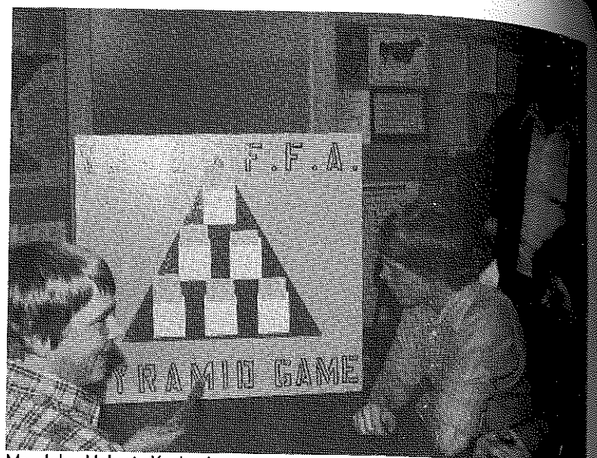
STORIES IN PICTURES

by Joe Sabol

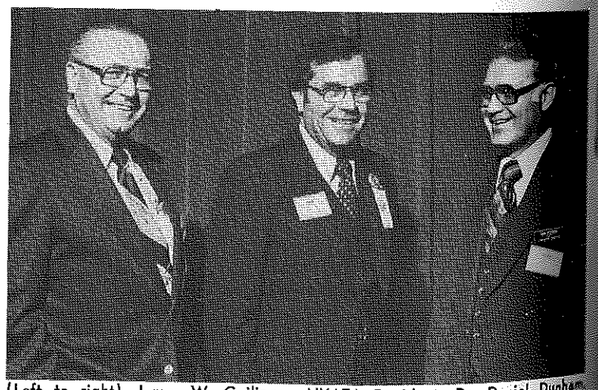


Mr. John Hobart, Vo-Ag Instructor, Cannon Falls, MN, gets his idea across to students studying FFA with a "Pyramid Game" he developed in a summer course in AgEd at the University of Minnesota. (Photo courtesy Gary Leske, U. of Minn.)

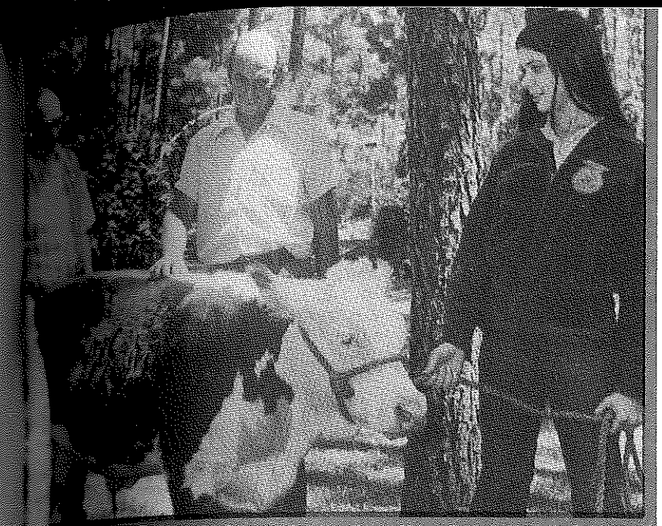
Glen C. Shinn is shown reviewing a filmstrip from his new "Working in Agricultural Mechanics" kit in preparation for a special methods class in agricultural mechanics for undergraduate students at Mississippi State University. Shinn authored the kit which is published by the Gregg Division, McGraw-Hill Book Company. (Photograph by Jasper S. Lee, Mississippi State University)

Rodney Wallbrown (right center), Vo-Ag Instructor at Point Pleasant, West Virginia, discusses tobacco production with a group of Indiana Vo-Ag teachers. The Indiana teachers were touring several states during a traveling graduate course. (Photo courtesy Gary Moore, Purdue)

Working with actual plant materials in the school greenhouse is a means that Mr. Lee Sandager, Vo-Ag instructor, uses to get ideas across. (Photo by Forrest Bear, University of Minnesota)



(Left to right) James W. Guilinger, NVATA President; Dr. Daniel Dunham, Deputy Commissioner of Education in charge of U.S.O.E. Bureau of Vocational, Technical, Occupational and Adult Education; Sam Stenzel, NVATA Executive Director. Dr. Dunham is the newly appointed Deputy Commissioner for Occupational and Adult Education in the U.S.O.E. He attended the National FFA Convention and made a special effort to get acquainted with agricultural education leaders, including members on the NVATA Board of Directors. (Photo courtesy NVATA)



AGRICULTURAL EDUCATION

Volume 51 Number 10

April 1979

FEATURING:

- TIPS ON CO-OP PROGRAM
- BUILD A PORTA-PEN
- FFA CONCERN
- "DOWNTOWN" TEACHERS
- TEACHER ED S.O.E.
- S.O.E. CURRICULUM

Theme—
Supervised Experience
Doing to Learn
Learning to Do

AGRICULTURAL EDUCATION

April 1979 Volume 51 Number 10

THEME — SUPERVISED EXPERIENCE DOING TO LEARN LEARNING TO DO

COVER PHOTO

Top Photo —
COMMUNICATION AND CO-OPERATION = SUCCESS. An essential element in a strong supervised occupational experience program is the communication between the Louisiana vo-ag teacher (left) and his student and her father. She is preparing her steer for the Louisiana State Fair.

Center Photo —
CLOSE INDIVIDUAL SUPERVISION. Supervision for this Louisiana vo-ag student insures close individual attention and instruction. The instruction on this new tractor provides him with the skills to succeed in his work experience program.

Bottom Photo —
LEARNING TO DO. Floyd Yancy of Zachary, Louisiana knows that he can be a very effective teacher while supervising his student's horticulture enterprise. (Photos courtesy of Dr. Jim Atherton, Louisiana State University.)

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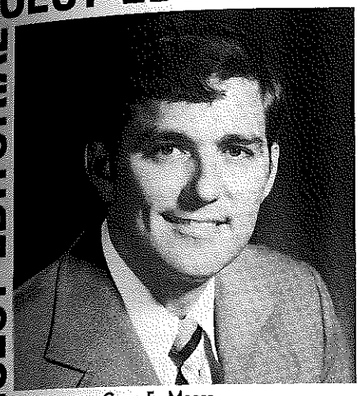
GUEST EDITORIAL



Gary E. Moore

Back to the Basics in Teaching Agriculture— THE PROJECT PLAN

by
Gary E. Moore
Teacher Education
Purdue University
West Lafayette, IN

During the past few years there has been considerable discussion about returning to the basics in education. Many schools are now placing renewed emphasis on reading, writing, and arithmetic. Perhaps it is time teachers of vocational agriculture re-examined some of the old basics of teaching agriculture and started placing renewed emphasis on the basics.

WHAT ARE THE BASICS OF TEACHING AGRICULTURE?

In a recent issue of *Agricultural Education,* Sherman Dickinson, the editor of Agricultural Education from 1930 to 1932, listed four early basics of teaching agriculture.[1] They were:

1. The Project Plan
2. Motivating Students
3. Problem Solving
4. Dedicated Teachers

If one were to review the early textbooks in vocational agriculture, he or she would discover these four basics were indeed the fundamental basics of teaching vocational agriculture during our early history. It appears that these four basics are as valid today as they were fifty years ago. However, it seems that some of the basics have been ignored or forgotten during the past decade or two. Let's re-examine one of the basics, the project plan, and see how relevant it is today. In future issues the other three basics will be examined.

THE RISE AND FALL OF PROJECTS

The "home project" plan of teaching ariculture was started by R. W. Stimson of Massachusetts in 1908.[2] He expected students to have crop or livestock projects at home. By doing this, the students would see the practical application of what they learned at school. Much of Mr. Stimson's planning and thinking was influenced by John Dewey. Dewey was of the opinion that, "All genuine education comes about through experience."[3] It was this type of thinking that lead to the creation of farm projects.

It appears the state legislators in Massachusetts agreed with the views of Mr. Stimson as they sanctioned the project plan by placing it in legislation passed in 1911. Without much doubt, the use of home projects in Massachusetts paved the way for inclusion of the project plan in the Smith-Hughes Act. In the Smith-Hughes Act, the act that officially started vocational agriculture in 1917, it is stated, "That in order to receive the benefits of such appropriation . . . such schools shall provide for directed or supervised practice in agriculture, either on a farm provided for by the school or other farm, for at least six months per year."[4]

For years students learned much about agriculture through the projects they carried on their home farm. Students were expected to have production projects, improvement projects, and perform supplementary farm practices. Records were kept and teachers provided on-the-farm supervision of projects. The term supervised occupational experience program (SOEP) was often used instead of the term project. It was during this time in history that agriculture improved rapidly.

The passage of the Vocational Education Act in 1963 signaled the start of the decline of projects. The 1963 act expanded the scope of agriculture to include training for non-farm agricultural occupations. Part of the 1963 Act reads, "any amounts allotted (or apportioned) under such titles, Act, or Acts for agriculture may be used for vocational education in any occupation involving knowledge and skills in agricultural subjects, whether or not such occupation involves work of the farm or of the farm home; and such education may be provided without directed or supervised practice on a farm."[5]

In some states, this was interpreted to mean that projects were still required but they could be off-farm projects as well as on-farm projects. In many states however, the interpretation was "projects were no longer required." Consequently, teachers, teacher educators, and supervisors placed less emphasis on projects. Teachers in many states were no longer required to submit annual reports summarizing the students' projects. A number of teachers quit requiring students to keep records. Research conducted in a southern state recently revealed that only 58 percent of the vo-ag students had or were expected to have any type of supervised experience program.[6] It appears that projects are no longer considered one of the basics in agriculture.

(Concluded on page 220)

WHY SHOULD WE RETURN TO THE PROJECT PLAN?

A question that might be asked is, "Why should we place a renewed emphasis on projects (SOEP's)? As a high school vocational agriculture teacher, I occasionally doubted the values of projects. (Generally, when the state report was due.) It was difficult at times to get some students motivated to have a project. Requiring students to have projects was time consuming and required work. Yet, in spite of all the work, there are a number of sound reasons for returning to the project plan.

Research has revealed that student learning is enhanced through their projects or SOEP. In a study conducted in Ohio, Neavill[7] found that students had a greater knowledge of certain agricultural subjects if they also had a project in that subject. For example, students who had crop projects scored higher on a crop production test than their classmates who did not have such projects. These results support Dewey's contention that experience is a good teacher.

At Iowa State University Williams[8] found that students regarded SOEPs as valuable in developing: 1) an appreciation of the importance of honest work, 2) acceptable personal and work habits, and 3) their ability to work with others. Based on this research, it appears that SOEPs contribute to the formation of important personal attributes.

Classroom teaching is easier when the students have projects. The teacher can make reference to students' projects during the class. This helps maintain student interest. Often, students can see the relevance of the material being taught.

A number of other reasons could be given why projects are important. Phipps[9] lists 17 reasons why students should have projects. During the past three years this writer has observed vo-ag classes being conducted in 82 different high schools. There is a noticeable difference in the programs where students are expected to have projects and in programs where student projects are not emphasized. It is this writer's opinion that the quality of many vo-ag programs has declined since projects (SOEPs) have been de-emphasized. As a result of this de-emphasis, vocational agriculture has become another *academic* class in some schools.

If the agricultural education profession is serious about maximizing student learning and conducting quality *vocational* programs, then a return to the project plan is needed.

RETURNING TO THE PROJECT PLAN

Requiring each student to have a project is not as difficult as it may first seem. The first step is to convince yourself that each student will have a SOEP. Establish the fact that SOEPs are required of all vo-ag students. As the instructor you can establish class standards and expectations. Having a SOEP is a part of vo-ag just as taking tests, working in the laboratory, or participating in a class discussion.

The second step is to inform the students of the importance of SOEPs. This is best accomplished through a problem solving process, instead of telling the students they have to have a project. Ask the students — Why are projects important? What are the benefits of having projects? Their responses may range from making money, to FFA awards, to preparing for a career. If the students can't think of reasons you might need to provide some hints.

Establish a routine for allowing students to record information about their projects in their record book. Give the students the first 15 minutes of class on Monday or Friday for this purpose. Collect the record books once per month or once per grading period and grade them. Let the students know the records on their SOEP counts 10-15 percent of their grade.

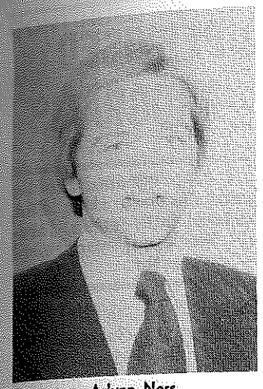
Teachers should provide assistance in planning the SOEP. For students with limited opportunity the project may be nothing more than a flat of plants in the school greenhouse, a small garden at home or on the school grounds, five potted plants, the maintenance of the backyard at home, or work experience in the community. Even if the project is small in scope, students can benefit from the project if the teacher requires them to keep records and provides assistance.

CONCLUSION

All students in vocational agriculture should be required to have a project. There is a sound philosophical foundation for projects, and research has shown that students benefit from projects. The project is one basic in vocational agriculture that we need to return to. ◆◆◆

REFERENCES

[1]Sherman Dickinson, "Reflections of the Second Editor of Agricultural Education — The Oldest Living Former Editor," *Agricultural Education*, Vol. 51, No. 7, (January 1979), p. 151.
[2]George P. Deyoe, *Supervised Farming in Vocational Agriculture*. Danville, Illinois: Interstate Printers and Publishers, 1943, p. 49.
[3]John Dewey, *Experience and Education*. New York: The MacMillan Company, 1938, p. 13.
[4]The National Vocational Education (Smith-Hughes) Act. (Public Law No. 347, The Sixty-Fourth Congress — Senate Bill 703).
[5]The Vocational Education Act of 1963. (Public Law No. 88-210, The Eighty-Eighth Congress — House of Representative Bill 4955.)
[6]Joseph R. Clary, "Status of Vocational Agriculture and the Changing Role of the Teacher of Vocational Agriculture in North Carolina," Unpublished paper, National Agricultural Education Research Division Meeting, The American Vocational Association Convention, Atlantic City, New Jersey, December 1977.
[7]Arthur Neavill, "What Do Students Achieve Best in Vocational Agriculture?" *Agricultural Education*, Vol. 46, No. 12, (June 1974), p. 284.
[8]David L. Williams, "What Do Students Think of Supervised Occupational Experience?" *Agricultural Education*, Vol, 50, No. 12 (June 1978), p. 281
[9]Lloyd Phipps, *Handbook on Agricultural Education in Public Schools*, Danville, Illinois: Interstate Printers and Publishers, 1972, p. 187.



Arlynn Ness

Some Tips on . . . Managing Your Vo-Ag Co-op Occupational Experience Program

by
Arlynn Ness
Vo-Ag Teacher/Co-op Coordinator
Olivia, MN

There are times when I simply stop whatever I'm doing and spend a few moments thinking about the significance of my job. I enjoy what I do very much, and I am proud of what I have done with a high school program I "inherited" almost two years ago.

"I am a vo-ag instructor/coordinator," I say to new acquaintances, and I describe the latter part of my title by saying that I "help young people to plan their future by giving them a chance to try out ag careers that interest them". I also try diplomatically to add that I am responsible for some very positive changes that have occurred in the lives of some of my students.

Consider the impact we have had on some of our students' lives by providing them with career experience with greenhouses, implement dealers, grain elevators, etc. The following facts quickly become obvious:

- *It's the student's first opportunity to prove himself as a responsible employee.*
- *The student will acquire many technical, job-related skills.*
- *As a result of his experience on the job, the student should be better able to make a more effective career decision.*

When I think about these things, it is easy for me to be very enthusiastic about this type of program. There is no doubt in my mind how valuable this program can be to the students, school and the entire community.

It is my purpose in this article to share with you some of my ideas about conducting the vo-ag cooperative occupational experience program, such as the one with which I have been working. I hope that you find one or two ideas here that will prove helpful as you coordinate your program.

ESTABLISH A GOOD WORKING RELATIONSHIP WITH ALL POTENTIAL EMPLOYERS

I have found that it is extremely important to maintain a "high profile" among the agri-business people in the community. It is necessary to get acquainted with all these people, and to make certain they understand your program.

As a newcomer, my first problem was to identify all the potential employers in the area, and make contact with each of them. I received excellent assistance from several people, including my advisory committee members, and the directors of the local chambers of commerce. They provided me with lists of local agri-businesses, and they accompanied me when I made my initial visits to each of the businesses.

I feel it is necessary here to stress the importance of making your initial contact with each employer a *personal* contact. This is much more effective than a letter or a telephone call, even though it takes a lot more time. After my initial contacts, I also tried to "stop by" each business occasionally, just to keep the lines of communication open.

It is very important to show a genuine interest in each business. I learned immediately that the agri-business manager enjoys discussing the operation of his business. He likes to talk about such things as new products, the locations of his other stores, and how he performs various management functions in his business. By placing a student there, I feel I am serving the business as well as the student, so my interest in the well-being of the business will help to build the employer's confidence in me as a coordinator, thus resulting in a stronger program.

PUBLICIZE YOUR PROGRAM

The local newspapers each wrote an article about me and my program when I first arrived. Since then, they have been very supportive of my program by printing stories about the students and businesses who are participating.

When doing the stories, try to build them in three parts:

- *Introduce the student. Include the parents' names, the employer's name, the business name, the school attended, etc.*
- *Describe the learning activities performed by the student on the job. Be sure to stress that the student is learning while on the job.*
- *Include the student's future plans.*
- *A picture accompanying the story is essential. It serves as recognition to the employer as well as the student, and this can only help you and your program.*

Try to take the kind of picture which shows the student working at a task while being supervised by the employer. This type of picture is much more interesting than the picture showing the student and employer merely smiling back at you while posing in front of a brick wall.

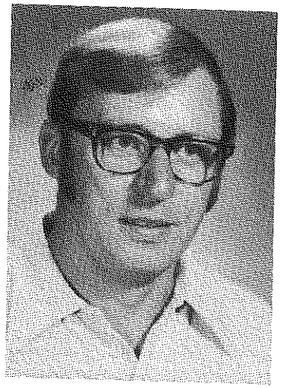
UTILIZE YOUR ADVISORY COMMITTEE

Though we may get tired of hearing the "use your advisory committee" speech, there is much truth to be found there. The advisory committee members can be most useful by helping to promote your program in the community. Familiarize them with your program, and have them help you with the projects which will help to promote and improve your program.

My advisory committee organized a dinner meeting, and invited three of our cooperating employers and their spouses. The purpose of this meeting was to visit with the employers about their impressions of the program, and to listen to their suggestions for improving it.

(Concluded on page 223)

STIMULATING STRONGER SUPERVISED OCCUPATIONAL EXPERIENCE PROGRAMS



John C. Hobert

by
John C. Hobert
Vo-Ag Instructor
Cannon Falls, MN

Stronger S.O.E. programs can be encouraged through the FFA awards system with some forethought by the local vocational agriculture instructor.

Vocational agriculture educators agree that supervised occupational experience programs are necessary for a local program to be truly vocational in nature. Instructors complain about this additional workload, and students complain about their record books in the beginning. However, with continued reinforcement about the need for these programs, students can soon see and accept these required programs as merely what is expected when enrolled in vocational agriculture.

Weak departments must work much harder than well established programs at establishing the S.O.E. program ideals as a reality and something which is simply expected of all vocational agriculture students. For the new instructor, just out of college or in transit from a previous school, this may be one of the most difficult assignments facing the new department's development. This I found to be true in my own case as I began my teaching career at Cannon Falls Senior High School during the 1971-72 school year. Stimulation of students to develop on-going S.O.E. programs is a continual assignment and one which demands student reinforcement at all times. In our local vocational agriculture department, students are expected to: 1) have in operation a supervised occupational experience program all year round, 2) keep a set of records on these S.O.E. programs all year round, 3) file their records at the local vocational agriculture department in individual files at all times for continual examination by the instructor, 4) hand in their record books each tri-mester (twelve week period) to receive double grades for their individual programs, and 5) reinvest earnings into the expansion of their individual S.O.E. programs as well as for FFA related honors in the Proficiency Award Program or advanced degrees.

The freshman student or older new students in vocational agriculture should be indoctrinated to the individual department's policy as soon as he or she enters vocational agriculture and becomes associated with the FFA. As years go by, new students learn through other students what is expected of them prior to their entering vocational agriculture, as long as the instructor is persistent in the follow-up of previous students' programs. Supervised occupational experience programs provide the students with experiences which classroom training cannot match.

I would like to share some ideas we have developed at our vocational agriculture department during the past three years regarding the FFA proficiency award system.

IS A MINI-FOUNDATION IN YOUR FUTURE?

The awards system of a FFA chapter is a necessary and viable tool with which to encourage youth to excell in their chosen supervised occupational experience program within an individual vocational agriculture department. Granted, the State FFA Foundation does sponsor district, regional, and state proficiency awards of merit, but many times many other excellent S.O.E. programs are lost at the district level with little or no recognition of extremely worthy students. Our chapter encourages students to excel in these programs and recognizes these students at the local level annually. Many times, outstanding S.O.E. programs are rather small in scope but outstanding in nature. These students need to be recognized for their efforts as well as those with more opportunities in the expansion of their programs.

LOCAL SPONSOR SUPPORT

For many years, the National FFA Foundation has sponsored proficiency medals for some twenty-two different project areas, but no awards of higher esteem at the chapter level. Several years ago, it was noted that individual proficiency plaques could be secured through the Future Farmer Supply Service. The cost of these awards made it impossible to purchase them with the finances available at our chapter level and still carry on our many other program of activities projects. Therefore, I thought that many of our local businesses might want to sponsor individual awards in the Chapter's Foundation Project Award System to go with the medals provided. Several agricultural businesses were contacted locally and excellent support was received from them in securing twelve-year rotating plaques which now hang permanently in the vocational agriculture department and individual foundation plaques to be sponsored by the firms annually. The sponsor's cost for the first year of involvement in the local mini-foundation is currently near thirty dollars with each subsequent year's cost expected to be in the area of ten dollars, based on prices from the Future Farmers Supply Service.

SELECTION

Cannon Falls FFA members now apply for these proficiency awards using a chapter-developed application shortly after the beginning of the new year, coinciding with the district FFA's deadlines in February for Proficiency and State Farm Applications. The chapter's most outstanding supervised occupational experience programs are then selected for competition at the district level. During the current school year, our newly formed Alumni Association will begin to assist in the selection of the individual proficiency award winners by personal interviews

(Concluded on the next page)

CONTINUED *STIMULATING STRONGER SOEP*

and from visitations. Cannon Falls FFA members may receive an individual proficiency award in a specific area only once during a three year period. This enables other worthy members in the various proficiency areas to be recognized for their talents and hard work in vocational agriculture and the FFA.

AWARD

These foundation proficiency plaques are then presented at our Annual Parent and Member Banquet during April, following the Minnesota State FFA Convention. All local sponsors are invited to attend, be recognized for their support of the Cannon Falls FFA Mini-Foundation, and see their individual proficiency plaques awarded to worthy members of the local FFA chapter. These firms are then billed for the cost of the plaques and engraving annually. Together, these firms are known as the CANNON FALLS FFA MINI-FOUNDATION and our number of sponsors continues to grow each school year. The Cannon Falls Vocational Agriculture Department currently has seventeen sponsors of these foundation proficiency award areas. Our local department hopes to secure more sponsors in its mini-foundation in future years to cover all twenty-two proficiency award areas. The local CANNON FALLS FFA MINI-FOUNDATION has stimulated both parents and students alike in supervised occupational experience programs and has stimulated record keeping in our local department. Could this work for you? Your community most likely has this type of support also! ◆◆◆

CONTINUED *MANAGING YOUR VO-AG CO-OP . . .*

The members of my advisory committee also organized a schedule, whereby they took turns accompanying me and the parents of the students to the students' worksites. While there, the parents were able to better understand what their son or daughter did on the job, and they also got a chance to get acquainted with the employer. This has proven to be a very worthwhile activity, and I have my advisory committee to thank.

MATCH THE STUDENT TO THE JOB

Try to make each placement the "ideal" placement. It is most rewarding to know that you have placed a student with a seed company when you know that he or she is genuinely interested in the seed business, or the technical aspects of the seed business.

It is important to first determine what the student's interests are. Talk to the student, tell the student what jobs are available, and let the student decide.

As a part of my "Agricultural Occupations" course, students must learn to construct a resume and a letter of application, and they also get some simulated job interview experience. I require all my students to submit a formal resume and a letter of application to the agri-business managers they hope to work for. They must interview for the position, and the employer then decides which student to hire.

Don't forget to make contact with the parents and the high school guidance counselor. The parents must approve of their son's or daughter's participation in the program, so a visit to their home to explain your program will be helpful. The guidance counselor can supply you with information about the student which should help acquaint you with the student's strengths and weaknesses. This should help to head off a few problems when the student starts his job.

"MANAGE" YOUR VO-AG COOPERATIVE OCCUPATIONAL EXPERIENCE PROGRAM

Organization is a key factor in operating a successful program. Here are a few of my suggestions:

1. KEEP A NOTEBOOK ON EACH STUDENT THAT YOU PLACE.

I have 30 notebooks of the "3-ring" variety, which I use for record-keeping in my program. I designate one notebook to each student, and I keep the notebooks in my office. I take them with me when I visit the students on the job or in school. They provide instant access to the following items which I feel are essential:

- *Training Agreement (Employer should also have a copy)*
- *Training Plan*
- *Past Weekly Summaries of student's work experience. (They are completed by the student on a weekly basis)*
- *Age Certificates*
- *Employee Evaluations (Completed by the employer; reviewed by the student.)*
- *Copies of any Applications for Permission to Employ the Student-Learner at Subminimum Wage.*

2. VISIT THE STUDENT ON THE JOB REGULARLY

The hectic pace of a coordinator's life can cause him to "put-off" visits to the point where a month or more can elapse since his last visit. Make a schedule for visits, and then stick to it.

3. HELP THE EMPLOYER TO COMPLETE PERIODIC EVALUATIONS.

Choose an evaluation form which you feel would be most effective, then periodically (about every 6 weeks) work with the employer to complete the evaluation. Urge the employer to write comments on the evaluation. These comments are usually more helpful to the student than the "rating" part of the evaluation, because it is easier to relate to them than numbers.

4. VISIT WITH THE STUDENT IN SCHOOL OCCASIONALLY.

Schedule a time now and then to visit with the student in school. A study hall, noon hour or prep period offers an excellent chance to talk to the student about his experiences on the job. It is also a good time to update the student's training records. If you are fortunate enough to have the student in a year-long class during the school day, you can always schedule some time then for this activity. ◆◆◆

Mike Willey, 1978-79 Ag. Occupations Student, is shown working at Long's Automotive, Olivia, MN.

EXPERIENCE BASED EDUCATION— TOWARD EFFECTIVE SUPERVISION

by
Maurice P. Hartley
Director of Cooperative Education
Rutgers —
The State University of New Jersey
Cook College

Learning by doing is a concept and practice long accepted by those of us associated with agricultural education. Our students have used milk cartons, plastic-bag greenhouses, window-box plantations, small area gardens, and a variety of home-based projects to demonstrate their knowledge and understanding of the principles of agricultural science discussed in the classroom.

More recently, we have witnessed a proliferation of off-campus, experience-based educational opportunities such as practicums, externships, internships, field study, and cooperative education. As students alternate periods of campus-based study with periods in work-learn settings, their direct supervision by the classroom teacher is necessarily being replaced by the on-site supervisor.

Problems regarding supervisory aspects of internships frequently emerge, and they are discussed at almost any gathering of people involved with such programs. Program directors, faculty, and students speak of supervisors' inaccessibility, poorly defined work assignments, and failure to provide adequate feedback and evaluation. Site supervisors, on the other hand, complain about paper work, lack of understanding regarding academic expectations, and difficult students.

There is general consensus that on-site supervision plays an important role in facilitating student learning, but the establishment of meaningful work stations which include effective supervision does not occur automatically. This article is written with attention given those ingredients which have been found to be essential to the success of experience-based educational programs.

A SHARED RESPONSIBILITY

While the site supervisor is responsible for the daily guidance and supervision of the student employee or intern, faculty and other educational specialists who place the student must continue to be intimately involved. We must remember that most site supervisors have not been formally prepared for their "teaching" role. We share responsibilities in the planning and design phase, offer our expertise regarding the structuring and supervision of learning experiences, and participate in the evaluation of the work-learn environment and our students' achievements.

PLANNING AND DESIGN

The planning and design function precedes the onset of the internship. Potential sites for students interested in agriculture include the small family-owned farm, commercial farms, numerous agri-businesses, and a variety of state and federal agencies concerned with agriculture. In addition to the nitty gritty of day-to-day farming and production agriculture, the positions may be structured to permit students to learn about, and in some cases to advise, farmers and the managers of agri-businesses on the best ways to grow, market, process, and use farm products. Students can see first hand ways scientific methods are adapted to individual needs. Others may help farmers solve everyday problems of crops and soils, livestock and poultry, and farm machinery and buildings. They may assist farmer cooperatives or the wholesalers and transporters of farm goods. Still others may have positions with professionals who serve agriculture — the Cooperative Extension Service, veterinarians, vo-ag teachers, bankers, and so on.

The planning and design phase must include a commitment from the employer. There should be an articulation of the intern's work responsibilities, minimum qualifications, and the time commitment required. Clear *communication* between the employer-supervisor and the internship director or faculty sponsor is crucial during this phase, because the work plan is also the learning vehicle. The work plan must take into account the learning objectives of the program and of the student. At the same time, it should be one that will provide a valuable and productive service to the employer.

To facilitate effective planning, many internship programs use a contract procedure, orientation sessions and seminars, and provide handbooks. In any case, program objectives, procedures, and expectations of faculty, students and the cooperating employer must be clearly outlined.

ELEMENTS OF SUPERVISION

Once the work experience begins it is the responsibility of both the faculty supervisor and the site supervisor to provide students with adequate orientation and direction, so that work and learning objectives can be accomplished. Daily guidance and supervision are, of course, provided by the site supervisor. Faculty sponsors and program directors may be expected to conduct periodic telephone and on-site visits.

Communication continues to be an important part of the process. The student and the supervisor must maintain an on-going dialogue to clarify the work assignment, modify the previously planned objectives, resolve any difficulties that may arise, and provide faculty and students with any other necessary feedback.

Instructional and supervisory guidelines adapted from Charles R. Allen's 1919 classic entitled *The Instructor, the Man, and the Job* are amazingly applicable today. Faculty sponsors or program directors may wish to share the following teaching strategies with site supervisors:

Preparation for Instruction

Develop a Time Table — how much

(Concluded on the next page)

Co-op student Laura Buck monitors the bacterial quality of shellfish and shellfish "farming" waters at New Jersey's Department of Environmental Protection Water Pollution Control Lab. Co-op Director Hartley and site supervisor Dubois watch the process.

skill do you expect the student to have by what date?

Outline the Job — list important steps; outline key points, such as safety, accuracy, and so on.

Have Everything Ready — provide the right equipment, materials, supplies, and have the workplace organized as the student-worker will be expected to maintain it.

Instructional Procedures

Prepare the Worker — put the student at ease; describe the job and determine what the student already knows about it; explain the importance of the job and otherwise stimulate interest.

Present the Operation — describe and illustrate each key point or important step one at a time; instruct clearly, thoroughly, and patiently, but cover no more than the given student can master at a time.

Try Out Performance — have the student explain each key point as the job is being performed; correct any errors; repeat until errors are eliminated or reduced to accepted standards.

Follow Up — designate to whom the student may go for further assistance; permit the student to do the job independently, but check frequently; encourage questions; taper off extra coaching and close supervision as the student demonstrates the desired level of performance and responsibility.

EVALUATION

The evaluation process is extremely important to the internship program. It should include the faculty sponsor's and the site supervisor's assessment of the student's growth and performance *and* the student's evaluation of the internship. The evaluation should be open and honest. One positive approach is to identify *commendations* and *recommendations* relevant to the internship and each participant. These may be used to improve the placement for future interns.

SUMMARY

In this article we have acknowledged that effective supervision is crucial to the success of experience-based educational programs where students are "doing to learn" as they "learn to do." The responsibilities associated with planning and design, supervision, and evaluation of internships are shared by program directors, faculty sponsors, employer-site supervisors, and students. Special attention has been directed toward the elements of effective supervision including preparation for instruction and instructional procedures. In brief, the site supervisor serves as role-model and mentor to the student, providing encouragement, instruction, guidance, and constructive criticism.

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TEA, by Thomas Eden. New York: Longman, Incorporated, 1976, Third Edition, 236 pages, $29.50.

Tea is an extensive and exhaustive book. Its contents include background information, tea culture, and tea manufacture. The background information traces the origin and development of tea culture, the botanical characteristics of the plant, and tea leaf chemistry. Tea production comprises a major portion of the book. The physical requirements of soil, climate, land preparation, weed control, nutrient requirements, shade, irrigation, and disease and insect control are detailed. The cultural aspects of tea production included are propagation, pruning and plucking. Tea manufacture and the tea trade and industry are described from early commercial production through present techniques with observations about the future of the tea industry.

The book is well illustrated with tables, drawings and photographs. It provides a worldwide treatment of the subject and is documented with many research references. The book presents a reasonable and useful balance between the technical and practical aspects of tea production and fills an existing void.

Dr. Eden has had a lifetime of experience in the tea industry, mostly with tea research institutes in Sri Lanka and East Africa. His commanding knowledge of tea is evident throughout the book in his matter-of-fact, readable style.

The book is suitable for classroom use in upper secondary schools and at the junior college level. It would also serve as a valuable handbook in the tea production industry at the management level.

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ELECTRICITY AND ELECTRONICS FOR AGRICULTURE, by Allen F. Butchbaker. The Iowa State University Press, 1977, First Edition, 390 pages, $19.95.

Electricity and Electronics for Agriculture by A. F. Butchbaker is a book developed for students enrolled in Agricultural Engineering. The book begins with a chapter devoted to the basics of electricity. Successive chapters are devoted to electromagnetism, distribution of electricity, motors, lighting, environmental control, electronic principles, and controls.

This reviewer found the chapter on electric motors to be especially informative. Three-phase motors and the various types of phase convertors are clearly explained in this chapter. The lighting chapter brings material from diverse sources and presents it in clear text and excellent tables. Environmental Control is the subject of a chapter which digresses from electricity and describes heat and moisture transfer, ventilation, evaporative cooling, refrigeration and related processes.

Final chapters are devoted to electronics and to automatic controls. A learner with some background in semi-conductor electronics will find the book useful in his field. He uses many charts, drawings, etc. to supplement his teachings.

The book is written on a reading level hard for most high school students to comprehend. It is ideal for vocational agriculture teachers as reference material. For technical agriculture courses, the teachers could use this book as reference also. Graduate and post graduate college level students in soils study or in individual study in soils could use this book.

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BEHAVIORAL PROBLEMS OF FARM ANIMALS, by M. Kiley-Worthington. Boston, MA: Routledge & Kegan Paul Ltd., 1977, 134 pages, $8.75.

Behavioral affects among farm animals have been investigated and their relationship to current management and future production needs are discussed. The author has reviewed the current literature and combined his personal experience plus those of other professionals to provide a technical and practical insight into current behavioral issues. Topics which are discussed vary from the affects of aggression, environmental change, crowding and confinement, food intake, learning in farm animals, plus others. Research data, personal observations, and production characteristics related to these topics are highlighted which are then linked to current issues of housing, physiology of growth, management and the humane care of animals. Future animal production will require increasing efficiency and this text provides a resource for workers in these areas.

In order to obtain complete understanding of the text, a basic course in physiology and/or endocrinology would be helpful. Maximum comprehension of the material would require the student to be a college sophomore or junior. The text would be an excellent supplementary text for a course in the growing field of animal behavior or a reference for workers in the areas of animal production, management and building design. The author addresses an issue which is often overlooked and one which has tremendous impact in future animal agriculture.

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SUPERVISED OCCUPATIONAL EXPERIENCES IN THE SOUTHERN REGION

by
Jimmy G. Cheek
Department of Agricultural and Extension Education
University of Florida

Jimmy G. Cheek

The supervised occupational experience phase of the total program of agri-business and natural resources education had it's origin in the Smith-Hughes Act of 1917 which stated: "schools shall provide for directed or supervised practice in agriculture, either on a farm provided for by the school or other farm, for at least six months per year" (3: 578). As a result of this legislation and the belief that supervised occupational experiences are essential if the program is to be vocational, SOEP became an important component of the curriculum. Also, an integral relationship developed between SOEP, classroom instruction, laboratory practice, and FFA. However, it appears that less emphasis has been placed on SOEP in recent years.

The following statements by Gilbertson (2) support this contention and appear to summarize the growing assessment of national leaders regarding the current status of supervised occupational experience programs in agriculture:

Definition of wither: "To lose or cause to lose freshness, vigor and force." If we were in some phase of the plant industry and our plants were showing the symptoms just mentioned, it would be cause for alarm. We are, however, seeing these same symptoms in our agricultural education programs while many are showing little concern for the condition.

Have we reached the point where we just accept the malady or are these symptoms in their early stages and correctable? This definition for "wither" was taken from context and, as you can see, does not address the many definitions available. We also have different interpretations of Supervised Occupational Experience Programs (SOEP) in Agriculture. Whatever your definition may be, I suggest that this very important part of our total vocational agriculture program is "losing freshness, vigor and force!" (2:1).

In addition, the author has discussed SOEP with teacher educators, state staff members, and teachers from various states and received comments such as this: "The supervised occuational experience program is dead, so why waste time talking about it?" But comments similar to this have also been voiced: "The supervised occupational experience program is alive and a very important part — a vital component — of the total program of agri-business and natural resources education." It is obvious from these remarks and the previous statements, that different and sometimes polarized appraisals of the current status of SOEP exist.

These facts and impressions led to research designed to ascertain perceptions of head teacher educators of agricultural education and state directors of agricultural education in the southern region regarding the current and desired status of SOEP in their respective states and some of their opinions regarding experience programs in general. Thirty-seven individuals were selected to participate in this study and 34 (92 percent) responded.

FINDINGS

Head teacher educators and state directors were asked to indicate their perceptions regarding the current and desired status of SOEP in their respective states. Following are some of the major findings that emerged:

1. A discrepancy existed between the current and desired status regarding the number of students having supervised occupational experiences at all levels of instruction, particularly at the pre-vocational and post-secondary levels. The respondents believed that almost all students should have experience programs; however, this was currently not the case.
2. Head teacher educators and state directors believed that almost all teachers should have at least one period per day assigned for supervision of students' occupational experience programs. A discrepancy existed between this belief and the current status.
3. Both groups indicated a strong belief that students should keep records on their supervised occupational experience programs; however, they did not believe that a large percentage of students were currently doing so.

It is noteworthy to point out that both groups of respondents had high aspirations for SOEP and perceived the desired status surpassing the current status, thus indicating need for improvement.

OPINIONS

The second phase of the study sought to determine opinions of head teacher educators and state directors of agricultural education regarding selected aspects of SOEP. Listed below are some of the major findings that resulted:

1. Those responding strongly agreed that supervised occupational experiences are essential if students are to be prepared for employment upon program completion.
2. The respondents were undecided regarding whether less emphasis was being placed on SOEP today, when compared to the part, by state staff members and teachers. They disagreed that teacher educators were placing less emphasis on SOEP.
3. The respondents agreed that more emphasis should be placed on SOEP by teachers, teacher educators, and state staff members.

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4. Respondents tended to be undecided in responding to whether or not SOEP is successfully incorporated in the various instructional taxonomies. This was especially true for agricultural supplies and services, agricultural mechanics, agricultural products, agricultural resources, and forestry.
5. Teacher educators and state directors were undecided regarding whether adequate provisions (travel funds, release time, etc.) were provided for teachers conducting supervised experience programs.
6. Head teacher educators and state directors tended to agree that adequate resource materials are available which describe in detail what SOEP should consist of for students enrolled in various instructional taxonomies of agribusiness and natural resources education.
7. Respondents believed that adequate FFA awards were currently available to provide recognition for students with outstanding supervised occupational experience programs. Moreover, they believe that individual FFA awards motivate students to become more actively involved in SOEP.
8. Respondents tended to agree that individual FFA award applications, such as State Farmer Degrees, and Proficiency Awards, are one indication of the strength of SOEP at the local level.

RECOMMENDATIONS

These findings indicate that SOEP is a vital component of the total program and needs to be re-emphasized. In order to accomplish this the following steps appear appropriate:

1. More emphasis should be given to the supervised occupational experience program by teacher educators, state staff members, and teachers. We must believe that SOEP is an important and vital component of the total program of agri-business and natural resources education. It is not an optional accessory to be considered, but rather an integral part of the curriculum. Not only must we believe this, but we must also convince those with whom we work — prospective teachers, incumbent teachers, state education agency personnel, local school officials, and others — that SOEP is vital.
2. Secondly, we must possess a complete understanding of the components of the supervised occupational experience program. The supervised occupational program consists of all of the practical activities in which the student applies and practices the knowledge, skills, and affective behavior learned in the organized instructional program. In essence, the supervised occupational experience program is the major learning-by-doing phase of the program, generally involving those activities outside of the formal school setting. However, the data indicate, at least in some states, that adequate resource material is not available to describe in detail what an SOEP should consist of for the various instructional taxonomies. Also the findings revealed that SOEP may not be successfully incorporated into the seven instructional taxonomies. Therefore, where voids exist appropriate material should be developed which defines SOEP activities for all instructional taxonomies. Furthermore, a strategy should be developed to incorporate SOEP into all instructional program areas.
3. Almost all students enrolled in agribusiness and natural resources education should have appropriate supervised occupational experiences.
4. Almost all teachers should be provided with at least one period per day for supervision of the experience program.
5. Adequate provisions such as travel funds and release time should be provided for all teachers who conduct supervised occupational experience programs.
6. Students should keep records on their experience program activities.
7. In view of the fact, that adequate individual FFA awards currently exist and since these awards motivate students to become more actively involved in SOEP, students must be encouraged to apply for FFA awards which are based on strong supervised occupational experience programs. These include: local proficiency awards, regional proficiency awards, State Farmer degrees, American Farmer degrees, and local achievement awards. These awards, not only provide excellent recognition for the accomplishments of outstanding students, but are also motivational for other students. However, in 1974-1975 only 37.8 percent of the chapters in the southern region had members applying for State Farmer degrees and a very small percentage of the chapters had applications for proficiency awards in 19 award areas above the chapter level (1). If SOEP is to be re-emphasized, this situation must be corrected.

SUMMARY

Head teacher educators and state directors of agricultural education believe that SOEP is an essential component of the agricultural curriculum. Additionally, they indicated that teachers, teacher educators, and state staff members should place more emphasis on SOEP. If SOEP is to be strengthened, each one of us must commit ourselves to improving this aspect of the vocational agriculture program.

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1. Future Farmers of America, *Participation in Selected FFA Activities (1974-1975)*, Washington, D C.: U.S. Office of Education, 1975.
2. Gilbertson, O. S., "Wither We Go," *The Golden Slate*, June, 1976.
3. Phipps, L. J., *Handbook on Agricultural Education in Public Schools*, Danville, Illinois: The Interstate Printers & Publishers, Inc., 1972.

McGRAW-HILL ENCYCLOPEDIA OF FOOD, AGRICULTURE AND NUTRITION, by Staff of the McGraw-Hill Encyclopedia of Science and Technology. New York, N.Y.: McGraw-Hill, Inc., 1977, 732 pp., $24.50.

The Encyclopedia is arranged in two parts. The first part contains five feature articles which present an overview of the world food problem. The second part contains information on such subjects as agriculture structures, alcoholism, breeding of animals and plants, digestive system, fertilizer, food, food manufacturing, food science, important food crops, irrigation of crops, lysine, malnutrition, plant fiber (dietary), plant growth, soil, vitamins, wine, and yeast.

There are nearly 400 alphabetically arranged articles. Some have been taken from the fourth edition of the *McGraw-Hill Encyclopedia of Science and Technology* (1977) and others, written especially for this volume by well-qualified contributors, were selected by a board of eminent consultants representing diverse scientific and technical fields.

The Encyclopedia is designed to inform the high school, community college, or university student about all aspects of agriculture, food manufacturing, and health and nutrition from the economic and political to the technical. It should be helpful as well to the librarian, scientist, teacher, engineer, and lay person as a reference.

Benton K. Bristol
Illinois State University
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FEATURING:

LEARNING TO DO INSTEAD OF DOING WITHOUT

by
Tony Price
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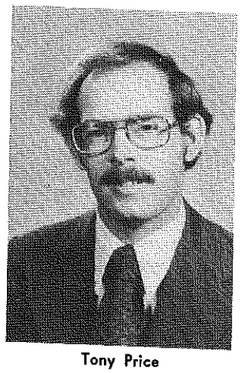
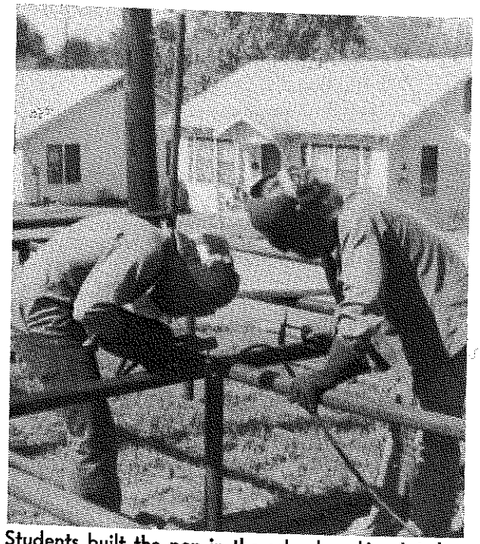


Tony Price



Students built the pen in the school parking lot due to the size of the project.

STUDENT INVESTMENT PROGRAM

For the past few years, Vocational Agriculture has struggled with urban students who could not have good projects due to lack of facilities or finances. Three years ago, in an attempt to solve this problem, our vocational agriculture department founded the Overton FFA Student Investment Program. The purpose was to assist students in having a worthwhile and financially profitable project. The standards for the program were:

1. Must be governed and operated by the students
2. Must teach a variety of usable skills
3. Must be based on a fair market value and require no gifts or inflated prices for a profit
4. Must require a small amount of equipment and facilities
5. Must be practical for this region

For the first two years, this cooperative student project consisted of 25 head of feeder calves on winter pasture. The land for the project was rented because the Chapter did not have access to a permanent school farm. Following our second year of operation, the rented land was sold and without this site, the future of the investment program seemed dim.

A DILEMMA AND ANSWER

Overton FFA found itself in the position of many Chapters; they wanted and needed a cooperative student project, but, they could not find suitable permanent land. This dilemma dictated that the Advisory Committee seek new solutions to this problem. The answer came in the form of a portable pen which would take a small space and could be moved if land became unavailable. This portable pen could be used for hogs, baby calves, chickens or lambs. It provided the chapter with the ability to change the project and the opportunity to provide a wide variety of skills.

DESIGN

The first priority of the group was to design the pen. A few commercial producers have built similar pens and most of our design was taken from the best features of each pen. The portable feeding floor is 20 feet long and 12 feet wide. Its frame was welded out of 2″ used pipe. The construction had to be done on the school parking lot because the pen was too wide for the shop door. The fence was made of heavy duty chain link material with long bolts at the back to tighten the fence. One-half of the pen was left uncovered as a patio. The back portion was covered with fiberglass to allow sunlight to enter.

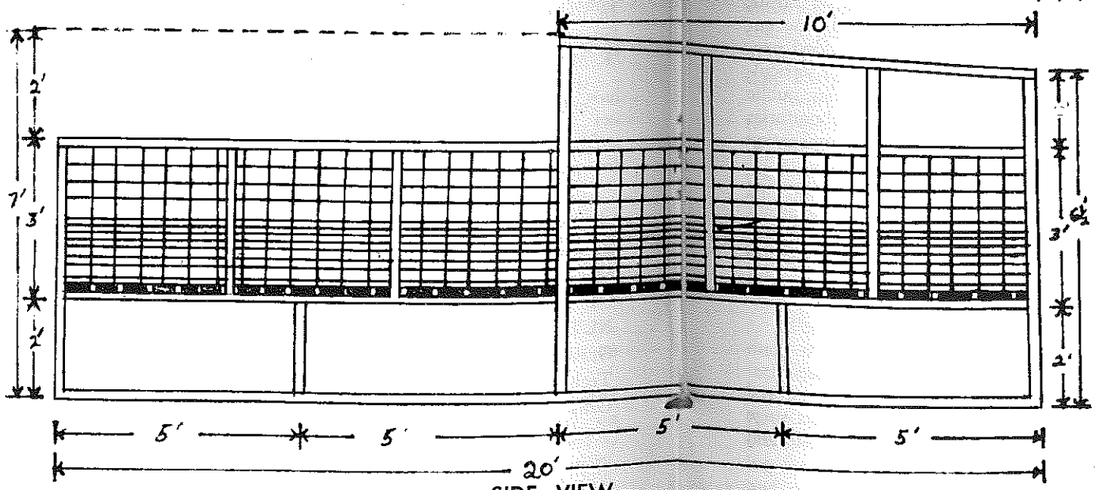
The floor was made of used 2″ x 6″ lumber with ¾″ slots between each board to allow for waste removal. The project was completed by adding a hitch and axel. The students named their creation the "Uts-Burn Porta-Pen" in honor of two long time supporters, Mr. Bill Utsey and Mr. Neil Osburn.

CONSTRUCTION

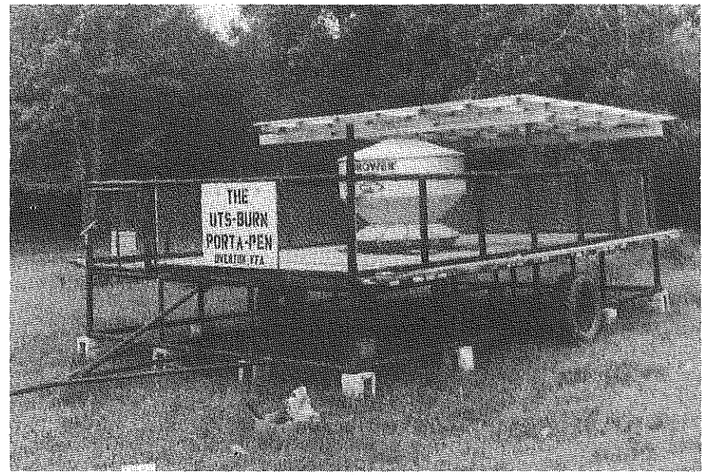
The construction of this project on the school parking lot created a lot of community interest and speculation. The students were very proud when the wheels were put in place and the pen was pulled one-half mile out of town to a site loaned to the Chapter for the pen. Final set-up included blocking the pen off the ground, installation of automatic watering system and self feeder.

This year the students are feeding out a pen of 20 market hogs. This operation will be followed by a small broiler project.

The Overton Vocational Agriculture Advisory Committee has not given up its quest for a permanent FFA school farm. They are simply helping the students by "learning to do" instead of "doing without". ◆◆◆

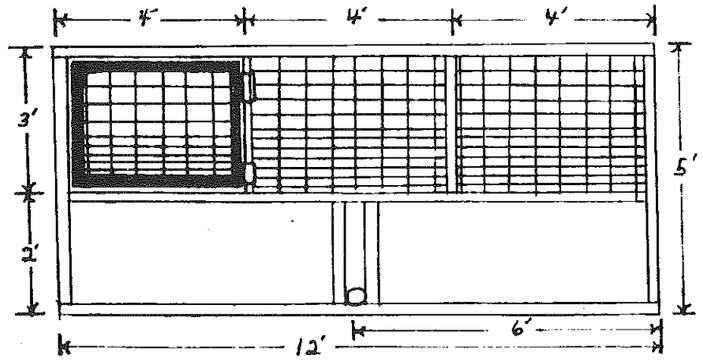


SIDE VIEW



The finished pen.

The finished pen in operation with a group of market hogs.



FRONT VIEW

QUALITY IN POST-SECONDARY EDUCATION

by
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Post-secondary includes all education which follows secondary. This article is based on the assumption that post-secondary applies only to formal programs of study beyond the secondary level of less than the baccalaureate degree. Formal post-secondary programs generally fall into one of the following:

1) *The transfer program* — usually two years in duration and designed to offer students the equivalent of the first two years of the baccalaureate degree;
2) *The vocational-occupational program* — the programs vary in length according to skills required for specific jobs. The programs are most frequently offered in vocational-occupational centers specializing in studies at the 13th and 14th grade levels;
3) *The technical programs* — usually two years in length, the programs are designed to teach skills and related general education courses offering graduates the opportunity to acquire the competencies for successful job entry at the technical or para-professional level.

TRANSFER PROGRAMS

Objective: To provide a program of instruction offering the student an opportunity for successful transfer to a baccalaureate degree program after completing the equivalent of the first two years at the post-secondary, institution.

Student Selection: Admission is based on interest, aptitudes, secondary academic record, advising and counseling.

Curriculum: A course of study as required in the first two years of cooperating four-year colleges.

Course Content: Depth, breadth and rigor equal to the first two years of the four-year college.

Attrition: Effective counseling and selection (not open-door admissions) should limit attrition to a maximum of 20% to 30%.

Transfer Potential: 60% - 70% of students starting programs should successfully transfer to the four-year college.

Success: 80% - 90% of those transferring to the four-year college should successfully complete the baccalaureate degree.

A majority of the transfer programs are offered in community colleges. Exposure to agricultural education may be limited due to the four-year college arts and science requirements for admission and lack of agricultural courses available to community colleges. Some technical colleges offer a two-track system where students have a choice of the technical or transfer program.

VOCATIONAL-OCCUPATIONAL PROGRAMS

Objective: To give students of post-secondary age the opportunity to acquire the skills and knowledge for successful job entry.

Student Selection: Selection and acceptance based upon interest, motivation, aptitude tests, guidance and counseling.

Curriculum: A course of study developed to teach skills required for specific jobs. The length of the program is determined by the time required to acquire the skills and experiences.

Course Content: The courses must be highly skill-occupationally oriented. The mastery of skills and experiences for the specific job is essential.

Attrition: With good counseling and selection, attrition should not exceed over 10% - 20% of the student body.

Placement: High quality programs lead to 80% - 100% placement of graduates.

There are many excellent post-secondary vocational-occupational centers in the country. They are occupationally-oriented with less emphasis on teaching the principles. This is the basic difference between the vocational and the technical programs. The key to the quality of these programs is the objectives, student selection, programming, teaching and successful job placement.

TECHNICAL PROGRAMS

Objective — to educate agricultural technicians. Advancement in technologies in agriculture necessitates the application of highly sophisticated techniques, as well as scientific and technological knowledge applied to the area of specialization.

Agricultural enterprises control vast acreages of land, large machines, complicated equipment, high investments in livestock and supplies, totaling a larger capital investment per worker than in most other major enterprises. Many believe that technological development has only just begun in agriculture and that the whole industry in production, processing, and marketing will see many changes within the next decade. These factors all point to the imperative need for highly skilled and technically trained workers and supporting personnel to maintain the agricultural industry.

The agricultural technicians are employed on farms, ranches, in forestry, greenhouses, nurseries, and new enterprises emerging such as fresh and salt water food production. There are excellent and exciting jobs for agricultural technicians in processing, manufacturing, sales, public service, machinery and mechanics, and in laboratories assisting scientists in research, testing, and application of products developed for the agricultural industry.

Student selection — The importance of enrolling qualified and adequately prepared students in sufficient numbers to fill each beginning class in any technical program cannot be over-emphasized. Usually the prerequisites include graduation from high school or its equivalent, with creditable completion of —

—3 standard units of English;
—2 standard units of mathematics,
—at least 1 standard unit of a laboratory science,
—vocational agriculture is an excellent background and enhances a student's chance of success. At this stage the student should have definite career interest and enroll in the technical program by choice,

(Continued on the next page)

—numbers accepted for matriculation must be based on realistic assessment of the job market for qualified graduates.

Curriculum

A curriculum to educate a technician is the organized program of study designed to meet the specific requirements and objectives of preparation for that particular kind of technician.

The curriculum must be designed specifically to prepare each type of technician. The course for educating technicians can usually be grouped as follows:

1) Basic science and mathematic courses as a basis for the application of technical courses.
2) Technical specialty courses and supporting studies.
3) Communication and social science courses.

The curriculum for any high quality technician education program must be based on the assumption that certain fundamental required information and resources are available. This includes a clear and complete definition of the special abilities that the technician must have and be in context with the nature and level of those abilities and the activities he must be able to perform.

The formal instruction should be during the time of the year when, according to the occupation, it can be correlated most effectively with work experience. It is mandatory that specialized occupational course work be introduced in the first semester. The advantages of early introduction of occupational or technical specialities are:

1) It provides motivation. Since the student enrolled in the school for a particular occupation, it is important to start this training immediately.
2) By introducing the technical specialty in the first semester, it is possible to achieve greater depth of understanding in specialized subjects in later stages.
3) The student sees immediate application of the principles he studies in related courses.

Faculty

A highly trained, experienced, technically competent and enthusiastic instructional staff is necessary for the success of occupational-technical programs.

Technical education cannot be a continuation of secondary school. It is not the same as most of our four-year college programs; therefore, faculty require special preparation and appreciation for occupational-technical education. Faculty must be capable of mastering subject matter.

Work experience requirements for teachers in occupational-technical programs are important. Teachers must be able to *do* what they are teaching. In selecting the teaching faculty, consideration should be given to the preparation and the source of faculty. It is ideal to select faculty from diverse educational and employment backgrounds. This will provide a variety of attitudes and experiences which will broaden the faculty expertise.

Facilities

The physical plant must be adequate for efficient conduct of the educational program. Programs to train technicians, particularly in agriculture and related fields, frequently require expensive and highly specialized laboratories. Some examples are: a nursery and greenhouses for ornamental horticulture; a college farm, housing and milking facilities for instruction in dairy husbandry; a woodlot and sawmill for forest technology; and shops and testing equipment for agricultural mechanics. These facilities are necessary to give students hands-on laboratory experiences in application of principles studied in the classrooms. Laboratory equipment is a major cost for technical programs. It is essential that apparatus typical of that used in the field be used in laboratories.

Scientific and technical books, references, periodicals, publications, journals, and visual aids must be available for the technical specialization offered.

Administration

The administrators of two-year colleges must have a sound philosophy of technical education, as well as what is involved in providing the faculty, facilities, and supplies for instruction. If understanding or support is lacking on the part of the administration, the programs cannot thrive and be successful.

New programs are usually costly unless a technical school is well-established and already offering a variety of courses. New programs usually cannot be started merely by pulling together courses already in existence. This may be a critical situation in community colleges which are oriented largely toward Liberal Arts and Humanities. The courses currently offered in the sciences, social sciences, and English may not be of the nature necessary to support the technical courses.

The administrators must be sensitive to the needs of industry and work closely with laymen who will serve in advisory capacities. The administrators must take an active part in program planning, since it does take four or five years, and substantial financial support to establish new programs, assemble faculty, purchase equipment and acquire facilities — *and* to place successful graduates in the field. Programs of less than high quality cannot be afforded and will not be supported.

Placement

High quality programs will place 90% - 100% of the graduates who desire employment.

Articulation of Programs

The administrators and faculty of post-secondary programs are responsible for articulation between the secondary and post-secondary programs. Some of this articulation is automatic through faculty-student relationships. It is the responsibility of post-secondary teachers to provide instruction so that students are not required to repeat learning experiences and skills already mastered in the secondary schools. This is sometimes accomplished through placement tests, sharing of course and program outlines, and a close working relationship between secondary and post-secondary administrators and teachers.

We have the same responsibility in coordinating post-secondary and four-year college transition. Even though the primary objective of the post-secondary occupational-technical program is for successful job entry, we find that some students do change their occupational objectives as a result of exposure to the post-secondary programs. These students should be encouraged to continue their education in a four-year college.

This should not alter the occupationally-oriented course content in the post-secondary programs. If a high percentage of occupational-technical students transfer to four-year colleges, the program is really a transfer program — not a technical program.

(Concluded on page 239)

Jim Knight

FFA—WHY NOT INTRACURRICULAR?

by
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The Ohio State University

During recent years, the percentage of students enrolled in vocational agriculture who become FFA members has generally been declining. This fact is evidenced by the following information from the National FFA Organization:

Year	Secondary Enrollment	FFA Membership	% Enrollment in FFA
1971-72	576,409	432,288	75.0
1972-73	594,877	447,577	75.2
1973-74	638,033	465,180	72.9
1974-75	672,142	485,793	72.2
1975-76	695,850	500,385	71.9
1976-77	697,499	509,672	73.1

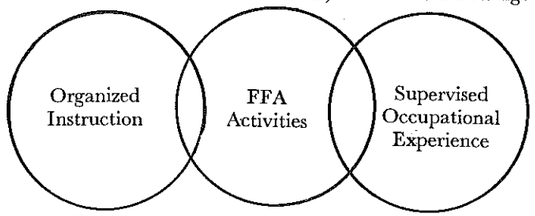
(Participation in Selected FFA Activities 1976-77)

Such a trend is cause for serious reflection by the profession, especially since FFA is considered to be "intracurricular."

In the Official FFA Manual, the following statements are made:

> "Organized in November, 1928, the FFA is an integral part of the program of vocational education in agriculture in the public school system of America."
>
> "The FFA is intra-curricular and originated as a part of the high school vocational agriculture curriculum."

In the FFA Advisor's Handbook, we see the following:



> "The close correlation between instruction, activity and experience makes the program vocational. The FFA, being an integral part of each of the other program elements, has the unique characteristic of binding them together. It often serves as the catalyst, advancing the student more rapidly toward the intended objective.
>
> The relationship diagram shows the integral relationship which exists between FFA and the other components of the Vocational Agriculture/Agri-business program. The unique combination with FFA makes possible the enrichment of each of these instructional categories. This is accomplished through planned activities offering students opportunities to utilize the lessons learned and skills acquired in each of the other phases of the agricultural program."

FFA INTEREST AREA

WHAT'S OUR PHILOSOPHY?

These are often repeated statements, not only to students of vocational agriculture, but also to people preparing to be teachers of vocational agriculture. The profession has adopted this philosophy throughout the country. However, during recent years this position has come under increasing question. Comments have been made to the effect that with the expansion of vocational agriculture into the urban and suburban settings and with technologies other than production agriculture, the FFA loses its value and meaning. It is contended that the FFA may not be as relevant to the students of programs in these areas. It would seem appropriate to analyze our position on this issue.

While it would be possible to restate the philosophical base upon which the FFA is founded as an integral part of the program, perhaps it might be more useful to attempt to indentify why the FFA is not being accepted or utilized in some programs across this country.

WHAT ARE THE PROBLEMS?

Some of the initial problems were probably brought on by the FFA itself. The fact that the organization had been relatively stable and resistant to change for many years, made it difficult for girls to gain membership, and for the various instructional specialties to gain some identity. These changes were necessary for the FFA to be relevant to all of the students of vocational agriculture. In recent years this has been less of a problem so we must look to other areas to gain a more complete insight into the problem.

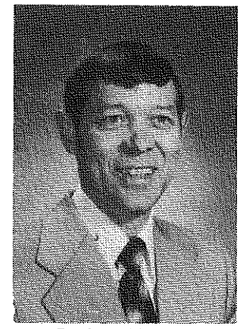
As the vocational agriculture program expanded, many of the teachers who became instructors in the specialty areas had been production agriculture teachers. As they incorporated FFA into their new programs, they tried to incorporate many of the activities which were fairly unique to production. Movement of these kinds of activities into urban areas were necessarily destined for failure and the FFA organization received the blame for not being relevant. At the same time, another group of teachers of vocational agriculture entered the specialty areas with little or no background in really understanding the workings of the FFA organization. Again, the FFA was destined for trouble due to that lack of understanding on the part of the instructors.

(Concluded on page 234)

★ ★ ★ THIS WORKED FOR ME! ★ ★ ★

"DOWNTOWN" TEACHERS

by
Frank A. Moon
Vo. Ag. Instructor
Hayfield Community Schools
Hayfield, MN



Frank A. Moon

As agricultural educators, we have long recognized the need and value of occupational experiences. Our students were expected to have farming programs on the home-farm, or possibly on the farm of a relative, in order to get that occupational experience. In recent years we have greatly expanded our vo-ag program through the addition of Off-Farm Agricultural Occupations. We started in 1970 by placing eight student-trainees with local agricultural businesses for supervised experience. Each year the participation has increased, and today we have thirty-six students placed in various agricultural businesses and industries.

COOPERATION

The program requires close cooperation between the school, parents, students, and the personnel in the agricultural businesses. While it may seem that each of them are equally important, I personally feel the person at that business place who works directly with the student-trainee is the real key to the success of the program. We call them our "DOWNTOWN" TEACHERS since they certainly are teaching, just as you or I would teach on a visit to a student on his home farm.

Over the years I have used many of the same businesses as training stations for our students. These people understand the program, and do an excellent job for us. They provide as many experiences as the student can handle, and are generally willing to give them more opportunities and challenges than the first-year cooperators. These "downtown" teachers realize that occasional mistakes may happen, and are ready to take off some of the pressure in those instances.

Quite a number of our student-trainees stay on with the business after high school graduation. At first I was concerned that this would eliminate that business as a training station; but that has generally not been true. Most of them have expanded their operations to keep that former student-trainee with excellent saleable skills, and take on a new student-trainee also. Some of these students have stayed on to work part-time while attending a local vocational-technical institute for further training in their chosen field, returning still later as full-time employees.

We have a couple of unique "downtown" teachers, as they were charter members of the first Ag Occupations program in 1970. These fellows are now in management and foreman positions and believe me, they are real boosters of the program.

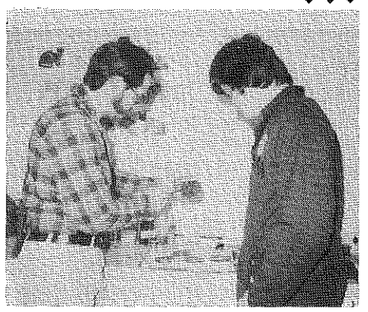
PUBLICITY

Our local weekly newspaper has also helped promote the program. Each week I provide them with a picture and article saluting a "downtown" teacher and his student-trainee in a feature entitled COMMUNITY CLASSROOMS. Each spring these "downtown" teachers are our guests at the FFA Banquet. We present them with Certificates of Appreciation which are available from the National FFA Supply Service. We publicly thank them for their cooperation and ask for continued support. Another publicity idea which we use is to have our student-trainees purchase ads in the two local newspapers to send Christmas Greetings to their "downtown" teachers. It isn't very expensive, but is one more way to publicly thank them for their cooperation.

Over the years our "downtown" teachers have been a real asset to our school, our community, and the agricultural industry. They are helping to provide experiences which we couldn't duplicate in the classroom or school shop. Even more important though, these people are helping the student-trainee to develop a greater sense of self-worth and responsibility, while making career decisions and developing saleable skills which will affect him for many years.

We are proud of our "downtown" teachers, and we realize how important they are to the success of our Vocational Agricultural Department.

◆◆◆



Community Classrooms with "downtown" teacher Dr. Darrell Denisen and student trainee Steve Lee.

CONTINUED *FFA — WHY NOT INTRACURRICULAR?*

SOUND BASES

As one looks seriously at the organizational framework of the FFA and its pattern of operation, it becomes apparent that the bases upon which the organization functions are sound. The idea of operating an organization with a constitution and by-laws is fundamental. Planning activities to meet the needs of the students in the program would also appear to make good sense. Further, the idea of individual and group recognition for achievement as a motivational tool to encourage students to develop is no less basic. Additionally, the development of students personally is also an accepted responsibility of vocational education.

WHY NOT INTRACURRICULAR?

Thus, we come to the real question. "Why isn't FFA an intracurricular part of all vocational agriculture programs?"

The answer to this question would seem to boil down to one statement. THE INSTRUCTOR! Either the instructor chooses not to utilize the FFA because it creates more work or simply that the instructor does not understand how to effectively make the organization operational.

WHAT CAN BE DONE?

It is the opinion of this writer that little can be done about the former, but much can be done to help the latter. As FFA courses, workshops and/or seminars are conducted, certainly we must maintain and justify our programs on a philosophical base but the instruction should be rooted in a practical and realistic approach to the FFA organization. In other words, the "how" should be dealt with in *detail* as well as the "why."

The FFA continues to be criticized for its lack of flexibility and relevance. These charges come from a variety of sources with only a small degree of validity in the opinion of the author. The real success of the FFA has always been and continues to be at the local level and the single most important element in that success is the instructor.

If it is desirable to have 100 percent of the student's of vocational agriculture involved at least to some degree in the FFA, then it would seem appropriate that a quest in search of that goal begin at the roots of the concern.

The profession needs to analyze what can be done by teacher education, state supervision, and teachers alike to influence local vocational agriculture teachers to make more effective use of the FFA program as an instructional tool. From that point, programs should be implemented to help the profession reaffirm its commitment to the concept of the FFA. There is good evidence around the country which would indicate that we can indeed deal with this concern effectively. ◆◆◆

BIBILOGRAPHY

Bender, Ralph E., and Taylor, Robert E., *The FFA and You*. Danville, Illinois: The Interstate Printers and Publishers, Inc., 1974.

The National FFA Organization, *FFA Advisor's Handbook*. Alexandria, Virginia: Natonal FFA Center, 1975.

The National FFA Organization, *FFA at 50, A Golden Past, A Brighter Future — Participation in Selected FFA Activities, 1976-77*. Washington, D.C.: The Agricultural Education Service, Division of Vocational and Technical Education. U.S. Office of Education, 1978.

The National FFA Organization, *1978 Official Manual*. Alexandria, Virginia: National FFA Supply Service, 1978.

WORKING IN AGRICULTURAL INDUSTRY, by Jasper Lee, New York: McGraw-Hill, Inc., 1978, 152 pp., $3.24. STUDENT ACTIVITY MANUAL, 56 pp., $1.95.

This book has a total of four units which are subdivided into 12 chapters. The first unit, entitled "The Nature of Agricultural Industry" has three chapters. Chapter I is "Agricultural Industry: The Relationship Between Production Agriculture and Agribusiness," Chapter 2 is "Workers in Agriculture Industry" and Chapter 3 is "Achieving Success in Agricultural Industry."

Other chapter titles for the book are Chapter 4 "Applying Science in Agricultural Industry," Chapter 5 "Communication: Essential to Agricultural Industry," Chapter 6 "The Future of Agricultural Industry," Chapter 7 "Ways to Do Business in Agricultural Industry," Chapter 8 "Managing an Agricultural Business," Chapter 9 "Financing in Agricultural Industry," Chapter 10 "Marketing in Agricultural Industry," Chapter 11 "Processing Agricultural Products" and Chapter 12 "Physical Distribution in Agricultural Industry."

The book is extremely well illustrated. The illustrations emphasize practical real-world examples of agricultural industry.

The text also has an accompanying activity book which enhances points made in the basic textbook. Also available are transparency masters, filmstrips and a teachers manual and test key.

The author is currently a professor at Mississippi State University in the Agricultural Education Department. He has an extensive background in both agricultural education and the field of agricultural industry.

The book is primarily intended for the junior high school level or early senior high school level. Its reading level is very appropriate for such students. It will prove to be a most valuable textbook for all students in the class.

John Hillison
Virginia Polytechnic Institute
and State University
Blacksburg, VA

FUNDAMENTALS OF ENTOMOLOGY AND PLANT PATHOLOGY, by Louis L. Pyenson, Westport, Connecticut: AVI Publishing Company, Incorporated, 1977, 327 pages, $16.00.

The two most important sources of plant destruction, insects and diseases, are successfully combined in this book. Plant protection is usually treated in bits and pieces in crop production texts. Here, the subject is insects and diseases and crops serve a lesser role in illustrations and as examples. A major strength of the book is that it puts two, usually distinct, subject matter areas together. Similarities in cause, affect, prevention and treatment are obvious.

The book can be used in its entirety as a text for a course in plant protection, or, selectively for units of study in entomology, plant pathology, insect and disease control, pesticides and application equipment. Its contents are current and includes control by natural, physical and cultural means as well as by chemicals. The review of legislation affecting insect control and pesticide usage is concise and a valuable source of information.

The questions for thought and discussion following each chapter are particularly useful. They demand some thought effort by the student because they are usually not directly answerable from the text.

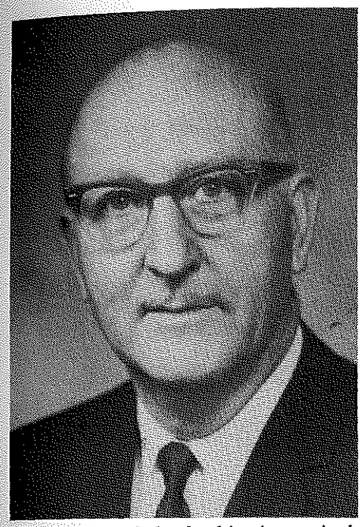
Dr. Pyenson's lifetime of professional involvement in biology and his concern with plant disease and insect pests is evident throughout the book.

This book would be an excellent text for an in-depth study of plant protection at the senior high school and post secondary school levels. It would also serve well as the text or reference for any portion of the subject of plant protection at all high school and post secondary levels.

Eugene Anderson
Extension Specialist,
Program Development
University of Minnesota
St. Paul, MN

Leader in Agricultural Education:

RALPH W. CANADA



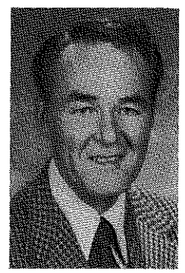
*by Ramsey Groves and Windol Wyatt**

Success and leadership in agricultural education can be identified, to a large degree, by length of service to the field. Dr. Ralph W. Canada was the second of only three department heads, who had served Agricultural Education at Colorado State University since its inception in 1919. He stepped into some mighty big shoes when he succeeded Dr. A. A. Schmidt upon his retirement in 1945. Not only did he fit those shoes, but he continued to take the big strides those shoes were used to taking. He served with distinction and honor for twenty-three years until his retirement in 1968.

R. W. Canada served vocational agriculture during the "tough years" from depression, through the big war, and during the early changes in the Smith-Hughes Act. He credits many of the giants in vocational education with the background and philosophy it took to sustain his beliefs during those trying times. He identifies as his teachers and models such greats as C. A. Prosser, Thomas Quigley, Dr. Allen, L. R. Humphreys (Utah), Henry S. Brunner (Penn State), and G. A. Schmidt (Colorado). With this background he went on to distinguish himself as also being one of the leaders in his field.

Ralph Wesley Canada was born March 29, 1907, near Bertrand, Nebraska. He was graduated from Bertrand High School in 1923 and began teaching in a rural school the following September. Teaching in a rural school in Nebraska occupied his time until 1929, when he enrolled at the University of Nebraska and subsequently completed a Bachelor of Science Degree in Agricultural Education in 1933. From 1933 to 1936 Ralph Canada was vocational agriculture teacher and superintendent of the Filley Consolidated Schools at Filley, Nebraska. He then taught vocational agriculture at Holdrege and Crete, Nebraska from 1936 to 1941. The duties of Assistant State Supervisor of Food Production War Training programs in the Nebraska State Department of Vocational Education were his from 1941 to 1945.

Ralph Canada's teaching excellence is attested to by hundreds of his former students, both at the undergraduate and graduate levels. During his 23 years at Colorado State University he taught undergraduate and graduate courses in the areas of principles and philosophy of vocational education, the teaching process, Future Farmers of America, farm mechanics, supervised occupational experience, program planning, adult education, and research techniques. In addition he was in charge of the student teaching programs in agricultural education during his entire tenure at Colorado State University.



**Ramsey Groves and Windol L. Wyatt*
Teacher Education
Vocational Education Department
Colorado State University
Fort Collins, Colorado

During the time he was at Colorado State University he trained 370 undergraduate students who qualified as vocational agriculture teachers. In addition, he was adviser to 127 graduate students who completed Masters and Doctoral Degrees with majors in vocational administration and agricultural education.

The quality of the instruction plus the very desirable moral influence these students have received from Ralph Canada can be determined by the positions of leadership his former students went on to occupy. Of those achieving degrees under his guidance, two are college presidents, one was National Executive Secretary of the FFA, one is a dean of a junior college, one is director of a technical institute, ten have been teacher educators in agricultural education, twelve have been state supervisors of vocational education, one is registrar in a state college, three are local directors of vocational education, and eight have been professors in technical agriculture at various colleges and universities. In addition, hundreds of his former students are teaching vocational agriculture throughout the United States and its territories and in foreign countries.

In recognition of his educational service, Ralph Canada was elected to the Honorary State Farmer Degree in Nebraska and Colorado, and to the Honorary American Farmer Degree by the National FFA Association. He was also listed in the 1967 editions of *Who's Who in Colorado Education* and *Who's Who In The West*. The attainment of such recognition came as a result of many leadership roles in national and international activities. He was national vice-president and president of Alpha Tau Alpha from 1955 through 1961 and also served the American Vocational Association in several positions related to Agricul-

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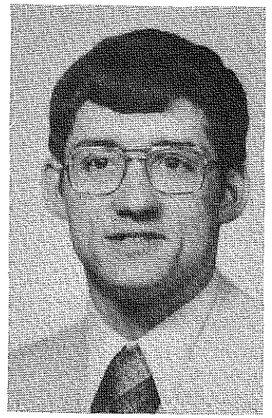

Richard M. Foster

SUPERVISED OCCUPATIONAL EXPERIENCE— NOT JUST FOR HIGH SCHOOL

by
Richard M. Foster
Teacher Educator
University of Idaho
Moscow, ID

When one thinks of Supervised Occupational Experience (SOE) programs, the image of a high school vocational agriculture student raising a sow and litter, working in an implement dealership, or a similar activity usually comes to mind. The SOE portion of the vocational agriculture program has had more impact than any other phase of our program in making our curriculum truly vocational. It is in the SOE portion of vocational agriculture that students are most likely to utilize classroom instruction to develop the entry level skills commensurate with their career objectives.

SOE programs are not new to secondary vocational agriculture programs; however, the impact that similar experience programs could have on undergraduate agricultural education majors has yet to be realized. Scanlon (January, 1978) emphasized the need for work experience programs to keep vocational agriculture instructors abreast of new developments in technical agriculture. Newcomb (October, 1976) reported the need for an "early experience" program for providing an opportunity for undergraduate agricultural education majors to become more familiar with secondary program requirements. Newcomb also stressed the importance of potential vocational agriculture instructors taking advantage of as many field experiences as possible during their undergraduate years.

TEACHER—EDUCATION INTEREST AREA

THE PROBLEMS

With these concepts in mind, the Department of Agricultural Education at the University of Idaho set about to establish an undergraduate "early experience" program by incorporating SOE concepts. It was observed that incoming freshmen and transfer students in agricultural education were encountering two basic problems. First, some of them had little or no background in agricultural education at the secondary level. This lack of vo-ag experience was observed to cause these students some difficulty in relating classroom instruction to potential teaching situations. The second problem consisted of undergraduates not making full use of their departmental advisors until their professional classes began as juniors. It was obvious that something had to be done to instill a feeling of belonging in the agricultural education curriculum during the student's initial semester of enrollment.

THE PROGRAM

To combat these problems, a program was initiated that allowed the students to develop training plans to provide experiences in various phases of the vocational agriculture program in which they felt less qualified or knowledgeable. These experience plans were developed in cooperation with departmental advisors during the student's first semester and were designed to last throughout their undergraduate program of study. The basic objectives of this training plan was to enable students to:

1. Obtain experience not previously available to them because of non-participation or a lack of participation in secondary vocational agriculture programs.
2. Broaden student awareness of the total scope of the vocational agriculture program in Idaho.
3. Create an understanding of the development and use of SOE experience plans through self-participation.
4. Strengthen the advisor-advisee relationship within the Department of Agricultural Education.

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To facilitate new students becoming involved in and carrying out this experience program, new undergraduate students were encouraged to enroll in a one-credit "Introduction to Agricultural Education" course. The basic purpose of the course was to provide a broad overview of vocational agriculture and the duties and responsibilities of the vocational agriculture instructor. The role of SOE was stressed and the importance of a well-defined student experience plan was emphasized.

A THREE-YEAR PLAN

Based on this overview, students were required to complete a self-evaluation and identify a specific area of vocational agriculture in which they felt a need for personal development. They then prepared a three-year plan of field experiences designed to gain those experiences identified. The completed plan became a part of the course evaluation criteria.

Figure 1 is an example of a training plan designed for an undergraduate agricultural education major. Ron Smith graduated from an Idaho high school that did not offer vocational agriculture. Ron decided that an overview of the Future Farmers of America was one area that would need to be emphasized during his undergraduate career in agricultural education. With the aid of his advisor, he proceeded to outline activities to accomplish his overall goal of a greater understanding of the FFA in Idaho.

One copy of his experience plan is maintained in the departmental files for easy access during registration and advisor conferences. Another copy is maintained in Ron's personal notebook of experiences gained while carrying out his plan.

STUDENT FEEDBACK POSITIVE

Although this approach to undergraduate SOE training plans as part of an early experience program is less than a year old, initial feedback from the students involved has been very positive. Students' interest in the Ag Ed curriculum and the Collegiate FFA Chapter has definitely increased due to the exploratory nature of the project and because of the individualized approach to the development of personalized experience plans. Student awareness of the value of SOE and the proper development of training plans has expanded. Students are visiting secondary vocational agriculture departments throughout the state and increasing their knowledge of vocational agriculture. Their contact with the Ag Ed staff has increased tremendously and advisor-advisee relationships have been greatly strengthened.

The Department of Agricultural Education at the University of Idaho is using the same approach to SOE in their undergraduate program that agricultural educators have been advocating for years. Such an approach allows students to develop occupational skills and knowledge in agricultural education that are realistic in light of their goals of teaching vocational agriculture. We are convinced that such a learning-by-doing experience plan will be of great benefit to our students and the Agricultural Education Department in the future. ◆◆◆

Figure 1

IMPROVEMENT OF AGRICULTURAL EDUCATION SKILLS
Department of Agricultural Education, University of Idaho

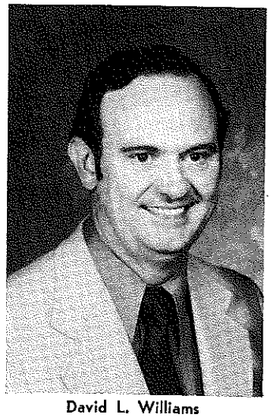
Name Ron Smith Date November 16, 1978

Advisor Dr. Rick Foster

Description of Skill or Knowledge to be gained: Development of a broad overview of the Future Farmers of America Organization in Idaho.

Experience to be Accomplished	Ways and Means	Target Date for Completion	Performed	Assisted	Observed	Date & Initial
1. Visit with area vo-ag teachers and FFA members to find out about the FFA.	a. Visit Troy Vo-Ag Department and FFA Chapter to find out about livestock exhibiting, leadership development and member involvement.	Nov. 1978				
	b. Visit with either the Nezperce or Culdesac FFA Advisor during the summer to find out about summer FFA activities.	July 1979				
	c. Spend two days during the summer with a vo-ag teacher while supervising FFA activities or making project visits.	July 1979				
	d. Visit the Moscow FFA Chapter to determine how members become involved in activities. Also find out how Alumni Chapters are formed and involved in chapter activity.	March 1979				
	e. Visit an FFA chapter to find out how committees function (executive, standing and special committees)	Feb. 1979				
2. Attend high school and collegiate FFA meetings to find out what are the most common activities.	a. Make a list of items or activities covered at each meeting.	continuous				
	b. Observe official FFA ceremonies	Nov. 1978				
	c. Determine the duties and responsibilities of FFA officers.	April 1979				
3. Learn about FFA by self-study guides.	a. Review Student Handbook	April 1979				
	b. Review Advisor's Handbook	April 1979				
	c. Review Official FFA Manual	April 1979				
	d. Read National Future Farmers Magazine	continuous				
	e. Use self-study guide	Oct. 1979				
	f. Review past Programs of Activities	Oct. 1979				
	g. Review FFA lesson plans	Oct. 1979				
	h. Review Chapter Activity Handbook and Chapter Guide to FFA Activities	Oct. 1979				
4. Attend a North Idaho District FFA Contest	a. Attend the fall contest (Creed, Knowledge, Soils, Crops)	fall 1979				
	b. Judge the Creed Contest	fall 1980				
	c. Attend the spring contest (Parliamentary Procedure)	spring 1979				
5. Attend the Idaho State Leadership Convention	a. Travel to convention site	April 1980				
	b. Observe state contests	April 1980				
6. Be an active Collegiate FFA Member	a. Attend all meetings	continuous				
	b. Become involved in FFA activities.					
	c. Volunteer for committee membership					
	d. Set a good example: 1. dress 2. discussion 3. actions 4. etiquette 5. courtesy					

Teaching S.O.E. To Beginning Vo-Ag Students



David L. Williams

by
David L. Williams
Agricultural Education Department
Iowa State University

"Students are engaged in supervised occupational experience (SOE) programs that are related to their occupational objective and are appropriate in light of their ability and place of residence." This is one standard of quality vocational programs in agricultural/agri-business education established by the agricultural education profession.[1] It is easy to agree with this standard, but difficult to practice. This difficulty is compounded when vocational agriculture students and their parents do not understand that SOE is an individualized instructional method used in vocational agriculture. In the January, 1974 issue of The Agricultural Education Magazine, T. R. Miller shared a rationale for recognizing SOE as content that must be taught. He stated that:

> All students in vocational agriculture need to learn that "what," "why" and "how" of supervised occupational experience . . . to do this . . . group instruction becomes a mandate . . . to establish the concept and help students identify the opportunities important to them and to prepare plans for becoming involved.[2]

Recognizing the need for instructional materials to aid teachers in teaching SOE content to beginning vocational agriculture students, an SOE instructional packet was developed and evaluated in Iowa.[3]

SOE INSTRUCTIONAL MATERIALS

The materials present in an organized way the content and procedures for teaching beginning vocational agriculture students to select and plan SOE programs. The packet or unit includes three parts or problem areas for approximately fifteen periods (hours) of instruction. The first problem area called "Recognizing SOE as Part of Vocational Agriculture," was designed to help students understand the importance of SOE as a means of learning agricultural skills.

The second problem area focused on each student selecting an SOE program. Instructional activities are included to guide students in selecting their own SOE programs based upon their interest, experiences and available resources.

"Planning an SOE Program" is the title of the third problem area in the packet. It includes learning activities to direct students in developing detailed plans for their SOE programs. Following are the problems included in each problem area:

Problem Area 1: Recognizing SOE as a Part of Vocational Agriculture

1. What is an SOE program?
2. Why is SOE a part of vocational agriculture?
3. What are the purposes of SOE?
4. What are the relationships of SOE to classroom-laboratory instruction and the FFA?
5. Who should supervise SOE?

Problem Area 2: Selecting an SOE Program

1. What are my personal interests in agriculture?
2. What tasks do people perform in agricultural occupations?
3. What opportunities exist for me to get agricultural experiences?
4. Who should help me select my SOE and how should they help?
5. What are the characteristics of successful SOE programs?

Problem Area 3: Planning SOE Programs

1. What goals should I set for my SOE?
2. What do I need to conduct my SOE?
3. Who should help me plan my SOE and how should they help?
4. How can I develop a detailed plan for my SOE?
5. How can I develop a budget for and finance my SOE?

Each of the three problem areas features study questions, desired student outcomes, objectives, teaching procedures and conclusions. A variety of group and individualized learning activities are suggested for each problem area. Masters for student handouts and transparencies are included with directions for their use. Instructional methods that utilize older students and community adults as resource people are suggested. Activities to keep the parents of students informed and involved in the learning process are prominent throughout the instructional packet.

In addition to the three problem areas, the materials present plans for one evening meeting for students and their parents. Suggestions are made to guide students, with the help of their parents, to make tentative choices of SOE programs. Visits by the vocational agriculture teacher to the homes of his or her students is also a part of the instructional model.

EFFECTIVENESS OF THE MATERIALS

Do they work? This is a question teachers commonly ask in reference to instruction materials. To answer this question an experiment was conducted in the Fall of 1977.[4] Seventeen Iowa vocational agriculture teachers and their beginning classes were randomly selected to use the packet after receiving inservice education on its use. Sixteen randomly selected teachers and their classes following their normal procedures for teaching SOE served as a control group. Pretest and post-test of both SOE knowledge and attitude toward SOE were administered to the two groups. In addition, a post-test measure was used to determine the degree to which students had actually selected and planned their individual SOE programs at the close of the instructional unit.

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CONTINUED *TEACHING S.O.E. TO BEGINNING . . .*

The group using the packet of instructional materials showed statistically higher ($p>.10$) increase from pre-test to post-test than the control group on the SOE knowledge score. Similarly, attitude change favored the group using the packet; however, this change was not statistically significant. The group using the packet performed significantly better ($p.>.01$) in selecting and planning their SOE programs. These results indicate that the instructional materials were effective in assisting teachers to work with beginning students in selecting and planning SOE programs.

ACCEPTANCE OF MATERIALS BY TEACHERS

During the summer of 1978, the packet of materials was delivered to Iowa teachers of vocational agriculture through one-day inservice workshops held at six locations. The workshops focused on what was in the packet and how to use it in teaching beginning vocational agriculture students. One teacher described the materials as "a way to teach SOE without dropping it on them." Another one said "it gives me a systematic method to introduce SOE." After using the materials in the evaluation experiment, one teacher said, "this group of freshmen has a better understanding of SOE than any other group I have had."

Since the materials produced positive effects with students and were well received by Iowa teachers, copies of the instructional packet have been made available to people in other states through the Iowa Association for Vocational Instructional Materials, 208 Davidson Hall, Iowa State University, Ames, Iowa 50011, at a cost of $3.50 plus postage. Plans have been made to evaluate the packet in other states. In some cases modifications have been made in the packet to adapt the materials to specific state situations.

SUMMARY

Teachers cannot effectively teach SOE unless they have the content and procedures available to do the job. Likewise, vocational agriculture students can not be expected to "engage in SOE programs that are related to their occupational objective and are appropriate in light of their ability and place of residence"[1] without being taught. SOE is a powerful educational method for vocational agriculture. But, it will not work effectively unless all involved understand the "what," "why" and "how" of SOE in vocational agriculture. ◆◆◆

REFERENCES

1. *Standards for Quality Vocational Programs in Agricultural/Agribusiness Education*, Agricultural Education Department, Iowa State University, Ames, Iowa, 1977.
2. Miller, T. R. "Supervised Occupational Experience-Content for Group Instruction," *The Agricultural Education Magazine*, January, 1974, 147-148.
3. Williams, David L. *An Instructional Packet on Supervised Occupational Experience Programs of Beginning Vocational Agriculture Students*, Iowa Association for Vocational Instructional Materials, 208 Davidson Hall, Iowa State University, Ames, Iowa, 1978.
4. Briers, Gary E. *An Experimental Evaluation of an Instructional Packet on Supervised Occupational Experience Programs for Beginning Vocational Agriculture Students in Iowa*, Ph.D Dissertation, Iowa State University Library, 1978

CONTINUED *QUALITY IN POST-SECONDARY EDUCATION*

A highly developed two-year technical program may prepare and motivate as many as 30% to 40% of its graduates to continue for a higher degree. This does not indicate that the technical program is inferior; but that some students have discovered they have the academic inclination and career interest which requires continuance of their formal education. This makes it imperative for faculty and administrators in two-year colleges to work with university officials for smooth articulation. All courses in a technical program are not necessarily transferable to the four-year college and for successful articulation, educators must understand and respect the objectives of each institution.

Followup

An on-going follow-up of graduates and evaluation of programs is essential to measure the degree of success and project changes and revision in the program.

THE FUTURE

There is no question about the direction and future of post-secondary agricultural education. It is accepted by many educators that secondary education is no longer sufficient to prepare farm managers and the personnel to service agricultural production and the processing and distribution industry. The bulk of the manpower to support the agricultural industry does not require large numbers with the baccalaureate degree and graduate studies. The large segment of workers require post-secondary and continuing education. It behooves us as agricultural educators to work with a single objective, as one team for effective Vo-Ag/FFA, post-secondary and four-year agricultural colleges and universities to ensure the dimensions of quality in agricultural education for skilled workers, technicians, managers, teachers and researchers to meet the total needs of the agricultural industry. If we are to continue to be effective and maintain support for agricultural education, it is essential that all of us, as agricultural educators, realize and value the essence of high quality agricultural programs at every level. The opportunity for success or failure is accelerated by the rapidity of the change in agriculture, our society and in the world. Agricultural educators have met the challenge in the past — we will in the future. ◆◆◆

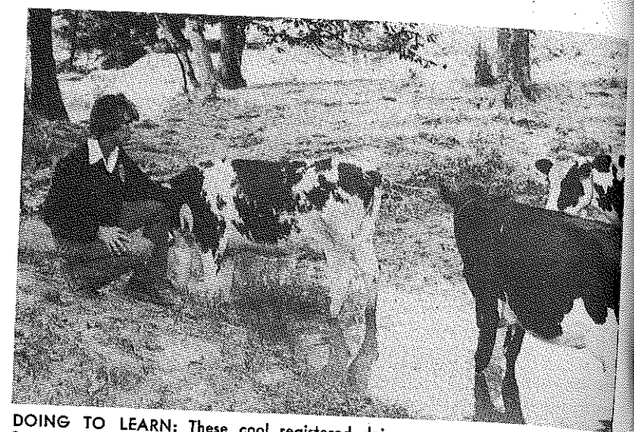
CONTINUED *LEADER*

tural Education. His international activities involved consultant work in Japan and the Phillipines in addition to work with the Organization for European Economic Cooperation in France and the National Ministry of Education in Italy. He had many other assignments at all levels which came as recognition of his attainments in vocational education. He was also active in research and contributed several articles to professional magazines.

Those who have known Ralph through the years will be happy to know that he is still a gentleman's gentleman and is enjoying life to its fullest. Since retirement he has traveled nationwide and internationally still serving vocational education. Due to changes in his life style and "rigorous" jogging many of his friends believe he looks young and vigorous enough to be back in the saddle. ◆◆◆

STORIES IN PICTURES

by Joe Sabol



DOING TO LEARN: These cool registered dairy cows represent part of the Supervised Occupational Experience program of Troy Wilson, Southern Regional Star Farmer for 1978. Troy is a member of the Mt. Hermon FFA Chapter, Mt. Hermon, Louisiana.

HANDS ON! Margaret Piffero Noroian, North Salinas High School, Salinas, CA, demonstrates the proper techniques of training carnations for her student. The student is using the school greenhouse to conduct part of his occupational experience program. (Photo courtesy of Joe Sabol, Cal Poly, San Luis Obispo, California.)

SOEP ON CAMPUS: The school grounds provide Floyd Yancy and his two horticulture students with a unique opportunity for them to "adopt" the rose garden for their practice program. This arrangement helps the students, Mr. Yancy and the Zachary High School, Zachary, Louisiana. (Photos courtesy of Dr. Jim Atherton, Louisiana State University.)

INCENTIVES FOR OCCUPATIONAL EXPERIENCE PROGRAMS: The rewards for a beginning occupational experience program are obvious as this Louisiana vo-ag teacher and his student share the pride of owning and showing quality chickens. (Photo courtesy of Dr. Jim Atherton, Louisiana State University.)

SOEP IN AGRICULTURAL MECHANICS: This equipment trailer built by Chris Cobb, Sierra High School, is part of his Occupational Experience program in custom farm machinery work. He is assisted and supervised by Mr. Stan Neal, teacher, Sierra High School, Tollhouse, California. (Photo courtesy of Joe Sabol, Cal Poly, San Luis Obispo, CA.)

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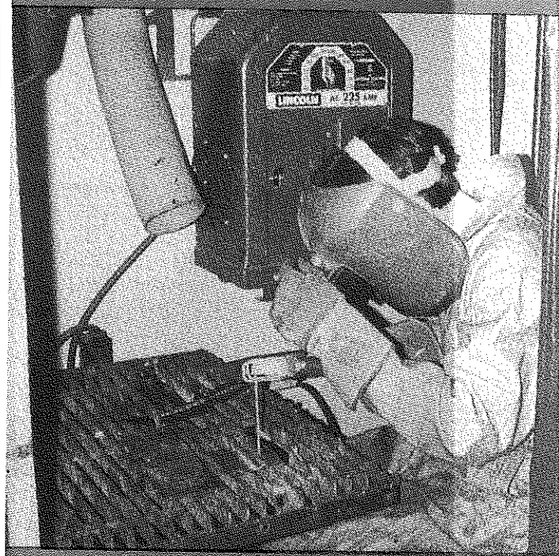
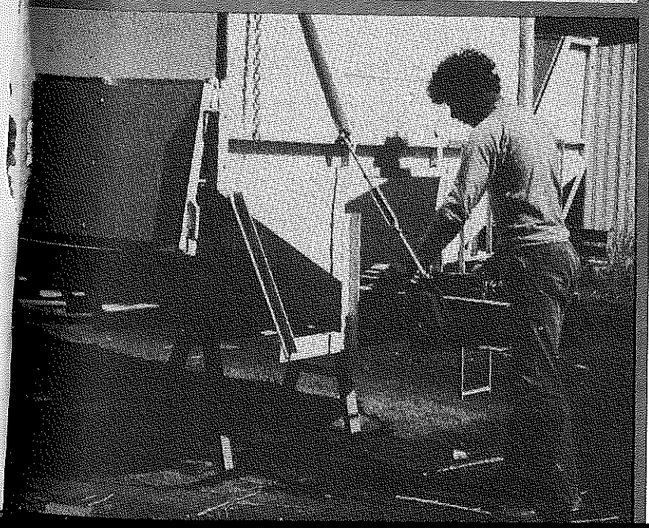
FEATURING —





Theme–Agricultural Mechanics–Developing Important Skills