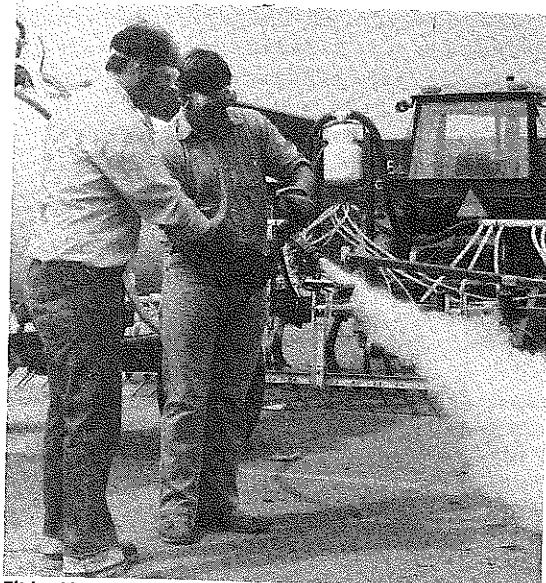


# STORIES IN PICTURES

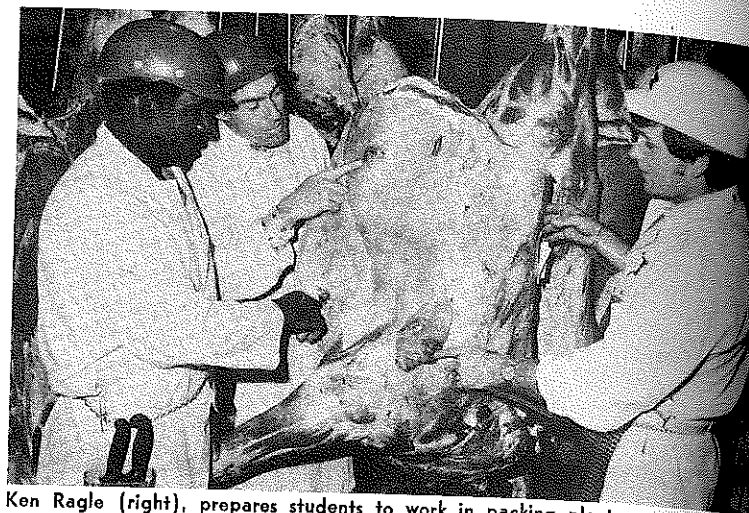
by  
Joe  
Sabol



Elida Young Farmers Lindsey Faust and Jim Biery are shown demonstrating the freezing qualities of anhydrous ammonia. The rose was quick frozen and then shattered against the side of the tank. (Photo courtesy Don Breece, Vo-Ag Instructor, Elida, OH)



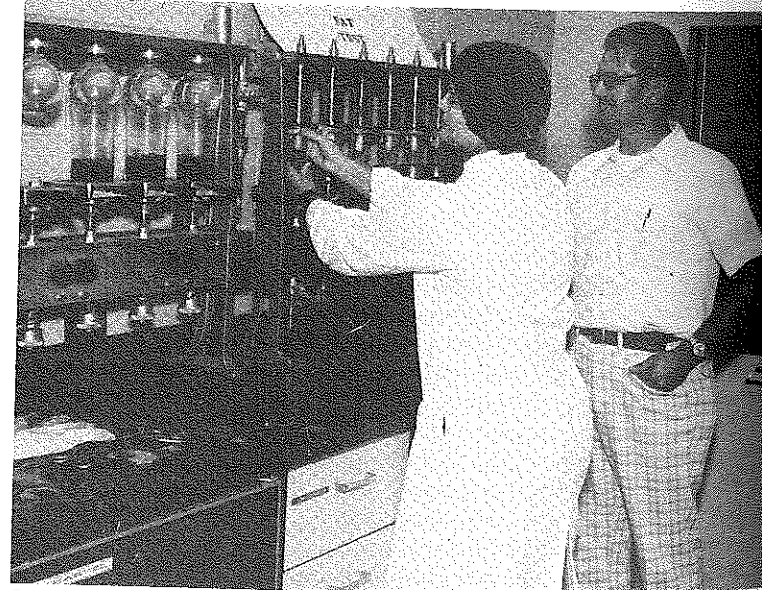
Gale Hagee of Indiana Hills Community College, Ottumwa, IN, discusses a research paper presented jointly with Bob Stewart of the University of Missouri at the Fourth National Agricultural Education Research Meeting held December, 1977, in Atlantic City. This is partnership in action. (Photo courtesy Bill Richardson, Purdue)



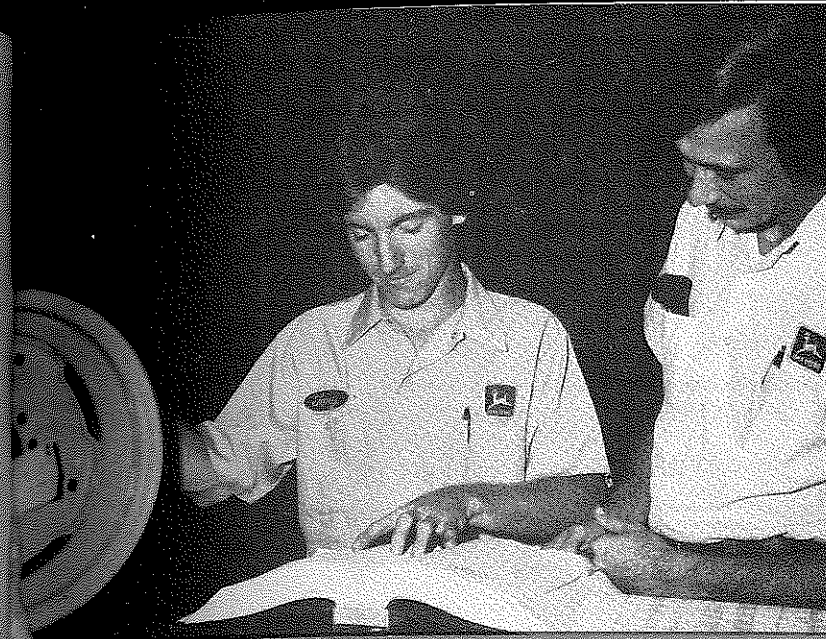
Ken Ragle (right), prepares students to work in packing plants, grocery stores or restaurants in the 36-week meat processing and marketing program at Texas State Technical Institute, Waco, TX. (Photo courtesy Ken Ragle and Carla Everett, TSTI, Waco)



Vo-Tech students from the Natural Resource Technician Program assist the State Dept. of Natural Resources in training 12-14 year olds in snowmobile safety operation and in the gun safety program. (Photos courtesy Elwood Wossman, Vo. Tech. Instr., Brainerd, Minnesota — Related story on page 246)



Second year research student, Jessie Doerschuk, ATI, places a sample on the school's ether extraction unit. To her left, samples digest on the crude fiber apparatus. With her is Dr. Ronald Borton, Acting Chairman of the Animal Industries Program. (Photo courtesy Welch Barnett, Agricultural Education Service, Columbus, Ohio — Related story on page 260)



## AGRICULTURAL EDUCATION

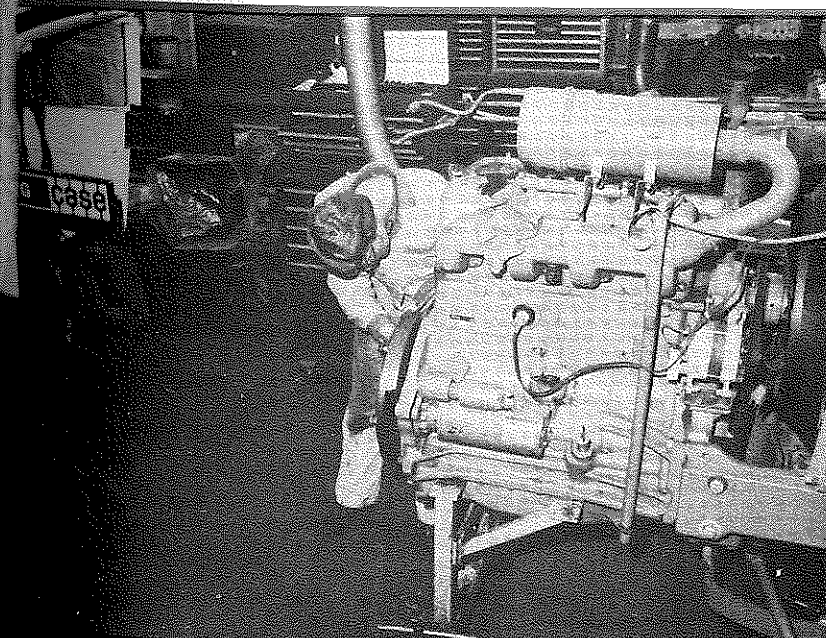
Volume 50

Number 12

June 1978



**Theme—Cooperative  
Education in Agriculture  
—Learning on the Job—**



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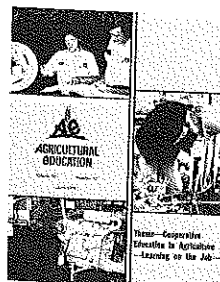
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**Top Photo** — Tony Causey (left), Parts Clerk at Warrior Tractor and Equipment Company, Inc., checks his parts manual to make sure he has the right tractor wheel. Kenny Hobson, Parts Manager, observes and continues to assist Causey in getting the best training needed in the Parts Department. During Causey's high school career, he was enrolled in the agri-business power and diesel classes taught at Tuscaloosa County High School. (Photo courtesy Frank B. Kilough, State Department, Auburn, AL)

**Center Photo** — Joe Schenk of the Evansville-Reitz FFA Chapter performs his cooperative education job in a local greenhouse. (Photo courtesy Freeman W. Harness, Vo-Ag Teacher, Evansville, IN)

**Bottom Photo** — A student may have a cooperative work station at a farm machinery dealership. (Photo courtesy John Dagle, Lake Area Vocational Technical Institute, Watertown, SD)

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# GUEST EDITORIAL COOPERATIVE EDUCATION —LEARNING BY DESIGN OR BY ACCIDENT?



Johnny M. Johnson

by  
*Johnny M. Johnson*  
Teacher Education  
Tarleton State University  
Stephenville, TX

rest of the school day is taken up with academic courses. The program is available to junior and senior level students. As in most states, guidelines and workshops have been developed for teachers as well as individual study guides for students in many occupations. Considerable work has been done on publicity for the program, training for teachers entering the program, and curriculum materials.

### WEAK LINK

The weak link seems to be in the actual planning of the on-the-job experiences between the teachers, the students, the parents, and the employers. Numerous competency studies have been completed across the nation on what skills should be acquired to enter and progress within certain agricultural industries. It is generally accepted that sound training plans can be developed from these studies.

**It appears that once a student indicates the type of training desired, the teacher should make an outline of the competencies that should be acquired and then visit with the employer to see if he is willing to spend the time and money necessary for the student to reach these objectives. This is the only way for the program to be truly educational in nature. Any other approach is haphazard and the chance that proper skills will be developed is purely accidental.**

### THEORY AND PRACTICE

It is suspected that at this point, cooperative teachers are beginning to think that this is fine in theory but will not work in practice. The author has been involved as a high school coordinator of one of the initial cooperative programs in Texas and is aware of the difficulties encountered in establishing sound training programs. Among these it is known that:

1. Employers have to receive something for the money they spend.
2. Employers have limited time to spend with students.
3. A certain number of students must be maintained for funding of the program.
4. Some students already have jobs when school starts.
5. It is hard to get the businessmen to sit down and take time to plan.
6. The teacher has a lot of other things he needs to be doing.

(Concluded on page 272)

Many states are now involved in some type of cooperative education. The programs are conducted under various headings, but most involve a cooperative effort between agri-businessmen and educators for the purpose of providing hands-on type experiences for students in an actual business establishment. The training received in school is usually aimed at complementing the on-the-job training. For example, if the teacher knows what the student will be working on at his training station next week, lessons at school this week will be aimed at preparing the student for that particular skill.

### BREAKDOWN IN PLANNING

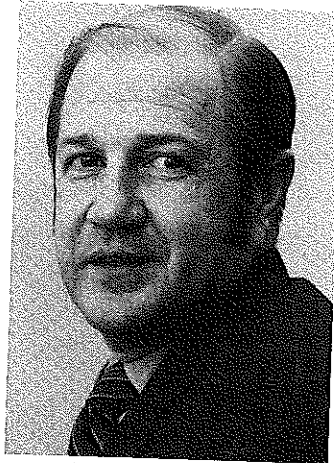
This seems to be a logical approach to competence development, but the author has become convinced through research projects, personal interviews, and teacher workshops that a tragic breakdown has occurred in the planning of cooperative programs. Far too many students are not being rotated from one skill to another in the businesses. Students are performing about the same tasks each day. Other students are acquiring skills that may or may not be related to their training program. In order to consistently provide meaningful programs through on-the-job training, adequate planning must be done in advance of placing students in the businesses. Otherwise students are merely placed on the job and through the course of performing their duties they accidentally learn some of the skills needed in their chosen area of work.

### THE TEXAS PROGRAM

The Texas programs have received considerable support from the agri-business community and it appears that the program is on sound footing and will be a part of the total agricultural program for some time in the future.

In Texas the program is called the Cooperative Part-time Training Program. Students normally spend 15 hours per week on the job and five hours in the classroom. The

This goal setting article was contributed by our AVA Vice President for Agriculture. Due to the importance of this topic, I contribute my editorial space to Dr. Warmbrod, who is a former editor of *The Agricultural Education Magazine*.



J. Robert Warmbrod

# A GOAL FOR THE NEXT DECADE—QUALITY PROGRAMS IN AGRICULTURAL EDUCATION

by  
J. Robert Warmbrod, Professor  
Vice President-Agriculture  
American Vocational Association  
Department of Agricultural Education  
The Ohio State University

The past 10 to 15 years has been a period of growth for agricultural education. For more than a decade, we have devoted considerable time and energy to developing new agricultural education programs and to extending and expanding proven, more traditional programs. We are proud of the fact that programs have been developed and continue to be developed for a variety of occupations that require knowledge and skill in agriculture, including both farm and nonfarm occupations. Data indicate that more than one million persons are enrolled in high school, post-secondary, and adult agricultural education programs in the United States during 1977-78 — an increase of some 200,000 persons over the past 15 years.

## WILL GROWTH CONTINUE?

Is this growth cycle in agricultural education likely to continue? One fact that cannot be ignored is the decreasing number of young people who are entering the education system. Decreasing enrollments are already a fact in the elementary grades. It is only a matter of time before this decrease will manifest itself in the secondary schools, community colleges, and universities.

\*This article is from a presentation made by the author at the Annual Conference, Illinois Association of Vocational Agriculture Teachers, University of Illinois, Urbana-Champaign, June 1977.

Since the majority of those enrolled in agricultural education programs are high school students, the prospects for continuing growth may not be too bright unless we, first, provide appropriate agricultural education programs for a higher proportion of high school and post-secondary students, and second, develop relevant programs for a much higher proportion of the adult population. Continuing growth of agricultural education programs in terms of the number of persons enrolled is in no way assured.

## IMPROVEMENT OF QUALITY AS A GOAL

As we deal with the reality that this period of growth in agricultural education will, at best, be slowing down if not coming to an end, I propose we launch a period in the continuing development of agricultural education that emphasizes the improvement of quality. If we desire, we can pursue a goal of improving quality with the vigor devoted to the goal of growth during the past few years. I am not charging that we have paid no attention to quality during the past 15 years, but when the primary goals are growth and expansion, it is not unusual to give considerations of quality less attention than may be desirable. We are being less than candid if we do not admit that the twin goals of growth and quality are sometimes conflicting rather than complementary.

I propose two factors that are essential to the further development and maintenance of quality programs in agricultural education. The first and foremost determiner of the quality of any educational program is the professional personnel who plan, conduct, and evaluate that program. A second group of factors that influences quality is the environment — the "ecology" — within which the program is conducted. How do personnel and the environment in which programs are conducted influence the "character" — the quality — of agricultural education programs?

## PROFESSIONAL PERSONNEL IS THE KEY

I have no qualm about asserting that the factor that is overwhelming in determining the quality of agricultural education programs is the teachers, administrators, supervisors, and teacher educators who plan, conduct, administer, and evaluate programs. In the final analysis, quality of agricultural education programs is, in fact, what goes on in the classrooms, laboratories, and supervised occupational experience programs of the persons who enroll.

**High quality programs require, first and foremost, a corps of competent teachers: that is, teachers who are experts in the technology and skills in the specialized areas of agriculture and related sciences; teachers who have the ability to apply and relate that knowledge and skill to the world of work generally and to occupations specifically; and teachers who have a high degree of professional expertise and skill in planning, teaching, and evaluating educational programs.**

A mark of quality is the level of professional and technical competence possessed by those entering the profession and the extent to which those in the profession maintain and continually develop a higher level of expertise in agriculture and education.

Teachers whose goals are high quality instructional programs aggressively create and seek out ways for improving their professional and technical competence. Their motivation for the maintenance and further development of professional and technical competence goes far beyond the prodding for continuing professional development found in the requirements for the renewal of teaching certificates and the provisions of salary schedules that recognize continuing education efforts.

Competence alone is not sufficient to assure high quality agricultural education programs. A high level of competence must be accompanied by dedication and commitment to the profession. That dedication and commitment must be enthusiastic—not casual. It is reflected in teachers' activities and performance in the classroom and laboratory, in the school, in the community, and in the teachers' participation in the organizations and activities of the profession. Competent, committed, and dedicated professionals in agricultural education put highest priority on their employment as a teacher, teacher educator, or supervisor. Quality programs in agricultural education do not result when a

high proportion of the professional personnel view their role as educator as secondary in terms of time, energy, and competence commitments to other employment or economic endeavors.

## ENVIRONMENT IMPORTANT ALSO

In addition to a competent and committed corps of professionals, it is also important that the environment within which the professional operates be such that quality programs are encouraged, if not demanded. I propose that the following three major dimensions of the environment of agricultural education contribute to and encourage high quality programs: the philosophy and policies that provide the basis for quality programs; the organization and activities of the profession; and support services for the profession.

Quality programs in agricultural education do not operate in isolation from the remainder of the school system. In many respects the quality of an agricultural education program in a particular school will reflect, within certain limits, the overall quality of that school. But within most schools the range in quality of educational programs is sufficiently broad that some programs achieve a level of excellence that may not be typical of all educational programs in the school.

Quality programs in agricultural education are most likely to result when the philosophy and policies within which we operate make it clear that agricultural education is an integral part of the total educational system. The philosophy and policies that guide the development and conduct of programs must recognize the fact that generally as education goes, so goes agricultural education.

Quality programs are most likely to result when we plan and conduct programs clearly recognizing that all phases of the school program contribute to the competence of those who complete or leave agricultural education programs. We cannot afford to take the narrow view that the sole and exclusive determiner of occupational competence is the vocational part of a school's program. Why should we attempt to accomplish alone the goal of occupational competence when there is ample evidence that all parts of the curriculum play a vital role in contributing to occupational competence as well as to a person's overall competence.

**Quality agricultural education programs flourish in environments where the philosophy and its accompanying policies clearly establish agricultural education as an integral part of, not an appendage to, a school's educational program.**

## PROFESSIONAL ORGANIZATIONS

A second dimension of an environment that is conducive to the nurture and growth of quality agricultural education programs is the organization, structure, and activities of the profession. I refer to how those of us in the profession — teachers, teacher educators, and supervisors — organize and structure ourselves to accomplish activities that contribute to and encourage quality programs.

(Concluded on the next page)

## ★ Special Features ★

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|   |  |                      |
|---|--|----------------------|
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An examination of the purposes of state and national organizations in agricultural education reveals that their major purposes are the professional development of those engaged in agricultural education and the promotion and further development of high quality programs. Teachers, supervisors, and teacher educators who make maximum contributions to their profession are, first, members of the appropriate organizations; second, participating actively in the organization's activities; and even more importantly, insisting that the organization develop a program of activities that enhances their professional competence and contributes to the development of high quality programs.

**I suggest that state and national organizations for teachers, teacher educators, and supervisors could well stand some soul searching concerning the extent to which members of the profession are dealing seriously with the problems and issues that confront the profession today or are likely to confront the profession in the foreseeable future.**

If we in the profession are to have a major impact on building quality programs, our energy and resources must be focused on some major issues that have direct impact on the quality of agricultural education programs.

One such issue, and one that apparently professional organizations have been reluctant to tackle seriously, is that pertaining to the professional and technical competence of those entering teaching and the further development of the expertise of those who remain in teaching. If a major determinant of program quality is the competence and commitment of personnel, this concern must take top priority on the agendas of professional organizations. The outcome must be recommendations for policy and action that assure that those who enter teaching possess the requisite knowledge and skills and that those in the profession continually refurbish their expertise and re-evaluate their commitment to the profession. There is no more persuasive motivation for the development and maintenance of professional competence than that provided by one's peers.

Another major concern that we have been reluctant to deal with seriously in our professional organizations is the perennial problem of the teacher shortage. It is interesting to note that growth in agricultural education programs during the past 15 years has occurred in spite of a rather serious shortage of teachers in most states during the same period of time. Do we know any more about the root causes of the teacher shortage today than we did ten years ago? What programs and activities have been initiated by our professional organizations that attempt to get at the reasons the shortage continues to exist? If we in the profession were to set our talents and resources to the task, surely we could make some progress in solving this problem. If we do not act soon, the problem could very well be solved for us if the projected decrease in the enrollment of high school students is accompanied by fewer students electing to study agriculture in high school.

Are we willing to challenge our professional organizations to tackle problems and issues that have a direct impact on the quality of agricultural education programs?

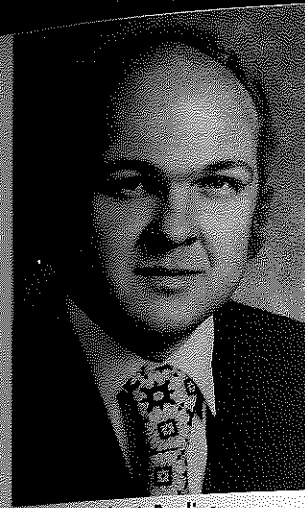
#### SUPPORT SERVICES

A third dimension of an environment that contributes to quality programs pertains to the functions performed by teacher educators and state supervisory personnel. Supervisory personnel in state departments of education play a vital role in the policy development process since state plans for vocational education and other policy documents for vocational education are developed primarily in state departments of education. Agricultural education specialists in state departments of education represent, at the state level, the interests of agricultural education in the policy development process. State level supervisors and consultants have a major responsibility for monitoring the overall progress of agricultural education in a state, for identifying problems and issues with which the profession must be concerned, and for creating an atmosphere that encourages change and innovation in programs such that high quality programs result.

Teacher education personnel in the universities play an equally important role in fostering high quality agricultural education programs. Their most obvious role is that of pre-service and in-service teacher education. If competent teachers are essential for quality programs, then dynamic and accessible pre-service and in-service teacher education programs are part and parcel of the agricultural education scene. Teacher education faculties have another unique contribution to make in building quality programs — research and development. If agricultural education programs are to prosper and improve, it is essential that we systematically and critically analyze what we are doing and why we are doing what we do. It is equally important that we develop and experiment with new techniques and programs. Research and development are high priority functions of major universities. Universities are staffed and organized to accomplish these purposes; consequently, teacher educators must have the expertise as well as the responsibility for conducting research that contributes directly to the improvement of agricultural education programs. In performing their support services function, it is imperative that there be close coordination and cooperation between teacher education and supervisory personnel.

#### SUMMARY

The major factor that determines the degree of quality of agricultural education programs is the competence and commitment of those in the profession. Quality programs thrive best in an environment where agricultural education is an integral part of the total education program, in an environment where professional organizations devote their talents and resources to the crucial issues facing the profession now and in the foreseeable future, and in an environment where teacher education and supervisory support services are adequately and completely provided. Quality programs do not occur without effort. High quality programs in agricultural education do not automatically appear following an announcement that we are building quality programs. By and large, the quality of agricultural education programs is and will continue to be what we — teachers, administrators, supervisors, and teacher educators — desire that level of quality to be. ◆◆◆



Robert Burdine

# S.O.E. PROGRAMS IN AGRICULTURE—WHAT AND WHY?

by  
Robert Burdine  
McAdams High School  
McAdams, MS

#### WHAT?

Supervised Occupational Experience Programs (often known as S.O.E. or S.O.E.P.) consist of the practical, career-related activities available to students who are enrolled in vocational agriculture. These activities are conducted outside of class, and instruction and supervision are provided to the student by teachers, parents, employers, and others.

#### EXPERIENCE

"Experience" may be defined as "learning by doing." The *Standard College Dictionary* defines experience as the "knowledge or skill derived from actual participation or direct contact rather than from mere study and interest." Experience provides the student with an opportunity to apply, to participate, and to observe the application of the principles and practices to be learned. The experiences students receive must be related to and contribute to their chosen occupational objectives. Students may choose to participate in any of the main areas of agricultural occupations recognized by vocational agriculture. These are:

- A. Production Agriculture
- B. Agricultural Supplies and Services
- C. Agricultural Mechanics
- D. Agricultural Products, Processing, and Marketing
- E. Horticulture
- F. Renewable Natural Resources
- G. Forestry
- H. Agriculture, Other

Students may or may not be paid for the time they spend while gaining supervised occupational experience. The time must be other than regular classroom activity periods. It may be provided during school-released time, evenings, or summers, whether simulated at school or on-the-job.

#### TYPES

Supervised occupational experience may be obtained in several ways. The student may be placed for employment on a farm which is owned by the individual's parents or by someone else. Another method of providing experience is by placing the student in agricultural businesses, services, agencies, or in farms and ranches. Also, a student may obtain experience by a simulated type of supervised work experience provided at school. This type is not as good as the above two ways because the work must be simulated in a laboratory or shop, which does not provide actual firsthand on-the-job experience.

#### TEACHER ROLE

The role of the vocational agriculture teacher in the S.O.E. program is that of teacher and coordinator. The teacher helps students in learning situations in the classroom and on the job and also helps them develop personality traits needed for success in the world of work. The teacher aids the student in developing a qualified program of his or her interest. It is the teacher's responsibility to promote, locate, select, and arrange S.O.E. programs for work experience. A student must be matched with a work situation that will offer training toward his or her program objectives. The teacher should visit (supervise) the student on the job to discuss his or her progress with the student and employer. He must also see to it that the student is acquiring the necessary classroom knowledge to be successful on the job. Last but not least, the teacher must be a good public relations worker to promote the program, as well as make sure it is successful.

#### LEGISLATIVE BASIS

Each student enrolled in vocational agriculture education is required by law to have a supervised occupational experience program. The Smith-Hughes Act of 1917 provided for the training in vocational agriculture. The 1963 Vocational Education Act made it possible for agriculture teachers to teach all areas of agricultural occupations rather than just agricultural production. The *Federal Register* (Volume 40, Number 38, page 8081) provides other regulations related to vocational education in agriculture. The regulations specify that instruction shall be developed and conducted in accord with the following standards to assure soundness and quality:

The program of instruction shall be based on a consideration of the skills, attitudes, and knowledge required to achieve the occupational or other objective of such instruction, and includes a planned sequence of those essentials of education and/or experience (both) deemed necessary for the individual to meet his occupational objective.

The *Bulletin of Federal Vocational Education Acts* (page 18) specifies the following:

The program of instruction will combine and coordinate related instruction with field, shop, laboratory, cooperative work, or other occupational experience which is appropriate to the vocational objective of the student, and is of sufficient duration to develop competence necessary to fit him for employment in the occupation or occupational field for which he is being trained, and is supervised, directed, or coordinated by a person qualified under the State Plan.

#### COORDINATION

A supervised occupational experience program should be planned from year to year in order that the student may gain the maximum experience possible. And, of course, an individual training program that will serve the best interest of the student is necessary. A training agreement, which is an understanding on the part of the student, parents, teacher, and employer relative to conditions of employment, is needed to secure a satisfactory situation in which  
(Concluded on page 272)

TRAINING PLAN — FOUNDATION

All of these factors make it difficult to establish a training plan. In Texas, as in most states, the state office requires a training plan on each student. The plan calls for a listing of topics to be taught at school and an outline of skills to be performed on the job. This plan is usually done fairly soon after school begins. In handbooks, sample training plans are provided for several occupations. In far too many cases the teacher simply types a plan from a handbook or one that was used last year or by someone else. He then has the employer and student sign it and sends a copy to the state office.

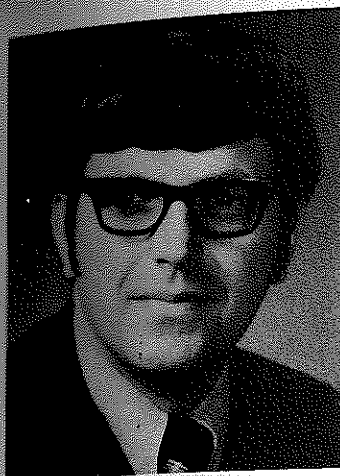
It is certain that the teacher mentioned above is headed for trouble. The reason is that he never really got the employer to "agree and understand" the commitment he was making. Later, when students are not rotated, teachers have very little justification to move the student. When parents object to what their child is doing on the job, the teacher is again on shaky ground. When salary and hour conflicts arise, incomplete understanding make problems more difficult to resolve.

The training plan is the foundation of the cooperative program. Teachers, parents, students, and employers must be aware of and have a thorough understanding of the knowledge and skills to be learned in the training program.

Each entity must know his or her responsibility and the consequences of poor performance. If an employer does not have time to sit down and think through a training program, it is doubtful that he will have time to work with a student. If a teacher does not understand the skills needed for employment or does not have time to plan his program, students will suffer and time will be wasted. If parents and students do not understand exactly what is to be done and learned in the program, dissatisfaction during the year is probable.

SUMMARY

Most vocational educators are aware of the importance of good planning. Cooperative programs have experienced good participation and support. They offer a wonderful opportunity for students to learn to face the world of work with a background of real work experience. The point of this article is that training plans understood by all concerned are as important to cooperative programs as foundations are to buildings. The process is difficult. Many obstacles face the teacher in working out adequate training plans for several students. It is felt that the time and effort spent will be returned all through the year with a program that operates smoothly and in which students acquire knowledge and skills through design and not by accident. ◆◆◆



Donald E. Evans

"Partners In Education" certainly characterizes the role of the cooperating employers for cooperative education in agriculture. The cooperating employers share the education responsibility for the continuing development of the agriculture students with the schools. The realization that this educational concept has distinct advantages for their firms has encouraged increasing acceptance by employers of cooperative education as an adaptation to meet the diversified needs of schools, students, society, and their firms.

THE THREE WAY PARTNERSHIP

The values of cooperative education include the dynamic involvement of each of its partners: the employer, the student, and the school. Combined, they provide learning in two environments. Bringing employers, students, and schools together to share knowledge and resources is the central idea of this educational concept. Experience shows that cooperative education in agriculture is good for all three partners involved. This holds especially true for employers, whether they are engaged in highly competitive profit making activities or in non-profit public work. All types of employers have found cooperative education to be an asset to their firms.

The need for future trained personnel in agriculture has never been more evident, not merely to handle increased volume, but also to replace employees who will be retiring or leaving for various reasons. Cooperating employers realize that viable plans for maintaining a pool of qualified employee candidates is a must. Such a plan — and one that is ready for the cooperating employers immediately — is cooperative education in agriculture.

# COOPERATING EMPLOYERS— PARTNERS IN EDUCATION

by  
Donald E. Evans  
Teacher Education  
The Pennsylvania State University

AN EDUCATIONAL METHOD

Cooperative education is a method whereby agriculture students are encouraged to work in a supervised occupational experience related to their career objective. It is a unique plan of education designed to integrate theoretical classroom and shop study with planned and supervised occupational experience in selected educational employment assignments. This experience assists students to establish and achieve goals appropriate to their specific needs.

The Vocational Amendments of 1968 (P. L. 90-576) defines it as "... vocational education for persons who, through a cooperative arrangement between the school and employers, receive instruction including required academic courses and related vocational instruction by alternation of study in school with a job in any occupational field, but these two experiences must be planned by the school and employers so that each contributes to the students' education and to his employability. Work periods and school attendance may be alternate half-days, full days, weeks, or other periods of time." Now, through Congressional actions, cooperative education is a priority offering in vocational education.

DOING TO LEARN

Embodied in the FFA motto, the concept of cooperative education has well established roots in the vocational agriculture curriculum. Students receiving cooperative education experience in agriculture can "cap-off" their formal in-school vocational education with a related learning experience at a school approved work station. Those agriculture students with unique or diversified career ambitions that cannot be taught in the existing agriculture education program can be

matched with related supervised occupational experience to meet their educational needs too. In each case, the employer is a critical partner in the educational program. The cooperating employers, through cooperative education, can help agriculture students to refine the skills learned in school and teach additional skills that can only be learned on the job. This can be done while the student still has the opportunity to use school resources.

**"I hear and I forget; I see and I remember; I do and I understand."  
Cooperative education is the doing and understanding.**

THE KEY WORD IS  
COOPERATIVE

"Cooperative" defines the atmosphere and arrangements that exist between the school and employer. It is a two-way cooperation. The school recognizes the employer's point of view — the profit motive, the need to get a job done, and the need for efficient, effective employees. Likewise, the employer recognizes the school's point of view — the need to translate theory into practice and to coordinate the development of both. The cooperative arrangement is mutually advantageous to both of these partners; however, the agriculture student should be the chief benefactor in this scheme. Through the cooperation of all three partners, an educational training agreement must be designed to insure that all parties understand their roles so that the supervised occupational experience is educational in nature. The cooperative partnership must be worthwhile — to the student, to the employer, and to the school.

(Concluded on page 278)

COOPERATIVE



EDUCATION

CONTINUED S.O.E. PROGRAMS IN AGRICULTURE . . .

the student can obtain occupational experiences. The teacher, school, student, and employer need to be aware of what students need to be taught in the classroom and what is expected of them when they are placed in job situations.

WHY?

A supervised occupational experience program will help the student in many ways. It can help bridge the gap between school life and the world of work by blending meaningful job experiences with related educational courses. Graduates of a qualified program will have lower unemployment rates in the labor force because they will have developed marketable skills and knowledge by relating education in a meaningful way to occupational interests. Being given more responsibility, the student should develop occupational competencies in his or her selected area of training which will aid in the maturation process. Students learn by doing, and not just by listening. They may also earn money while learning, thus contributing to their education as consumers. A good program will discourage school dropouts, while encouraging an enriched school

curriculum designed to stimulate the development of desirable attitudes toward work. Personality improvements can be made by the students' becoming aware of their weaknesses during training and working to correct them. Many students will have an opportunity to receive training with equipment which would be too expensive for the school to obtain.

PRACTICAL EDUCATION

Modern agricultural technology places far greater educational demands upon the work force than have ever been required before. In addition to the "academic" subjects, workers need a solid foundation in the skill areas. An S.O.E. program is an excellent method of providing for young people a practical education and skill foundation which will prepare them for economic survival. The students will be able to apply what they have already learned in the classroom and laboratory to real-life situations.

EMPLOYER BENEFIT

The employer can also benefit from a good S.O.E. program by gaining better qualified full-time employees after the trainee's graduation from

high school. The teacher will aid in training the student, thus cutting the employer's time and cost in producing a qualified worker. Also, the employer has the opportunity to render a public service to the school, student and community.

PARENT BENEFIT

Parents will receive benefits from S.O.E. programs. The programs will provide students with an opportunity to use leisure time while learning responsibility. The parents do not have to plan as many activities to safeguard the student's interests.

SUMMARY

Good vocational agriculture programs require good S.O.E. programs. They are imperative for a teacher to be really successful. The teachers with sound S.O.E. programs are going to be on twelve months employment. Because students are trained on the job, employees with higher qualifications will be available to join the labor force. S.O.E. programs will train students for the future, thus reducing the unemployment rate in jobs that require less than four-year college degrees. ◆◆◆

# AGRICULTURE COOPERATIVE TRAINING "LEARNING BY DOING"

by  
Lewis E. Williamson, Jr.  
Vo-Ag Instructor  
Nottoway, VA

## JOB SITE SELECTION

Students who have been selected for the program are assembled prior to the closing of school to discuss ground rules and job selection sites. Job selection sites (training stations) must be compatible with the career interest of the student; an opportunity for learning must be available; and the job must be agriculturally oriented.

The teacher/coordinator will help locate a job for the student, especially where training stations have been established; otherwise, the student must make a concerted effort to find a suitable training station. If a student is not employed by the first day of school, he is rescheduled to take a full course load in school (dropped from the ACT program); however, if a suitable job is located within the first four weeks of school, the student's schedule may be rearranged to coordinate with the ACT program.

ACT students can have up to three school class periods of co-op time per day either in the mornings or afternoons. The majority of the ACT students have two co-op periods which are scheduled in the last two class periods of the school day.

## ACT GUIDELINES

The guidelines for students enrolled in ACT must be signed by both the student and his parent. Several ideas encourage respect for the program. One is that any student who fails the classroom-related study or the on-the-job training fails the entire course and

loses the two credits. One-half of the ACT student's grade comes from classroom study which includes occupational experience program plans (competencies). These competencies are periodically turned in and evaluated. In addition, each student has an assigned written report each six weeks and record books must be kept up-to-date — weekly, bi-weekly or monthly. Each student is expected to make passing grades in all his other studies. A student must never use the fact of being on ACT as an excuse for not having all school assignments done on time. He should not work at the expense of his classes. Finally, a student understands the seriousness of his work agreement and his commitment to his employer, and if he loses his job through negligence, or if he quits or changes jobs without the consent of the coordinator, he can be dropped from the program and may receive an "F."

## ACT AGREEMENT

A Parent-Student-Employer-School Agreement is a written agreement whereby each party makes a commitment and understands the complexities of the ACT program. The student understands this agreement as a contract up to which he has committed himself to live. Presently, our ACT students are using the agreement found in the SOEP Record Books for Virginia Vo-Ag Students with some alterations to fit individual needs.

## STUDENT REQUIREMENTS

Each ACT student is required to have the Virginia SOEP Record Book on file in the vo-ag classroom for teacher/coordinator inspection. Production students keep up-to-date enterprise

(Concluded on page 280)

Table I — Actual Training Stations for ACT Students for 1977-78:

| Production            | No. Students | Business              | No. Students |
|-----------------------|--------------|-----------------------|--------------|
| Dairy Farms           | 6            | Aluminum Products     | 3            |
| Tobacco, small grains | 5            | Poultry (Holly Farms) | 1            |
| Livestock             | 5            | Food Markets          | 5            |
| Apple-Peach Orchard   | 1            | Koopers (welding)     | 1            |
|                       |              | Quick Foods           | 1            |
|                       |              | Petroleum Products    | 4            |
|                       |              | Milk Cooperative      | 1            |
|                       |              | Lumber Manufacturing  | 2            |
|                       |              | Trucking-hauling      | 1            |
|                       |              | Business Machines     | 1            |
|                       |              | Ecology-Fort Pickett  | 2            |

Basic requirements include: enrollment in Agricultural Production III, or Agricultural Business III (10th grade course) for one year; satisfactory completion of SOEP program; C average; good character; friendliness; willingness to work; cooperative attitude; and a career objective that is agriculturally oriented.

# SOME MERITS OF COOPERATIVE EDUCATION

John H. Rodgers  
Ag. Educ.  
Clemson Univ.  
Clemson, SC



John H. Rodgers

## THE COMMUNITY BENEFITS

The community benefits greatly from a well conceived cooperative work-study program. High school students are found to become involved in community service as well as work. This tends to lead toward better citizenship and improved communication in keeping with common community goals. Work-study programs have shown promising results in a number of states widely dispersed geographically. Experiences of the Cooperative Education Association and independent school districts indicate that jobs can be arranged for those students who want them. Cooperation of businesses, industries, government, and the professions can be elicited. Also, there are beneficial results from employing some students on the school campus where certain skills and knowledge can be applied toward maintaining and/or operating the school plant. Vandalism is greatly curbed when students assume responsibilities.

## ADVISOR-COORDINATOR IS KEY TO SUCCESS

Based on all available information on record, plus what is learned through home visitation, students who will profit from a cooperative program should be identified. The teacher of agriculture is in a unique position to make a judgment concerning participants in cooperative education. Many teachers are discouraged from initiating a cooperative education program because the student-teacher ratio must be lowered to assure a quality program. Short-sighted administrators tend to think in terms of quantity only, while generating the circumstances for student apathy in academics and belligerence in behavior. Students must view the school curriculum as being relevant to their needs and interests. The sympathetic advisor-coordinator who

knows the student's family circumstances as well as his school record will strive to make the curriculum relevant to the student. Work experience in a business or an institutional organization is interfaced with a study program aimed at the academic and work interests of the student.

The school must modify lock-step programs to the extent that the advisor-coordinator (teacher of agriculture) can teach a work-related course at the high school, advise the student, and supervise the student on the job. The contacts made by the teacher with students and employers serve to enable the teacher to aid students in finding both summer and post-graduate employment. Thus, the educational program becomes a preventive to unemployment. This approach is much more defensible and effective than the costly remedial programs being employed after students drop out of school.

Cooperative education is receiving a great deal of lip service from all levels of the educational hierarchy. However, a very puny commitment is demonstrated. Many educators attest to the value of such a program but hasten to add that it is too expensive on a per pupil basis. It is fallacious to assume that because a student is assigned under the supervision of a teacher, he/she is a student being educated.

## SUMMARY

Educators should begin to realize that the problems plaguing public education will not go away until we wrestle with them and modify programs as warranted. We can no longer use the excuse that we have never had such a program before. It behooves us to garner programmatic ideas and procedures that are successful and try them on a limited basis. Cooperative education is one of the ideas proven to be of great value for selected students.

Parents and educators are becoming more concerned about the mental, physical, social, and moral development of their children. This concern has been expressed in several ways, including expressions of disappointment in educational programs. These concerns prompt some educators to look toward programs experiencing a measure of success. One type of successful program is cooperative education (work + study). This combination provides the exercise for a healthy body, the constructive activities to stimulate the mind and strengthen the sense of self-worth, and the feeling of being a stable and productive citizen.

Studies of cooperative education attest to a number of simple findings of interest to educators. Some of these findings include —

- Students accomplish more academically and place a higher value on time.
- Students demonstrate significantly better behavior and are more dependable.
- Students demonstrate more responsibility and are more industrious than the average.
- Students develop a greater sense of self-worth which is so important to stability, maturity, and good citizenship.
- Students develop better career orientation, generally, and are more decisive and constructive in plans and actions.

A number of widely scattered attempts to combine work and study as a means of making academic pursuits relevant and palatable indicate success in the ghetto, in suburbia, and even in fashionable resort areas. The advantages are both academic and financial because grades improve while vandalism and other forms of delinquency lessen or disappear.



J. J. Paterson

# A MULTI-PURPOSE VISUAL AIDS STAND

J. J. Paterson<sup>1</sup>  
R. F. Welton<sup>2</sup>

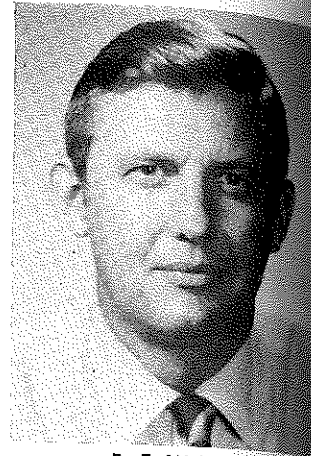
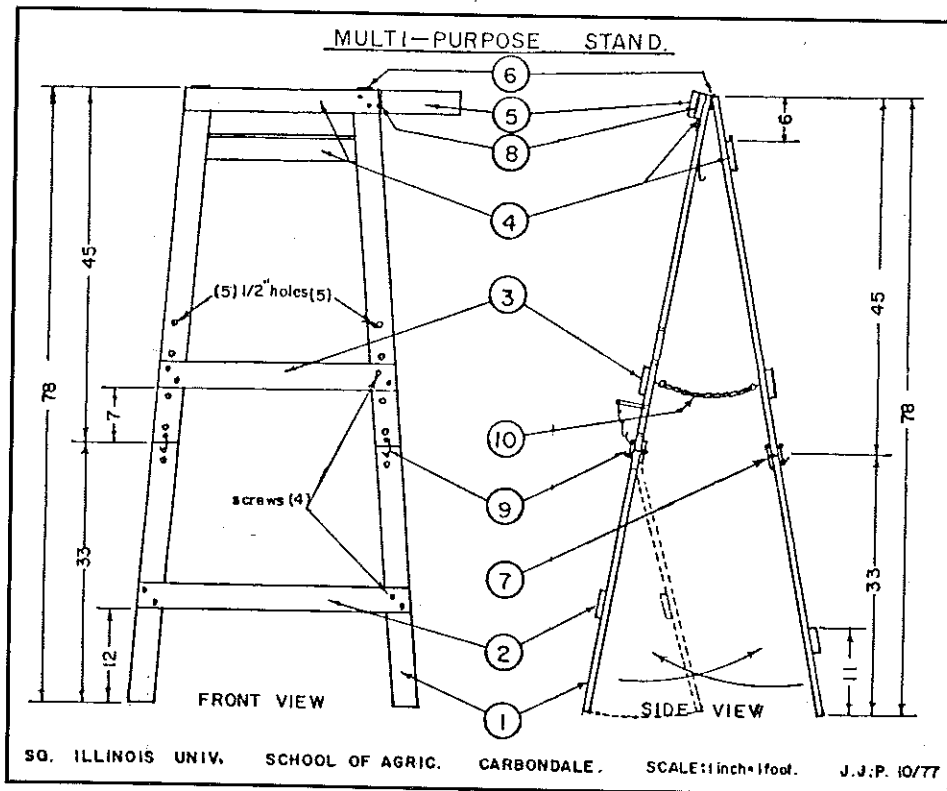
While serving on an international assignment at the Federal University of Santa Maria in Santa Maria, Brazil, the authors devised a multi-purpose stand for visual aids that would help teachers meet the multiple demands of their job. This portable stand is designed to accommodate projectors for movies, slides, or transparencies. The viewing screen can be adjusted for straight ahead movies or slide use or above head height and sloping for the overhead projector. The screen can also be adjusted to be used as a blackboard or to hold charts. Use of the stand in these three positions can be seen in the accompanying graphic.

One additional use of the stand is

not shown here but it can be used without the screen to support roll flip charts. This stand can be adapted to function in all of the situations where agriculture teachers work. Both the stand and plywood screen board can be made to fold small enough to transport in a car or station wagon. The construction is simple and can be made from common materials in a few hours by any good shop teacher.

<sup>1</sup>Associate Professor (Emeritus), Agricultural Mechanization, School of Agriculture, Southern Illinois University, Carbondale, Illinois.

<sup>2</sup>Associate Professor, Department of Adult and Occupational Education, College of Education, Kansas State University, Manhattan, Kansas.



R. F. Welton

## Steps in Construction Stand

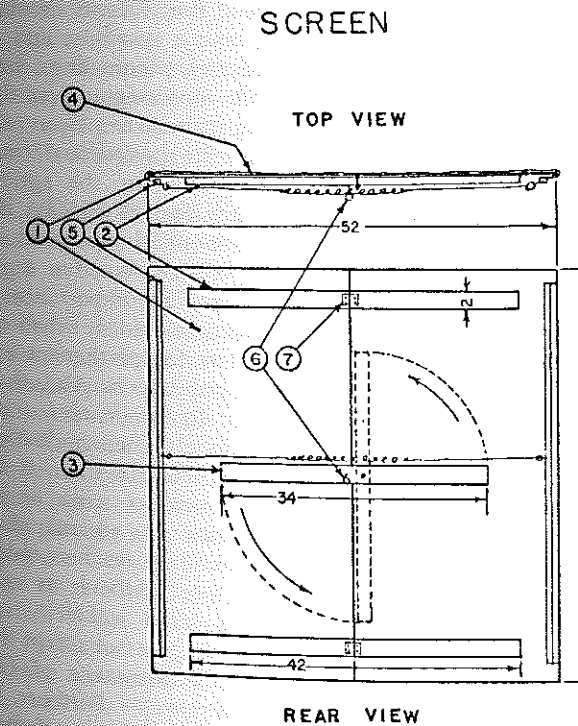
1. Lay out center line with chalk on a level floor.
2. Draw two lines across this center line and 6 1/2 feet apart.
3. Lay pieces of wood for legs on either side of this center line and spaced as in front view in diagram.
4. Mark off positions of cross pieces. Note that (1) two lower pieces are different heights so that they will be compact when folded and (2) top of rear upper piece is 6" from the top and grooved on inside to receive plywood screen.
5. Mark, cut and attach cross pieces with screws.
6. Repeat steps 1-5 for second half of frame.
7. After each half frame is assembled, mark positions of the two hinges on legs. Make sure the hinge pins are parallel to the floor when stand is vertical, and not at right angles to the legs, or they will not fold properly. Folding legs are not necessary if stand is to remain in the classroom.
8. Carefully cut each leg at height shown and mount hinges on inside, and hook and eye on outside of each leg. Hook and eye should be tight enough to stay closed when moving the frame. (Make these cuts parallel with floor also).
9. Attach hinges between the two halves of frame. Lay both frames on the floor with top ends together and cross pieces down and attach hinges to join the two halves.

10. Attach hooks and chain, also special hook to support screen vertical when needed. (see position 1 in sketches).
11. Bore 5 1/2" holes, 4" apart in front legs only. These receive 1/2" dowels to support screen and charts.
12. Cut 2 dowel pins about 4" long and attach to legs with cord long enough so that pins may be inserted in all the holes. This ensures pins being available when needed.
13. Attach folding 10" extensions to ends of front top cross piece so that they fold inwards.

## Screen Board

1. Cut 1/4" plywood to 52"x52".
2. Glue or nail the two 48" wood pieces on back (across grain) and 2"-3" from top and bottom.
3. Cut down the center (with grain) and attach hinges between the wood pieces so that screen will fold.
4. Bore hole in center of 34" wood piece for bolt, and mount in center and near fold of one of screen halves so that it holds screen flat when in use (see diagram).
5. Attach screw eye near center of this piece to receive special hook when used in position 1.

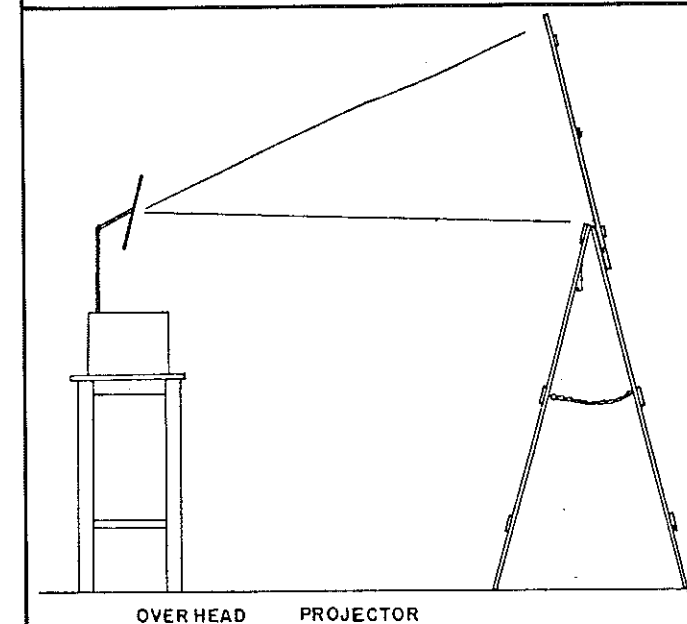
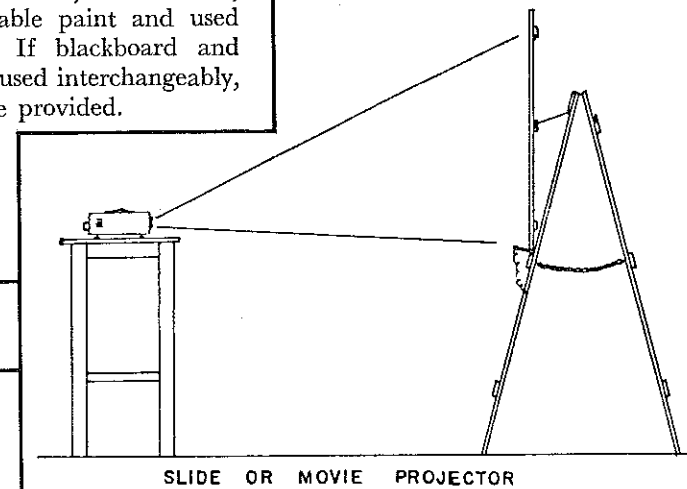
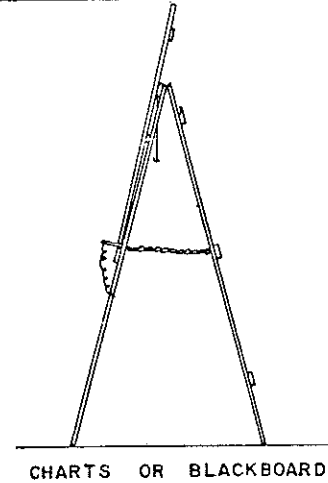
The Material List is included on the following page.



6. White screen of sign cotton should be long enough to extend horizontally beyond sides of wood screen. Use 3/4" wood pieces tacked and glued to ends of cotton to keep it aligned.
7. Attach hooks to the center of these two pieces and use a flexible spring or surgical rubber tubing across back of board to keep cotton screen in tension while in use (while being transported screen is removed and rolled).
8. Paper charts, if used, may be mounted between two wooden strips across the top and displayed between improvised wire hooks made from wire coat hangers and hung from the wooden folding side extensions on the top rail.

The foregoing detailed description will cover the most common uses, but the user may devise other ways to use this portable and versatile display stand. The board may be sanded, painted with suitable paint and used as a blackboard. If blackboard and screen need to be used interchangeably, two boards can be provided.

## SOME USES OF THE STAND



## CONTINUED A MULTI-PURPOSE VISUAL AIDS STAND

### Material List Stand

1. 4 pieces  $\frac{3}{4}$ "x3"x18" - legs
  2. 2 pieces  $\frac{3}{4}$ "x3"x36" - lower
  3. 2 pieces  $\frac{3}{4}$ "x3"x30" - center
  4. 2 pieces  $\frac{3}{4}$ "x3"x24" - top
- All horizontal pieces  
(rear one grooved on inside top to receive overhead screen)
5. 2 pieces  $\frac{3}{4}$ "x3"x10" - folding sidewings on top bar.
  6. 1 pair strap hinges,  $2\frac{1}{2}$ "x4" steel, between leg frames at top.
  7. 2 pairs butt hinges,  $2\frac{1}{2}$ "x2 $\frac{1}{2}$ " steel, leg joints for folding legs.
  8. 1 pair butt hinges 2"x2" steel for hinged side wings on top front bar.

9. 2 doz. wood screws,  $1\frac{1}{4}$ "x9" flat head steel, for horizontal pieces. (2 in each end of 6 pieces).
  10. 20 wood screws -  $\frac{3}{4}$ "x8" or suitable - for hinges.
  11. 4 hooks and eyes -  $2\frac{1}{2}$ " - for leg joints.
  12. 2 feet small chain, also 2 screw eyes.
  13.  $\frac{1}{2}$ " dowel pins, 1 long hook, (handmade from heavy wire) to hold screen vertical.
  14. Cord to keep pins from getting lost.
- Screen Board  
Made from  $\frac{1}{4}$ " plywood covered with cotton.

1. 1 piece plywood  $\frac{1}{4}$ " AD grade 52"x52" (hinged in center).
2. 2 pieces wood  $\frac{3}{8}$ "x2"x48" for top and bottom of screen and to hold hinges.
3. 1 piece wood  $\frac{3}{8}$ "x2"x42" pivoted on small bolt to hold screen flat when in use.
4. 1 piece white cotton 4'x5' minimum.
5. 2 pieces wood  $\frac{3}{4}$ "x $\frac{3}{4}$ "x48" secured to ends of cotton screen.
6. Eye used with hook on stand to hold screen vertical.
7. 1 pair  $1\frac{1}{2}$ "x1 $\frac{1}{2}$ " steel butt hinges.
8. 1 long flexible spring, or 3 feet of surgical rubber tubing between two hooks between above two pieces to hold cotton in tension on face of screen.

## CONTINUED COOPERATING EMPLOYERS . . .

### COOPERATING EMPLOYER BENEFITS

Cooperating employers realize that the young agriculture students are usually new to "the world of work" and, therefore, do not expect them to be as competitive as the experienced employees. Actually, this is a plus because it gives the cooperating employer the opportunity to build the student into a loyal employee whose occupational home will be their firm. There are many other benefits for the cooperating employer. They are:

1. The agriculture student is under school discipline; therefore, the student must show progress on the job, be punctual and effective or the student is removed from the work station.
2. The agriculture student has training in the agricultural classroom and shop and this training is related to skills necessary to be competent on the job.
3. The agriculture student is matched to the job based on career interest and preparation; plus, the cooperating employer enjoys the same selection privileges as with any employee, but the chances of getting a good employee are even better through cooperative education.
4. A pool of potentially permanent employees who have demonstrated their abilities is established.
5. The opportunity to work with and train highly motivated students is there.
6. They introduce fresh, new ideas.

7. There is an opportunity to use an efficient employee training program and recruitment procedure.
8. There is a chance to send goodwill ambassadors back to the school.
9. There is an opportunity to have qualified agriculture instructors coordinating the offering and assisting to secure trained individuals to meet employment needs.
10. There is an opportunity to advise the school on desired curricular content for classroom and shop instruction.

Cooperating employers are usually very concerned about community needs and development. Some additional indirect employer benefits that contribute to the health of the community are:

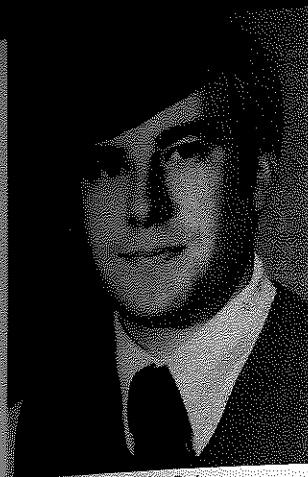
1. Research shows the students with cooperative education have the lowest youth unemployment rate in the labor force.
2. The students will be wage earners; therefore, taxpayers.
3. Data indicates that the wages earned are normally spent in the community.
4. Enthusiastic agriculture students preparing for a selected career are excellent FFA members, become good citizens and stay involved in community affairs.
5. Cooperative education reinforces positive relationships with the local educational programs.
6. Cooperative education increases rapport throughout the community.
7. The school-work method of edu-

cation provides the community with a more mature and experienced agricultural graduate to consider for permanent employment.

### THE KEY PURPOSE IS EXPERIENCE

It is possible that the agriculture student of today could live in two worlds — the world of the school with its theory, and the world of work with its experiences. Through cooperative education in agriculture, the students can combine the best of both worlds. While in school, the students normally carry regular course schedules and receive professional counseling from teachers. While on assignments, they work for cooperating employers and continue to receive professional counseling. Upon graduation, the agricultural student has both a diploma and a substantial amount of supervised occupational experience to offer a potential employer. The importance of these assets becomes evident when the student interviews for permanent employment after graduation. Also, there is less tendency for students to drift aimlessly immediately after graduation.

To prepare agriculture students for entry into the world of work or for advanced education is a gigantic challenge facing agriculture teachers today. It is becoming more difficult as agriculture becomes more technical and diversified; however, we can accept this challenge with the assistance of Cooperating Employers — Partners In Education. ◆◆◆



Jerry L. Peters

Preparing students for work is a fundamental goal of vocational education. Successfully placing them in on-the-job training situations is one method of providing experience pertinent to the students' job entry needs. In order to assure students of successful and meaningful on-the-job training experiences, teachers of vocational education must strive to establish sound on-job-training programs.

For an on-job-training program to operate successfully, it is essential that appropriate placement situations be located. How do vocational teachers go about locating suitable training agencies? Is there a set of criteria to consider in appraising a training agency? What should teachers look for in an employer who will act as the supervisor of a trainee? These are questions that should be dealt with by vocational teachers offering such a program and for which answers should be found in order to assure students that their on-job-training experience will be worthwhile and meaningful in preparing them for the world of work.

### LOCATING TRAINING AGENCIES

Initially requesting that students attempt to locate their own training agencies provides them with important experience in looking and interviewing for a job. Instruction in job-searching techniques and job-interview skills may be of value to the students as they begin their search. Often those students who locate their own training agencies have a better working relationship with the supervisor and a more enthusiastic approach to their job than those students who have been placed on jobs located by the instructor. It is important that the teacher investigate and approve the training agencies located by students. These agencies should meet, as closely as possible, the criteria

# ON-JOB-TRAINING

by  
Jerry L. Peters  
Graduate Teaching Associate  
Agricultural Education  
The Ohio State University

for the selection and approval of training agencies which have been set forth by the vocational teacher. *It would therefore be wise to introduce the students to these criteria prior to their search for a position.*

Students who at first are unable to locate a training agency on their own should be assisted further by the teacher. Following are proposed methods for locating available training agencies:

- 1) Speak with the department's local advisory committee concerning the need for suitable training agencies. This committee can prove to be a valuable communication link with the community — "advertising" the program to friends and associates, as well as, suggesting potential individuals or businesses that might be interested in assisting with the on-job-training program.
- 2) Make visits to potential agencies. Discuss the objectives and responsibilities of the on-job-training program with employers who have not previously taken part in or been introduced to the program. Be sure that the value of the program is well understood. Good salesmanship may establish a new training agency for the program.
- 3) Word-of-mouth often proves to be a useful method for locating available training agencies. Inquire about possible positions from students, fellow faculty members, friends, and adult groups.
- 4) If a job placement service is available to students, job placement personnel may be aware of local businesses that have positions open which might be filled by on-job-training students.

- 5) A publicity campaign to make the on-job-training program known in the community may recruit training agencies for the program. Newspaper articles and radio interviews covering the program may be helpful in the search.

Many successful on-job-training programs sell themselves over the years. Past supervisors who were happy and satisfied with the trainees they supervised may request future trainees. Establishing and maintaining a list of those businesses and individuals who have indicated a willingness to supervise trainees may make locating potential positions for students easier and more efficient.

### CRITERIA FOR APPROVAL OF TRAINING AGENCIES

The selection of training agencies for individual students is worthy of serious consideration by the vocational teacher. Prior to locating and approving training agencies for the students it would be helpful for the instructor to speak individually with the students concerning their vocational interests. Once the student has indicated an area or areas of interest a search should be initiated to locate a suitable training agency.

The following criteria should be considered in the final approval of a student's training agency:

- 1) The training agency should fall within the area of interest indicated by the student. Don't, out of desperation, place the student in an area for which no vocational interest has been expressed. This would in all probability prove to be a frustrating experience for the student and for the supervisor.

(Concluded on the next page)



## CONTINUED ON-JOB-TRAINING

- The training agency should have *suitable facilities and equipment*. If the facilities and equipment are outdated or inadequate, it is unlikely that the student will receive training that will be of much value after completion of the program. Look for a training agency in which the practices and procedures used are likely to produce a more salable commodity upon the student's completion of the program.
- The training agency should be a *successful and well run business* or operation. It is important that the student be introduced to the efficient operation of a business. Placing a student in a well equipped but ill-run business will prove to be of little value and may prove to be harmful if the student develops bad work habits.
- The training agency should provide a *desirable environment* in which the student may develop salable skills, pride in accomplishments, and a desire to achieve. The individuals with whom the student may associate on the job will have a great deal to do with this.

### EMPLOYERS AS SUPERVISORS

The supervisor of a trainee is a very important figure in the success of an

on-job-training program. This individual must be willing to accept a great many responsibilities. Initially, the supervisor must have a sound understanding of the educational objectives of the program. The supervisor must assume responsibilities in supervision, evaluation, and cooperation.

The responsibilities of supervision require that the supervisor be able and willing to provide competent instruction for the trainee rather than view the trainee strictly as an employee. The trainee is responsible to the supervisor and must feel free to ask questions. The supervisor should clarify for the student the importance of standards, preferences and attitudes of employers.

The responsibilities of evaluation require that the supervisor report to the vocational teacher weaknesses that should be remedied in a trainee. The supervisor should also point out these weaknesses to the trainee. Prompt attention to little problems helps avoid having them become major difficulties. The supervisor should discuss the student's progress, or lack of progress, with the vocational teacher so that the teacher has the opportunity to provide guidance if necessary and so that this information may be used for evaluation of the student's performance.

The supervisor's responsibilities of cooperation require that the teacher

be provided with opportunities to observe the student on-the-job. The supervisor should also provide some conference time for the teacher during which they may discuss job matters. The supervisor may also cooperate with the entire school program by counseling the student if there appears to be a need for it. Frequently, the supervisor can be instrumental in increasing the student's commitment to the total program.

If an employer is willing to accept these responsibilities, a training plan and placement agreement should be worked out cooperatively by the student, employer, parents, and teacher.

### CONCLUSION

Successfully matching the job and supervisor to the student is a very critical aspect of an on-job-training program. It may be compared to lighting a candle with a match. Not all matches will strike and for various reasons a candle may not burn.

**The student is a candle waiting to be lit and the training agency is a match. It is the vocational teacher's responsibility to see that the proper combination of candle and match is found in order that together they light the way to the world of work.**

## CONTINUED AGRICULTURE COOPERATIVE TRAINING

records (small grains, tobacco, live-stock, dairy, etc.) and agri-business students keep weekly and/or monthly hourly wages records and other areas of interest to the program.

The first six weeks are the most difficult and the most important part of the ACT Record Keeping System. Acclimating students to the school-work record keeping system can be an awesome task, but if the coordinator stresses punctuality and accuracy, the remainder of the year should become more pleasant. Also, the student must understand that his job is important and that he needs to record job experiences (competencies) and the number of hours spent at each experience.

As an additional assignment, the student must learn the history, rules, and regulations of the firm by whom he is employed. This creates a philosophy of communication and responsibility which indicates interest in

one's work — a trait which most employers like to see.

The second semester finds production students doing cost flows on a given enterprise and agri-business students doing a research paper on the related job experience. All ACT students complete the year by summarizing records and evaluating their experiences in the ACT program. The written assignment is needed to make the student aware of the opportunities available in his career interest area. The second year in the ACT program, the student progresses with his job experiences and elects an independent study approach to expand his career interest area.

### TEACHER/COORDINATOR VISITATION

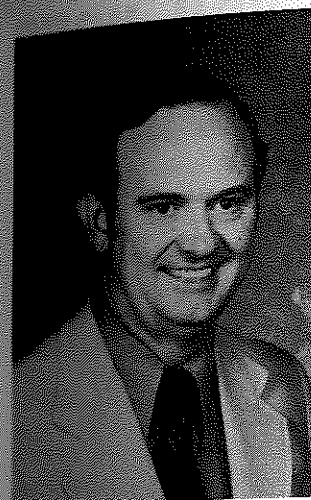
The teacher/coordinator's function is to develop a line of communication between the school and the working

community by working closely with the student — understanding the nature of the student's job and his home life — and by working with the employer. The student and employer communication is important so the student grasps an understanding of how his career relates to his job.

The teacher/coordinator coordinates activities on a learning basis between the school, the job, and the home. He keeps communication lines open and helps to develop in the student a working knowledge of his career objectives.

### EVALUATION

Constant evaluation is the key to the success of the ACT program which is so flexible and which is designed strictly for the student with a career objective in mind. Briefly mentioned above is how the ACT program operates at Nottoway Sr. High School, Nottoway, Virginia. It is by no means perfect, but it is functional. ♦♦♦



David L. Williams

Historically supervised occupational experience (SOE) has been an important component of vocational agriculture programs. Vocational agriculture instructors have recognized the actual performance of tasks by their students in a supervised agricultural environment outside of class as a means of providing individualized learning in agriculture. Research completed at Iowa State University shows that students also recognize the importance of SOE in developing occupational abilities.\*

How important do you think your supervised occupational experience was in developing occupational abilities? This question was asked to Iowa high school seniors enrolled in vocational agriculture during the 1975-76 school year. Students were asked to rate how important they perceived their vocational agriculture SOE to be in developing 38 occupational abilities using a scale that ranged from "no importance" = 1 to "utmost importance" = 9. Reported below are the abilities that received the highest mean ratings for all 183 respondents and for three sub-groups within the sample: (1) students who planned to farm, (2) students who planned to enter off-farm agricultural occupations, and (3) students who planned to enter non-agricultural occupations.

### RATINGS BY ALL RESPONDENTS

Based on the mean ratings for the total sample, students indicated that their SOE was most important in developing the following abilities:

\*Williams, David L. A Study of Supervised Occupational Experience Programs of Iowa Vocational Agriculture Students, Agricultural Education Department, Iowa State University, Ames, Iowa, 1977.

# WHAT DO STUDENTS THINK OF SUPERVISED OCCUPATIONAL EXPERIENCE?

by  
David L. Williams  
Teacher Education  
Iowa State University  
Ames, IA

### OFF-FARM AGRICULTURE ORIENTED STUDENTS

The abilities rated the highest by students planning to enter off-farm agricultural occupations were:

1. Appreciate the importance of honest work
2. Develop acceptable personal and work habits
3. Establish and maintain working relationships with others
4. Recognize employment opportunities in agriculture
5. Use buildings and equipment in farm operations
6. Recognize my abilities, talents, and interests in making employment plans
7. Realize that everyone can make a contribution to their occupation, family, community, and nation
8. Explain the importance of agriculture
9. Communicate effectively
10. Conserve soil, water, and other natural resources

### NON-AGRICULTURE ORIENTED STUDENTS

The ten abilities with the highest mean ratings by students who planned to enter non-agricultural occupations were:

### FARM ORIENTED STUDENTS

Students who planned to enter farming as an occupation placed the highest ratings on these ten abilities:

1. Produce animals or animal products
2. Maintain and use records
3. Appreciate the importance of honest work
4. Develop acceptable personal and work habits
5. Use labor, land, money, and other resources in farm operations
6. Establish and maintain working relationships with others
7. Market animals or animal products
8. Conserve soil, water, and other natural resources
9. Finance farm operations
10. Produce crop products

(Concluded on page 287)

# A.C.E. OR S.O.E.P.—WHICH SHOULD YOU USE?

by  
Mr. Allan G. Nelson  
and  
Dr. Thomas R. Stitt  
Agricultural Education  
Southern Illinois University  
Carbondale, Illinois

Cooperative Education Programs have exploded in number during the last decade. There are currently 12 "basic types of cooperative programs" for vocational education in Illinois. All of them owe their existence to federal and state legislation recognizing the importance of "learning by doing." The cooperative program for vocational agriculture is referred to as ACE (Agricultural Cooperative Education). In addition to ACE, secondary Vo-Ag programs in Illinois include SOEP (Supervised Occupational Experience Program). Vo-Ag teachers recognize both SOEP and ACE as excellent student motivators and training aids in preparing students for vocational occupations in agriculture/agri-business. Can you distinguish between these programs? If a student asks, "Should I participate in ACE or SOEP?" what would you say? If you have similar programs in your school, and you believe they are duplicating each other, you may be in error. The following sections provide *distinguishing* characteristics of SOEP and ACE respectively.

## DEVELOPMENT OF SOEP

The major legislation promoting the use of SOEP in secondary Vo-Ag programs began with the George-Barden Act of 1946. This legislation's objective was to appropriate more money for improved vocational programs. Under this act, SOEP became important as an opportunity for occupational experience to be integrated with youth groups in the curricula.

## DISTINGUISHING SOEP

**Students in SOEP may be involved with any practical agriculture activity which provides for valuable systematic instruction in and out of the classroom. Supervision is provided by teachers and/or parents.**

SOEP is not an alternative part of any program area; rather, it is a necessary part of vocational agriculture that provides real experiences in learning.

Emphasis is placed on improvement practices or projects in any of the seven USOE defined program areas. Agriculture production activities are common to SOEP since production programs are dominant in Vo-Ag and lead to many viable farm projects. Many students receive adult responsibilities for the first time during SOEP since it requires an approved project or practice early in high school. Vocational SOEP provides for student self-improvement by keeping records, developing vocational skills, and gaining leadership qualities.

## SOEP AND INSTRUCTION

A unique relationship exists between classroom instruction and SOEP. Courses are based largely on their corresponding occupational experience programs. Concentration is placed on technical knowledge and skills required on the job or to teach program goals. Weak SOEP may be characterized by instructors teaching curricula that is not carried to the doing level. Hence, learning becomes nonfunctional or ineffective. Formulating objectives is a continuous process based on student needs in caring for their SOEP activities. Instruction is most effective when related projects and activities are carried on by students in order to reach long-term program goals.

A major drawback of SOEP is the lack of school credit. School credit is indirectly obtained as SOEP records are often a fulfillment requirement for Vo-Ag courses.

## SOEP ASSOCIATE RELATIONSHIPS

As in any occupational experience program, assistance in development and implementation of programs include local administrators, parents, employers, teachers, and students. Unique to SOEP is the assistance offered by the parents, who are glad to assist with the instructor in educating their son or daughter. Further, supervised projects

often contribute to the family's welfare. However, the parents or guardians should understand the educational objectives leading toward SOEP goals.

## SOEP AND THE COMMUNITY

SOEP provides students with great acceptance by the community. SOEP may directly benefit communities through programs such as BOAG (Build Our American Communities). And further, SOEP motivates students to complete their Vo-Ag program objectives increasing their chances of finishing high school with a diploma and successful entry into the "world of work."

## DEVELOPMENT OF ACE

As agriculture became more complicated and off-farm occupations expanded rapidly, programs were developed and cooperative education in agriculture grew rapidly. Cooperative education in agriculture owes much of its recognition and growth to the Vocational Education Act of 1963. The VEA of 1963 encouraged new programs for vocational agriculture, including part-time employment for youths accompanied by related instruction. As a result of USOE defined program areas, educating students with occupational goals outside of your secondary Vo-Ag program offerings is now possible with the use of ACE. Further, Vo-Ag programs with ACE now receive federal monies guaranteed by federal legislation for cooperative education.

## DISTINGUISHING ACE

**Agriculture cooperative programs are for Vo-Ag students willing to learn under cooperative agreement between the school and employer.**

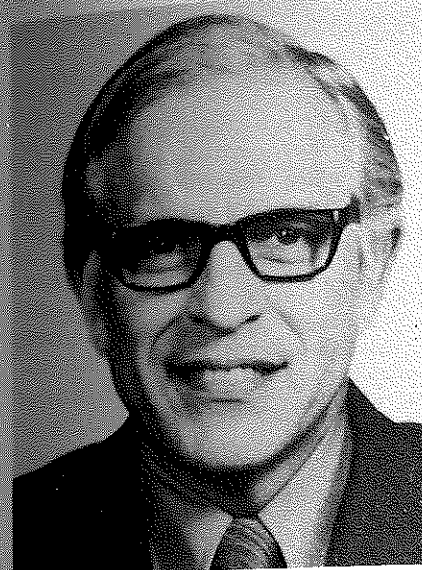
Planned and supervised instruction is provided by the teacher-coordinator and the employer so that each contributes to the student's education and employability.

In Illinois three agriculture occupation categories exist for ACE students:  
(Continued on page 285)

# Leader in Agricultural Education:

## LLOYD J. PHIPPS

by  
Robert W. Walker\*



Lloyd J. Phipps retired from the University of Illinois in August, 1977, after serving as a teacher educator for twenty-eight years. He is best known among teachers of agriculture and agricultural teacher educators as the author of the book entitled, *The Handbook on Agricultural Education for Public Schools*. Dr. Phipps' distinguished background in teaching, research and service in agricultural education amply qualified him to write and continually revise this well known handbook and many other books which he wrote dealing with teacher education, adult education, mechanics in agriculture, and other areas.

He was born and raised on a grain and livestock farm on the Illinois prairie located about 100 miles south of Chicago near the town of Roberts. He attended the University of Illinois and graduated with highest honors. His first teaching position was in central Illinois at Niantic, where he taught agriculture for one and one-half years. Then he accepted a position at Carbondale campus of Southern Illinois University where he taught agriculture in the University High School. At the end of six years he returned to the University of Illinois as an instructor in Agricultural Education. There he completed his doctorate in 1949 and was promoted to assistant professor. Dr. Phipps quickly demonstrated his outstanding ability to teach, do research, and perform service and was promoted to associate professor in 1953 and in 1958 received the rank of full professor.

He was selected as chairman of the Agricultural Education Department at the University of Illinois in 1961 and continued in this capacity until 1968 when he became chairman of the Vocational and Technical Education Department, the position from which he retired. Through his effort, the Division of Health Education and the Division of Business Education were added to the department. Under his leadership the department gained national visibility.

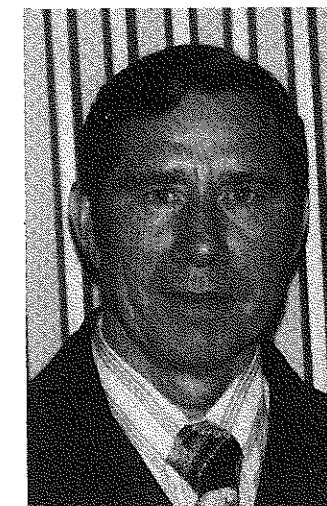
It is difficult to single out one specific area in which Dr. Phipps excelled and made an outstanding contribution to the field of agriculture. It is much easier to recognize him for several areas in which his performance was exemplary. Lloyd was always responsive to the times, and his career is highlighted by his efforts over a span of years which began with teaching and writing about the approach to problem solving. He strongly believed in this approach because he knew that students learn best when they solve problems related to agriculture. It was obvious to him that

the best source of problems was the supervised occupational experience program and that many of these problems could be solved in the classroom. It was easy for him to make the transition from problem solving to curriculum development, where he made significant contributions. Instructional content emerged from problems associated with the supervised occupational experience program of students.

The second major contribution to agricultural education was in adult education. He demonstrated his ability to teach adults using the problem solving approach. Farmers responded to his invitation to come to the public high school and learn ways and means of increasing their efficiency as farmers. He became known as "Mr. Adult Education." His book on adult education reveals how he planned and implemented instructional programs for adults and assisted many agricultural teachers to become successful adult educators.

Working with adults revealed that he could assist in developing educational programs that would be more responsive to the needs of students enrolled in the public schools to study agriculture. He made good use of the advice of farmers and other adults and recommended the use of formally organized advisory committees. The need for more instruction in agricultural mechanics was recommended by advisory committees throughout Illinois and the nation. Again Professor Phipps responded by doing research and writing in this area. Those who know him are aware that he can also perform well the operational tasks he writes about. He has the know-how.

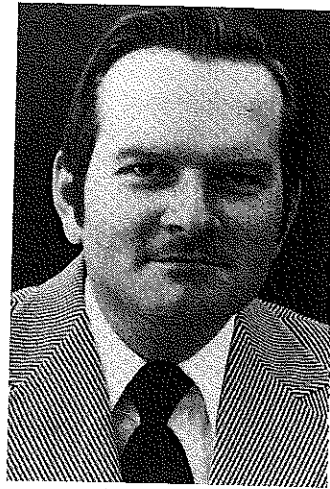
His writing and research associated with problem solving, adult education, citizens advisory councils and agricultural mechanization, helped him to become a competent researcher. He became recognized for this ability through  
(Concluded on page 287)



Robert W. Walker

\*Robert W. Walker is Associate Professor of Vocational and Technical Education at the University of Illinois, Urbana/Champaign, Illinois.





Allen G. Blezek

# BE A DOER— NOT A QUITTER!

by  
Allen G. Blezek  
Teacher Education  
The University of Nebraska  
Lincoln, NE

## INTRODUCTION

Each year dozens of Vocational Agriculture Instructors leave teaching because of various reasons. These reasons include: excellent offers from business and industry, a return to farming or ranching, a return to school for more education, or other endeavors, many times based upon an underlying motive of "just getting out of teaching." Is the grass really greener on the other side of the fence? Isn't it true that a large percentage of our profession leave teaching after the first year? Why the mass exodus? Can we provide some assistance to these individuals who are considering leaving our profession? The following suggestions are offered for your consideration.

## IMPORTANCE OF THE FIRST YEAR

Experienced instructors usually conclude that their first year was the most difficult. Curriculum development, lesson planning, becoming acquainted with the school and community, familiarization with school budgets, policies, rules and regulations, are all tasks that become very demanding upon the new teacher. Even though the first year may be the most demanding and time consuming, if the new teacher works hard the first year, the instructor is over the hill as far as the intense demand upon time is concerned.

## CONSIDERATIONS

### Responsibility

The responsibilities of the vocational agriculture instructor are demanding. It is important that the instructor learn early in one's professional career to place limits upon hours of input, even

though an instructor who puts in long days in vocational agriculture will more than likely do so in other occupations as well. On a twelve month contract, with one month off for vacation (two weeks in summer, two weeks at Thanksgiving, Christmas, and Easter), the instructor averages a ten hour day for five days a week; total work time will equal 2,400 hours. If the instructor is making \$12,000 per year, this equates out to \$5.00 per hour; a \$14,000 person is making \$5.83 per hour. How many people in the average rural small town community earn this much an hour? How many other professional people in your community work a 40 hour week? — Not unskilled and semi-skilled, but professional people?

### Efficiency

Efficiency becomes a vital factor in the life of the vocational agriculture instructor. A systematic plan of action is essential — not only on a day-to-day basis, but from week to week, month to month and even year to year. Efficient use must be made in utilizing community resources, including resource persons and advisory committees. Plan your work so that you get the greatest return. Consider dropping those tasks that do not provide results — establish priorities.

### Organization

Update the filing system — once you get it organized, keep it up to date. Make use of student assistants in your plans. Don't spend time filing, putting bulletins in notebooks and other tasks of this nature; spend your time fulfilling the more important responsibilities of your job. Don't be afraid to mark a

cardboard box with "to be filed" to be put on the shelf behind your desk for student filing.

### Preparation

If your state has state-wide curriculum materials, use them. As a rule, the professional quality and content cannot be matched locally. Great rewards may be derived from professional instructional materials, however supplementing these materials and adapting them to the local school and community is a must.

### Delegation

Delegate responsibility to students and other individuals. Mention has clearly been made to the delegation of filing. Other jobs might include: mailings, clean-up, housekeeping, setting up meeting rooms for special events, inventory, in some cases grading tests and quizzes, and collating papers. In order to be a doer, you must be a delegator.

## SUMMARY

In order to be a successful and satisfied vocational agriculture instructor, you must get control of your job and yourself during your first year of teaching. Be as concerned about putting in too many hours as too few — set limits for yourself. Be a professional, but don't overdo it.

Become efficient, plan your work and set priorities for yourself and your program. Realize you can't do it all, even if you work twenty-four hours a day. Become efficient with your filing system; adopt the motto, "A place for everything and everything in its place." Utilize curriculum materials from your State Department of Education and your State Teacher Education Program. Finally, delegate responsibility; many successful instructors attribute much of their success to being able to delegate responsibility. ◆◆◆

## CONTINUED LEADER . . .

his teaching at the university and teaching at national gatherings of educators such as the research method seminars prior to the AVA convention. He received a large USOE research grant to conduct a study entitled, "Rural Education for Disadvantaged Youth (REDY)" which was very responsive to the times and led to his continued effort to do research and writing to better serve students with special needs. He was especially concerned with the need for education to place more emphasis on curriculum developed to be responsive to the needs of youth. "What can the program do for the student?" rather than "What can the student do for the program?" was a new trend which he backed strongly.

Professor Phipps served as major adviser to 37 doctoral students. Most of these advisees were agricultural education majors. In the last few years all his students graduated with a solid background in vocational and technical education and career education. Without exception all his students exhibited strong leadership ability.

## CONTINUED WHAT DO STUDENTS THINK . . .

9. Participate in activities and organizations that improve agriculture and the community
10. Maintain customer relations

## SUMMARY

It was found that students thought their vocational agriculture SOE was important in developing occupational abilities. All abilities listed above received a mean rating of 6.0 or greater on a nine-point scale. Students with different occupational plans agreed that their SOE programs were important in developing an appreciation for the importance of honest work, acceptable work habits, and working relationships with others. In our society

## CONTINUED A.C.E. OR S.O.E.P.?

improvement project, and supervised occupational experience. Emphasis is placed on improvement projects/practices that provide student self-improvement by: keeping records, developing skills, and gaining leadership qualities. Students in SOEP usually work toward achieving long-term program goals in production agriculture.

Agriculture cooperative education involves related technical instruction,

Over the years, Dr. Phipps has developed a philosophy in agricultural education that has evolved from the following beliefs:

—that problem solving is the best approach to teaching students vocational education in agriculture.

—that the supervised occupational experience program is the major source for problems to be solved in the classroom.

—that agriculture is an ever changing enterprise; therefore the need to change agricultural education programs to keep pace.

—that there is no one best way to conduct a program of agricultural education; that one should always be open to add or delete instructional content and try new instructional methods.

—that teaching adults in agriculture is as important as teaching young people preparing to enter an agricultural occupation.

—that citizens' advisory committees should be utilized to plan and implement programs in agriculture responsive to the needs of students and the community. ◆◆◆

where young people have limited opportunities to develop work ethics, justification for student SOE programs may be made on this basis alone.

The occupational plans of students influenced their perceived importance of SOE in developing some occupational abilities. Farm oriented students indicated that their SOE programs were important in developing abilities pertaining to producing, financing, and marketing farm products, and to the management of production resources. Students who planned to enter off-farm agricultural occupations perceived their SOE programs to be important in developing agricultural orientation abilities, communication abilities, and agri-

general related instruction about the "world of work" and cooperative occupational experience in industry. Students set their own occupational objectives and goals. Emphasis is placed on acquiring vocational skills so the student may enter an occupation at a specific entry level (i.e., occupational goal set by the student). Students receive school credit and pay during regular school hours. Further, teacher-

—that F.F.A. or other appropriate organizations should be an integral part of the agricultural instructional program.

—that farming, vocational education and agriculture are respectable words and will become even more so as the population of the world grows and as preparation of young people for entrance level positions in the world of work comes into sharp focus as a responsibility of the public school.

Lloyd has retired from the University of Illinois, but he has not retired from active involvement as a teacher educator in agriculture. Now he has time to serve as a consultant in vocational education and agricultural education. In addition, he will continue to write and publish.

Professor Phipps now has time to ride his motorcycle, navigate his house boat, manage his farm, maintain many investment properties, play with his grandchildren and perhaps, best of all, visit his former students and friends throughout the United States. Watch for Lloyd. He is driving a new motor home with a Mo-ped perched on the bumper. Retirement!! "What a way to go." ◆◆◆

cultural resource use abilities. Students who did not plan to enter an agricultural occupation indicated that their SOE programs were important in developing occupational abilities, especially those related to work ethics and business communications.

Students' recognition of the importance of SOE programs in developing occupational abilities supports the continued development of student SOE programs as an important part of vocational agriculture. Therefore, teachers have a challenge and opportunity to work with students in planning SOE programs that will allow them to develop the occupational abilities needed for the occupations they plan to enter. ◆◆◆

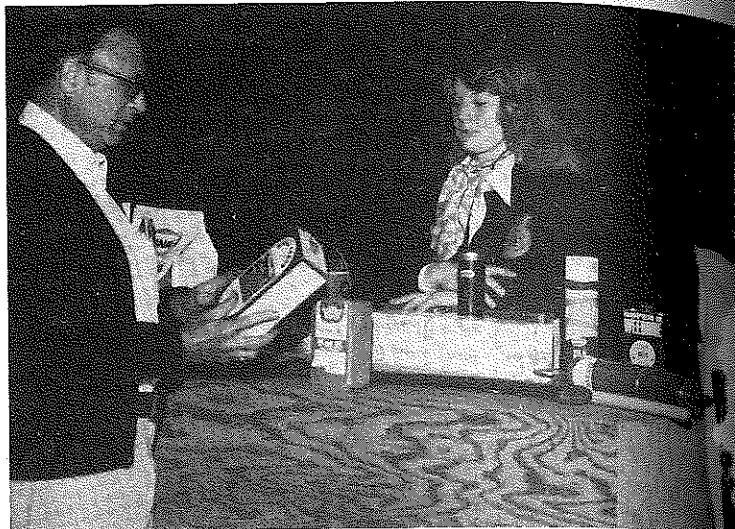
coordinators are necessary for cooperative education and must meet qualification standards set by the state.

The above SOEP and ACE characteristics serve to identify distinguishing similarities and differences between programs. Both are occupational experience programs with different components. A combination of both programs offers selected students a more comprehensive approach toward their occupational goals. ◆◆◆

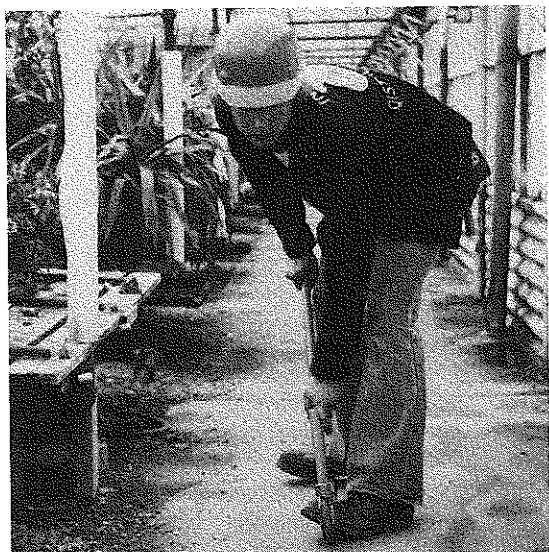
# STORIES IN PICTURES

by  
Joe  
Sabol

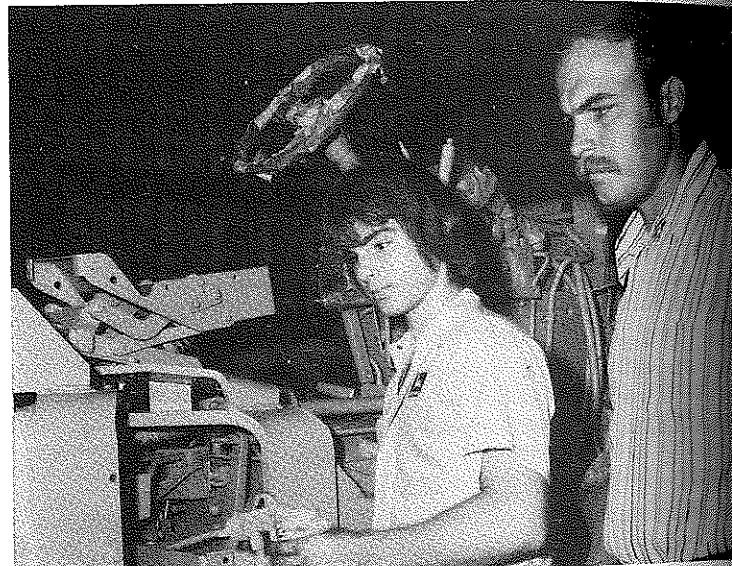
PICTURES



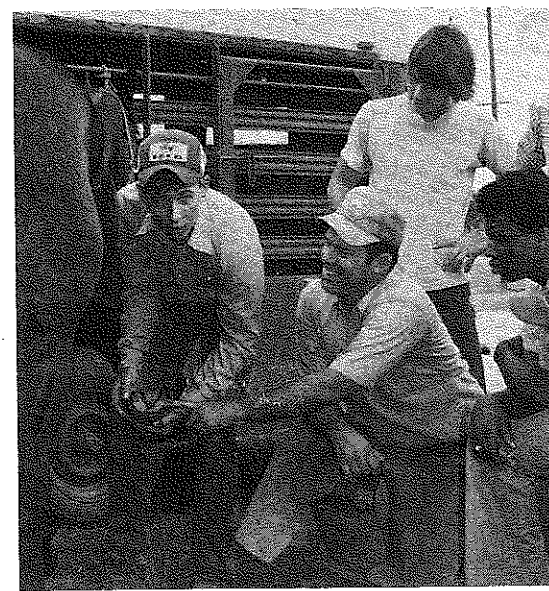
A contestant participating in the Pennsylvania Agricultural Salesmanship Contest. This contest was developed for those agriculture students who are interested in pursuing a career in agricultural business. (Photo courtesy Photography Committee, FFA Activities Week; made available by James H. Mortenson, Penn. State)



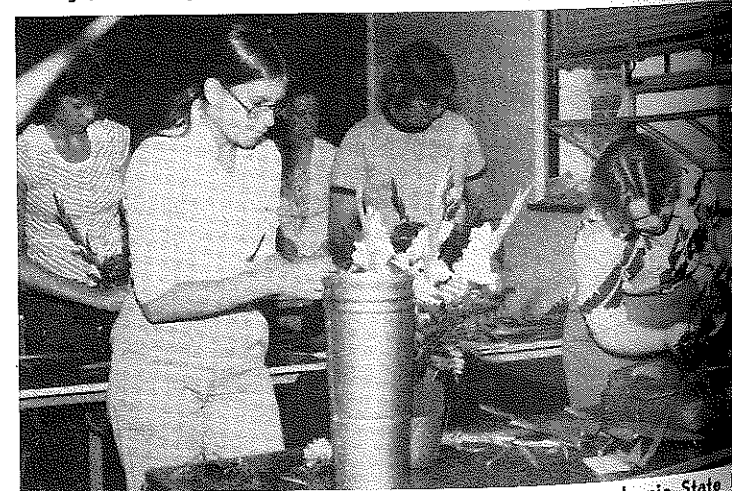
Joe Schenk of the Evansville-Reitz FFA works in a greenhouse in his cooperative education program. (Photo courtesy Freeman W. Harness, Vo-Ag Teacher, Evansville, IN)



PAINTING TRACTORS — Kent Shelton (left), co-op trainee at Warrior Tractor and Equipment Company, Inc., gets his painting work checked by Dupree Galloway, instructor in agri-business power and diesel mechanics at Tuscaloosa County High School. As a co-op instructor, Galloway makes routine visits to the firm employing his students and determines the progress being made by the student and evaluates the quality of work performed. (Photo courtesy Frank & Killough, State Dept., Auburn, AL)



A student might be a farrier's helper in a cooperative education program. Here Roger Jennings, Vo-Ag Teacher at Perkins, OK, holds a mini-course in horseshoeing for students. (Photo courtesy Roger Jennings)



Contestants making a vertical floral arrangement in the Pennsylvania State FFA Floriculture Contest. (Photo courtesy Photography Committee, FFA Activities Week; made available by James H. Mortenson, Penn. State)

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