eliminate the problem of dissemination because the findings can be used to strengthen existing courses and to develop new ones. Furthermore, the expertise developed will increase the investigator's competence to initiate or participate in state-wide, regional, or national research efforts.

Furthermore, research should be conducted within the province of the interests and expertise of faculty. While research of all types is needed, many faculty members are not interested in nor qualified to conduct all types. A coordinated, planned research program is needed whereby departmental faculties, in conjunction with state staff personnel (when appropriate), identify priorities for research and divide research efforts among the faculty.

The third recommendation is that prospective teacher educators be selected from those students who possess the ability to work with the abstract nature of research and who desire to participate fully in the range of activities expected of university faculty. Furthermore, the preparation program of these individuals should be rigorous and under the supervision of faculty who are full participants in the academic community. Research should be an integrated part of the entire program rather than an appendage that creates psychological traumas from which recovery is never complete.

Fourthly, it is recommended that agricultural education faculty seek research appointments on hard money. Persons on soft money experience feelings of insecurity from year to year and are forced to spend an excessive amount of time writing proposals and making reports. The best source of hard funds is with the agricultural experiment station. Appointments should not be difficult to obtain. However, an experiment station director will need to be convinced that the willingness and expertise exists to develop research programs that will contribute to the mission of the station.

Fifthly, it is recommended that a long-range goal be established to move the major research efforts in education away from university campuses to locations where the action is. Research units need to be located in various parts of states similar to the stations and substations of the agricultural experiment stations. Such a state-wide organization, coordinated at the land-grant university, would allow on-location research where adequate controls could be exercised for meaningful and valid research. Personnel at stations could work directly with schools in conducting research, teaching and organizing off-campus graduate classes, and providing services needed by public school faculties.

The sixth recommendation is that abstracts prepared for *Summaries of Studies* be screened carefully to prevent the inclusion of "stuff" that is not worthy of being classified by any definition. The responsibility for screening is at the point of origin; it is unfair to force the regional or national editor to do the screening.

Criticism of research will be needed in the future as in the past because of the inability of man to achieve perfection. The recommendations are offered, not to eliminate criticism, but to develop good attitudes toward research and the creation of a climate conducive to making research a viable thrust in agricultural education. ◆◆◆

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CONTINUED HIGH SCHOOL AG . . . FOR ADVANTAGED

In this issue I had hoped to inform the readership of how certain schools are able to attract to their ag departments year after year students having high academic ability. Only a few of the authors wrote specifically about that point. Your attention is directed to the article by Diehl.

Here is an idea of how one high school ag department was able to attract a student who later made all "A's" while finishing the college agricultural economics curriculum in three years without going to summer school. I asked his teacher how the high school ag department could attract and hold that kind of student. He then told me about a rich man in the school district leaving enough money in his will to pay complete college expenses for a student who took four years of agriculture in the high school and who would then get a college degree in agriculture.

Vocational agriculture is valuable to a broad clientele; the academically talented are very valuable to agriculture. ◆◆◆

1. "Vital Careers." *Agricultural Research*, Vol. 23, No. 11.
2. *Ibid.*

The
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EDPRESS

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J. Rick Byrd

Occupational Surveys as a Basis for a Common Core Curriculum in Production Agriculture

J. D. McCracken

J. Rick Byrd and J. David McCracken
Graduate Student Associate Professor
The Ohio State University

Teachers of vocational agriculture are faced with the need to offer a program of instruction that is practical. The local course of instruction should be viewed by students as useful and relevant. Since the primary purpose of vocational education in agriculture is to prepare students for careers in agriculture, the instruction offered should enable students to develop competencies essential for employment.

In an editorial in February 1976 *Agricultural Education Magazine,* McMillion indicated that:

> The basis for a course of study is a compromise. The needs of industry cannot be overlooked, the needs of the individual cannot be overlooked, and the needs of society as a whole cannot be overlooked.
>
> Training for narrow, mostly manipulative competency lists is perhaps no less disastrous to the agriculture programs and the individuals in them than the academic, subject matter oriented courses that never get to the learning-by-doing stage in a realistic business setting.

Vocational educators in agriculture must be careful not to dismiss all task listings as containing only "narrow and manipulative" skills. Well-designed task listings include competencies essential to successful performance of occupations. Students who can perform these tasks at required levels of competence enter a career more adequately prepared than if some other less-adequate basis had been used for selection of curriculum content.

Task listings for production agriculture were developed by the authors as a part of a larger project involving preparation of task inventories for occupations within the agriculture/agribusiness and natural resources career cluster. Seven occupations were examined in production agriculture. These occupations were: swine farmer, beef farmer, dairy farmer, grain producer, commercial vegetable producer, forage producer, and farm manager (owner-operator).

As a follow-up to the project, selected teachers in Ohio were involved in a workshop to identify tasks in additional occupational areas in production agriculture. They were also to recommend a core curriculum in production agriculture. The additional occupations included: beef purebred breeder, swine purebred breeder, dairy purebred breeder, sheep purebred breeder, dairy farm hand, general farm hand, and seed corn producer. Additional work in process during the 1975-76 school year includes analysis of tasks essential to successful performance as a tobacco producer and as an agricultural leader. These analyses may result in additional competencies added to the core curriculum.

In order to develop the task listings, initial lists were developed for each occupation. Lists were organized within duty areas. An example of a duty area is "marketing and shipping agricultural products" with "select appropriate marketing system" being a task statement under this duty area. Task lists were developed by reviewing related competency lists and related literature, and by interviewing employers, employees and vocational teachers. A panel of experts from each occupation validated this list by adding needed tasks, eliminating irrelevant tasks, and changing wording for clarity.

A total of 2,245 tasks were included in the initial task inventories. As a result of the validation process, 1,843 task statements remained. A questionnaire was then developed for each occupation.

The list of farmers in each occupation was obtained through the state and local young farmers organization, and farm business planning and analysis association members throughout Ohio. Special efforts were made to insure that the sample represented various types, sizes, and settings of working conditions. A total of 514 farmers for the seven occupations were included in the study. The response rate was 48.8 percent or 251 of the 514 farmers.

The findings were compiled, analyzed, and presented to the state and national advisory committee who assisted in the determining criteria for selection of common-core tasks. The advisory committee also explored ways the findings might be used in developing improved programs of occupational exploration in agriculture, 9th and 10th grade vocational agriculture programs, 11th and 12th grade vocational agriculture programs, specialized program areas, curriculum development and teacher education. Vocational agriculture teachers then analyzed seven additional occupations and developed essential tasks from the 14 occupations as a common-core curriculum for production agriculture instruction in Ohio.

The essential tasks were grouped as recommended for 9th and 10 grade programs and/or 11th and 12th grade programs. Table I illustrates the number of tasks in the common-core curriculum classified under the major headings

Table I. Summary of the Number of Essential Tasks Within Instructional Areas

Instructional Area	Grade Level		Total
	9th and 10th	11th and 12th	
Farm Management	25	153	178
Farm Mechanics	58	64	122
Livestock	111	—	111
Crops and Soils	82	—	82
Total	276	217	493

(Concluded on next page)

CONTINUED OCCUPATIONAL SURVEYS . . .

of farm management, farm mechanics, livestock and crop and soils. Teachers of vocational agriculture, in planning their local courses of study, should use these common core tasks as a basis for discussing the curriculum with the local advisory committee. Some tasks in the common core may be deleted and some added to meet the needs of the local community. Personal development skills are also necessary and should be added. The 493 tasks in Table I were grouped within 59 duty areas. These duty areas were:

9th and 10th Grade

Farm Management

1. Performing General Office Work
2. Recording Information
3. Following Legal Regulations
4. Planning and Supervising Work
5. Purchasing Merchandise and Supplies
6. Marketing and Shipping Agricultural Products
7. Summarizing and Analyzing the Farm Business Records

Farm Mechanics

1. Following Legal Regulations
2. Following General Safety Precautions
3. Storing and Warehousing Products and Supplies
4. Maintaining Equipment
5. Using and Maintaining Hand and Power Tools
6. Operating Equipment and Vehicles
7. Constructing and Maintaining Buildings and Structure
8. Assembling and Installing Equipment and Structures

Livestock

1. Maintaining Herd Health
2. Formulating Feed and Feeding Livestock
3. Marketing and Shipping Agricultural Products
4. Selecting Livestock
5. Breeding Livestock
6. Handling and Disposing of Waste
7. Handling and Caring for Livestock

Crops and Soils

1. Storing and Warehousing Products and Supplies
2. Testing Soil and Plant Tissue
3. Fertilizing
4. Controlling Plant Insects and Diseases
5. Controlling Weeds
6. Establishing Crops
7. Harvesting Farm Crops
8. Planning the Crop Programs

11th and 12th Grade

Farm Management

1. Performing General Office Work
2. Recording Information
3. Inventorying Items
4. Following Legal Regulations
5. Planning and Supervising Work
6. Storing and Warehousing Products and Supplies
7. Purchasing Merchandise and Supplies
8. Insuring the Business
9. Planning and Organizing the Business Operation
10. Summarizing and Analyzing the Farm Business Records
11. Marketing and Shipping Agricultural Products
12. Handling and Disposing of Waste
13. Planning the Building and Structures Program
14. Planning the Equipment and Machinery Program
15. Planning the Livestock Program
16. Planning the Crop Program
17. Financing the Farm Business
18. Securing Land

Farm Mechanics

1. Recording Information
2. Follow General Safety Precautions
3. Maintaining Equipment
4. Fertilizing
5. Operating Equipment and Vehicles
6. Constructing and Maintaining Buildings and Structures
7. Controlling Plants Insects and Disease
8. Assembling and Installing Equipment and Structure
9. Establishing Crops
10. Harvesting Farm Crops
11. Storing Farm Crops

Task statements were not included due to space limitations. Reports of the project have been forwarded to head state supervisors and head teacher educators of agricultural education in each state. Occupational inventories can be helpful in developing curricula to meet the needs of potential farmers and farm workers. It is a responsibility of the vocational agriculture teacher to develop a curriculum that meets the needs of his students as they prepare for occupations in agriculture. The duty areas of task statements identified in this study can be an asset in the development of updated courses of study more relevant to the needs of students preparing for occupations in production agriculture. ◆◆◆

CONTINUED SECONDARY PROGRAM . . . FOR THE TALENTED

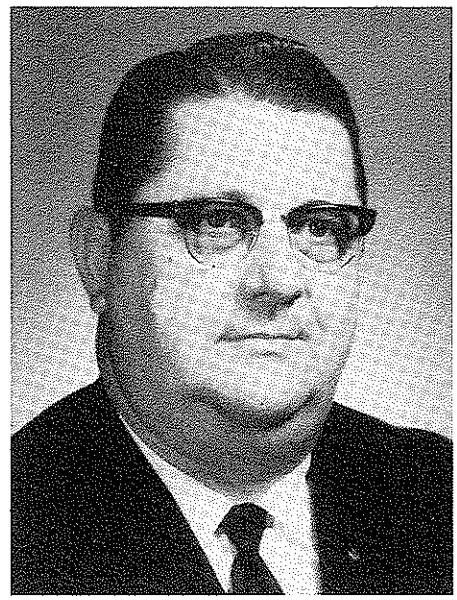
Consequently, the activities for the student are directed toward both the practical and creative sides of horticulture. The aim of these activities is to prepare the average and below average student and to prepare the talented student for college, the world of work, or a future in his community. Moreover, the fundamental principles and skills of horticulture encourage the student to better understand and to appreciate more fully the living plants in their natural habitat. Because the student is more aware of the ecological significance of living plants, he is able to apply the principles of horticulture within the school, the community, and particularly in the home. Even though much practical material has been included that is aimed directly toward vocational activities and a wholesome interest in ecological problems of the home and the community, the ultimate goal of this program is to prepare the student for a future in ornamental horticulture and its related fields. ◆◆◆

Financing Travel to the Young Farmer Institute

R. Z. Arey
YF Advisor
Dayton, Virginia

and

Glenn Anderson
Executive Secretary
Young Farmers of Va.



R. Z. Arey

The members of the Turner Ashby Young Farmers Association, Dayton, Virginia, would like to take this opportunity to share with you an experience they have had over the past 18 months. They feel that some of you might benefit in some way either as an association or as individuals. We have been most pleasantly surprised from the entire adventure.

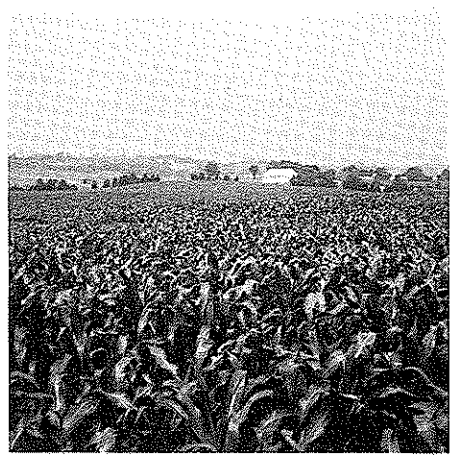
In March 1974, the Turner Ashby Young Farmers formed the idea at a meeting of the Executive Committee that the Association should promote more interest among the members toward the National Young Farmer Institute. During this discussion one member suggested that the Association conduct a project for the purpose of assisting members financially to go to the National Institute. The idea of a corn project with the profits going to send members to the national convention was mentioned. The Executive Committee agreed.

The next step was to make the recommendation to the membership at the regular meeting. This was done and it was finally agreed to proceed in this direction under the leadership of the committee.

The committee tackled its first task of finding land that would be suitable and profitable for growing corn. With enthusiasm running high, the search began, but it was soon realized that this was an almost impossible task. This was true because all available corn land in Rockingham County was already being prepared for corn. The search continued and finally the chairman, Lewis Driver, called another meeting of the committee for reports. Lewis reported that there was a widow lady who owned 25 acres of land which had been divided by the construction of Interstate 81 some years ago. Since that time, the land has been abandoned and was covered with red cedar trees. Several members had inspected the land and reported the soil was suitable for corn if the cedars could be removed. The owner agreed that her land should be reclaimed. Also, if the Turner Ashby YF Association would remove all the cedars they could have use of the land for two years free of rent.

BEFORE

DURING



AFTER

The Turner Ashby Young Farmer Project

Once again, the members agreed that they would take the deal. A cedar removal day was set. On a bright Saturday morning, the group arrived at the project with tractors, chains, trucks, chain saws and a large number of people. With a great deal of reluctance, the group began its job. It was found that pulling was the best method of removal. Thereby, being able to pile and burn the residue, leaving the soil ready for sod planting of corn.

After three days of pulling and burning, the 25 acres was cleared and ready

(Concluded on next page)

CONTINUED FINANCING TRAVEL . . .

for the next step. This was to disc the land for the purpose of leveling the holes left by removal of the trees.

Finally, it was time to fertilize and plant, which was accomplished by the 10th of May which is corn planting time in the Shenandoah Valley.

Results

As the growing season progressed, the project turned from green cedar trees to the rich green of young corn. The season was favorable for growing crops, and finally the committee met and examined the corn project, which was good. The entire 25 acres of corn was marketed in the field to a neighbor farmer who agreed to harvest some for silage and some for grain. Also, he agreed to sow rye as a cover crop after harvest.

Now it was time to calculate the returns from the Young Farmer Corn Project.

Briefly, the returns were excellent. The Association treasurer reported expenses of $1500 as compared to the gross sales of $3500. These results provided the members approximately $2000, which helped to support 14 Turner Ashby Young Farmer members in their wonderful and exciting educatinal trip to the National Institute in Oklahoma that year.

Also, 25 acres of land were left for use again in 1975. Only this year, the group decided to harvest the rye as grain. This was done. However, the results were not quite as good because of rain during combining season. The rye project produced a net profit of $1000. This profit was used for another corn project in the spring of 1976, with hope of getting a larger delegation to Denver, Colorado in '76. The members financed their own trip to Atlanta for the 1975 convention.

Project Analysis

As the advisor of the Turner Ashby Young Farmers Association, I would like to present my analysis and benefits of the entire Turner Ashby project.

At the outset, I will frankly admit that there were times when I had reservations about some decision that had to be made and would probably have cringed had it not been for the excellent leadership exhibited by members of the Association.

It was a great experience in many aspects that may not be visible on the surface of the story. These are my personal interpretations:

1. The reclaiming of the much needed land is certainly being a good steward of the bountiful land which we are responsible for maintaining. This is responding to the will of God as He has made man responsible for His Good Earth.
2. Assisting a widow lady, who was unable to accomplish the task of putting the land back into cultivation without some assistance.
3. A productive enterprise is always a wise investment when we can produce food for the world.
4. Educational project—many educational experiences were presented as the management decisions had to be made. The combining of past experiences and expert knowledge of a large group helped to make the project beneficial for all involved.
5. Stimulated fellowship and pride in your local young farmer group. The idea of working together and being successful had a tendency to make each member feel deep down a little proud, because he had a part in the program.
6. A project like this is definitely an excellent method of public relations in your community. Most people know and recognize the Young Farmer Association as a result of the total program.
7. Help to promote interest in the National Young Farmer Institute. Every young farmer group should be represented at the national meeting. Our project has helped to create the interest.

Reservations

Yes, I will be first to admit there may be some problems that might arise. Therefore, I would like to suggest several points to consider before undertaking such a project.

1. Realize that there must be good organization and leadership. The members have to be receptive to the idea.
2. Work is a requirement. The membership must be stimulated to the point that they are willing to provide assistance.
3. You must realize the monetary profit may not always be too great. The group should be prepared to stand behind the result in case of financial failure.

Conclusion

Yes, we at Turner Ashby have been most fortunate in our National Institute Project. We sincerely hope that our endeavor will continue to be favorable.

Our story has been presented in the hope that it might help some young farmer association to initiate a similar project to help their association in many ways.

Hoping to see you at the National Young Farmer Institute in Denver. ◆◆◆

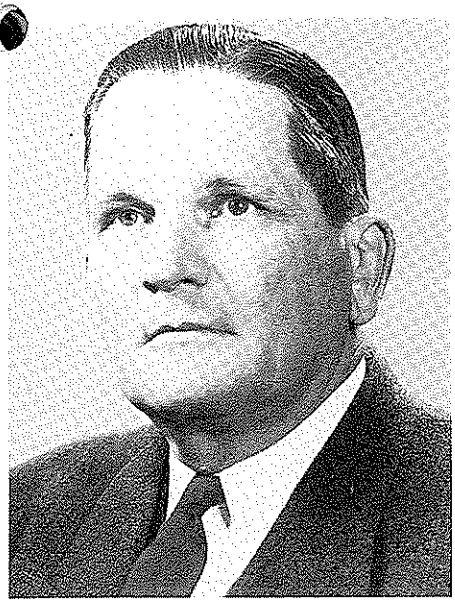
CONTINUED ATTRACTING THE TALENTED . . .

for their successes in life.

Your programs's reputation will depend on the type of students you will attract. If your objective is to produce future community leaders, college graduates, successful agribusinessmen, and leading farmers, then you will have to attract a high quality individual into your program. Grand champions beget grand champions! Please don't misunderstand these statements to mean that we discriminate against average or underachieving students. We include everyone who sincerely has an interest in one of our ag programs and strive to make them reach their highest potential. The purpose of this article, however, is to explain what we do about our talented students.

The word is out among young people about various courses and they are not about to enroll in a dud. Fellow teachers also observe what courses attract certain students, and sooner or later the community is going to see the result of the type of individual that you have appearing on radio, TV, banquets, leadership schools, public speaking, etc. We have a right—no, an *obligation*—to secure the best individuals available for the field of agriculture. Where else is their a better future? ◆◆◆

Leader in Agricultural Education:



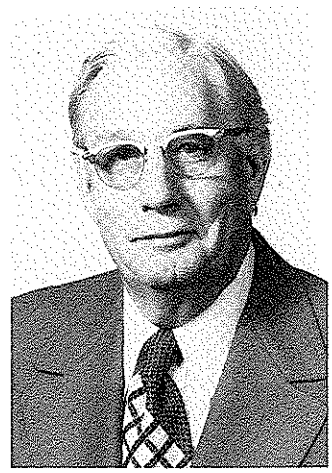
JIM PERKY

by

*Robert R. Price**

The time was in the late 30's and the occasion was an annual conference of the Oklahoma Vocational Agriculture Teachers. The State Supervisor was addressing the assembled teacher group with a stringently pithy admonition "When you all pull off your britches and crawl in bed at night, don't turn over twice until you think about what you have done, and more important, what you have not done that day. Think about your salary and the amount of money you are to receive for your services during the last twenty-four hours. Now be honest, what in the world that was worth a tinker's dam did you accomplish? Think, think hard, and if you're honest a good many of you will get up, pull the britches back on and go to work!" James Barney Perky was often characterized as a demanding administrator. Demanding, yes, but many of us who were close to him in vocational education readily recognized that this demand for top performance was always imposed first of all upon himself. His vision of what vocational agriculture should be was uniquely the quintessence of sustained effort, an unstinting loyalty and application to the program and to the people involved.

Jim Perky was always impatient with anything or anyone who might hamper or delay further development of vocational education. A native of Cleburne, Texas, he received the BS degree in Animal Husbandry from Wisconsin University in 1923 and the MS degree from Colorado State University in 1939. He taught vocational agriculture at ElReno and Goodwell prior to becoming a district supervisor in 1927 and state supervisor in 1931. He often referred to the fact that he wore two hats, one as State Supervisor of Vocational Agriculture, and the other as State Director of Vocational Education. The appointment as State Director came in June of 1941. For more than 35 years he served as State Advisor to the Oklahoma Association of the Future Farmers of America. Demanding excellence from teachers, his question was often, "Don't just tell me he's a good teacher; I want to know what he's good for!" Teacher educators were challenged as were supervisors to "cut the frills" and produce and maintain a teacher corps worthy of being recognized as "tops" in the nation. "The reason we continue to have so many one-gallus'ed farmers in this state," said J. B. Perky, "is that we tolerate too many one-gallus'ed teachers." Yet, he would often say that no person should be "rogued out" of the profession until we first knew just what made him "tick" or "fail to tick."



Robert R. Price

*Robert Price is Professor and Head, Emeritus, Oklahoma State University.

Many teachers came to appreciate his personal concern for their individual welfare.

Uniquely and paradoxically the State Director and Supervisor was highly authoritative yet strangely democratic in his administration. Teachers and state staff were kept aware of his often applied axiom "what one of us can do, all of us can do!—What any one of us is not allowed to do, none of us should be allowed to do!"

Aware of the ever changing nature of both agriculture and educational endeavors, Supervisor Perky often challenged teachers to keep up with the times, particularly with regard to self-evaluation of their efforts. He frequently disdainfully referred to the "axe handle" measurement of "myopic" colleagues. Having a son serving as a captain in the United States Air Force, he admonished agricultural educators to not be afraid to "roll with the wind" and to be more specific in plans for "logging" more hours, flying with something more than "the seat of your britches."

Jim Perky believed implicitly that any worker worth his salt would endeavor to constantly keep abreast of what was happening at the grass roots of the profession. He might stop in the midst of a conference to ask a teacher, "Hank, what's hay worth a ton at Sayer?" He really expected teachers of agriculture to be on top of the economics of agriculture particularly as this affected the welfare of agriculture in the local community. Contrary to policy maintained by leadership in many other states, teachers were encouraged to engage to a limited degree in agricultural production. For many years operations at the Perky Ranch near Mulhall, Oklahoma had impact in Angus circles throughout and beyond the State of Oklahoma.

(Continued on page 45)

Relationship of Extended Contract to Vo-Ag and FFA Summer Program

George A. Robinson
Teacher Educator

Dorothy M. Robinson
Research Assistant

Washington State University

Throughout one's years as a high school student in Vocational Agriculture, later as a college student in Agricultural Education and finally as a teacher of Vocational Agriculture, one is impressed by security of employment. Whereas the academic teacher's contract covers services which end with the conclusion of the school year, many contracts continue for 12 months. The security and additional income are excellent reasons for choosing a particular teaching field. However, a Vocational Agriculture teacher is constantly reminded of his/her obligation to the school district and those served in the district. This extended obligation is fulfilled in the summer program.

Without a contract which permits a teacher to continue teaching through the summer months, although quite informally and much of it on the home farms or places of employment of students, vocational agriculture loses much of its effectiveness. We say we can prove that our programs of vocational agriculture can stand the test of questioning posed by boards of education, administrators, fellow teachers and patrons. If so, what is the content of summer programs that will withstand severe questioning?

A study recently conducted in the State of Washington was based on the assumption that the longer the contract, the greater the opportunity to plan and complete activities. The study was designed to identify those activities in which teachers of Vocational Agriculture were engaged during the summer months (the extended portion of the contract) and the amount of time devoted to those activities.

Data were collected by a mailed questionnaire sent to the 205 teachers who taught Vocational Agriculture during the 1974-75 school year and were still teaching the following year, 1975-76. A total of 151 usable responses were returned. This represented 73.6 percent of those surveyed.

By contract periods, 180 days represented the minimal nine month contract. Intervals of 10 days represented each one-half month extension to a maximum of 12 months.

Eleven activities were included in the survey, namely—supervision, FFA, fairs and shows, advisory committees, curriculum, courses of study, lesson plans, teaching aids and materials, professional improvement, public relations and facility improvement.

The data in Table 1 have been included to provide the reader with a better understanding of the respondents in terms of teaching duty and the number of days in the extended contract. Sixty-nine percent were full-time teachers; 24.5 percent had other teaching and/or non-teaching duties; 6.5 percent had the one additional responsibility of vocational director for the district. In terms of extended contract, the largest single group (the mode) was in the 31-40 day extension. In other words, 47 percent of all respondents were employed for 11 months.

Table 2 includes the percentage distribution of teacher time in 11 activities. Teachers had the opportunity to add other activities when they responded to the questionnaire but none were identified. The actual number of the 151 responding teachers who had extended contracts was 147. Within Table 2, one will note how teachers, on the average, distributed their time on a percentage basis for each of the extended contract periods. The average for all 147 teachers may be seen in the last line of the table.

TABLE 1. Distribution of Vo-Ag Teachers According to Duty and Length of Extended Contract in Days.

Duty	Extended Contract in Days								Respondents	
	0	1-10	11-20	21-30	31-40	41-50	51-60	Other	Total	%
Full-time Vo-Ag	0	1	12	7	61	14	5	5	105	69.0
Vo-Ag + other duty	4	5	8	7	8	2	1	2	37	24.5
Vo-Ag + voc. dir.	0	0	4	1	2	2	0	0	9	6.5
All teachers	4	6	24	15	71	18	6	7	151	100.0

TABLE 2. Average Percent Distribution of Vo-Ag Teacher Time in the 11 Activities Surveyed According to Days in Extended Contract.

No. Teachers	Days Contract Extension	Activity										
		Supervision	FFA*	Fairs & Shows	Adv. Comm.	Curr.	Courses of Study	Lesson Plans	Teach. Aids	Prof. Imp.**	Public Relations	Facility Imp.
6	1-10	6.3	32.5	7.2	4.6	0.0	0.0	0.9	9.0	34.3	0.9	4.6
24	11-20	11.9	9.6	16.8	15.4	4.4	5.2	1.1	2.7	15.5	7.8	10.4
15	21-30	19.6	9.2	20.4	2.4	7.3	5.1	1.6	8.4	12.2	4.3	8.4
71	31-40	21.2	14.2	19.1	3.4	5.2	4.1	2.4	6.4	11.3	2.4	7.2
18	41-50	21.4	15.2	19.1	3.0	5.4	4.6	2.7	8.2	9.1	3.8	8.0
6	51-60	36.6	12.2	10.5	2.7	2.8	4.3	0.1	9.2	12.2	3.2	6.1
7	Other	28.5	23.7	13.1	0.3	0.7	1.4	0.7	2.4	12.2	1.0	15
147	All Teachers	20.6	14.4	18.1	4.7	5.1	4.3	1.6	6.5	12.3	3.5	7.6

*Includes four days for State FFA Convention in June.
**Includes five days for Vo-Ag Teacher Conference in July.

The greatest variation in use of time was in supervision where the range was from 6.3 percent to 36.6 percent. The next greatest spread occurred in FFA activities with a range varying from 9.6 percent to 32.5 percent.

To take a closer look at supervision and FFA activities as reported by teachers, the next two tables have been included from the study. Table 3 contains five response items; Table 4, eight. If an item were one which a teacher performed during the summer months, a check mark, (√), was placed by that item on the questionnaire. Otherwise, it was left blank. As pointed out earlier, teachers were given the opportunity to list additional activities, but none were listed. The numbers appearing in Tables 3 and 4 represent the number of teachers by contract periods who performed each particular item.

One will note for Item 1 in Table 3 that 114 of the 147 teachers (77.5 percent) supervised their students. Similar observations can be noted for remaining items. The "no response" entry shows that 12 (8.1 percent) of the respondents performed no supervision of any kind. The last line in the table is the number of respondents to the study per extended contract category. For example, since six teachers had contract extension in the 1-10 day interval, the maximum response to any item for that interval would have been six. In the 10-20 day interval the maximum would have been 24, etc.

Table 4 is interpreted in the same manner as Table 3. One will note that 56.4 percent of the teachers had a meeting of their chapter officers during summer months. Thirteen more teachers, i.e., 96 or 65.3 percent and chapter meetings during the summer. Twenty teachers (13.6 percent) did not respond to any of the items in the FFA activity.

TABLE 3. Distribution of Vo-Ag Teachers' Supervision Activities According to Days in Extended Contract.

	Days in Extended Contract							Teachers	
Item*	1-10	11-20	21-30	31-40	41-50	51-60	Other	No.	% of Total
1	0	15	12	65	17	6	4	114	77.5
2	1	8	5	40	13	4	5	86	58.5
3	1	6	5	57	15	5	2	91	61.9
4	1	10	8	32	11	5	5	72	48.9
5	1	5	3	11	3	5	4	32	21.7
No Resp.	2	3	2	4	0	0	1	12	8.1
Teachers per Category	6	24	15	71	18	6	7	147	100.0

*Item 1—Student supervision on home farm and/or place of ag related employment or other placement; Item 2—Arranging for farm placement and/or ag related employment for students and prospective students; Item 3—Visiting prospective students; Item 4—Vo-Ag farm supervision; Item 5—Demonstration and test plot supervision.

TABLE 4. Distribution of Vo-Ag Teachers' FFA Activities According to Days in Extended Contracts.

	Days in Extended Contract							Teachers	
Item*	1-10	11-20	21-30	31-40	41-50	51-60	Other	No.	% of Total
1	1	9	7	47	14	3	2	83	56.4
2	1	12	7	57	13	4	2	96	65.3
3	1	4	1	13	3	0	3	25	17.0
4	1	7	2	35	11	4	0	60	40.8
5	2	10	10	54	15	4	3	101	68.7
6	1	2	0	3	1	0	0	7	4.8
7	1	6	6	32	12	2	2	6	4.1
8	1	2	0	11	1	1	0	16	19.0
No Resp.	4	6	3	5	0	0	2	20	13.0
Teachers per Category	6	24	15	71	18	6	7	147	100.0

*Item 1—Officer meetings; Item 2—Chapter meetings; Item 3—Officer retreat; Item 4—Chapter trips (recreational); Item 5—State FFA Convention; Item 6—Washington, D.C. Leadership Conference; Item 7—District activity; Item 8—State activity (e.g., FFA Board of Directors).

There are a few observations that can be drawn from this study. Important as supervision and FFA activities are, some teachers do none of either during the summer months. The average percent distribution of time for supervision by all respondents was 20.6 percent; for FFA, 14.4 percent. If the four activities, i.e., curriculum, courses of study, lesson plans, and teaching aids and materials were combined, it would show an average of 17.5 percent devoted to that total activity. This is slightly below the 18.1 percent for fairs and shows.

If teachers are to be truly accountable for use of extended contract time and if those teachers having minimal or no extended contracts are to bargain successfully for a minimum of 11 months (two months extended contract), then there must be a re-aligning of priorities for use of time. It would appear that no less than 50 percent of teacher time should be devoted to supervision, preferably more. ◆◆◆

CONTINUED *LEADER IN AG ED*

In a very unique way Jim Perky became the close friend and, at times, a trusted advisor of legislators, congressmen, governors and other officials. Among his very close friends were Governor Roy Turner and U.S. Senator Robert S. Kerr. Legends of his diplomacy and his sincere word of counsel are legion. It is reported that once, prior to a legislative hearing before disgruntled state officials critical of proposed budget increases, he slyly planned strategy. Two weeks prior to the hearing he disposed of a Buick and drove a Chevrolet to the State Capitol for the hearing. At a crucial point in the hearing, when salaries and particularly travel expenditures were questioned, his rejoinder was, "Well you know, gentlemen, *my* Buick days are over, we've got to travel as economically as possible, now, don't *you* agree?"

It was to be expected that such wise and skilled leadership should not be confined to local and state arenas. The clear-cut, yet stridently booming voice of "Big Jim" was to be heard in national circles as well. Effectively serving as a member of the National Advisory Council of the Future Farmers of America and the Board of Trustees for the FFA Foundation, he also served

(Concluded on page 47)

A Place for Talented Students in Agriculture

Harold S. Fisher and
Douglas Schneider
Muskegon Area Intermediate
School District
Muskegon, Michigan

As the agricultural industry develops a higher degree of technology, it requires better trained individuals to serve as farm managers, agricultural mechanics, and is creating many other new and emerging agricultural professions. Also, the increased cost of farm production and greater sophistication and size of farms and equipment demand more highly skilled personnel.

The Muskegon Area Intermediate School District (MAISD), a county wide administrative service unit, has been involved in an agricultural research project for the past 1½ years through a grant from the Department of Health, Education and Welfare. Most similar research projects are conducted through colleges and universities. However, the grant was made to the MAISD because of the unusual features of the research target, the Muskegon County Wastewater Management System.

The site of the Muskegon County Wastewater Management System is the the largest farm in the State of Michigan. On this farm domestic and industrial waste is used in a land treatment system on nearly 6,000 acres, most of which has been planted to corn.

What several of the findings indicate is that vocational agriculture programs require more talented students. Research by task analysis of eight agricultural occupations at the Wastewater system resulted in a modular curriculum, developed for four occupations, requiring high technical competence, and in some cases, post secondary training. The four occupations requiring advanced training of one or two years in technical areas were: (1) Wastewater Treatment Operator; (2) Wastewater Laboratory Technician; (3) Farm Manager; and (4) Agricultural Equipment Mechanic. As a result of the study it became clear that good farming managerial training begins at the secondary level as does training for qualified farm mechanics. Talented students should be challenged at the secondary level to consider agriculture as an occupation because of the increasing need for knowledge and skills in science, chemistry, mathematics, and accounting. A good farm manager must be able to drive a tractor safely and efficiently. However, that same manager must be able to keep accurate accounts, use wise purchasing methods, and use the scientific methods to gain the best yield. What is required is not necessarily a specialized program for the talented student but rather identifying the talented student who has an interest in agriculture and being certain that he takes the prerequisite courses such as mathematics, chemistry, and science as well as vocational agriculture subjects. One of the exciting facts about vocational agriculture today is that a talented student can go as far as he or she is capable of going within a well developed program. What is called for as a result of our research is to open up all vocational subjects to all students in all schools, rural and urban.

The MAISD research project produced modular curriculums for four occupations. The modules were written for the instructor's use. They were designed for use with a wide range of students and the only limitation is the instructor's imagination. The format of the modules is as follows:

1. Module Concept
2. Prerequisites
3. Module Goal
4. Student Performance Objective
   a. Instructional Areas
   b. Examples of Supporting References
   c. Examples of Student Learning Activities
   d. Evaluation Techniques
   e. Instructional Resources

Our plan for expansion of vo-ed develops a flow from the secondary to post secondary training with the programs planned together to make a career choice in high school and pursue it into a post secondary technical program. As an example, the research indicated a need for farm managers with increased skills, technical and professional background. Training to be a good farm manager starts at the secondary level with the talented students moving directly into a coordinated farm manager program at the post secondary level.

The sophistication of agriculture today demands that our vocational agriculture programs seek out, challenge and train students for the more highly skilled and technical jobs now available in the field of agriculture. Obviously, vocational agriculture requires more than one group of students, but for too long we have neglected to challenge the talented student with a career choice in agriculture.

A by-product of our 18-month project was the development of a "Careers in Agriculture" filmstrip and tape cassette directed to the 5th or 6th grade level. The filmstrip shows students what occupational opportunities are in store for them if they take advantage of Vo-Ag in high school. The 99 frame filmstrip depicts the training, farm projects, FFA activities, and the opportunities emerging in new technologies related to modern farming.

This filmstrip and another descriptive filmstrip on the construction and operation of the 10,000 acre Wastewater and automated farm system are available to educational personnel and institutions for a nominal fee. ◆◆◆

two terms as President of the National Association of State Directors of Vocational Education. In 1952 he was appointed and served as Chairman of a Commission to review the program of Vocational Education in the U. S. Office of Education and in 1961 was appointed to President Kennedy's Panel of Consultants on Vocational Education. His able, and at times, demanding leadership exerted both in the Commission and on the Panel was cogently felt in subsequent structure and emphasis culminating in the 1963 Vocational Education Act and in the '68 Amendments.

James Barney Perky, six foot, six inch "Big Jim," feared, yet beloved by so many, truly made a most highly significant contribution to the development and improvement, not only of vocational agriculture and the Future Farmers of America but also of Vocational Education in its entirety. Crucial times call for wise, skillful, and forceful direction from our leadership. Let us all be thankful for a big man serving in a big way in a crucial time of development in our profession. ◆◆◆

BOOK REVIEWS

THE FOOD AND HEALTH OF WESTERN MAN, by James L. Mount. New York: Halsted Press, John Wiley and Sons, Inc., 1975, 270 pp. $14.95

The author presents a case for re-assessing the diet of modern Western nations. The information is presented from an English perspective about how processing food for consumer appeal destroys vitamins essential for our wellbeing. Dr. Mount has researched the literature of processed foods to bring us facts and figures seldom seen in our society. Included is a discussion of vitamin losses by varied methods of processing such as irradiation which he considers to be the most sinister of processing measures developed during the last ten years. In all cases, his statements are backed by data from many studies and research conducted by those in the medical and nutritional fields.

The information in the fourteen chapters has been gleaned from a multitude of European and American journals and is presented in an objective manner. His message is, "There is an urgent need for reform." The discussion includes among others, chapters on food processing; white vs. brown bread; infant and child nutrition; vitamin and mineral deficiencies; heart disease; refined carbohydrates and disease; obesity; diabetes; peptic ulcer; and wholefood. The facts as presented could be used to remedy the nutritional imbalance in our daily diet. The chapter on Soil, Food, and Health would be of interest to agriculturists.

Dr. Mount has been associated with St. George's Hospital, London, England, and is presently a consultant at the Royal Homoeopathic Hospital. He also conducts a private general practice in Tunbridge Wells, and helped form the McCarrison Society in 1968 which brings together doctors, dentists, and nutritionists interested in the clinical application of sound wholefood nutrition.

Dr. Mount's detailed and meticulously presented message is written for the college student, teachers of food processing and nutrition, and for those in the medical field and should be on the "required reading list." Advocates of vitamin therapy will find a wealth of information in this reference. His interest in preventive medicine and nutrition in its clinical aspects as they pertain to the treatment and prevention of disease is evident throughout the book.

Ronald C. Kowalka
Southern Illinois University
Carbondale, Illinois

From the Book Review Editor's Desk . . .

BOOKS TO BE REVIEWED

APPROVED PRACTICES IN FRUIT AND VINE PRODUCTION; By Arnold H. Scheer and Elwood M. Juergenson, The Interstate Printers & Publishers, Inc. (1976)

CORN QUALITY IN WORLD MARKETS; By Lowell D. Hill. The Interstate Printers & Publishers, Inc. (1975)

FEED ENERGY SOURCES FOR LIVESTOCK; By Henry Swan and Dyfed Lewis, The Butterworth Group (1976)

FIELD ENGINEERING FOR AGRICULTURAL DEVELOPMENT; By N. W. Hudson, Oxford University Press (1975)

LOSING GROUND; By Erik P. Eckholm, W. W. Norton & Company Inc. (1976)

PRACTICAL INSECT PEST MANAGEMENT; By Theo F. Watson, Leon Moore, and George W. Ware, W. H. Freeman and Company (1976)

PRINCIPLES OF APPLIED CLIMATOLOGY; By Keith Smith, A Halsted Press Book

PROTEIN AND NUTRITION POLICIES IN LOW-INCOME COUNTRIES; By Francis Aylward and Mogens Jul, A Halsted Press Book (1975)

THE AGRONOMY OF THE MAJOR TROPICAL CROPS; By C. N. Williams, Oxford University Press (1975)

THE SCIENCE OF ANIMAL HUSBANDRY; By James Blakely and David H. Bade, Reston Publishing Company, Inc. (1976)

THE SELECTIVITY OF DRUGS; By Adrien Albert, A Halsted Press Book (1975)

TURF MANAGEMENT HANDBOOK; By Howard B. Sprague, The Interstate Printers & Publishers, Inc. (1976)

UNDERSTANDING AND USING ELECTRICITY; By Bruce A. Mckenzie and Gerald L. Zachariah, The Interstate Printers & Publishers, Inc. (1975)

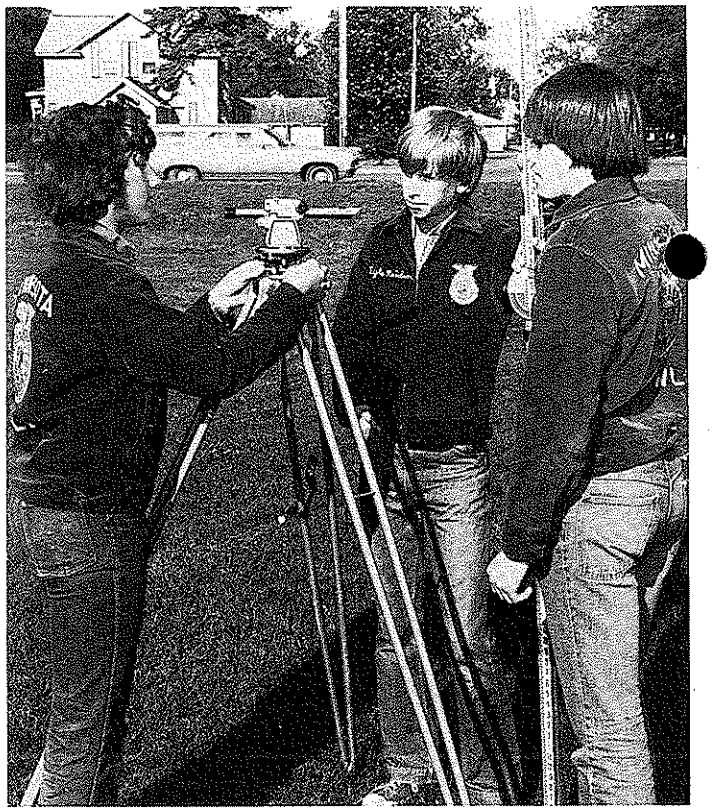
If you feel qualified to review one of these books and desire to do so, write the Book Review Editor and he will send the book for review. Once reviewed, the book becomes the property of the reviewer.—James P. Key, Book Review Editor, Agricultural Education Department, Oklahoma State University, Stillwater, Oklahoma 74074.

STORIES IN PICTURES

by Jasper S. Lee

GOVERNOR RECEIVES AWARD — Mississippi Governor Cliff Finch (left) is shown receiving an award for his service to agricultural education from Tom Ellis (Mississippi), Chairman of the Southern Agricultural Education Conference. The presentation was made following a speech at the Awards Breakfast of the Conference in Biloxi, Mississippi. (Photo by Milt Lawrence, Mississippi Department of Education)

NVATA TEACHER RECOGNITION AWARD — The NVATA Teacher Recognition Award is presented by the Pfizer Agricultural Division to teachers who have advised national FFA Agricultural Proficiency Award winners in livestock, beef, swine, dairy, and poultry. Recent recipients are (left to right) Alton McRae, California; Allen Routh, Minnesota; Haskell Pate, Oklahoma (accepting the award for V. J. Elder, Oklahoma); Jim Hazelwood, Oklahoma; and Reg Soldwish, Iowa. Hilton R. Terry, Regional Sales Manager for the Agricultural Division of Pfizer, Inc., California, presented the awards. (Photo from Sam Stenzel, NVATA. Lincoln, Nebraska)



MINNESOTA FARM MECHANICS WINNERS — The members of the Hawley, Minnesota, Farm Mechanics Team are shown as they prepare to begin a surveying assignment. The team was selected as the State-winning team in competition at the University of Minnesota, St. Paul. (Photo by John Hest, Hawley, Minnesota, and courtesy of Forrest Bear, University of Minnesota)