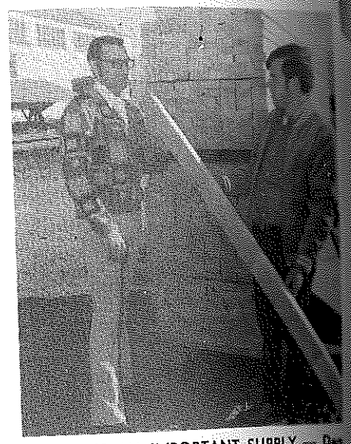
# STORIES IN PICTURES

by Jasper S. Lee

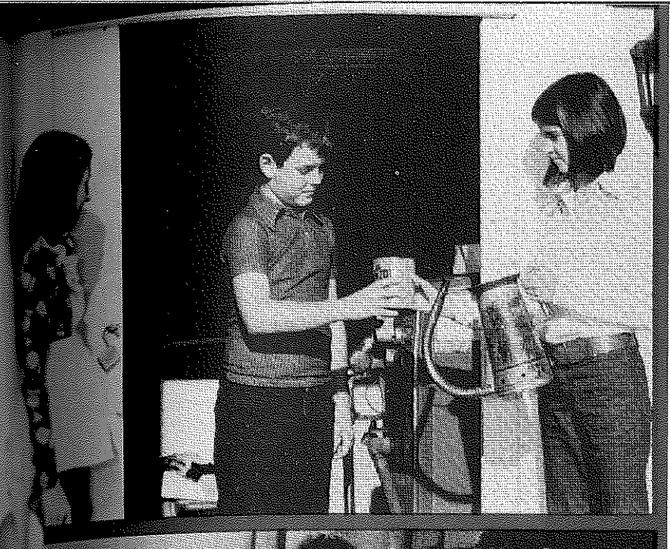
SUPERVISED OCCUPATIONAL EXPERIENCE PROGRAM IN AGRICULTURAL SUPPLIES AND SERVICES — These two photographs depict an important triangle in experience programs: the vocational agriculture teacher, the student, and the supervisor in the training station. Here, Duane Berkenpas (left), owner of Gallatin Equipment Company, Bozeman, Montana, is shown discussing supplies and equipment with John Van Daveer (center), vocational agriculture instructor at Belgrade (Montana) High School, and Bill Rash, student at Belgrade High School. (Photographs from Max Amberson, Montana State University)

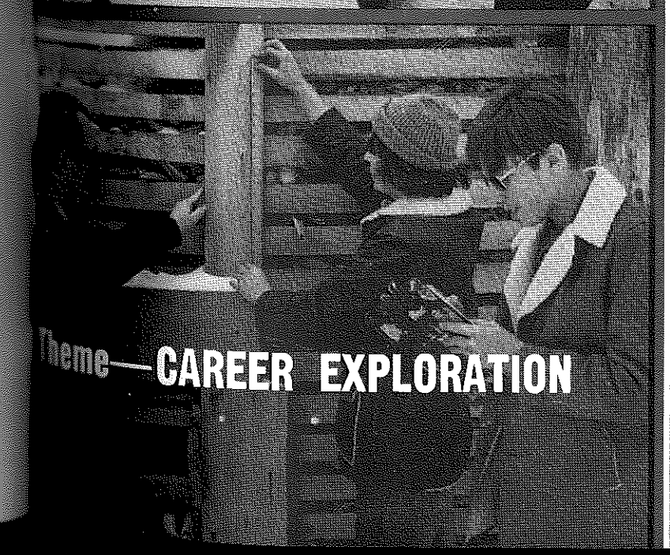
ELECTRICAL POWER IS AN IMPORTANT SUPPLY — Students enrolled in vocational agriculture at Linn (Missouri) High School are being guided through the headquarters of Three Rivers Electric Cooperative by Charles Struemph (right), member service advisor for the Cooperative. (Photo from James A. Bailey, Missouri Department of Education)



LUMBER IS AN IMPORTANT SUPPLY — Dan Zimmerman (right), a vocational agriculture student in Montana shown here at his training station, is discussing lumber with a customer. (Photo from Max Amberson, Montana State University)

FFA CONTESTS REQUIRE CONCENTRATION — These photographs show individuals competing in the recent National FFA Judging Contests. The photo on the left shows a contestant in the Agricultural Mechanics Contest. The center photo shows a contestant judging ready-to-cook broiler-fryers in the Poultry Judging Contest. The photo on the right shows a contestant judging a market sheep. (Photographs from Dan Reuwee, The National FFA Center)





Theme—CAREER EXPLORATION


AGRICULTURAL EDUCATION

Volume 48 Number 10

April 1976

EDPRESS

# AGRICULTURAL EDUCATION

April 1976 Volume 48 Number 10

THEME—CAREER EXPLORATION



*Three areas of career exploration in agriculture are shown on the cover. The top photo shows students at R. E. Aylor Junior High School (Stephens City, Virginia) studying fuels and lubricants. The center photo shows Wayne McAllister, teacher at the same school, explaining the meaning of information on feed bags. The bottom photo shows Jerome Witter (left) explaining how to measure the storage capacity of a grain bin to pupils at Coopers Plains BOCES, New York. (Top and center, photographs courtesy Robert Veltri and Larry Miller, Virginia Polytechnic Institute and State University, and bottom photograph courtesy Richard Jones and Arthur Berkey, Cornell University)*

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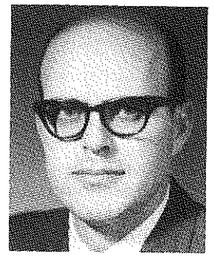
# Career Education in Its Place



Martin B. McMillion

## FROM YOUR EDITOR

Career Exploration instead of Career Education or Career Orientation was deliberately chosen as the theme of this issue of the MAGAZINE. Exploration and choosing the right occupation was an important aspect of vocational education before it became a phase of career education and it still is an important part of vocational education. Vocational teachers, who are in short supply anyway, are needed to *prepare* people for occupations and, to a certain extent, to help them choose occupations in which they will be satisfied. Vocational teachers need not divert their time, energy and money to orient *elementary* pupils to occupations. Vocational education has enough to do without trying to change the whole educational system as was the goal of career education.

Funds have been allocated to career education. Those who are in charge of career education can see to it that all education outside of vocational education is reoriented to focus upon the world of work. That same career education function is appropriate at all levels of education. If in vocational, technical and professional education, we are preparing people for specific employment as we have been for years, we do not need to have anyone with a career education title telling us how to do our work.

Vocational, technical and professional education, I agree, should be active in guiding people into the various occupations in a way other than just recruiting. Exploration and the choice of an occupation is the business of vocational, technical and professional education. I have no objections to a definition of career education which includes vocational, technical and professional education, but I do object to an administrative structure with career education above all occupational education, whether it be in the high school, the university or the USOE. Career education, to me, is little more than the curricular implementation of guidance.

### The Basics and Exploration

Dr. George L. O'Kelley, Jr., a teacher educator in agriculture at the University of Georgia, questioned the practice of giving vocational education to younger and younger students at the expense of post secondary and adult education in a speech[1] to the American Association of Teacher Educators in Agriculture. I question the practice of giving vocation education and exploratory education to younger and younger pupils at the expense of reading, writing and arithmetic. I believe that many

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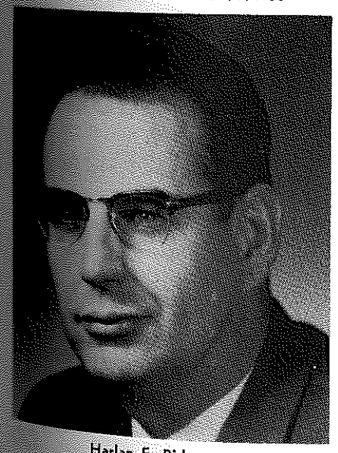
# GUEST EDITORIAL

*Harlan E. Ridenour, Director*
*Ohio Agricultural Education Curriculum Materials Service*

# CAREER EXPLORATION



Harlan E. Ridenour

In a recent editorial, columnist Alice Widener[1] pointed out that in some circles of our society it is popular to criticize career education. One such criticism is that it produces only "horizontal mobility" in the work force. Attacks on the "work ethic" say that work is boring, has unvaried routines, simplicity of tasks, and is under constant supervision of hierarchical settings. Such attacks deny workers of a sense of competency and a feeling of responsibility.

Mrs. Widener counteracts the unfavorable statements by pointing out that a great majority of workers feel needed, constructive, and fulfilled on the job. Her concluding statement is: "Education for work is the best kind of education because the ability to work hard and the willingness to do so is what makes the world go round in any kind of tolerable way."

Support of the "Career Exploration" stage of career education is one way vocational educators can also counteract the unfavorable attacks on career education. Career Exploration is one stage of the career education continuum which is described in the *Career Exploration*[2] curriculum guide.

Career development is a lifelong process and proceeds much the same way as emotional, social, intellectual and physical development progress. Before one is ready for the next level, certain concepts must be conceptual-

*(Continued on next page)*

CONTINUED

## EDITORIAL

other vocational educators old enough to have children in junior high school agree with me but are afraid to express it. When a seventh grader doesn't have time to do her homework in math, spelling and science because she has to cut want ads for office workers from the newspapers and explain them in a written assignment, the point becomes clear, especially if the seventh grader makes a "D" in math. In this issue of the MAGAZINE Horner and Douglass report that seventh graders at Aurora, Nebraska spent three to four weeks on welding. If vocational educators persist in substituting exploratory and vocational education for basic education at the junior high level, then they should not be surprised that the students they get in high school are poor academically.

I agree that the most *interesting* way to explore is by hands-on experience. We must not lose sight of the purpose of the hands-on activity. It's primarily to explore not to teach the skill to 11-14 year olds. The temptation to let pupils do the exploring through activities in the shop or the greenhouse is just too great for most teachers to resist. The teachers want to make it interesting and they permit students to do the things that are most enjoyable immediately as eleven or twelve year olds. Perhaps ag teachers are keeping up with the competition; the pupils might chose office education or home economics.

Don't be guilty of using up the middle school or junior high school pupils' time unduly with skills training. The constantly declining aptitude scores of American high school seniors indicates that another kind of skills training in basic subjects needs to be increased, not decreased in the junior high schools.

The vocational educators' business is *preparation* for occupations along with adequate attention to occupational selection. Vocational education and career exploration activities are now using time of many junior high school pupils that should be spent on academic education. For most of the students in schools where vocational agriculture is taught today, job preparation need not begin before the ninth or tenth grade. Training for specific occupations or even families of occupations should be in the eleventh grade and above.

—MBM

[1]George L. O'Kelley, Jr. "Vocational Education in Agriculture and the Career Education Movement," *AATEA Journal*, Vol. XVII, No. 1, March 1976.

CONTINUED

## GUEST EDITORIAL

ized. The child goes through the following stages. The AWARENESS STAGE, which covers the preschool period through grade six, is a stage during which the child becomes interested in what adults do. He is interested in knowing how he gets the goods and services which he enjoys. He also enjoys "putting on occupational roles" by role playing the many occupations with which he has become acquainted. The EXPLORATION STAGE, which usually covers the middle or junior high school age level, is a time for some actual exploring of a variety of occupations. It is a time of self-assessment and of consideration of the various types of careers available to the individual. The student should, by this time, be able to identify who he is and what his interests and abilities are, to make decisions and be prepared to adjust and change those decisions, to formulate some preferences for particular occupations, and to identify various lifestyles he may wish to pursue. A tentative decision may be made by grade nine in order to begin the PREPARATION STAGE. This stage will last as long as necessary for the acquisition of skills and knowledge needed to enter and progress through one's occupational career.

Career exploration programs will assist the student in making critical career choices by providing them with visible "world of work" experiences involving them in the decision-making processes, and having them participate in work experiences associated with their career choices.

Such experiences at the middle school or junior high school level will make the student less vulnerable to the critics of career education pointed out by Mrs. Widener. The student taking part in career exploration programs can observe that workers have useful productive lives and most of them feel they are serving the needs of our society. Career exploration programs can assist in preparing the future adult to develop the philosophy that work has

*(Concluded on page 235)*

## COMING ISSUES COMING ISSUES COMING ISSUES

COMING ISSUES

MAY — In-Service Education

JUNE — The Summer Program

JULY — Attitudes and Values for Employment

AUGUST — Secondary Programs for the Talented

SEPTEMBER — Planning and Managing School Facilities for Ag

OCTOBER — Preparing Teachers of Vocational Agriculture

NOVEMBER — Teacher Organizations and Professionalism

DECEMBER — More Effective Teaching

COMING ISSUES



# Occupational Exploration Through Ag Co-op Training

*Bill Pugh*
*Ag Co-op Coordinator*
*Corpus Christi, Texas*

What are you going to do when you get out of school? How often has that question resounded in the ear's of students throughout past years? Not long ago this may not have been a difficult question to answer because people could find work with minimum experience and education. During that period, it was not always necessary to obtain a diploma to receive a good job. As the years went by, a high school diploma became more important; then it became more necessary to go to college to have an advantage on the next person in the competitive job market.

Today, college is still necessary in order to secure some positions, but vocational schools and other training programs are on the increase in training young people in specific fields. It is accepted that all high school students are not college material by either choice or chance, and these students may go straight into work or into a vocational school upon graduation.

Agriculture is unique in that it presents a broad spectrum of different topics. The students will be introduced to animals, plants, soils, bookkeeping, speech, welding, woodworking, mechanical drawing and other topics in both the abstract and concrete. By the time a student reaches the eleventh or twelfth grade, he should have a good idea of his capabilities and interest and be in the process of deciding on his future.

When a student reaches the point of having to go to work, the next most commonly heard question is, "What training or what experience have you had?" Frequently this is the first reality he may meet in competitive work. The student may not have a positive answer to these questions. This becomes a discouraging period because he cannot figure how he can have any experience upon graduation from school if no one gives him a chance. Even worse than this is a lack of training or not being informed about the proper training he will need for an occupation.

Our primary objective as teachers is not necessarily finding or exploring a job for the student. Instead, we should open the door and let him search and explore the different opportunities that await him beyond high school. Upon his decision for the future, we should begin training him or directing him toward the right steps of achieving his objectives. Although we can be instructive in all phases of our program, the easiest access we have to career exploration is through our cooperative part-time training program.

The intent of this program is to serve the purpose of giving the much needed on-the-job-training and experience students will need later in life while simultaneously teaching the following things: 1) where to look for jobs, 2) how to apply for jobs, 3) how to handle interviews, 4) how to improve personal appearance, 5) what the characteristics are of good employees, 6) what the future outlook is for the occupation, 7) how the salary compares to other jobs. Anything else that may seem beneficial to an individual's future may also be taught.

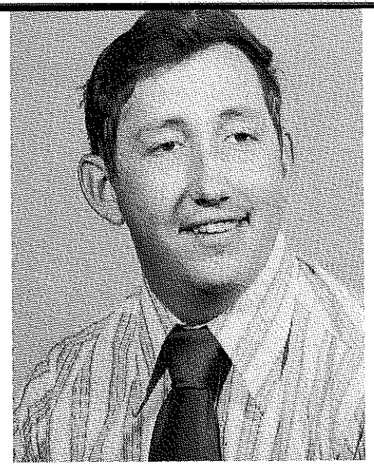
The student can explore the future of his chosen occupation through Occupational Information Handbooks. Within these books, he can find the average salary, future outlook of the job, where the largest concentration of the jobs can be found, and some of the necessary prerequisites to become qualified for the job. This information should help him to decide more definitely on his future by giving him facts to compare with other job choices.

Besides the above experience and instruction that a student receives, he also obtains individualized instruction in his occupational field. If coordinated properly, this type of instruction can correspond with the actual work he is performing on the job at the time. It is hoped that this training will supplement and clarify some of the questions he may have. Individualized instruction may also be carried from the classroom out into the shop where a student can practice or experiment and become more proficient with the different techniques that are necessary to his occupation. This will allow a student to become more masterful and confident, thus, he will become a greater asset to his employer than just remaining a trainee with no initiative.

If a student can survive a duration of this training and still complete it with appreciation and enthusiasm for his profession, then his exploration has proven valuable. However, a student may become dissatisfied. This is equally as valuable because he is then set free to pursue other occupational fields in which he may feel more comfortable.

A student who plans to go to college as a means of reaching his occupational goals should be encouraged to work close with the school counselor so that he may become properly prepared for college.

Regardless of the job decision, career exploration is what a person makes it. If a student is a person that wants nothing less than a successful future, he will explore his own path and do his best to conquer the obstacles. Agriculture teachers should only make the obstacle easier to overcome and sharpen the student's interest and increase his desire to answer further questions. Career exploration may lead through many jobs and even some failures, but if the person has character, high goals, and a yearning for increasing knowledge, then, not only will he explore, he will also discover his occupation. ◆◆◆



Ray Herren

# High School Beef Farm is Career Education Center

*Ray Herren*
*Instructor of Agribusiness*
*Gaylesville, Alabama*

Many Vocational Agribusiness departments have for many years used the school farm as a valuable aid in teaching production agriculture. Here the student learns such things as greenhouse management, crop production, livestock management, etc., depending upon the type of farm the particular school has. What has often been overlooked is the fact that these farms provide an unequaled opportunity for teaching careers.

The main purposes of career education are to (1) make the student aware of the different job opportunities (2) to help him decide which career is best suited for him and (3) provide him with an opportunity to develop skills that will help him achieve his career goal.

Through the classroom, we can teach the student the qualifications and requirements of hundreds of different jobs. Through the shop we teach him skills under controlled and often impractical conditions. Often what the student lacks is the experience of solving problems under real or practical conditions.

One of the best ways to teach under real conditions is through the productive enterprises taken as part of the student's occupational experience program. But what if the student's parents live on a quarter of an acre lot with no means of carrying out a productive enterprise? How does this student go about learning job skills and good working habits? One of the best ways possible is through the school farm. Here the student can learn a variety of skills under real conditions by solving real problems.

On a recent interview, the personnel manager of a large manufacturing plant was asked what skills the local vocational agribusiness departments could teach that would help prepare the student who, upon graduation, is employed by his plant. "The one most important thing," he said, "is to teach him *how* to work. Teach him to have a sense of responsibility; give him a sense of pride in his work."

If we can teach the student job skills and at the same time teach him responsibility and pride, then we will have gone a long way in helping the student obtain an enjoyable and meaningful career. How does one go about using the school farm in achieving these teaching aims? Let's look at the school farm at Gaylesville High School. Five years ago a new gymnasium was completed and the old one was left vacant. Since the old building was several hundred yards away from the main building, it provided an excellent opportunity for a livestock unit.

First came the decision of what type of livestock was to be raised. Students looked at all aspects of the different parts of the livestock industry. They learned what it is like to decide what type of operation is best suited for a particular farm. It was decided that they were to produce finished steers and to show them in the area steer show.

After these decisions were made, the conversion from gym to barn began. Work crews were organized, complete with foremen and laborers. Students saw first hand the conditions they would be working under in the construction industry. Lumber and materials had to be estimated and purchased from plans drawn for the new stalls and side sheds. Budgets were prepared to assist with financing.

The students did all the work themselves and thus gained experience under real conditions in areas such as electrical wiring, plumbing, concrete and masonry work, paint selection, mixing and application, welding, drainage and carpentry.

Finally the barn was ready for the feeder steers. Individual students were to own the steers. They were students who had no means of keeping a calf at home. The steers were donated by local breeders and businessmen. Feed was obtained through loans from a local bank. Bank representatives came to the school and explained the procedure for making application, receiving and repaying the loan. The students, themselves, along with their fathers, signed the individual bank notes. Many students for the first time began to feel a sense of responsibility. Here was something that was theirs—something that was depending entirely on them for care and management. Each student was responsible for halter breaking, feeding, grooming and managing his own steer. Feed formulas were figured and feed mills visited, giving the students an insight into the feed industry. The steers were weighed once each month so feed efficiency and daily gains could be computed. Each student corresponded with the donor of his calf by sending him the results of the monthly weighings. During the feed-out period the cattle were "bought and sold" several times by students acting as cattle buyers, sellers, auctioneers, truckers, brokers, and journalists.

Each student carried out his own program of animal health. Each did his own worming, vaccination, hoof trimming and lice control. Each student aided in the control of rodents and flies.

*(Concluded on page 225)*



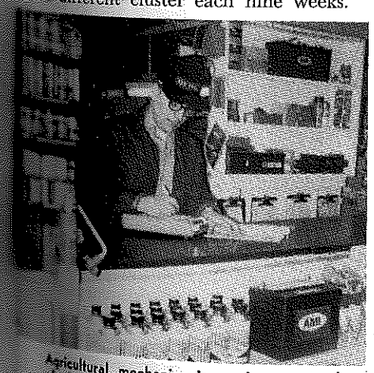
# Career Study on the Job

*Harold C. Tech*
*Instructor of Agribusiness*
*Seymour, Wisconsin*

The study of careers is likely as old as education itself, taking many forms over the years both in and out of the classroom. Understanding that students too often select a career based largely on what is available at graduation time, a program was designed to provide an opportunity for Seymour High School students to study a number of work areas that were of interest to them during their junior and senior high school years.

### Junior High Involvement

The groups involved in our program include both in-school as well as out-of-school personnel. I will start with our junior high program. The 7th and 8th grade career course is presented in two parts. The 7th grade includes a study of four clusters: Agriculture and Construction; Fibers and Health; Office and Distribution; and Visual Arts and Communications. This is a required 36-week course that features student involvement by rotating through a different cluster each nine weeks.



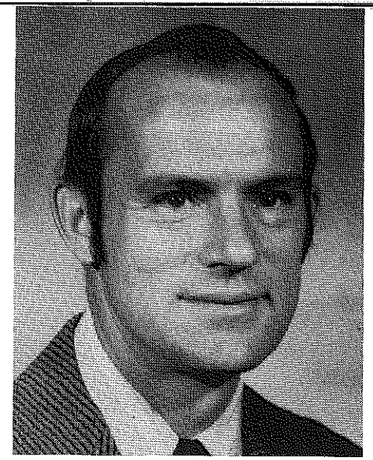
Agricultural mechanics is an important phase of the farming operation. Carl Moeller was placed in the parts department of a local dealer and has remained in that position two years after graduation.

The eighth grade is also 36 weeks in length and features an enterprise system involving 4 areas of instruction; Manufacturing and Transportation; Business and Marketing; Commercial Arts and Foods; and Consumerism. Students are rotated through areas of activities that include designing, organizing, staffing, financing and operating a corporation that develops and manufactures a product, realizes a profit or loss, and finally liquidates. All instruction is geared to assist the students in making personal, education and occupational decisions.

This program is conducted by four of our junior high instructors, coordinated by our local vocational education coordinator, aided by many, and guided by our guidance staff. Occupational study and career investigation are conducted throughout the two-year span.

For the 9th through 12th grades, I will describe only our agriculture/agribusiness program although much career orientation is going on throughout the many areas and classes of our school system.

Our ninth grade class, Agricultural Survey, is an exploratory course intended to allow students to become familiar with the many phases of agriculture. There are 15 units of varying lengths that present the opportunity to become acquainted with many areas to find one of interest that the student might follow throughout the program. Careers are discussed in many of the units as well as a special unit in which students select three areas of employment they wish to give special study. A separate phase has been added whereby a number of six-week units are offered for those wishing to look at agriculture but not for a full year.



Harold C. Tech

### Senior High More Diversified

In tenth grade, Agricultural Science and Mechanics units are fewer in number but greater in length. Careers are discussed with each unit. A longer unit designated just for careers is included prior to registration for classes the junior year. Their three areas of employment are reviewed from grade 9 and they are asked to list the first three choices of specific occupations they wish to study. An oral as well as a written report is given on the first choice they make. If there are duplications, second choices are reported on by some students. By presenting individual reports, each student studies his selection and hears all other reports, and therefore can compare information gathered.

Our junior and senior years are semesterized, providing six areas of study during the two years. These include Animal Science, Plant and Soil Science, Agricultural Marketing, Agricultural Production, Agricultural Mechanics I (tractors and machinery) and Agricultural Mechanics II (building trades). These classes are on a semester basis so students, once having chosen an occupation or career cluster, might enroll in those classes most likely to help them in reaching their objectives. Careers again are discussed in each class area.

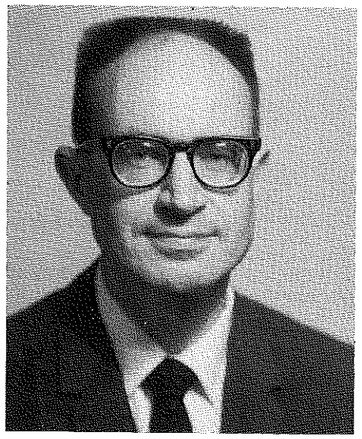
### Agribusiness On-The-Job

A second phase of our agriculture program is our On-the-job Training program. A four area cooperative cluster is available to senior students whereby they can work in a related occupation for one year. The four areas included in our program are:

*(Concluded on page 225)*

# A Package Approach to Career Exploration

*David G. Craig*
*Agricultural Education*
*University of Tennessee*



David G. Craig

Two of the most important life decisions a person makes are who one marries and which occupation to pursue. These decisions, if made wisely, require much preparation and thought. These two particular choices are not necessarily independent because one usually has a great effect on the other.

### Career Exploration

Career exploration usually includes grades 7 through 10. In relationship to the career education process, it follows several years of awareness experience and occurs before more specific occupational education in the senior high school grades. According to Webster, exploration means to seek, to search, to examine carefully, to systematically look for. Career exploration involves experiences with one or two occupational clusters. It proposes to prepare individuals for job entry and/or more specific skill training in a job family.

Typical students in this grade range are twelve to sixteen years old and they are interesting and a challenge to teach. These students are undergoing many physical and emotional changes. They are beginning to do the following: question traditional value systems, spend more time away from parents and home, and think about work and future life. They are very active learners.

### Learning Needs

The student in career exploration has many unique learning needs. As mentioned above learning experiences must be planned to utilize the high degree of activity of the student. Related to this is the need for a variety of teaching/learning procedures. Each of the procedures must include as many of the five senses as possible. Therefore audiovisual aids are essential. Another need is for many simulation devices. There are various equipment items, industrial processes and worker experiences that are not practical to be brought to the classroom or the class taken to them. Hence, they need to be simulated for regular use in the classroom or lab. Simulation experiences should be characterized by work orientation, a "hands-on" component, and portability.

### The Package

Everyone likes to receive a package. Regardless of its shape or size, there is an element of curiosity and anticipation as one gets a package and prepares to open and inspect the contents. The writer is suggesting that many agricultural experiences be packaged for students in career exploration.

Packaged agricultural experiences are needed by vocational agricultural students, by other vocational students, and by interested general education students. Teachers, guidance personnel and curriculum coordinators need these agricultural packages to supplement career development units. The packages could be used by FFA leaders in public relations and community development activities.

Some examples of packaged agricultural experiences include soil sampling, soil testing, topography model for classifying land, lumber identification, insect identification, mini greenhouse, landscape simulation materials, terrarium construction, models for livestock selection and judging, cut-a-way small gasoline engine, simulated leadership games and puppets, income tax game, three-way electrical switch kit, and others. These are not innovations—some teachers have used many of the above for years. The packages are real and they can be used in career development instructional programs.

The package approach has many advantages. Initially, it meets most of the learning needs that were identified earlier. Secondly, the envisioned package would be portable and flexible. It could be carried from school to school and classroom to classroom. It could be used with small groups or individuals before, during or at the end of a lesson. Thirdly, it could be developed and adapted at the local level. Local development utilizes materials from nearby businesses and increases appropriate integration into relevant curricula. Fourthly, the package includes reusable materials (and some expendables that can be replaced locally), thus reducing cost and increasing time-lag in replacing used or damaged items. Finally, these learning packages may be used in career exploration as "hands on" experience or to teach skills required of initial employment.

Many readers are probably aware at this point that there are many packages already available to educators. Career education kits and audiovisuals have been widely advertised. They are colorful, complete and expensive. However, similar packages may be developed by teachers that are less expensive, use local materials, and that fit more easily into local curricula.

*(Concluded on next page)*



CONTINUED

## A PACKAGE APPROACH . . .

### Package Contents

The cover of the package may be an old suitcase, wooden box or sturdy cardboard box. More elaborate and specialized experiences may need packaging in a foot locker or small cabinet for storage and transportation. Each package should be labeled with the school system, occupational cluster, job family, title of the activity enclosed and any other pertinent information. The contents of the package should include a learning experience outline that states the following: title, background information, objectives, materials and equipment list, detailed procedures, evaluation and references. Special safety and other precautions must be emphasized. Also included should be details of material contents, setup, and repackaging.

### Development and Implementation

Many vocational agricultural teachers are probably using packages already. Sometimes they are known as learning kits, test packages and so forth. It is believed that these career exploration learning packages should be developed by teachers. Local development and application to student and occupational needs is essential. It is suggested that a local workshop be conducted to involve interested teachers in becoming aware of needs, locating package materials, packaging and using the package in teaching. Once teachers learn of the value, development and use, they can make more packages and encourage others to do the same.

Many persons need to be involved in package development, such as older and enterprising students, parents, agribusiness employers, self-employed agriculturists, professional agriculturists, and guidance, career and curriculum specialists. In addition, a system of filing, transportation, rotation and replacing of expendable and damaged parts would need to be developed.

### Implications

Packages could be developed for all sixteen occupational clusters. Packages could be developed in degrees of difficulty for many age, grade and skill levels. Special packages may be needed for handicapped students.

Career exploration requires learning experiences that are real, require involvement of the learner and are individualized. Agricultural experience packages can be the answer to meaningful exploration of many careers. ◆

CONTINUED

## CAREER STUDY ON THE JOB

Agricultural Mechanics; Agricultural Supply, Agricultural Marketing; and Feed, Seed and Fertilizer. Places of business used as work stations are machinery dealers, feed mills, cheese factories, canning companies, hardware supply, fertilizer plants and meat packing, and others.

Students enroll and are selected at the end of their sophomore year. They participate in an orientation class during their junior year so they know what the program will consist of and can decide if the senior year is really what they want. General work is covered during this year that will apply to all areas of the program.

Classroom work in the senior year is largely in their area of employment, making for a better employee. Subject matter in their area is studied, with shop and laboratory work being involved whenever possible. They work at local places of business for an average of three hours a day, mostly in the afternoons, exploring that business while gaining skills in that occupation.

An Agribusiness Advisory Committee is used throughout the program as needed for guidance of the program. Local businesses are the backbone of the training program. Without work stations for the students the program could not operate.

### OJT Could Be Doubled

Numbers of students enrolled has ranged from 15 to 21 during the four years of operation. Fifteen seniors are placed this school year. However, 32 sophomores signed up for the program last spring from which 17 were selected for the orientation phase. Hopefully the economy will improve and all will be placed during their senior year.

### Program Fulfilling A Need

The career study program has been described as "A Bridge Between Man and Work." It was understood that career study and discussions were a part of any or all classes but a focus point was needed to tie the program together. We feel the program as operated at Seymour High School provides each student enrolled a chance to look at himself, explore the world of work, and prepare for a career while receiving a general education through six years of high school. ◆◆◆

CONTINUED

## HIGH SCHOOL BEEF FARM . . .

In preparing for and participating in shows, the students learned the proper procedure for washing, clipping, and showing the animals. After the show, the students sold the steers to people in the community as beef for their home freezers. The animals were then taken to the local packing plant where the students slaughtered, skinned, weighed, and hung the beef. Dressing percents, carcass yields, and carcass grades were compiled and sent to the donors. Ten days later the students went back to the packing plant and helped cut and wrap their steers into retail cuts. The beef was then delivered to the buyers and the money was collected. The project was then culminated by a banquet sponsored by the bank.

Through the use of the school farm, these students obtained practice of job skills associated with many occupations that would have otherwise been impossible to have obtained through the use of the classroom or shop alone. If the school farm is used in the program along with the regular occupational experience program, each and every student should, upon graduation, have a definite career goal and a definite plan for achieving that goal. ◆◆◆

# Role of the FFA in Career Education

*Charles Byers*
*Teacher Educator*
*University of Kentucky*

Charles Byers

Career education involves helping people make career choices through awareness and exploration and then preparation for chosen careers through specialized training. Also, everyone needs development in leadership, citizenship, and cooperation, as well as skills in human relations which prepare them to be valued employees and effective members of viable families. All of these needs may be provided for through career education.

There are three generally accepted phases in the total program of career education. They are: 1) awareness—to lead students *to become aware* of careers in the world of work; 2) exploration—to provide students an opportunity *to explore* a variety of occupations in the world of work; and 3) preparation—*to prepare* students for a specific occupation. In general, it is felt that the schools should focus on the *awareness phase* from kindergarten through the sixth grade, the *exploration phase* in the junior high (grades 7-8 or 7-9), and the preparation phase in grades 9-12 or 10-12. However, all awareness will not (and should not) be confined to kindergarten through grade 6. Neither will (or should) all *exploration* be limited to the junior high, nor all *preparation* be limited to grades 9-12 or 10-12. There may be continuation of *awareness* into *exploration* and *exploration* into *preparation*, and so on.

### The FFA—A Potential and Challenging Contributor

Traditionally, most local FFA chapter activities have been related to the *preparation phase* of career education. However, in many schools little emphasis has been given to the *awareness* and *exploration* phases of careers in agriculture before students enroll in agribusiness education and this, along with the limited offerings in vocational education at the 9th and 10th grade levels (particularly for boys), has resulted in agribusiness and the FFA being an *awareness* and/or *exploratory* experience for many students. Emphasis on career education in agribusiness education (and the FFA) will be in grades 9 through 12 (or grades 10 through 12) and should focus on career preparation, but for some students it will continue to be *awareness* and/or *exploration*.

That which has put the FFA in the elite class is the relationship of FFA activities to classroom instruction. Perhaps no other organization has developed as effective an approach for making the local program of activities contribute to the instructional program. The FFA, when properly used, can motivate students to become competent in their chosen careers. Since its inception, the FFA has been used by teachers of agriculture as a vehicle to motivate students to study and develop competencies in agriculture. This has resulted in a large amount of high-quality learning. This raises a basic question: What can and should the FFA contribute to the three phases of career education?

### Potential of the FFA in Career Awareness

The FFA can make a significant and meaningful contribution to the awareness phase of career education. Some meaningful, practical, and beneficial activities that a local FFA chapter can become involved in at the elementary grades (K-6) are:

1. Provide elementary teachers, by grades, with the following agriculture materials:
   —Books, magazines, leaflets, pamphlets, posters, and slides
   —Videotapes and/or audio tapes of interviews with farmers, agricultural business employees, and employees in agricultural agencies
   —Exhibits and bulletin board materials
   —Lists of filmstrips and movies and where they can be secured
   —A list of the major agricultural occupations and their importance in the county (farming, businesses, and agencies)
   —Names of individuals (resource persons) who can be asked to come to their classes dressed in attire appropriate to their occupations to talk to students. (The FFA may assist in securing such persons and in outlining their discussions with these students.)
   —Names of FFA members who can meet with classes and talk about specific areas of agriculture
   —A list of farms and agricultural businesses suitable for field trips
2. Make vo-ag facilities and equipment available for tours or have an open house conducted by FFA members

*(Concluded on next page)*





3. Sponsor an agricultural field day. This is an excellent FFA activity. The Block and Bridle Club at the University of Kentucky held such an activity in the spring of 1975. Here is the report which appeared in the College of Agriculture's student newspaper:

> "The most successful Block and Bridle activity this semester must have been Tot Day. This was the first such activity for the club and by the results and responses from 10,000 students, teachers, and administrators, it looks like it will be continued by the club in future years.
>
> Tot Day was an activity designed to be of educational value to the elementary-age children of Fayette County by letting them tour the University of Kentucky Agricultural Research Farm. Tot Day consisted of a guided tour of the entire farm.
>
> Not only did the children enjoy the tour and learn a great deal, the Block and Bridle Club members had fun as well, and they possibly learned even more than the kids!"

Most local FFA chapters should be able to organize and conduct something very similar, but on a smaller scale, at a local farm in the community.

### Involvement of the FFA in Exploring the World of Work in Agriculture

Activities for junior high students (grades 7-8 or 7-9) might include the following:

1. Provide junior high students an opportunity to get "hands-on" experiences such as:
   —Helping FFA members get animals ready for show—washing, grooming, leading, etc.
   —Helping members get crops ready for display
   —Helping feed animals and clean pens
   —Helping with the school greenhouse or nursery
   —Helping students with the construction of projects in
   —the agriculture mechanics laboratory
   —Spending a day on the job with co-op students
   — Taking a tour with co-op students to the places where they work and hear them explain their jobs and responsibilities
   —Helping members with the school farm—preparing land, planting, cultivating, harvesting, etc.
2. Sponsor or co-sponsor a career education day. Most colleges hold career days for high school students. These days are designed to help orient students to college and to provide information about courses of study or major fields of study. It seems that such an orientation to high school for junior high students would be an excellent idea. Many junior high school students are not aware of the programs available to them and are unsure about the courses that are open to them. The day could be planned to provide the students with an overview of high school and a chance to learn some specifics about the different programs.

### The FFA—Tremendous Opportunity in Career Preparation

In the preparation for a vocation (grades 9-12 or 10-12), the FFA has made a significant contribution in preparing students for careers in farming. A recent examination of the activities in the "Supervised Agricultural Occupations Committee" of several FFA chapters in Kentucky revealed that activities are almost exclusively related to farming and yet many of these departments had specialized programs in supplies and services, horticulture, and mechanics. Perhaps the teachers and the chapter members in these departments should evaluate their activities and eliminate those that are not effective in motivating the local instructional program. Also, the chapter should develop other activities that would motivate specific learnings in the other areas of the agribusiness program.

The FFA at the local, state, and national level has planned and conducted many meaningful activities to motivate students in becoming prepared for careers in farming. Considerable progress has been made in developing contests and other activities which motivate the development of competencies needed in other careers in agriculture. The challenge remains, however, for the FFA to develop activities, contests, and awards in the new and emerging areas of agribusiness education, e.g., forestry, agricultural mechanics, horticulture, agricultural processing, supplies and services, and others. Some suggested contests for agricultural mechanics and horticulture follow.

*agricultural mechanics*

—*Sponsor* the following contests: welding, tractor troubleshooting, tractor or machinery painting, tractor operation and safety, plumbing, farm machinery assembly, woodworking skills, and electrical skills
—*Provide* awards in: soil and water conservation, farm machinery service and maintenance, agricultural mechanics, and agricultural mechanics co-op placement

*horticulture*

—*Sponsor* contests in: flower arrangement; flower judging; fruit and vegetable judging; identification of fruits, vegetables, flowers, woody ornamentals, trees, weeds, insects, and plant diseases; vegetable production contests (peppers, corn, cucumbers, tomatoes, beans, etc.); fruit production (small fruit and/or tree fruit); flower production; and greenhouse production
—*Provide* awards in: lawn improvement and co-op placement in horticulture

### Summary

Local FFA chapter members can and should: 1) select, plan, carry out, and evaluate the many potential activities that will help local elementary and junior high teachers make career education a reality for their students; 2) select, delete, and modify activities, contests, and awards at the high school level to provide a broader spectrum of appropriate activities that will motivate students in all phases of the instructional program.

As the local chapter members select, plan, carry out, and evaluate these activities, they will develop competencies in leadership, citizenship, and cooperation. The involvement outlined in this article has significant potential for being made a standard part of every local FFA chapter's program of activities. ◆◆◆

# Environmental Laboratory — — Means of Exploration in N. C.

*by Dr. Ward R. Robinson**

**A laboratory including Occupational Clusters in Agribusiness and Natural Resources, Environmental Control, Marine Science, and Hospitality and Recreation is prevocational to High School Vocational Agriculture in North Carolina's Junior High Schools.**

### Historical Development

The program of Occupational Exploration was implemented in North Carolina's Public Schools in February of 1970. Implementation followed legislative enactment of a bill passed in June of 1969 which provided for funding experimental programs of Occupational Exploration for all boys and girls in grades 7-9. In 1975 all 148 administrative units in the state received funds for exploration based on their average daily membership for students enrolled in grades 6-9.

### Program Organization and Characteristics

Program organization includes instruction in the following laboratories: Environmental, Business and Office, Industrial, and Service. Each lab includes exploratory experiences in several of the 15 occupational clusters identified by the U.S. Office of Education. A fifth lab, an occupational information center, has an instructor and materials for providing instruction correlated to experiences conducted in each lab plus facilities to provide students opportunities for self-appraisal type activities. The following grouping of occupational clusters into the environmental occupations laboratory illustrates where career exploration in Agribusiness and Natural Resources occupations is first introduced to students:

ENVIRONMENTAL
OCCUPATIONS LABORATORY
- Agribusiness and Natural Resources Occupations
- Environmental Control Occupations
- Marine Science Occupations
- Hospitality and Recreation Occupations

The program emphasizes student centered and occupationally related experiences. Attempts for students to develop a high degree of skill are minimized. Enrollment is restricted to students in grades 6-9. The State Board of Education Policy dictates that the program be an elective; however, in most schools all students are enrolled. Patterns of scheduling and total hours of instruction are varied; however, most schools provide for 12 weeks of instruction in this area.

### Selection of Exploratory Experiences

Experiences and activities in all laboratories, including the Environmental Lab, are selected on the basis of four criteria which are:

1. The activity simulates the performance of a typical job task which allows students to see the relationship between activity and the job requirement.
2. The activity simulates the skills that may be developed in high school occupational offerings or at the post secondary level.
3. The activity provides occupational information which allows students to understand field and level relationships (Career Ladder Concept) concerning occupational clusters.
4. The activity provides an opportunity for students to appraise themselves in relation to job requirements and to present and future educational opportunities.

Follow-up considers a variety of teaching methods and materials that provide students direction for the occupational implications drawn from experiences in which students have participated. After students participate in exploratory activities and analyze related occupational information materials they are expected to be able to:

- Identify several occupations in the Agribusiness and Natural Resources occupational cluster.
- Identify job characteristics of occupations explored including education or training required, trends and employment opportunities, advancement possibility, location of jobs, tools required, fringe benefits, salaries, etc.
- Perform actual or simulated job tasks for typical occupations in this cluster.
- Describe whether occupations in this cluster appeals to them as possible career opportunities.
- Identify high school and post high training available for pursuing their occupational interest in this cluster.

### Enrollment Trends and Program Acceptance

In 1972 there were 40,198 students enrolled in 67 state funded occupational exploration programs. Currently 85,304 students are enrolled and anticipated enrollment by 1980 will reach 106,000.

Students have a magnetic attraction to the instruction since it is student and activity centered. Data indicate a noticeable increase in average daily attendance for students who were previously attendance problems and lacked motivation for school. The academically talented are encouraged and do elect the program just as frequently as students who have records indicating lower levels of achievement. Many schools enroll all students (boys and girls) which removes the stigma often encountered when students are assigned to programs because of low intelligence. Parental complaints that their child was enrolled in an occupational program at the junior level has occurred only rarely.

### Teaching Personnel

Generally, neither experienced nor new graduates of Agricultural Education have been available for employment. However, both new graduates and experienced teachers of Agricultural Education for high school programs of vocational Agriculture are expected to possess the competencies needed for providing instruction in the environmental lab. Five years of observation does indicate the new agricultural education graduate develops an instructional program which is more in keeping with the exploratory philosophy. The new graduate receives more satisfaction from instruction and encounters less frustration in adjusting instruction from a skilled level (for which training was provided) to an exploratory level.

Because of the shortage of agriculture teachers, science and other majors who hold university degrees have been prepared through summer workshops to acquire the competencies needed to teach in the program. In the summer of 1975, teacher institutions with state department encouragement and assistance accepted a greater role for training teachers of occupational exploration.

### Curriculum

Responsibility for curriculum development was delegated to personnel in each program we implemented. No uniform base curriculum for statewide distribution has been developed by the State Department. Currently a funded program has a special grant and is developing a base curriculum which will be field tested during the 1976-77 school year.

"Exploring Occupations in the Natural Resources" a student resource guide for the middle school, developed under a Federal grant at Pennsylvania State University is a very useful publication for teachers providing instruction in the environmental lab.[1]

### Summary

The Occupational Exploration program implemented in North Carolina in 1970 is an elective offered to all boys and girls in grades 7-9. The purpose of the program is to provide experiences which are occupational in nature, represent typical job tasks, include concepts representative of the world of work and assist students in self-appraisal. The Environmental Laboratory which includes the Agribusiness and Natural Resources Occupational Cluster is a major component in the program. There is no base curriculum available for distribution to teachers; therefore, each instructor designs a curriculum to fit student needs. The Occupational Exploration Staff of the
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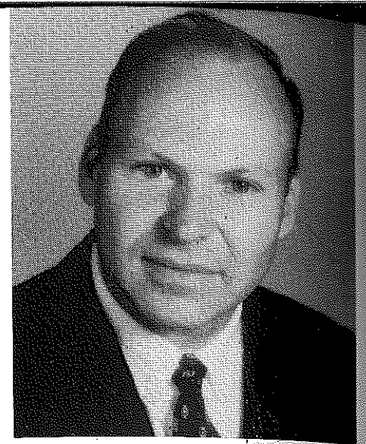
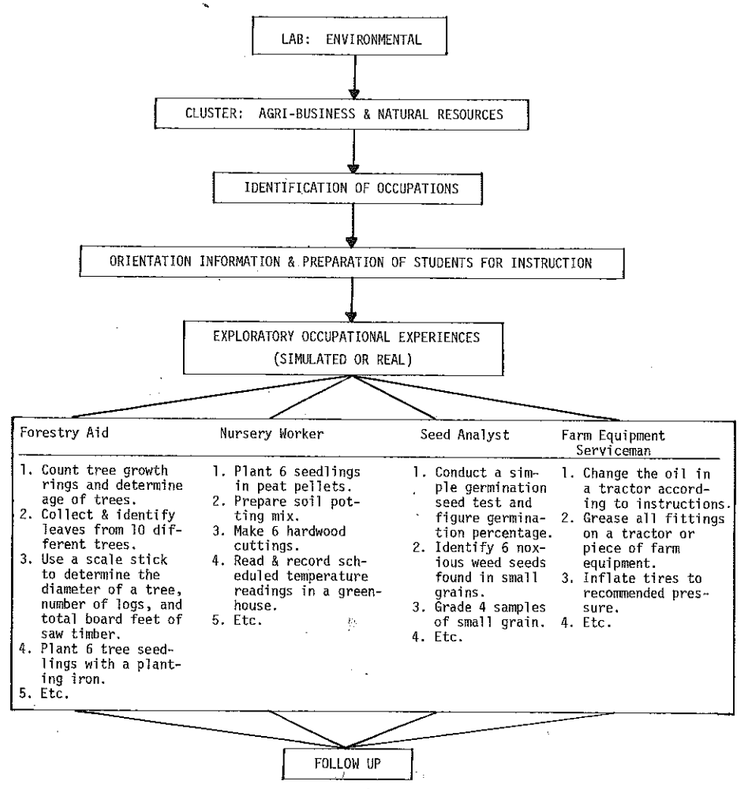


Ward R. Robinson

Possible seed analysts of the future try their hand at a germination test in a North Carolina exploratory program.

Organizational Design For Laboratories

The following example is the pattern for developing exploratory units of instruction for the Environmental Lab:




*Dr. Ward Robinson taught Vocational Agriculture in North Carolina for eighteen years. He has been supervisor for exploratory programs in the State Dept. of Education there for the past ten years.

# Organizing for Career Exploration in Ag

*Larry E. Miller*
*Teacher Education*
*VPI & SU*

Teachers of Agricultural Education need to ask themselves this question as they attempt to help students select a career. Ginzberg noted three phases as constituting a career choice continuum; a fantasy phase, a tentative phase and a realistic phase. Teachers should note that these do not begin and end at any specified age, but are fluid and vary with each individual. Ask a six year old what they wish to be and they may say a cowboy, an astronaut, a doctor, a nurse, a fireman or a clown; and these would usually be construed to be fantasy choices. Sometime during early or late adolescence the tentative phase begins to be entered. This begins at about the time that most students can elect a vocational course. Ginzberg states that during the tentative phase, students initially base their choices on interests; they become aware of introducing realistic elements; they worry about their place in society and then they begin to see their high school education ending and start to look forward to work or to continuing their education. The realistic phase is characterized by (1) exploration, getting a job and gaining experiences to pick an occupation; (2) crystallization, when compromises occur and the individual looks at factors and makes a commitment; (3) specification, occurs when the individual reviews the alternatives and specializes. Paralleling these phases are opportunities in Vocational Education and Agricultural Education, and particularly so under the career education concept. Can't you see these stages surfacing in your students? Teachers need to ask themselves, "Where are they?" for each class and for each individual. Students in a fantasy stage are seldom ready to make a career commitment. The teacher must also realize that some people never get to the realistic stage.

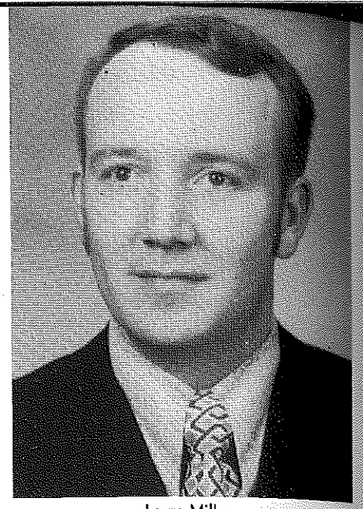
### Career Exploration

Career Education has gone far toward getting all of education involved in helping students explore careers. The awareness, exploration and orientation, and the preparation phases of Career Education closely parallel the previously cited career theory. At one point in our history a student could walk down Main Street, USA, and see numerous trades being used and people at work. This is no longer true as we have moved to an urban, commuting society. As with the remediation of many social ills, the responsibility for helping the youth explore careers becomes a responsibility of the educational system. Pilot programs in Career Education have verified the efficacy of this approach. All schools have not instituted such a concept, however. Even though Vocational Education is one of the main strands in the Career Education rope, not all of Vocational Education has set about meeting the responsibility exigent to their students. Agricultural Education must do its part in this important endeavor. Teachers of Vocational Agriculture may need to serve as consultants to elementary and junior high school personnel to help them design appropriate awareness and orientation activities for career education in agriculture. Some larger school systems may even hire full-time agricultural teachers in the future for this purpose.

### Exploratory Agriculture

Exploratory Agriculture programs are needed by all schools to help apprise students of the career opportunites in agriculture. Urban and rural students alike should have the opportunity to explore the field.

The curriculum in Exploratory Agriculture should reflect the appropriate Career Education objectives and accept



Larry Miller

the students where they are in terms of their career decision making process. The major emphasis must be in providing students with the opportunity to explore the world of work in agriculture. Most exploratory courses are offered the year before vocational preparation begins. This might be at the seventh, eighth or ninth grade depending upon the structure of the program at the local or state levels. The length of time that a teacher may have a group of students for Exploratory Agriculture may vary according to the other exploration courses offered in the school. The Exploratory Agricultural course may become a mini-course that is repeated several times each year as students rotate into the program.

The course must be dynamic but at the same time packed with realism. The course content must provide for more than a book study of the careers in agriculture. Students should get actual hands-on experiences in exploring what workers in agricultural occupations do for a living. Teaching aids, field trips and community resources must be identified, organized and utilized to their utmost advantage to make for interesting, dynamic and inspiring learning.

The Exploratory Agricultural program makes for a great feeder system for the Vocational Agriculture preparation program. At the same time, it should not be visualized as just a recruitment effort. Many students may wish to explore career opportunities in agriculture, but ultimately decide that other careers more nearly meet their

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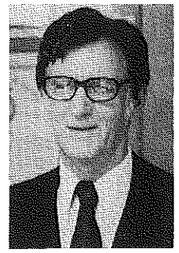
# Should I Teach in a Large or Small School System?

Allen G. Blezek



Lloyd Schmadeke

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*and*

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*(Editor's Note: This article represents the thoughts of two professional educators who have both been associated with large and small school systems. The article represents a total of over 45 years of teaching in four school systems in three states.)*

## INTRODUCTION

Each year a large number of vocational agriculture instructors enter new schools. Some of them are beginning their teaching career, while others are simply changing schools. Obviously, there are a large number of factors that one must consider when selecting a new school. Some of them are: salary, fringe benefits, facilities, location, budget allocations, teaching load, housing, shopping facilities, health and medical facilities—doctors, dentists, etc., and school size.

Because of the possible importance and implications of school size upon the success and effectiveness of a vocational agriculture instructor in a community, a further discussion will follow. For the purpose of this writing, a small school system will be thought of in terms of a secondary enrollment of less than two hundred students and a large school system will be thought of in terms of a secondary student enrollment of more than 200 students.

## ADVANTAGES OF A LARGE SCHOOL SYSTEM

What are the advantages of teaching in a large school system? Initially, most students usually have little or no exposure to agriculture and as a result are very curious about it. With this natural curiosity, a natural interest is exhibited and only those students really interested in the program tend to register.

Salary schedules are generally better in large school systems: however, the instructor normally gets the same raise in salary as his colleagues and there is little room for negotiation as in a smaller school. Fringe benefits are usually more pronounced in the larger system and as a result of the larger salary and fringe benefits, more career teachers will be found. Job security and tenure are factors that weigh heavily with teachers in a large school system. Administrative turn over is often less than in a smaller system, allowing for more continuity in the program.

With the larger system, often located in a larger town or city, the number of businesses will be greater. Opportunities for field trips, resource speakers and the like are much greater. Excellent opportunities exist for agribusiness placement. With the larger population, there will many times be a larger variation in the social life of the students and parents. Teachers are generally afforded more freedom in the community with after work activities and social events. Housing is usually more abundant.

A major advantage to some instructors is the larger degree of specialization that may be possible with the larger number of students. Many of the larger schools will hire more than one instructor, allowing for various combinations of specialization within the program. Also, with the larger enrollment, instructors may be more selective in their program admission procedures as students are registered for the various courses. With the additional selection of students, there is a strong possibility that the overall scholarship of students may be higher than in the smaller school system.

If teachers are expected to participate in extra-duty activities, such as selling football tickets, sponsoring class plays, driving school buses, sponsoring a class, and the like, it is usually with extra compensation. The daily schedule will tend to be more consistent and the teacher will be able to manage his own time more efficiently after the regular teaching day. It is generally easier to negotiate many items with the small school administration, however, administrators in the large schools seem to be more consistent with rules, regulations, and policies.

## ADVANTAGES OF A SMALL SCHOOL SYSTEM

While there are many advantages of teaching in a large school, there are also many advantages of teaching in a small school. These advantages may not represent every community in every state, however, they do represent the feelings of the authors and of many instructors with whom the authors have consulted.

Now, let us take a look at the advantages of teaching in a small school system. The instructor definitely has a close contact with the members of the local community. He may very well know everyone in town; and everyone gets to know him in one way or another. This is certainly an advantage, but it does limit the social life of the instructor in many communities. Living costs are usually less in the smaller community. It will be a regular occurrence to see the superintendent and principal daily and the instructor will likely know and regularly visit members of the board of education.

Nearly all of the students are likely to come from farms or be directly associated with agriculture and farming

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## SHOULD I TEACH IN A LARGE . . . SYSTEM?

through an agribusiness in the community. Most of the smaller communities depend directly on agriculture for their livelihood. If a good job is being done, they will probably be able to see the need for the department more readily and will react more positively than in a larger system. Farm and home visits will be much easier because parents work on the farm or in the smaller community. Good farm and home visits are usually easier to make because people spend more time around the home.

With everyone knowing the teacher in the community, he will likely be asked to participate in the various civic organizations, either as an individual or through the Future Farmers of America. It will be easier to become a leader in the community. Normally, high attendance and very active participation in regular day classes, FFA, and adult classes can be expected, if the instructor is willing to meet the challenge and trust placed upon him. The community is usually more eager to become involved in the program. While this may mean long hours on the job, the reward will be proportional to these hours. Publicity is generally easier, most small town newspapers are usually looking for good news items. It may also be possible to get spots on the local radio stations since many of them have farm programs.

Because of the size of the staff, a close relationship with fellow staff members is very likely. Work is quickly recognized by fellow staff members and the community, and the instructor has more rapid reinforcement from his work. In many cases, it is likely the teacher will "be his own boss;" however, the teacher may have closer supervision by his superiors. Class scheduling is more flexible, and it is generally easier to negotiate class-scheduling changes with the administration. Budgets will usually be negotiated on a one-to-one basis with the teacher and administrator, and most reporting will be made directly with the State Department of Education rather than to a consultant in the local district.

Because class scheduling is more flexible, it is normally much easier to take field trips and take advantage of the community resources, even though they may be limited in number. Buses are often more available for field trips; however, the instructor may have to drive his own bus.

### SUMMARY

School size is a very important consideration in the selection of a new school in which to teach. With the abundance of teaching positions open in Vocational Agriculture at the present time, in both large and small school systems, teachers do have a choice and the choice should be based upon rational reasoning, rather than chance. Both have advantages and disadvantages, weigh each of the considerations listed in this article very carefully — add to the list — delete items that are not important. You make the decision, but before the decision is made, be sure that it is based upon those factors that are most important and meaningful. Good luck! ◆◆◆

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## ORGANIZING FOR CAREER . . .

interests. Ethically, we should approach Exploratory Agriculture with the philosophy of apprising all students who enter the program of the opportunities in agriculture and not just as a means of recruiting each student. The responsibility of the teachers would dictate that they would present career opportunities in agriculture in the most favorable light, but let the student make the career choices without high pressure interference.

The major focus of the course content for Exploratory Agriculture should be on careers. Career opportunities may be best presented with the inclusion of appropriate technical agriculture content to make the exploration realistic. For example, to provide the technical information necessary to teach a student how to remove, clean, regap and reinstall a spark plug might be an appropriate exploratory activity in the agricultural mechanics area. This fusion of subject matter with careers must relate real tasks of the people in the world of work.

The opportunities presented to Agricultural Education by the career education movement are numerous. As we move ahead in establishing programs for greater career awareness, exploration and preparation; we must be ever cognizant that our real purpose is to help our students make realistic career choices. ◆◆◆

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## ENVIRONMENTAL LABORATORY . . .

Division of Occupational Education suggests that the organizational design previously illustrated be used as a model. A research grant has provided funds for personnel in a project school to develop curriculum which will be field tested during the 1976-77 school year. An inadequate supply of trained agriculture teachers exist, making it necessary to employ personnel often less knowledgeable in the Agribusiness and Natural Resources Occupational Cluster. It is assumed that participation in interesting exploratory experiences will help students make wiser decisions in selecting high school courses, including Vocational Agriculture.

Anticipated growth of the program is expected to continue, but because of limited funds growth will be at a slower rate than has previously occurred. ◆◆◆

[1]U. S. Government Printing Office. "Exploring Occupations in Natural Resources," Washington, D. C. 20402



# Vocational Teachers Team up to Provide Career Exploration

*James T. Horner*
*and*
*Richard L. Douglass*
*University of Nebraska*

There has been much to-do about career education since Dr. Sidney Marland proclaimed the concept five years ago. There has been a lot of talk and much writing. What remains to be accomplished is sustained action and program change. This article focuses on a real-life example of career exploration at the junior high level in a small town, comprehensive high school.

### BENEFITS

The original thought behind the program was to orient junior high students to certain coursework they could take in high school. It was also to add variety in junior high. Previously, the students involved had been assigned to study hall or academic courses. The career exploration program gets the junior high students thinking about careers and gives them coursework with more appeal. From the vocational teachers' point of view, it might be seen as an effective recruiting and program expansion activity.

### ORGANIZATION

Prior to the establishment of the career education program, the departments of Agriculture, Industrial Arts, Art, Home Economics, and Counseling were competitors for high school students' elective hours. Under the career exploration program, each department has one-eighth of the 7th and 8th graders. After nine weeks in a department the classes switch. Agriculture students from the first nine weeks go to Industrial Arts for the second nine weeks and to Guidance for the third nine weeks and then on to Art. The Home Economics students are in a semester type course and then work their way into Guidance and Art.

Additional courses and more choices for students would mean that students could select elective courses rather than the present block of requirements. The most likely course to be added in this school would be Business Education.

### APPROACH

The purpose of the program discussed is career exploration. It starts with exploring the kinds of coursework that the student might take in high school. Instructors then begin the occupational exploration phase with discussions on such things as the following: who to ask and how to evaluate and understand yourself, the type of occupation that you'd like to go into, personal interests, importance of having a job, and when should one decide on a job. They then look at audiovisual materials prepared to provide occupational information on specific occupations. The students then choose or find businesses in the community that are similar to those studied. They go as a class to the business. For example, if the class wants to go to the veterinary clinic they go there. The veterinarian gives a short tour of the facilities. The students ask for a brief job description and the kinds of activities people do on the job. The students have a questionnaire with questions about job description, salary, fringe benefits, whether they live at home, advantages and disadvantages of the job, and training needed. All these questions were decided in advance by the class, so they discover what they need to know about choosing a job.

### AGRICULTURAL CONTENT

The career exploration is further described by using an example from the vocational agricultural curriculum. The seventh graders get mostly hands-on exploration by trying out their skills in two areas of agricultural mechanics. In the eighth grade agriculture program, students are exposed to occupations that are available in agriculture in the community.

In seventh grade, welding safety is taught. Both oxy-acetylene and arc welding are covered. Classroom instruction on proper procedures is followed by three to four weeks in the shop. Students learn basic skills in running a bead and running a puddle with oxy-acetylene. They also use the cutting torch. The second part of the seventh grade course is spent on basic electricity. This includes terms, simple demonstrations and other electrical skills.

The eighth grade curriculum is broken down into the occupational phase and additional agricultural mechanics. The occupational phase is in eight areas: agricultural service, farm supply, government service, horticulture, natural resources, machinery sales and service, the animal industry and the crop industry. The agricultural mechanics phase is on small engine maintenance. Most of the junior high students like hands-on experience. Student interest is high in working with small engines. Learnings with small engines can be transferred to larger ones.

### REQUIREMENTS

It seems important that the areas to be included in the career exploration program were based on advice from local citizen advisory groups. The senior and junior school principals were heavily involved, since extra scheduling effort was required in setting up the program. The class schedules of all cooperating teachers, that is, instructors of Vocational Agriculture, Industrial Arts, Guidance, Art, and Home Economics had to be coordinated for the career exploration effort.

The success of such a program depends on the willingness of the faculty to cooperate. In this school, the guidance counselor in the junior high is eager to conduct group guidance but obviously could not deal with all the

*(Concluded on page 239)*

# Leader in Agricultural Education:

## HAROLD MOORE BYRAM

*By O. Donald Meaders**

Harold Byram was teacher, administrator, author, and researcher. He served from 1936 to 1972 at Michigan State University as professor, head of agricultural education, and later as coordinator of the general vocational-technical education graduate program.

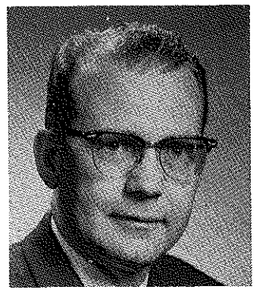
Some of Harold's contributions were in vocational education. He contributed to the research and development program in vocational education at Michigan State and co-authored with Wenrich the book: *Vocational Education and Practical Arts in the Community School.* But a good many contributions were as a leader in agricultural education in the community school: evaluation of agricultural education as part of the local program of vocational education, leadership development, and team leadership for program planning and implementation.

One of his early publications was *Guidance in Agricultural Education,* first published in 1959 and revised in 1966. This enunciated both principles and practices for the teacher of vocational agriculture whose role carries responsibilities for providing guidance to the students in his/her classes. Dr. Byram served as an agricultural teacher educator; President of the Iowa Vocational Guidance Association; and as part-time counselor in a junior college. His leadership for application of guidance and counseling in agricultural education came through his teaching and research. In addition to numerous articles, Dr. Byram prepared in 1946 a chart, *Occupations for the Agriculturally Trained,* later revised into three charts titled, *Agricultural Occupations for Farm Youth,* which was sold and distributed nationally.

Harold Byram also voiced early concern for vocational agriculture programs which would prepare youth not only for farming but also other agricultural occupations off-the-farm. A quotation from an article written by Harold and published in 1936 illustrates that concern which was pioneering 40 years ago:

> "The teacher of agriculture should accept the responsibility for guidance of farm boys in occupations for the agriculturally trained."

Our colleague, Harold Byram, also devoted much energy to promoting the importance of the quadrangle of responsibility for strong programs of vocational agriculture: (a) teachers, (b) local administrators, (c) state supervisors, and (d) teacher educators. He taught and, more importantly, practiced the basic concepts for cooperative efforts among the four groups. And, he helped incorporate these concepts into both the pre-service and inservice programs for teachers of agriculture. Teacher educators in agriculture were encouraged to participate in the state meetings of counselors, secondary school principals, school superintendents, and others. School administrators were encouraged to participate in annual meetings of teachers of agriculture.



O. Donald Meaders

*O. Donald Meaders is Professor of Agribusiness and Natural Resources Education, Michigan State University, East Lansing.

Besides his interest in agricultural education, Harold Byram took time to promote all vocational education. The book co-authored in 1956 with Ralph Wenrich provided graduate students for over a decade with one of the most concise treatments of concepts for vocational education and practical arts, including agriculture, as part of the concepts of the community school.

Evaluation of local programs of vocational education was another of Harold's concerns. He directed during the mid-sixties and early seventies statewide and national projects on local evaluation which reemphasized the roles and importance of local educators and local citizens in strengthening vocational education programs.

Perhaps one of the most important contributions to agricultural education came through Harold's operational concepts for administration. He worked closely with administrators of vocational education programs in the Michigan Department of Education, the chairmen of all departments within the College of Agriculture, and with persons of the other curriculum units within the College of Education. The faculty in agricultural education was always involved in the development as well as implementation of the teacher education program. Many of the pro-

*(Concluded on page 235)*



CONTINUED LEADER IN AG ED

fessional educators who worked with Harold have described his approach to administration as "team leadership."

Harold had other interests. He was a member of the group of agricultural teacher educators and supervisors who met at the University of Chicago in the summer of 1947 for the first meeting of what is now known as the Central Regional Conference on Research in Agricultural Education. He was chairman of the committee on adult education, established in 1949 by the Central Regional Conference on Research. The committee studied the practices being used in organizing and conducting adult classes in agriculture in the 12 central states.

Harold served as major professor for 28 graduate students who completed their doctorates with majors in agricultural education and for several others who majored in vocational-technical education. Most of those former students are now in leadership positions and are located in 16 states and two foreign countries.

Knowing what a man has done often raises the question of how that person got where he did. After graduation from Iowa State College in 1924, Harold taught vocational agriculture at Northfield, Minnesota for two years. For four years, 1926-1930, he was half-time critic teacher (supervising teacher) at Kelly, Iowa and half-time instructor in vocational education at Iowa State College. He completed his Master's degree at Iowa State in 1928 and his doctorate at Columbia in 1933.

An overview of some of Harold's additional contributions to agricultural education and to the general field of education include:

| | |
|---|---|
| Editor, *The Agricultural Education Magazine* | April 1939-March 1942 |
| Address to the Agricultural Section, AVA "Some Directions Research is Taking in Determining How Agricultural Education in Secondary Schools Measures Up" | 1940 |
| Established an agricultural teacher educator position in research at MSU (in cooperation with the Michigan Department of Education) | 1941 |
| President, Ten-Year Agricultural Teacher Trainers, AVA | 1947 |
| Education Consultant, University of Santa Clara, Cuba (3 mos.) | 1956 |
| Vocational Education Consultant, MSU Central Africa Project (2 mos.), | 1963 |
| Vocational Education Consultant, MSU Thailand Project (2 mos.) | 1965 |
| Address to AATEA, "Challenges to Leadership in Agricultural Education in the Golden Sixties" | 1960 |

Harold married Edythe Tegland in 1926. They have two daughters and five grandchildren. Harold and Edythe now are at home in Sun City, Arizona where he keeps a busy schedule of music and golf. Music has been an avocation (band, orchestra, and chorus) in high school and college. It should be noted that Harold included directing band, orchestra, and glee club along with teaching vocational agriculture in high school. Currently he plays his trumpet in the Sun City Symphony and sings in the Sun City Chorus.

Harold Byram was one of the pioneers in agricultural education; he practiced his beliefs through positions of leadership which he filled and through his daily contacts with students, colleagues, and friends; and he was a scholar in the best sense of the word. ◆◆◆

CONTINUED CAREER EXPLORATION

value and meaning to the individual and to society. It provides exposure to a wide variety of possible careers so that the young adult can make a career choice on the basis of his self-knowledge, his particular needs, abilities, interests, and the needs of society.

The career exploration program is designed to be a part of the regular 7th through 9th grade curriculum. The established educational system should be studied and notations made where changes could be made to incorporate the career exploration concepts and the occupational information. Objectives need to be prepared for both teachers and pupils. In-service training programs need to be designed for teacher planning of individual programs.

Such a career development program requires state as well as local support for both funding and educational leadership. The career exploration program is designed to be fused with subject matter and use specific occupations as the organizing force. While the program is being taught by general educators, it is our obligation as agricultural educators at both state and local levels to assist in making our agricultural programs a part of the exploration programs. We can do this by working with the appropriate administrative personnel at both state and local levels.

The *Career Exploration in Agribusiness, Renewable Natural Resources, and Environmental Protection: A Curriculum Guide for Grades 7-9* was designed to assist agricultural educators in encouraging the general educators to make agriculture a part of the career exploration program.

One word of caution. If we have successful career exploration programs and students choose agricultural careers, we must have adequate programs at the preparation stage to meet their needs. ◆◆◆

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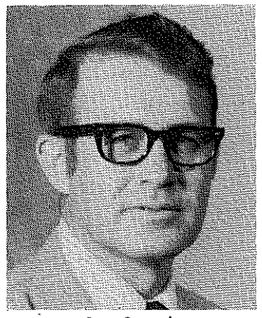
2. Lawson, Dorothy, et al, *Career Exploration in Agribusiness, Renewable Natural Resources, and Environmental Protection: A Curriculum Guide for Grades 7-9.* Ohio Agricultural Education Curriculum Materials Service, 2120 Fyffe Road, Columbus, OH 43210, pp. vii. One of a series of ten curriculum guides developed as a result of a contract between the U.S. Department of Health, Education, and Welfare and the Ohio Agricultural Education Curriculum Materials Service.



Sam Stenzel

# Don't Procrastinate . . . . . Promulgate

*Sam Stenzel*
*Assistant to the NVATA*
*Executive Secretary*
*Lincoln, Nebraska*

The National Vocational Agricultural Teachers' Association (NVATA) has established close working relationships with many organizations in the agribusiness industry. Those activities resulted in award programs designed to recognize members who contributed significantly to vocational agriculture, teaching, and the NVATA. The impetus of the award programs is to recognize individual efforts but also to emphasize the promotion and furtherance of objectives for vocational agriculture education and the NVATA.

## RECOGNITION AWARD PROGRAMS

Two outstanding award programs were implemented in 1968. Though the basic emphasis differs, they have similarities. One program encourages the young teacher to develop outstanding programs immediately and to become active in state and national professional organizations. The other encourages teachers to create a related occupation awareness by developing a program that emphasizes agribusiness career opportunities. Both recognize state winners and award expense paid trips to the NVATA national convention.

Since the implementation of the Outstanding Young Member and Agribusiness Career Exploration award programs, 92 winners have been named to attend eight conventions. As illustrated in Table I, 37 states had winners in both programs. Several had more than one winner: Iowa, Minnesota, and North Carolina had five each; Colorado had six; and Ohio has had seven winners. John Mundt, Meridian, Idaho and Joe Navrath, Hillsdale, Wyoming won both awards.

The regional winners of the Outstanding Young Member awards in 1975 were Victor Bohuslavsky, Brainard, Nebraska; John Collins, Jr., Midway, Tennessee; Buster High, Yerington, Nevada; Mark Pearson, Ponca City, Oklahoma; Roger Slayton, Naylor, Missouri; and George Wheeler, Canaan, Connecticut.

The winners of the Agribusiness Career Exploration awards were E. B. Earle, McBee, South Carolina; Bob Hamblen, Fort Collins, Colorado; Brian Ingvalson, Forest Lake, Minnesota; Glen McKeever, Ronceverte, West Virginia; Odell Miller, Raymond, Ohio; and Joe Navrath, Hillsdale, Wyoming.

The award recipients attended the 27th annual NVATA national convention at Anaheim, California, December 5-10, 1975.

## OUTSTANDING YOUNG MEMBER AWARD PROGRAM

As a means of encouraging young teachers to remain in the profession and to encourage participation in the activities of the NVATA, Outstanding Young Member awards are sponsored by the United States Steel Corporation, Pittsburgh, Pennsylvania.

The award is designed to encourage young teachers to become more involved in activities that induce tenure. It recognizes those who have taught three to five years and have assumed an active role in professional leadership, have been active in community activities, and have implemented innovations to meet the immediate needs of the local vocational agriculture students.

The Outstanding Young Member award program has been a popular contest. In 1975 a total of 114 entries were received from 37 states. One state reported 13 entries.

Table II identifies the states that had regional winners since the inception of the program. Forty-five regional winners have been recognized. The recipients were young vocational agriculture teachers in 27 different states.

The outstanding Young Member award application stresses activities in six major areas:

. . . A brief description of the type of agriculture in the community and local vocational agriculture program.
. . . Membership and participation in state and national vocational agricultural teacher association activities.
. . . Membership and participation in local, district and state teachers association activities.
. . . Membership and participation in civic, community and farm organizations.
. . . Accomplishments of students in various areas.
. . . New or innovative instruction techniques, activities, and programs.

## AGRIBUSINESS CAREER EXPLORATION AWARD PROGRAM

The Agribusiness Career Exploration award program was conceived jointly by the NVATA and Sperry New Holland, New Holland, Pennsylvania. It encourages vocational agricultural teachers to put continuing emphasis on informing students about the opportunities in agribusiness and to recognize teachers whose programs are exceptionally effective.

Students need the counseling and guidance of mature, experienced, and interested adults. Vocational agriculture teachers have the opportunity and the information to help make those avocational decisions. The award recognizes teachers who have designed and implemented a course of study emphasizing occupational orientation and exploration which stress career opportunities in production agriculture and agribusiness occupations. The winning teachers are not necessarily persons who fostered astounding feats of classroom derring-do. They are vocational agriculture teachers whose interests in their students and the industry of agriculture motivated them to devise and conduct strong local innovative career programs.

A summarization of the participation in the Agribusiness Career Exploration program since 1968 appears in Table III. Although the award is similar to the Outstanding Young Member program, individual participation has not been as great in individual states. In eight years, 47 region winners have been named from 24 associations.

Colorado and North Carolina have each had five winners. Twenty-three states submitted 37 entries in 1975. Fifteen of the states had only one applicant but one state did receive five.

The application form requires a complete description of the agribusiness career exploration program conducted during the previous complete school year.

The application forms entitle current active members to apply for state recognition. State winners automatically become regional competitors. The sponsor provides a certificate to each association for presentation to the state winner.

Each regional winner receives:

. . . First class round-trip fare from the nearest commercial airport to the NVATA national convention.
. . . A single room for five (5) days at the convention.
. . . Expense money at the rate of $10 per day but not to exceed $50.00 for the convention.
. . . An engraved plaque.

State winners compete only against successful applicants from states within their respective NVATA region. Six regional winners are named annually to attend the national convention. The 1976 convention will be in Houston.

TABLE I: State Associations that have had Regional "Outstanding Young Member" and "Agribusiness Career Exploration" Award Winners.

| Number of Winners | Number of States | Names of States With Winners |
|---|---|---|
| 1 | 13 | Alabama, Arizona, Georgia, Illinois, Kansas, Kentucky, Michigan, Nevada, New Mexico, Oregon, South Dakota, Vermont and Wisconsin |
| 2 | 8 | Connecticut, Indiana, Montana, Oklahoma, Tennessee, Utah, Washington, and West Virginia |
| 3 | 9 | Florida, Idaho, Louisiana, Maryland, Missouri, New York, South Carolina, Texas, and Virginia |
| 4 | 2 | Nebraska and Wyoming |
| 5 | 3 | Iowa, Minnesota and North Carolina |
| 6 | 1 | Colorado |
| 7 | 1 | Ohio |

TABLE II: State Associations that have had Regional "Outstanding Young Member" Award Winners.

| Number of Winners | Number of States | Names of States With Winners |
|---|---|---|
| 1 | 14 | Alabama, Arizona, Colorado, Indiana, Louisiana, Nevada, New Mexico, New York, Oregon, South Carolina, South Dakota, Utah, Vermont and Virginia |
| 2 | 8 | Connecticut, Idaho, Iowa, Maryland, Minnesota, Oklahoma, Tennessee and Wyoming. |
| 3 | 5 | Florida, Missouri, Nebraska, Ohio and Texas |

TABLE III: State Associations that have had Regional "Agribusiness Career Exploration" Award Winners

| Number of Winners | Number of States | Names of States With Winners |
|---|---|---|
| 1 | 11 | Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky, Maryland, Michigan, Nebraska, Utah and Wisconsin |
| 2 | 8 | Louisiana, Montana, New York, South Carolina, Virginia, Washington, West Virginia and Wyoming |
| 3 | 2 | Iowa and Minnesota |
| 4 | 1 | Ohio |
| 5 | 2 | Colorado and North Carolina |

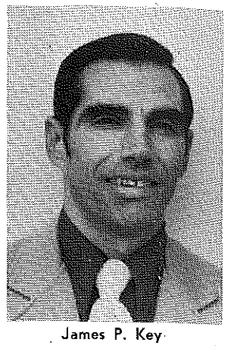
## TIME FOR ACTION

Aggressive teachers have discovered that vocational education in agriculture provides unexcelled opportunities to develop and implement programs which motivate students. Every state has outstanding programs, but the teachers hesitate to promulgate beyond the local community. Procrastinators have not been winning the Outstanding Young Member or Agribusiness Career Exploration awards. Twelve state associations have never had a regional winner. Several regional winners were named because they were the only state winner in that region. The winners were those who developed exemplary programs and chose to promulgate by completing the selected award application form.

Each state can have an unlimited number of entries, but each region will have only one winner. Every teacher with a successful program is encouraged to complete an application form. Your application could identify the program which will qualify for that elite selected award. ◆◆◆

# Agricultural Careers -- Oklahoma Style

*James P. Key*
*Teacher Education*
*Oklahoma*


James P. Key

At the August teachers' conference, each vocational agriculture teachin Oklahoma received a copy of the *Agricultural Careers* curriculum developed by the Agricultural Education Department at Oklahoma State University through cooperative funding from the State Department of Vocational and Technical Education and the Agricultural Experiment Station at Oklahoma State University. Following the advice of advisory groups made up of vocational agriculture teachers, State Department personnel, and university personnel, curriculum units based on performance objectives, video tapes of selected ag occupations, an ag occupations handbook, and a simulation game called "Pay Day" were developed. After development, they were tested in selected ninth grade classes of vocational agriculture departments across the state and found to be effective. The curriculum was also found to be equally effective with different ethnic groups and with disadvantaged students. A research study is underway now to develop an instrument to measure attitudes toward work and agricultural occupations. Following development of the instrument, a study will be conducted to see if the curriculum changes students' attitudes toward work and agricultural occupations.

### The Curriculum

Developed around the career development theory that students in junior high and high school are exploring occupations, the agricultural careers curriculum includes a section to orient the student to his own abilities and characteristics, to agricultural occupations, and to the decision-making process used in choosing occupations.

The first unit, Self Discovery, was designed to orient students to their own characteristics such as interests, personality, skills, and experience in relation to occupations. It uses an interest inventory, personality scale, autobiography, and other activities to aid the student with his look at himself.

The next two units were constructed to acquaint the students with agriculture as an instructional area and the major clusters of occupations in agriculture. They include an introduction to the major USOE instructional areas and the seven agricultural occupations clusters. A listing of specific occupations from the *Dictionary of Occupational Titles* is included along with ways to enter and education needed for them. Assigned activities help students determine demand for the occupations.

The specific agricultural occupations units attempt to help students look at individual agricultural occupations in more detail. The units help the students look at duties and responsibilities of this occupation as well as benefits, working conditions, and steps which could be taken to enter the occupation. Video tapes of workers in each occupation bring the students face to face with the actual situation and working conditions and allow them to hear views of a worker in that occupation. In addition to or in replacement of the video tapes, the teacher could arrange field trips, resource persons, or a trial of some of the skills of the occupation. Occupations in each occupational cluster were chosen based on demand, experts' opinions, and availability. Specific occupations can be added or deleted from the program as local and state conditions dictate.

The last two units, Decision Making and "Pay Day," help students in making tentative decisions about occupations and then go through the decision-making steps through assignment sheets and the simulation game. Students first choose three occupations and gather information about them in order to compare them. After tentative choice of one occupation, they get to see how education, experience, and chance factors combine to help them progress in their chosen occupation. The "Pay Day" game is patterned somewhat after "Monopoly" but uses education, experience, economics, and chance to progress the student to different levels in his chosen occupation.

### Video Tape Development

A video tape was made of a person employed in each of the specific agricultural occupations chosen. The following questions were discussed with the individual while he demonstrated some of the duties performed in the occupation and the working conditions:

1. What are the tasks performed in this occupation?
2. What are some of the special tools used in this occupation?
3. Where can a person receive training for this career?
4. What is a method which a high school vocational agriculture student could use to gain entry into this occupation?
5. What are some personal traits that are desirable for a person in this occupation to have?
6. What is the approximate wage or salary a person could expect in this business or occupation?
7. How did you attain your position?

These video tapes ranged from 15 to 30 minutes in length and were shown unedited to the students as they were filmed at the occupational location. The decision to do this was based on the idea that these tapes could not

*(Concluded on next page)*



CONTINUED AG CAREERS . . .

compete with commercial television quality and therefore would be more representative of the actual conditions unedited. Employers and employees alike were very cooperative and willingly signed releases for these tapes to be used for educational purposes.

Additional video tapes have been developed for the swine herdsman, artificial insemination technician, pest control specialist, welder, small engine repairman, partsman, agricultural construction worker, greenskeeper, greenhouse worker, woodsman, USDA commodity grader, and agricultural bank representative. Slide tapes are being developed for each of the specific occupations in addition to the video tapes.

### Supplementary Materials

A *Handbook of Agricultural Occupations* was developed including all the agricultural occupations in the *Dictionary of Occupational Titles* (DOT). The occupations and their descriptions were grouped into the seven agricultural occupations clusters by *Dictionary of Occupational Titles* numbers for easy reference. The *Handbook* is used by the students to search out occupations of interest to get descriptions of them in conjunction with the occupational units.

The *Oklahoma Training Information System* current report is used along with several of the units to help determine demand for agricultural occupations. Students are also encouraged to visit local businesses, state employment agencies and other sources to determine local and state demand.

The *Vocational Agriculture Interest Inventory* (available from Interstate Printers and Publishers) is used with the Self-Discovery unit to aid students in determining their interests in agricultural occupations. This is the only item which must be ordered from an external source.

The Agricultural Careers curriculum is available from the Curriculum and Materials Center of the Oklahoma State Department of Vocational and Technical Education, 1515 West Sixth Street, Stillwater, OK 74074. The price is $10.00 for the curriculum and $6.00 for the *Handbook of Agricultural Occupations*. There is a 40 percent discount for ordering 50 or more. The video tapes will be available to each state and then can be copied by any school. ◆◆◆

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NEW SPECIAL EDITOR FOR PENNSYLVANIA, NEW JERSEY, DELAWARE, MARYLAND, AND WEST VIRGINIA


J. H. Mortenson

James H. Mortenson is Assistant Professor of Agricultural Education at The Pennsylvania State University. His responsibilities include teaching undergraduate methodology courses, supervising student teachers, and coordinating the College of Agriculture internship program. He also is in charge of the General Agricultural major curriculum and advises Eta Chapter of Alpha Tau Alpha.

Jim completed his BS degree at North Dakota State University and taught vocational agriculture in North Dakota for five years. He earned his Master's degree from Colorado State University in 1969 and his Ph.D. degree from The Pennsylvania State University in 1973. From 1971-1973, Jim was Instructor of Agricultural Education at Penn State, and codirector of the U.S. Office of Education funded project, "Development of Curriculum Guides for Career Education in Natural Resources."

CONTINUED VOCATIONAL TEACHERS TEAM UP . . .

seventh or eighth graders at once. Should one department drop out of the rotation, the students would likely end up in study hall, where they were when the program began.

### REACTION

Student and teacher reaction to this type of career exploration program has been very satisfying after five semesters of operation. They feel the program is successful because it uses local resources, is flexible and provides hands-on experiences in selected areas.

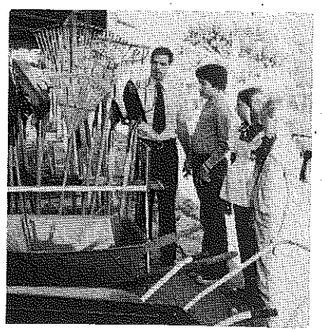
### SUMMARY

The program requires cooperation among vocational and non-vocational teachers and school administrators. It also requires some creative foresight in implementing the concepts of career education in a practical setting.

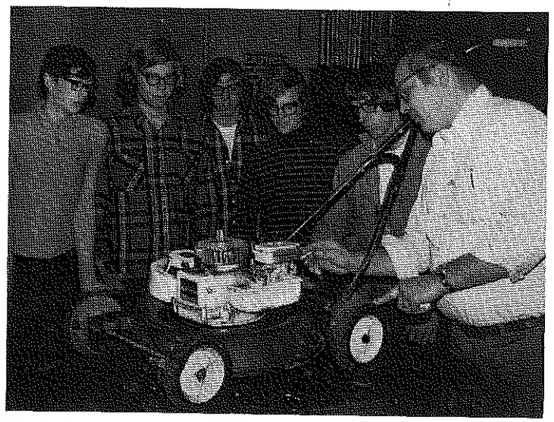
Agricultural Education career exploration programs in cooperation with other vocational teachers as well as general education teachers can offer a little segment of, "try it and see if you like," and "hands-on" in a variety of career fields. Junior high students can get a good picture of the kinds of things involved in vocational education and the kinds of careers for which they might prepare. ◆◆◆

# STORIES IN PICTURES

by Jasper S. Lee



REALISTIC EXPLORATORY ACTIVITIES — Pupils enrolled in an exploratory agriculture class at R. E. Aylor Junior High School (Stephens City, Virginia) are shown participating in realistic activities. In the photo on the left, Larry Powell, exploratory agriculture teacher at the school, is shown demonstrating the threading o pipe. The photo on the right shows Wayne McAllister, also an exploratory agricul ture teacher at the school, explaining a display at a nearby farm and garden supplies store. (Photo by Robert Veltri and courtesy Larry Miller, Virginia Polytechnic Institute and State University)

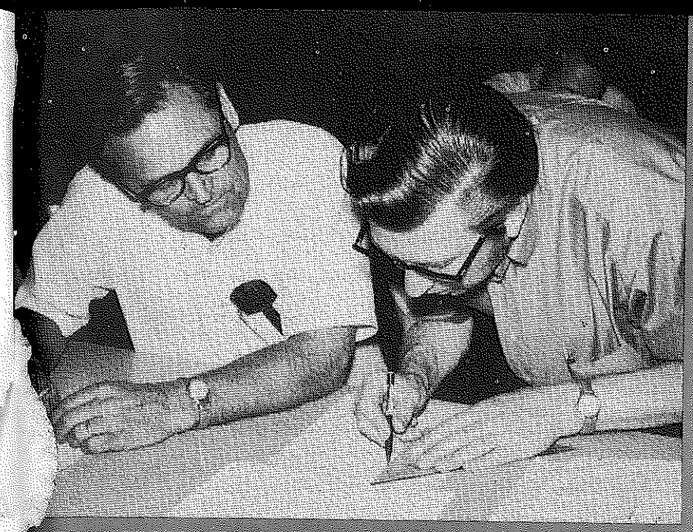


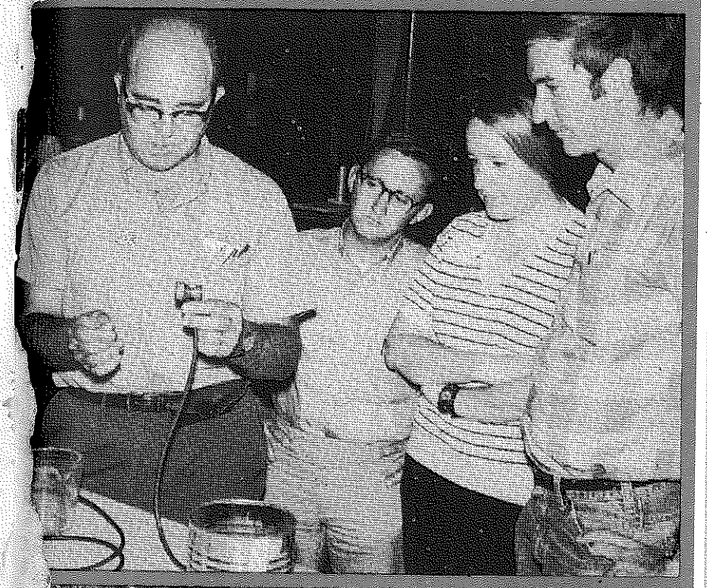
DEMONSTRATING ENGINE ADJUSTMENT — Students at Coopers Plains BOCES (New York) are shown observing the adjustment of a lawnmower engine by their teacher, James Katt. (Photo courtesy Richard Jones and Arthur Berkey, Cornell University)

PRINCIPLES OF ENGINE OPERATION — Tom Giles, agricultural mechanization instructor at Schuyler-Chemung-Tioga County (New York) BOCES, is shown explaining the operation of a four cycle engine to pupils enrolled in Agriculture II class. (Photo from Richard Jones and Arthur Berkey, Cornell University)

ON-THE-JOB SUPERVISION — Jeff Bates, agribusiness student at Opelika, Alabama, is shown checking azalea buds under the supervision of his agribusiness instructor, Joe Pearson. Jeff is placed in Hall's Floral Growers, Inc., in Opelika. (Photo by Frank B. Killough, Alabama Department of Education)

MEDIA IN AGRICULTURAL EDUCATION — Mississippi State University personnel are shown reviewing new materials received for a funded project on Career Preparation in Agriculture. Project staff include (left to right) David Faulkenbery, graduate assistant, and John Oren, Jasper Lee, and Ronald Brown, faculty members, Department of Agricultural and Extension Education. (Photo by J. R. Hamilton, Mississippi State University)



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