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December, 1984
Volume 57

THEME:

SOEP: Post Secondary

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ARTICLE SUBMISSION

Articles and photographs should be submitted to the Editor, Regional Editors, or Special Editors. Items to be considered for publication should be submitted at least 90 days prior to the date of issue intended for the article or photograph. All submissions will be acknowledged by the Editor. No items are returned unless accompanied by a written request. Articles should be typed, double-spaced, and include information about the author(s). Two copies of articles should be submitted. A recent photograph should accompany an article unless one is on file with the Editor.

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EDITOR'S PAGE

Post Secondary Agricultural Education: Finding an Identity

BY LARRY E. MILLER, EDITOR
(Dr. Miller is a Professor in the Department of Agricultural Education at The Ohio State University.)

Post secondary programs in agriculture are struggling for an identity. Are programs vocational? Or, are programs technical? To what extent should there be an active intracurricular organization? Are post secondary teachers of agriculture adequately served by the NVATA? How are programs to be articulated with secondary programs and higher education? These and other questions create consternation.

Agriculture programs at the post secondary level face some unique problems. Recruitment is often one of those problems. Post secondary programs are actively seeking students from the same pool as public and private higher education, the armed forces, etc. They have certain advantages which they can sell to prospects but the competition is stiff.

Instructional Level

The problem of determining the appropriate level at which to aim instruction is of concern. The level of agricultural experience carried by the students to the post secondary program varies widely. Classes are highly heterogeneous with some incoming students bringing agricultural backgrounds and experience from vocational agriculture, and some students with neither. Does the post secondary program attempt to remediate the lack of knowledge of some students by offering courses at their level and face the wrath of the experienced students who say I already know this? Do they offer courses at a higher level and leave the uninformed to their own devices?

If remediation is offered, secondary teachers may demean the program and state that the instruction is a replication of what is taught at the secondary level. Critics will note that articulation is not occurring. If remediation is not offered, students without the experience or education may drop out of the programs.

Interfacing Higher Education

Articulation with higher education is just as precarious. What occurs when the post secondary student becomes motivated and seeks to complete a B.S. degree? Will the desired institution accept the credits? The answers seem as varied as the number of institutions of higher education. The lack of consistency is bound to be highly frustrating to the students involved.

Higher education could do much to alleviate difficulties created in making a transition from post secondary to higher education. Higher education's principle concern is often with transferring credit. Colleges and universities are concerned with assuring the quality of any credit transferred and preserving the integrity of their degrees. Post secondary programs are no less concerned with quality but often find the position of higher education to be haughty. Educators can surely reach some accord on this essential, but troublesome, issue.

Credit tied to SOEP by post secondary programs is often one of the troublesome areas. Never mind that higher education offers internships and clinical experiences, it is not often viewed in the same light when a student carries these experiences with him or her to higher education. A study to document the similarities of these experiences and the quality of competencies gained would be beneficial.

The results might be illuminating particularly with the benefits which accrue as a result of the supervision component of SOEP. Many higher education programs are deficient in this component of properly directed external learning experiences. One might conclude that good supervision has evolved from the influence of secondary vocational agriculture personnel holding positions in post secondary programs.

Professional Status

Another dilemma is related to the desire of the secondary professional association (NVATA) to encompass and serve post secondary personnel. The post secondary teachers who did not have prior service as a high school vocational agriculture instructor do not hold a loyalty to NVATA.

The NVATA has attempted to meet the needs of the post secondary teachers through sessions at conventions, etc. Obviously, this issue of the MAGAZINE is an attempt to be of service as has been the inclusion of numerous articles in past issues which related to post secondary concerns. The question remains, however, as to whether post secondary personnel can be adequately served by an organization principally focused upon secondary vocational agriculture.

Intracurricular Organization

The post secondary intracurricular organization is still in a fledgling state and attempting to determine its role in assisting students. Is there a place for awards and contests in its objectives? The question is still unanswered.

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Post Secondary Agricultural Education: Finding an Identity

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However, the question might have been similar for the FFA at the same stage of development.

The Future

What will evolve for post secondary programs is necessarily unknown. However, certain indices portend a potentially bright future. Students who aspire to higher education, but find agriculture unavailable in high school, will find post secondary agricultural education as a pancea.

Students who are motivated by secondary vocational agriculture, but who do not initially aspire to higher education, will find post secondary programs to meet their needs. These students will also find that higher education institutions are more receptive to their transfer over the next few years. The demographics of fewer student numbers will also have an effect upon higher education to their benefit.

Post secondary programs will also play a more active role in adult education. As technology advances, personnel will need retraining. Given the reticence of secondary programs to aggressively become involved in adult education, the gap could readily be filled by post secondary programs. This could be particularly the case for those agribusiness persons in the vicinity of post secondary programs. Can post secondary expand to a broader audience? In the absence of secondary programs for adults, post secondary programs could strike an alliance with high schools to deliver adult education in their physical facilities or in those of other agencies such as the Cooperative Extension Service. Regardless, there will be a need for adult education in which post secondary programs can play a vital role.

The Cover

Contests and awards programs are providing much needed contacts and public relations for post secondary programs. (Photograph courtesy of Joel C. Janke, State Supervisor, Bismarck, ND 58505.)

THEME

Post Secondary SOEP: A Prognostication

By Stanley R. Burke, Theme Editor

(Editor's Note: Dr. Burke is an Assistant Professor in the Department of Agricultural Education at The Ohio State University and is officed at the Agricultural Technical Institute in Wooster, Ohio 44691.)

Vocational educators are expressing the realism that post secondary programs are becoming more in vogue. We can see programmatic trends occuring which indicate that agricultural students may need to secure additional training at institutions beyond the high school level. The move nationally to improve the quality of basic skills in math, science and communications has already caused significant decreases in enrollment for many secondary agriculture programs. The reality that secondary schools have fewer students to serve indicates that new perspectives and innovations must be adopted to provide students with employable skills in agriculture.

Although post secondary programs are not intended to replace secondary programs, they can be and are viable supplements for students who desire more than entry level skills. Post secondary institutions serve students with heterogenous backgrounds and multiple career interests. They are flexible in admission, but committed to endow each student with employable skills at the technical and midmanagement levels. Many post secondary programs are two years in length and culminate with an associate degree. Some four year institutions allow partial credit transfer for students who desire a baccalaureate degree after completing the two year program.

SOEP Component

Integrated into post secondary programs are a variety of supervised occupational experiences. Post secondary institutions speak of internships, practicums, field related experience, on-job training, field laboratories, cooperative training and others as their efforts to provide job specific learning and to allow each student to gain valuable employment experience while enrolled. Supervised occupational experiences are recognized by educators and industry as vital to the refinement of student skill proficiencies and to the achievement of realistic employment experience.

Agricultural businesses are actively seeking graduates of post secondary programs for their technical labor force. These industries recognize the values of secondary programs, but prefer the employee who has had the benefit of the secondary vocational program capped by a technical preparation program at the post secondary level. Employers emphasize the importance of such qualities as maturity, additional educational and occupational experiences, leadership and social development which are enhanced through post secondary programs.

Employability

As post secondary educators, it should be recognized that it is not possible to provide students with all of the job specific training which an employer may desire. Hence, the occupational experience program plays an important role in allowing the potential employer to have a hand in training students more specifically for their needs. Through this SOE partnership, learning is enhanced as it becomes the mutual goal of the post secondary program and the employer to see the student/employee master the skills needed by business.

Occupational experience programs at the post secondary level provide an opportunity for students to make contact with potential employers. Placement records indicate that many graduates accept positions with the businesses which employ them for occupational experience internships. Additionally, many valuable contacts are established with other employers with whom business is conducted during the SOE. Recommendations radiating from cooperating employers are helpful to many students in finding desirable jobs.

Entry Level

Regardless of the educational level, most employers still prefer the practice of hiring new employees, those with little experiences, at the bottom of their organizational structure. Students who have good educational backgrounds, who manifest a willingness to learn and be productive workers will move through the organization rapidly. Such students find a duty within the business which is compatible with their interest and abilities, and suits the needs of their employer. Work experience gained through SOE is helpful to new workers in achieving upward employment mobility.

According to business people, they would like to employ students who have the ability to think and who have acquired basic knowledge and skills. However, they also want students who can apply such knowledge to troubleshooting and problem solving situations. These businesses accept the fact that they will provide much of the job-specific/new technology training needed by their employees. One should note that most major agricultural businesses have centers available for training and updating new and continuing employees on new product service procedures. Supervised experience programs properly planned give students valuable practice in applying basic knowledge and vocational skills to troubleshooting and problem solving situations.

Adapting for the Future

In agricultural education, seldom have priorities been associated with post secondary programs. Yet, the technical society in which we live is requiring that students and workers be more cognitive and technically prepared to cope with agribusiness occupations. Post secondary programs offer part of the solution for such educational needs and the occupational experience component is essential to help students transfer their knowledge and skills to the agricultural occupations in which they are employed.

This issue presents an introspective look at several facets of post secondary occupational experience programs. You will find views expressed by post secondary teachers, supervisors, businesspersons, youth organization advisors and teacher educators. The issue features articles on resources for conducting SOEPs, the values of supervised occupational experiences to business, integrating occupational experience programs with student organization activities, supervising post secondary programs and time saving teaching tips.

THEME

Resources for Post Secondary SOEPs

Students enrolled in agricultural and natural resource programs at the post secondary level will find programs of instruction similar to that of secondary programs. The three basic components are: 1) classroom instruction; 2) laboratory and/or manipulative skills sessions, and 3) the supervised occupational experience program.

Supervised occupational experience is an opportunity for students to perform activities related to their program of study and occupational objective under the supervision of the instructor, parents and/or employer. The student should strive to improve on competencies and tasks that are required by their occupational choice and program of study. SOEPs may be ownership or placement. Many post secondary institutions with agricultural programs have farms or land laboratories for students to conduct ownership SOEPs such as corn or soybean plots. Valuable experiences and certain competencies can be gained using the resources by students that have no access to land or farming operations.

By Bruce Williamson

(Editor's Note: Mr. Williamson is head of the Agriculture Department at Lenoir Community College, Kinston, North Carolina 28501.)

Locating Resources

While many graduates of post secondary agricultural programs return to the farm to engage in or begin their own operations, many students seek employment by placement. Locating and identifying placement sites for students has primarily been the responsibility of the agriculture instructor until recently when a new student

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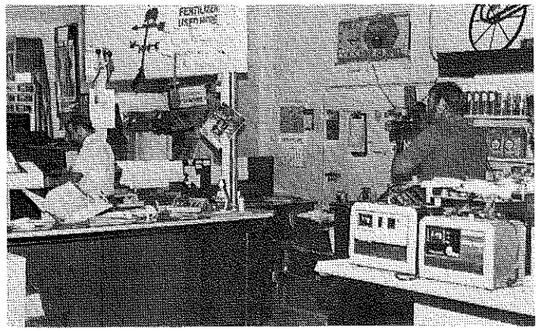
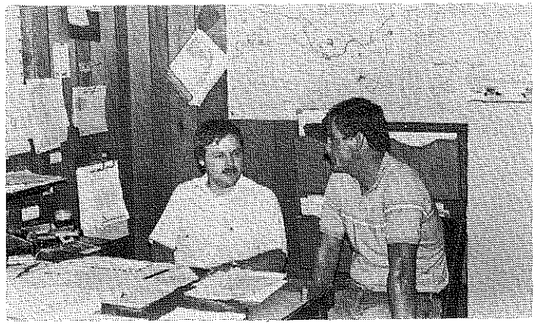


Agriculture student tapes assistant manager recording sales at a local agribusiness.



Department Head visits with the manager (former agriculture student) of a local agribusiness to discuss SOEP for students.

Resources for Post Secondary SOEPs

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organization called PAS (Post secondary Agricultural Students) was formed. The major educational component of PAS designed to help post secondary agricultural students explore occupations, set educational objectives and carry out a plan to meet those objectives is PAL/PEER (Partners in Agricultural Leadership/Personal Education, Evaluation and Recognition).[1] The PAL part of the project involves a cooperative effort between local schools and local agribusinesses. The PEER portion of the project involves the creation, fulfillment and evaluation of an educational action plan by the instructor.

In an effort to help students identify partners in agriculture that would be willing to provide full- and part-time employment opportunities within the school district, the agriculture department head at Lenoir Community College conducted a survey.[2] The results of the survey provided the department with valuable information such as: the type of business, importance of certain subject areas and disciplines related to their business, methods of recruitment of new employees, familiarity with the agricultural programs at Lenoir Community College and most importantly, their willingness to cooperate with the college by providing opportunities for SOEPs. This information was logged into a computer program by both students and instructors. The information has been found to be extremely valuable in locating cooperators for new students. The list is updated each quarter and many names include former students.

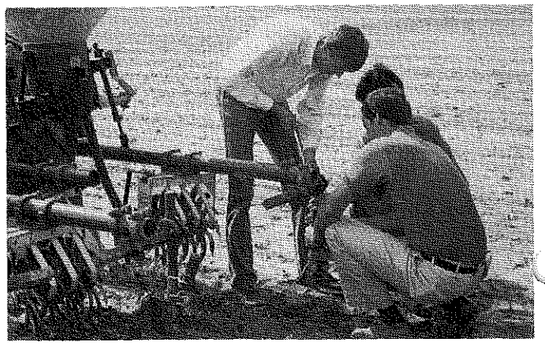
Interview Tapes

In early counseling and advising new students, it is important that students select an employment partner early. While the computer does an excellent job of helping narrow the selection, a visit to the place of business and consultation with the owner or manager is encouraged. However, the students at Lenoir Community College are able to visit the selected establishments without leaving the school.

With the aid of portable video cassette recorder, five to ten minute profiles of cooperating partners are being taped. The profile will provide on-location footage of the business site, manager/owner, employees, manufacturing, processing or any unique activity of this business or farming enterprise. Advanced or second year students have been involved with the taping and development of the profiles. This information helps new students further narrow their choice and site for their SOEP. Additionally, the information is current and reflects changes that are taking place in the industry. In many cases, former students now employed are interviewed and advice is given concerning such topics as employment selection, attitude, communication skills, employee relations, promptness, importance of academics and fulfilling responsibilities.

Post secondary agriculture programs that wish to prepare graduates with the skills and competencies needed to handle the changing employment demands of both production agriculture and agribusiness should consider using all resources available including PAL/PEER. Supervised occupational experience programs should put to practice what is being taught in the classroom and laboratory at a training site that is knowledgable of the educational concerns of the institution and the employment needs of the community. By surveying the employment needs of the agricultural community and maintaining an updated directory of partners in agriculture, instructors can place students with employers who will help them obtain their occupational goals with successful SOEPs.

Students set up video recording equipment for profile tape of Partner in Agriculture Leadership (PAL).



Agriculture students receive individualized instruction.

References

1. Post Secondary Agriculture Student (PAS) Handbook, 1983-84, p. 16.
2. Williamson, Richard B., A Survey of Potential Employment Opportunities in Lenoir County for Graduates of Agricultural Business and Agricultural Science Technology Programs at Lenoir Community College, unpublished, N.C. State University, 1982.

THEME

Values of SOE to Business and Industry

By James M. Leuenberger

(Editor's Note: Mr. Leuenberger is Director of Advertising and Public Relations for the Midwest Breeders Cooperative, 100 MBC Drive, P.O. Box 469, Shawano, Wisconsin 54166.)

Midwest Breeders Cooperative, headquartered at Shawano, Wisconsin, has made available and conducted supervised occupational experience (SOE) programs through summer internship programs for several years. Several aspects of the Midwest internships would apply to most any type of SOE program.

The internships include experiences in four basic areas. They are technical training, leadership development, social development and financial management. This list is ranked in order of importance, in our opinion.

Before discussing these four areas, I want to comment on some other very basic prerequisites. Prior to looking for an SOE internship, students should know their general field of interest. You do not have to take the first job offered! First ask yourself, "Which program is the nearest to what I ultimately want to do?" For example, if you want to be an engineer, do not come to Midwest Breeders for a SOE program.

Once you have determined the type of industry or specific occupation in which you would like to get experience, prepare a resume. And put some beef in your resume, too. Remember, potential employers make their first sort of the prospects on paper. So your resume is a VIP . . . a Very Important Paper! Include a well-written letter telling why you would like to have a SOE program with that company. This is the first impression your potential employer has about your ability to communicate, so take it seriously. It is a most important first impression.

If you are fortunate enough to be asked to interview, you will have another chance to make a good impression. Come to the interview well-groomed and well-dressed. No blue jeans please!

Technical Development

Now let us get into the four areas mentioned earlier. I will start with the development of learning the technical aspects of the job.

We, at Midwest Breeders, believe that a student in a SOE internship should be given a primary task that must be completed during the training period with our cooperative. During the first week of the program, the specific duties are spelled out in detail. We also give an overall

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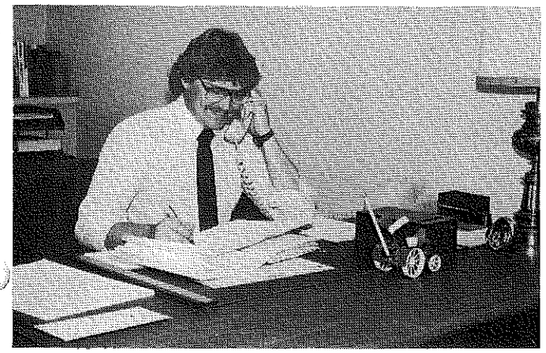
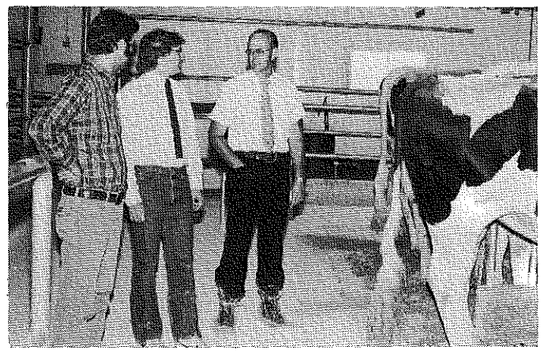


Student contacts dairy farmers to schedule photography session.



Student's experiences are carried to the farm.

Values of SOE to Business and Industry

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view of the cooperative so the student understands the inner-workings and how the various divisions are interrelated. We also provide an indepth look at the cooperative structure, so the student knows the chain of command, who does what, and who reports to whom, etc.

Midwest Breeders is a very goal-oriented cooperative, so we make sure the student knows the goals of all divisions, both for the current year and long range. This will help the intern better understand the technical aspects of the cooperative.

At the beginning of the internship, we also ask interns to put in writing what they would like to learn about the cooperative. We review this at the beginning and again at the completion of the program to see if the goals were met. Also at the end, we ask the student to write a summary of the program, both good and bad, so we as a company can refine our program, if necessary, to make it more meaningful and educational for the student. Students are given an overall view of company employment opportunities, recognizing however that they will only be working for a specific division.

Our educational system seems to have a general negative feeling toward or about marketing. The feeling seems to be that if you cannot work at anything else, take a job in sales.

Midwest Breeders points out that marketing is a very key part of our organizational structure . . . a real key to our success. Without a strong marketing thrust, we would not remain a viable force in the animal breeding industry. Again, it is the awareness about the entire workings of the cooperative which, we feel, is important for the student to know. All of these experiences contribute to the development of technical skills of students.

As mentioned earlier, Midwest Breeders feels the student should have a primary task to complete during the SOE program. We also believe there should be some variety in jobs. A student should not have to work on one primary function during the entire internship experience.

Leadership Development

The second area in which we try to provide experiences is leadership development. No matter what students do following graduation, in any industry, they will have to work with other people to some extent. So we give students the opportunity to work at a variety of jobs with different people. Sometimes this requires working with just one or two people, other times it requires working with many.

Learning to work with other people may well be the most important aspect of a SOE program. After all, we have to work with other people all our lives. Along with developing leadership, we provide direction in what tasks need to be done, but we do not stand over the intern all the time looking over the shoulder. We provide direction and supervision, without being totally dominant. In other words, we give students the freedom to express their abilities because we believe leaders are not born . . . they are developed.

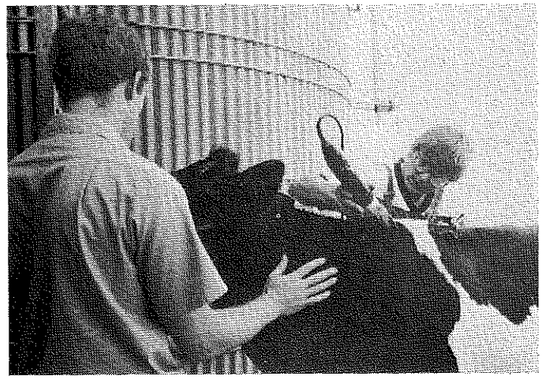
At Midwest we attempt to make the student feel a part of the team. This starts with a formal announcement to all other employees about the employment of interns, telling a bit about their background, what they will be doing, who they will be working for, etc. Midwest Breeders believes that making students a part of the team and giving them a sense of belonging are very important.

We stress the importance of being able to communicate well. I referred earlier to the resume and personal interview, but I repeat it here because we hope that by the end of the internship, the student will be able to communicate well about the technical aspects of the animal breeding industry. We hope interns can communicate well about their chosen specialty of SOE training, and about other related areas as well.

Social Development

The third area of discussion is the social development of the student. With the students we have had in a SOE program at Midwest Breeding, extended effort has been made to get them acquainted with others their own age. Acquaintances are introduced among Midwest employees and in the community as well.

We have had the opportunity for students to live with a single employee to develop that sense of friendship and getting along with others in a more informal environment. We include interns in company functions whenever possible, and in such individual activities an softball, water skiing, etc. We want to help them feel wanted, meet new people and develop socially. We have also been able to get interns involved in community activities like 4-H and working with youth outside of the normal employment routine.



Student helps prepare animals for the photography session.

Final product is attractively displayed.

Financial Development

The final area I would like to cover briefly is financial. Obviously, the student needs to be paid, but we do not make this the most important feature of the SOE program. The students who work as sales and service technicians have the opportunity to increase their income through aggressive sales and job performance. Other interns in the genetic and public relations divisions work on a straight salary, plus expenses incurred on-the-job.

We feel more important than the financial end is the opportunity, if the intern performs well, to practically be guaranteed employment following graduation. That is another reason why the company selected for a SOE program should be one the student would like to work for full-time. Even though employment might not be available immediately following graduation, the student will have made an important contact. The SOE experience will put the intern a step or two ahead of others who might be applying later.

Summary

In summary, developing the technical and leadership skills of the student should be the primary goals of those businesses and industries involved with SOE programs. Secondary development would be the areas of social and financial skills.

If industry can help develop the technical and leadership skills of students, we will certainly be assisting them in becoming more diversified and productive employees.

Students must have the technical expertise to carry out the jobs for which they are employed; additionally, they must learn to work with others, many times in a supervisory role. Industry specific skills are not all learned in the classroom. On-the-job training, through SOE programs, will help develop the student for serving business and industry in the years ahead.

THEME

PAL/PEER Bridges the Gap

By Bob Birkenholz and Bruce Holmberg

(Editor's Note: Dr. Birkenholz is the Agribusiness Coordinator at the Johnson County Community College, 12345 College at Quivira, Overland Park, Kansas 66210; and Mr. Holmberg is an Agriculture Instructor at the Willmar Area Vocational Technical Institute, Willmar, Minnesota 56201.)

The gap which exists between theory and practical application in educational delivery systems has been a major concern among agricultural educators. This gap occurs to varying degrees at all levels of education. At one extreme, educators believe that we must train students to work with their hands to accomplish some useful function in our society. While at the other end of the spectrum, some educators profess that we should concentrate on teaching students to be thinkers and therefore be able to solve problems as a result of their cognitive ability. Happily, most agricultural educators fall somewhere between these two extremes and are searching for a balance between theory and practice.

The Practical

Agricultural educators who are committed to the theoretical approach place significantly greater emphasis on the understanding of basic principles which undergird each instructional unit. Conversely, more pragmatic instructors utilize problem solving situations to demonstrate practical application of such principles to specific situations. The question which each instructor must address is "How can I tailor my instructional program to meet the specific needs of each individual student?"

Post secondary instructors have a relatively new tool to aid in providing more relevant educational opportunities for their students. The PAL/PEER program was originally developed in conjunction with PAS (Post secondary Agriculture Student organization) to serve as a mechanism for students to develop competencies needed for entry level employment in agriculture. In recent years, the PAL/PEER program has been revised to enable students to more adequately plan their educational programs to incorporate classroom instruction and supervised occupational experience programs as well as other educational opportunities which may have otherwise been overlooked in preparation for employment.

Attaining Career Goals

The acronym PAL stands for Partners in Agricultural Leadership. PAL represents the first phase of the PAL/PEER program and should be completed within the

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PAL/PEER Bridges the Gap

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first six months after students begin their post secondary educational program. Essentially, students completing the PAL portion of the program must indirectly answer these questions as each relates to their occupational objective: (1) Where am I now? (2) Where do I want to be? and (3) How can I get there?

Students must initially establish a tentative career goal or identify an occupational area they wish to pursue. This goal then serves as a guide for the student to identify specific jobs in the occupational area. The student must then interview no less than three persons who are currently employed in the occupations identified. Through these interviews students develop a list of competencies which are needed for entry or advancement in their specific occupational interest area. Competencies identified are then transformed into the student's educational program.

During these interviews, the student should acquire information to answer the following questions:

- What education and work experience is required for this job?
- What professional and community activities/organizations is this person involved in and why?
- What specific tasks or duties does this person perform on this job?
- What skills or knowledge is needed to perform this task at acceptable industry standards?

Information from the interview may be supplemented by the student and instructor using existing competency lists, for agricultural occupations.

Students then develop a plan identifying how each of their educational objectives (i.e., competency goals) are to be accomplished. This plan constitutes the first step in the PEER portion of the program. Such planning should incorporate all the educational resources which students have at their disposal including coursework, SOEP, COE, leadership training and personal growth opportunities, etc. The plan should identify the duties or tasks which students should perform and indicate the level of competence which was acquired. These plans should be periodically reviewed by students in order to evaluate progress toward achieving their occupational objective.

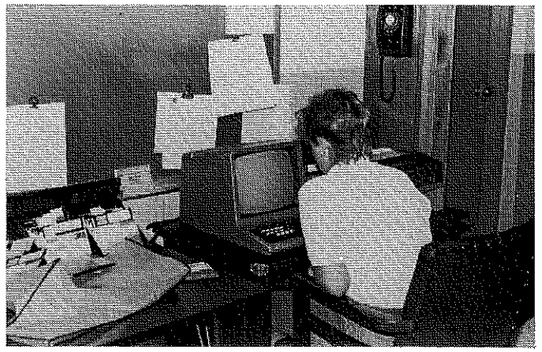
The acronym PEER stands for Personal Education, Evaluation and Recognition. The title indicates the individualistic nature of the program in that all students develop an educational plan to meet their unique needs. The evaluation component involves the students' assessment of their initial abilities and a continuing reassessment of their educational progress. Finally, recognition can be achieved at the local, state and national level for the quality of the educational plan and the extent to which the plan was implemented by the student. Students with outstanding programs may be eligible for cash prizes, award plaques and an expense-paid trip to the national PAS conference.

The work experience section of the PEER application can serve several purposes. This part of the PEER form can be used as a training plan to list the goals that the student needs to acquire or achieve. It can also be used as part of a weekly or monthly report for the student on activities completed on-the-job. The PEER work experience form is most helpful as an employer evaluation form at the end of the SOEP.

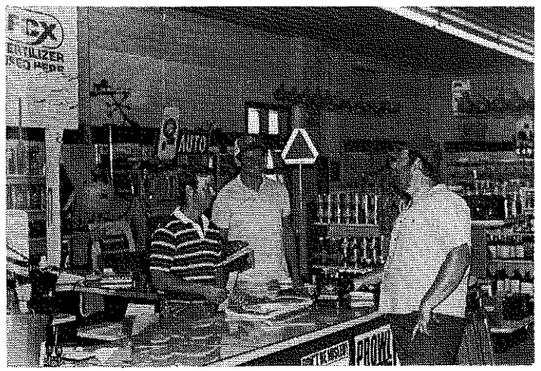
Special forms are available from the Executive Director of PAS which will enable instructors who are unfamiliar with the program to incorporate PAL/PEER into their educational programs with relative ease. Also, further information may be obtained in the PAS Handbook and the Local Instruction Manual which are also available from the Executive Director.

Conclusion

Post secondary agriculture instructors who are searching for the bridge between theory and practice would be wise to consider PAL/PEER. This program allows students to tailor their educational programs to dovetail with their occupational goals. Also, PAL/PEER has the added advantage of encouraging vocational agriculture students to become more involved in the agricultural community which helps to publicize the program. Students who have participated in this program have reported a feeling of greater control over their future as they prepare themselves for employment in a specific agricultural occupation.



Student types names of Partners in Agricultural Leadership (Resources for SOEP) into Agriculture Department's microcomputer. (Photograph courtesy of Bruce Williamson.)



Student assists farm supply store assistant manager with customer. (Photograph courtesy of Bruce Williamson.)

PAL/PEER is emerging as a helpful tool to aid students in developing a comprehensive plan to acquire the skills and abilities needed to enter and advance in agricultural careers. This program, if adopted and utilized by post secondary vocational agriculture instructors, would provide the opportunity for more personalized instruction for each of our students. This approach would bridge the gap between theory and practice on an individual student basis.

THEME

Time Saving Teaching Techniques

By H. Dean Sutphin and Alan Myers

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The work load of an agricultural instructor can become so demanding that little time is available for family, recreation, or other activities. This situation is perhaps a result of the excellent opportunities in agricultural programs to develop educational activities. Classroom instruction in agriculture is usually extended/supplemented through laboratory experiences, co-curricular youth organizations, and occupational experience programs. These activities take time in the preparation, presentation, application, and evaluation phases of instruction. They are, however, personally and professionally rewarding to teachers and their students, and the school and community. Time saving techniques for use in the instructional program prevent teacher burnout and can improve efficiency without lowering program quality.

Strategies From Industry

Successful businesses train their personnel to be both efficient and effective workers, which essentially involves resource management. Some resource management strategies used in business are adaptable to agricultural education.

Michelle et. al. (1976) defines management as the means of controlling change through the use of resources to achieve goals. Resource management has been described as having both human and non-human aspects (Stuart, et.al., 1976). Human resources consist of a person's present and potential abilities such as knowledge, talents, attitudes, skills and other characteristics which relate to the cognitive, affective and psychomotor domains. Non-human resources are generally visable and tangible such as goods and properties.

Real therapy is used in industry to improve an individual's awareness of resources and appropriate management skills. This is a self-analysis technique accomplished by (1) objectively making observations about the current state of affairs and (2) identifying coping strategies for each observation which will lead to greater efficiency and/or effectiveness.

A productive profile was developed through a Hughes Aircraft Company research project to describe characteristics of efficient and effective workers in industry, education and other work places. No two individuals are alike, but some common characteristics of efficient and effective workers were observed. Exerpts from the Hughes Aircraft list of productive indicators and observations are given below.

Qualified for the Job
- Keep up-to-date technically
- Exhibit ingenuity and versatility
- Work smart/do not get bogged down
- Looks to improve, but knows when to stop perfecting

Highly Motivated
- Has a will to work
- Does not need constant supervision
- "Thinks" improvement into everything
- Has sense of urgency in timing
- Receives satisfaction from good work

Positive Job Orientation
- Sets high standards
- Is accurate, reliable and consistent
- Has good rapport with management
- Takes directions well

Maturity
- Is genuine, honest and sincere
- Has sense of responsibility
- Demonstrates actions which deserve self-respect
- Learns from experience
- Wants to grow professionally

Interfaces Effectively
- Is socially intelligent
- Personable
- Has a team effort approach
- Exhibits positive attitudes

The Hughes Aircraft project also identified a profile of productive managers and leaders. The indicators (without observations) are listed.

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- Staffing
- Directing
- Solving complex problems
- Skillfully communicating
- Supporting and guiding work performance
- Encouraging full participation in the work environment
- Setting a positive example
- Taking a dynamic approach to activities
- Bringing out the best in people
- Demonstrating skill and directing day to day operations

Application to Agricultural Education

Developing personal traits, as described by the Hughes Aircraft production profile, will help agriculture teachers improve their efficiency and effectiveness. The reality therapy concept can be modified and used to solve specific time management problems. Both human (e.g., technical skill, knowledge of resource people, ability to influence people) and non-human resources (e.g., buildings, equipment, and books) need to be considered when identifying appropriate coping strategies. Hopefully, these strategies will be time saving, innovative, futuristic and realistic in terms of the situation.

Time and financial constraints caused Alfred Agricultural and Technical College faculty in New York State to review the structure of their work experience program. The faculty and administration were dedicated to the benefits of a work experience program; yet faculty time and financial constraints were placing the program in jeopardy.

A Time Management Example

The Alfred work experience program contained all the traditional components for several years. Funds were available for coordinators' salaries and travel expenses to supervise students on-the-job twice yearly. However, the federal grant which provided money for supervision was discontinued. Limited faculty time and financial resources did not permit continuing the program in its present form.

The first step was to review the minimum cooperative work experience requirements for students in the agricultural power and machinery program. It was determined that students must:

- Complete the work experience program to graduate
- Work a minimum of 400 hours for an agricultural, industrial or lawn and garden equipment dealer or manufacturer.
- Locate a job and negotiate salary and working situations.
- Complete six (two hour) conference reports without assistance from the employer.
- Submit conference reports to an Alfred work experience coordinator.

Half of the student's grade is based upon the employer's written evaluation of work performance and the other half on the student's conference reports.

Obviously, there were several potential problems with the basic requirements. Some students return to home farms for summer work which does not relate to agriculture machinery. In this case, the program coordinator and student discuss the situation and hopefully write a contract which maintains minimum standards and accommodates the student's need. The typical contract usually requires completion of 180 hours of advanced mechanical work, evaluation reports by the employer, and a student diary of hours worked and parts used on each mechanical job. The total work time for the employer must be 400 or more hours. In some cases, students must defer the summer experience until the next year.

A second potential problem involved locating experience programs for students. Because of the wide geographical distribution of students in the post secondary program, students are encouraged to find their own experience programs. Agricultural power and machinery students at Alfred come from an area bounded by Maine on the east, Indiana on the west, Canada on the north, and Maryland on the south. It would be impossible for the college to find jobs conveniently located for all students. Searching for their own job is good practice for the following year when they search for full-time employment.

A third potential problem was the student's need for a summer job to provide funds for college. If an appropriate agricultural experience with sufficient salary cannot be located within commuting distance, a student may complete the cooperative work experience program following the end of the academic program.

A fourth problem was the difficulty of locating a quality experience rather than simply a job. Preferably, students receive experience in parts, service, sales, and office procedures. However, this is a paid experience and may be limited by the employer's needs. It has been found that very small (one or two workers) and very large (over 20 workers) businesses give students the widest range of experiences.

The student and employer are provided with a package explaining their responsibilities in the program and containing important phone numbers and forms. This is the only contact from Alfred faculty during the summer experience unless problems are encountered.

The advantages of the program are as follows:

- The average faculty time required per student is about one hour.
- The students gain valuable job-finding experience.
- Students earn funds to continue their education.
- Students exhibit a greater sense of purpose in their second school year.
- The program is flexible enough to meet student needs.
- Expenses are within the operating budget for the college.
- Students receive two credit hours for their work experience.

A disadvantage of the present program is the lack of faculty supervision to ensure a quality learning experience. Hopefully, the student and employer assume greater responsibility in this area supplemented by guidelines and resources published by the college. The conference reports also serve as a check point on the quality of the experience.

Given the alternative of discontinuing the program, this approach was the most appropriate.

Conclusion

Time saving teaching techniques are closely related to resource management. Models from industry such as a productivity profile and reality therapy can help teachers critically analyze their personal traits and teaching situation. In the Alfred example, a modification of reality therapy was used to analyze problems and identify a solution for the work experience program. Solutions to time management (and perhaps financial management) problems should be realistic and futuristic while maintaining the highest possible program standards. Efficient use of time leads to a balance between work and personal activities based on personal choice, and viable agricultural instructional programs.

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THEME

Supervising Post Secondary SOE Programs

BY JOEL C. JANKE

(Editor's Note: Mr. Janke is a State Supervisor of Agricultural Education, Bismark, North Dakota 58505.)

The objective of all post secondary vocational programs is education and placement of students in occupations of their choice. Occupational experience programs provide students the opportunity to explore their chosen careers. Adequate supervision will facilitate employment goals by maximizing the experience.

Supervision starts when the student enrolls in a program. It ends only after successful employment is gained. Consequently, supervision must encompass all aspects of the educational program and the discussion of supervision must touch on other aspects of the program as well.

Students seeking post secondary vocational education come to the institution with expected goals in mind. This requires the program to be designed to meet or exceed these student expectations to be effective. The programs must be demanding and challenging in order to maintain student interest.

Instructors are obligated to make every effort to meet and understand all enrollees, their potential and goals. The vocational agriculture program must fulfill the needs of the students and at the same time meet the goals and objectives of the program. Supervision begins when the class schedule is set. It cannot be taken for granted that each student fits into a common mold.

SOEP in the Curriculum

The curriculum selected for each student must include classes which build upon the experiences of the student and ultimately enhance the skills necessary for employment. The class schedule of each student should include a seminar where program requirements are discussed and supervised occupational experience program requirements are developed cooperatively with the student and the instructor. Each student's goals and objectives must be developed in order to make maximum use of the two year period of enrollment whereby the associate of applied science degree is attained.

Use of the local and national student organization materials will help students plan their employment goals and develop the business and industry link for an appropriate SOEP. The National Post secondary Agricultural Student Organization (NPASO) has developed such a program known as Partners in Agricultural Leadership (PAL). Using these materials in the seminar will provide direction in SOEP planning.

PAL requires each student to interview business representatives and establish written goals and objectives for themselves. The interview reveals the information necessary for the student to make practical plans. The PAL plan should yield information on job availability, working environment, skills and knowledge required, and how the student would acquire these skills. As the student initiates their SOE plan in the PAL seminar, they will also identify business and industry personnel who become a vital link in the seminar program and in their placement stations.

Production agriculture students may expand their goals in the same manner by interviewing producers in the area and developing plans for program enhancement. The production agriculture students should not limit their vision to their home farms or ranches. PAL will provide them the opportunity to explore production practices of other producers and expand their plans and achieve goals.

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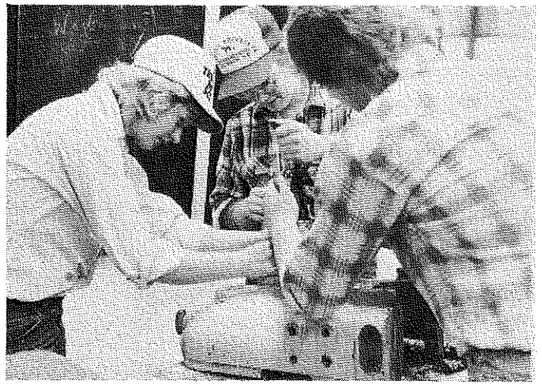

Training programs based upon sound objectives help students prepare for employment

Supervising Post Secondary SOE Programs

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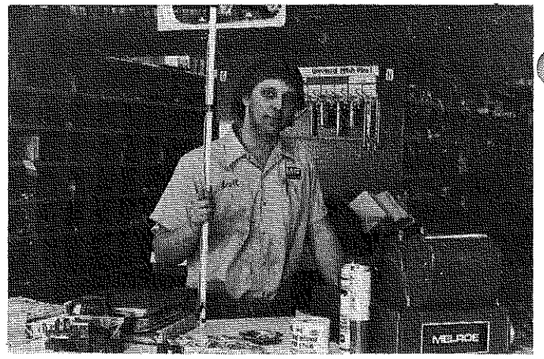
SOE should be a part of every program in the curriculum for credit. At the time of enrollment, students must know they will be required to complete the work experience as a part of their degree requirements. They must be aware that teachers will be supervising their experience and that an evaluation of their work will be made on a systematic basis.

Supervising the Production Student

Most production students plan to return to their home farm or ranch for their SOEP and eventual placement. This makes it imperative that instructors meet the parents early in the educational cycle.

Success on farms and ranches today requires a working knowledge of recordkeeping. The application of management should become a part of the student's educational program. Recordkeeping is best understood when a personal value can be established. Thus, records are more relevant to the student when they involve home or personal enterprises. The parents, as working partners, must be a part of the program from the onset.

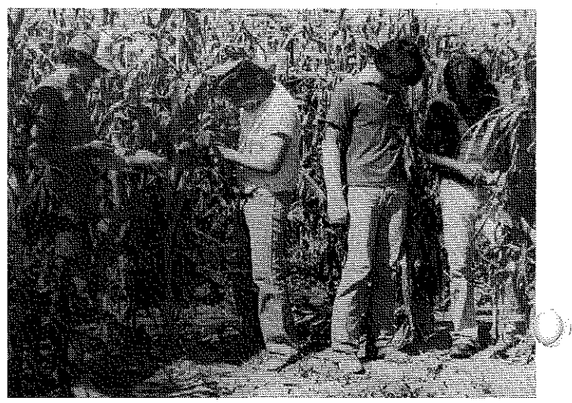


The ultimate goal for all vocational agriculture programs is placement in an occupation.

The most meaningful way to involve the parents is for the instructor to meet with them to establish the need for adequate recordkeeping, and to explain how farm records are used to build an educational program for their son or daughter. The visitation must be made prior to the beginning of the fiscal year so appropriate records, such as inventories, can be started. Parents, by becoming a part of the education program, provide an additional incentive for the enrollee to keep and complete accurate records so necessary in farming today.

The design of the program must allow the student to be on placement during the critical management periods of the year. The student must be able to participate during the heavy work load periods of the year to maintain the relationship and trust at home. It is crucial that the academic nine month setting be abandoned and a more flexible plan be developed. Supervision must follow the student during this heavy work load time. A definite schedule of supervisory visits and evaluation criteria must be planned in advance to facilitate the program. Adequate recordkeeping of SOE achievement is a necessity. To insure acceptance by all involved, an evaluation should be made and discussed with the parents on each visit.

Field trips help students develop an appreciation for sound management practices.



Hands-on education in any setting is the best teaching method.

Implementation of approved production practices and an analysis of each enterprise must be the goal for each production enrollee. Having parents involved insures that the student has access to the necessary records needed to do a farm analysis. Microcomputer applications have helped provide timely records and have also spurred the interest of parents who are not accustomed to computer use.

Supervising the Agribusiness Student

The most difficult aspect in developing agribusiness SOE programs is securing appropriate placement sites. Many of the placement stations can be used year after year, in lieu of the parent-student relationship in production agriculture.

The most difficult part of the actual supervision is preparing students for their occupational experience. For many students, this will be their first experience with an employer; perhaps their first time away from home. These problems should be discussed in a seminar; thereby, permitting students to help each other determine solutions prior to placement.

Completion of the student's PAL project provides the instructor with a better understanding of businesses which would meet the student's plans and goals. An early schedule of visitation and evaluation must be planned. Too often, students are not allowed to work in all facets of the business during placement period when plans are sketchy. To avoid limited work experiences, both employer and student must agree upon a recommended work schedule prior to the starting date.

Correct timing of the placement period is essential. Most employers will cooperate when students are placed during peak periods. This will require that students follow an alternate school schedule to accommodate early release when fertilizer, seed, repairs, and other work are being done prior to planting. April is generally a timely month for placement to begin.

In the horticulture industry, the placement period may need to be staggered to fit special occasions such as Easter, Mother's Day and, of course, the bedding plant season. To be effective, placement and supervision must adapt to the particular industry schedule for each program.

Timely supervision and evaluation will help the instructor determine the value of placement to the student's stated goals and objectives. Evaluation must be done by both instructor and employer if the student is to learn good business practices. A worthwhile experience will sell the program to an employer and will generate additional interest from other employers.

Requirements for Good Supervision

1. SOEP planning must be done early in the program.
2. Promote SOEP through the student youth group.
3. PAL projects should be utilized to facilitate SOEP planning.
4. School scheduling must be flexible to facilitate early release for SOEP.
5. SOEP must be required for credit.
6. Visitation and evaluation must be planned and scheduled in advance.
7. Parents should be fully aware of SOEP requirements.
8. Field trips should be utilized during the SOEP period to bring students together on a common basis.
9. Instructors must be hired on extended contracts.
10. Instructor travel budgets must be adequate.

SOEP and Program Planning

The potential for program promotion using SOEPs is often overlooked. The cooperating employers make excellent advisory committee members. Their input into curriculum expansion, or change, is excellent. Their insight into future employment needs will facilitate program expansion or reduction when necessary.

Once the value of education and SOEP placement is realized the development of scholarship programs by employer groups or association may result. Placement stations are easier to find when an association supports an activity through a scholarship program. Associations will carry the names of graduates in their mailers which helps to promote placement for agribusiness graduates.

Student organization activities can attract the interest and support of industry. Sales and job interview contests have been developed, and business and industry have provided much support to encourage continuation.

Summary

There is no magic solution available which would bring supervision into any sort of nationwide standard. Teachers must be aware of the needs of students and provide the leadership necessary to develop sound SOEP plans and goals. SOE programs must be a part of the curriculum and

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Timeliness is very important if the students are to gain the work experience necessary for future employment.

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include supervision and evaluation. When visitations to discuss program requirements are made prior to placement, parents and employers are more cooperative with the student's SOEP plans.

Schedules for SOE programs must be flexible to allow student placement during critical labor periods within the industry. Supervision must be timely and planned in advance with evaluation made on each visit using criteria established early in the program. The evaluation criteria must be acceptable to all parties and based upon the goals and objectives of each student's plans.

Agribusiness youth groups and NPASO are excellent vehicles to promote SOEP for placement and leadership activities. Agribusiness club banquets provide an excellent setting for awards relating to SOEPs and also to recognize parents and employers who participate.

Supervision is solely the teacher's responsibility and should be developed and planned to encompass the needs of the student, the agribusiness employer, the parents, and the educational program. Successful programs are built upon sound SOE programs and responsible supervision.

ARTICLE

Learning by Doing or Learning Without Doing . . . Which is Better?

By Raymond H. Morton

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Most agricultural educators believe that "experience is the best teacher." Most would include supervised occupational experience (SOE) in their local programs of agriculture. However, most teachers would be unable to demonstrate that students with higher quality SOE programs learned more about agriculture than students with no SOE or with lower quality SOE programs. SOE is an accepted and highly visable component of agriculture programs, even though the profession must accept its merits largely on faith.

Can agriculture education continue to justify extra dollars spent for the supervision of students with SOE programs? Are our SOE programs as strong as our classroom and laboratory instructional programs? Was enough time and thought spent in expanding our SOE programs as we worked toward increasing student enrollment? Are more students faced with less opportunity to engage in SOE?

Equality for SOE

Supervised occupational experience should be considered equal in importance to classroom and laboratory instruction. SOE is supposed to benefit the student, teacher, and the community in the following ways (McCreight and Peterson, 1973):

1. . . . (SOE) is an extension of clasroom instruction for farm, ranch, or off-farm agricultural occupations;

2. encourages use of agricultural practices;

3. promotes closer cooperation. . . between agribusiness and teacher;

4. informs teacher about situation of student;

5. makes teaching effective in real-life situations;

6. helps students see a need for relevance of (classroom) instruction.

Recent research (Morton, 1978) has shown that students with high quality production agriculture programs (measured by larger profits and program scope) also possessed greater technical knowledge about farming. Morton was able to statistically nullify the effects of grade point average, the number of completed years in vocational agriculture, the opportunity to engage in SOE, and the number of instructor project visits made in 12 months time. SOE programs do promote learning by doing, and students with lower quality SOE programs are likely to be less prepared for their vocation.

This same study revealed that students with lower quality SOE programs had less opportunity to engage in SOE. It is important that agriculture teachers recognize students with limited opportunity and that they strive to insure that all students are provided opportunity for high quality projects. School land-laboratories and cooperative work stations should be utilized to the fullest extent to increase the quality of SOE projects in the local program.

Morton's study (1978) also examined the relationship between the number of instructor project visits and the quality of the students' SOE projects. Thirty percent of those projects classified as "highest quality" received four or more instructor project visits per year. Only 16 percent of the "lowest quality" SOE projects received four or more instructor project visits per year. However, forty percent of the lowest quality projects received one visit or none at all.

Summary

Many teachers of agriculture are now being asked to justify the cost and time spent promoting and supervising SOE programs because there are fewer educational dollars to go around. Recent reasearch has shown that students with high quality SOE programs tend to be better prepared for certain agricultural occupations. However, the development of high-quality SOE programs is dependent on adequate opportunity and instructor counseling. Agriculture instructors can justify their extended contracts and supervise high quality SOE programs.

Instructors could set the following goals for their local programs to improve the quality of SOE:

1. All students will develop an SOE program by the beginning of their second semester in vocational agriculture.

2. All students with limited opportunity to engage in SOE programs will receive support from the school and community, just as students would receive help if they had limited opportunity in other areas of their education.

3. All students will receive at least three visits from their instructor in a 12 month period.

4. The agriculture department will submit a plan to the administration that identifies goals and activities that are part of the extended contract. It is important that this plan clearly shows the relationship between the instruction supervised through occupational experience and classroom instruction. A follow-up evaluation will also be completed.

5. The agriculture department will actively promote SOE programs to students, parents, other educators in the school system, and local community leaders. Consider the use of local SOE project competition that involves community and school officials as judges and sponsors of awards. This competition should be based on quality and opportunity. Students with less opportunity should not be penalized because their projects are small; making the most of what the student has to work with is the best criterion to use.

The goals listed above are only suggestions. Write your own and set your standards high. SOE programs are important to vocational agriculture. Learning by doing is better than learning without doing!

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Why SOE? Combating many approaches but from a study - Long Projects

ARTICLE

SOEP: Manifesting Our Philosophy

By John R. Crunkilton

(Editor's Note: Dr. Crunkilton is Professor and Program Area Leader of Agricultural Education at Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.)

The themes of the 1984 issues of the Agricultural Education Magazine were all devoted to different aspects of supervised occupational experience programs (SOEP). We might logically ask, "Why devote such space to this aspect of our educational program?" or perhaps a more basic question would be, "On what basis do we judge SOEP as being that important to the success of our program?" I think possible answers to the first question can be found when a review is made of the SOEP articles found in the Magazine for the last year. Many excellent ideas and recommendations for conducting sound experience programs have been put forth and these articles should stimulate the minds of other teachers as they incorporate SOEP into local programs.

Philosophical Beliefs

Answers to the second question posed could be based upon research data and/or philosophical beliefs we hold for our program. This article focuses upon the latter position to remind us how SOEP affords us the opportunity to implement our philosophical beliefs.

We in agricultural education have always believed in teaching for understanding. SOEP is an effective way for teachers to help students understand the instructional content that we as a profession and as individuals think students should master. The world today is changing very rapidly and instructional materials, aids, and a teacher's competence can become outdated within a short period of time. SOEP allows us to interject into our curriculum technology as it is being created.

We in agricultural education have always believed in problem solving. The approach to learning we argue against the most is where students are asked to learn through rote learning and we as a profession have prided ourselves in not following this learning approach. We have believed that the best approach to learning is through problem solving, an approach where students are asked to help identify the problem, search out alternative solutions to that problem, and arrive at the best answer to the problem given the situation. SOEP allows us to immerse students in the problem solving process to the point that the students feel the problem is theirs to be solved.

We in agricultural education have always believed that education has a responsibility to society. Agricultural educators have maintained that our program serves a purpose in society and that society is better because of this educational program. Society and education are interrelated in the sense that one purpose of education is to help instill or pass onto future generations those values that are worthy. SOEP allows us to pass onto the future generation those affective, cognitive, and psychomotor skills that are worthy.

We in agricultural education have

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Students develop skills under the guidance of an educator and/or practitioner. (Photograph courtesy of Chuck Wiseman, Vocational Agriculture Instructor in Ohio.)

Bringing out positive feelings in students is one goal of the teacher. (Photograph courtsy of Jim Howard, Pennsylvania State University.)

SOEP: Manifesting Our Philosophy

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always believed in the principle of practice. Learning can be achieved in many ways but learning that lasts a long time must originate from a planned learning experience. Agricultural education is fortunate that laboratories, shops, school farms, greenhouses, school grounds, and training stations are a part of a teacher's instructional resources, resources that many other teachers do not have available. SOEP allows the teacher to use these facilities where the students have the opportunity to develop and perfect their skills under the planned supervision of an educator and/or practitioner.

We in agricultural education have always believed in the principle of effect. Teachers in vocational agriculture tend to be humanists, believing that each individual has worth, dignity, and the ability to think and learn. Our programs are full of opportunities for students to benefit from approval, success, ownership, confidence, service, and flexibility. SOEP allows our students to experience each of these effects in a postitive way because we know that positive feelings bring out the best in students.

We in agricultural education have always believed in the principle of association. The content taught in our program has neither been nor will it ever be isolated from other segments of the agricultural industry or society in general. The successful tune up of a small engine depends upon knowledge of engine operation and how the engine parts interact to form a power unit. The mixing of plant media must be in relation to the environment and what is to be grown. The effective use of microcomputers must be approached with a concept of the job to be done and what the operators desire to accomplish with the data at hand. SOEP allows our students to develop their thinking ability and knowledge by making sense and order out of our agricultural industry so that in the future, such sense and order can be used by the student at the time it is needed.

Conclusion

We in agricultural education have always believed in SOEP. This educational concept or practice was adopted when our program was historically production oriented and it is still relevant in our contemporary program. SOEP does provide the opportunity for teachers to implement and to practice their philosophy.

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ARTICLE

Post Secondary: Fulfilling Needs

BY THAD O. OWENS, JR.

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Contrary to many reports, there are good things happening in education in America. Especially in post secondary agricultural education.

Miller (1984) addressed this point in the April issue of THE AGRICULTURAL EDUCATION MAGAZINE. In his editorial he challenged vocational agriculture educators to use these critical studies constructively to improve our programs. He also stated we should inform the public of the good things which are happening in vocational agriculture.

The purpose of this article is to provide information about a vocational agriculture program which is meeting the needs of its students. These students are not the average college student. They are Mississippi farmers who are enrolled in a farm management-microcomputer program to become better farm managers.

Beginnings

The program began as a result of the concern of certain members of the Mississippi Rural Rehabilitation Association (MRRA) for the economic welfare of farmers in Mississippi. One of their members had seen this type of program in North Dakota. After reporting his observations to MRRA, the organization wanted to make this education available to farmers in Mississippi.

Representatives from MRRA contacted the Hinds Junior College Agriculture Department because they knew related courses were taught in the farm management programs. They stated they would make scholarship money available for farmers in need of this type of education if the Agriculture Department could provide this instruction.

The Agriculture Department then formed an advisory committee comprised of representatives from the following groups: MRRA; the Mississippi Department of Vocational-Technical Education; high school agriculture teachers; agribusiness; and farmers.

The purpose of this advisory committee was to advise the Agriculture Department concerning:

1. Educational needs of the local farmers.
2. Topics to be included in the farm management-microcomputer program.
3. Selection of the first class.
4. Advise the Agriculture Department of any additional education needs in agriculture.

The need for this educational program was greater than anyone anticipated. The local farm credit agencies informed the committee, beginning with the 1984 crop, that they would be requiring farmers to maintain financial records using the newly adopted "Coordinated Financial Statement System." Their employees along with their farm creditors needed help with learning this system. Agribusiness leaders also emphasized the need for this type of program to help farmers develop production and economic efficiency.

The Program

An instructional program was developed which included:

Farm Planning
The Farm Accounting System
Operational Planning
Income, Expenses and Equity
Financial Analysis
The Computer — A Financial Tool
Computer Programs
Computer Skills
On-Farm Visits

Classroom instruction was scheduled for two nights per week, January through March. During the growing season, the instructor will make three on-farm visits to each farmer's operation to help each farmer with any problem pertaining to their operation.

Twenty-four farmers are enrolled in the program this semester. Fourteen of the farmers received scholarships from the Mississippi Rural Rehabilitation Association (MRRA). There is a waiting list of farmers wishing to enroll in this program. Therefore, plans are being made to offer this program three times during the year.

Summary

This program is an excellent example of education meeting the needs of its local people. These needs are being met because of cooperation from people in education, business, and state and federal government.

Yes, there are good things happening in post secondary agriculture education. Kidwell (1984) in the April issue of the PROGRESSIVE FARMER magazine stated there are 18,000 adults attending agriculture classes in this country. He also states another 68,000 students are enrolled in two-year agriculture progams. Kolde (1984) in VocED emphasizes the need and importance of adult vocational education training.

Let's not waste our time arguing with our critics. Let's correct our problems, continue to do the many good things we are doing, and work to meet the challenges which face us in vocational agriculture education.

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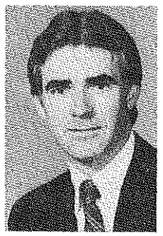
ARTICLE

SOE For A New Generation



By Kirby Barrick and David McCracken

(Editor's Note: Drs. Barrick and McCracken are in the Department of Agricultural Education at The Ohio State University, Columbus, Ohio 43210-1099.)

Supervised occupational experience provides students with the opportunity to apply technical skills in a real situation. The end result should be that students possess the skills required to enter their chosen occupation and to be successful. From growing into farming to required competencies, educators have researched and debated what students should be able to do as a result of experiences in vocational agriculture.

A basic premise is that the vocational agriculture curriculum should be adjusted to meet the needs of the students. One indication of student needs is the reason the students enroll in vocational agriculture — what do they want to learn? A recent study of the production agriculture and agribusiness students in one Ohio county indicated the following six factors (from a list of 23) as being most important for enrolling in vocational agriculture:

1. To gain basic knowledge and skills used in agriculture.
2. To gain knowledge and skills used in animal science.
3. To prepare for an occupation upon graduation from high school.
4. To gain knowledge and skills used in financial management.
5. To gain knowledge and skills used in business management.
6. The reputation of the FFA chapter.

Based upon that information, a teacher would design classroom, laboratory and Supervised Occupational Experience (SOE) activities that emphasize basic agriculture, animal science, management and leadership. However, the reason why students enroll in vocational agriculture may not be the best information to use in determining what experiences should be a part of the program.

Post Graduation Plans

Another part of the Ohio study investigated the plans of vocational agriculture students immediately following graduation from high school. The most frequent responses of the same 255 students were "attend a 4-year university to study agriculture" (17.3%) and "attend a 4-year university to study a subject other than agriculture" (17.3%). Another 14.5 percent planned to "attend a 2-year school to study a subject other than agriculture" and 8.2 percent planned to "attend a 2-year school to study agriculture." Only 20 percent planned to become employed in production agriculture or agribusiness (5.5%) immediately following graduation.

SOEP Scope

A third part of the study (one selected Ohio county, 255 students) looked at the scope of the students' SOE programs. Students in the study reported their SOE for each year they had been in vocational agriculture. The reported scope, in head, acres, etc., was converted to Productive Man Work Units (PMWU). One PMWU is equal to the amount of work one person would accomplish in a 10-hour day. A summary of the PMWU's by year is included in Table 1.

Although the scope of the SOE program increased from freshman to senior years, the scope for each year was low. The mean PMWU's increased from 6.55 the freshman year to 27.30 the senior year. However, the median only increased from 1.85 to 3.90, neither of which is high. In other words, 50 percent of the seniors had an SOE that required less than 39 hours of work; 50 percent had an SOE that required more than 39 hours of work. The question must be asked, Is this enough?

Table 1
Mean PMWU's for Vocational Agriculture Students by Year of Enrollment

	Year of Enrollment[a]			
PMWU's	Freshman % n = 226	Soph. % n = 150	Junior % n = 104	Senior % n = 54
Zero	19.9	8.7	8.7	7.4
1	26.1	27.3	25.0	24.1
2-5	23.9	22.7	17.3	24.1
6-25	24.3	27.3	30.8	25.9
26-50	4.0	10.0	13.5	13.0
51-100	1.8	2.0	2.9	1.9
100+	0	2.0	1.9	3.7
Total	100.0	100.0	100.0	100.0
Mean	6.55	17.38	14.32	27.30
Median	1.85	2.94	4.50	3.90
Mode	1.00	1.00	1.00	1.00

[a]Students reported SOE for each year, therefore, a senior could be reported four times, but a freshman only once.

Strategies

What should a teacher do? Students enroll to learn about agriculture, but they have limited SOE programs and they do not enter an agricultural occupation upon graduation. How can a teacher design SOE programs to meet the needs of students and employment? Rather than give up, why not utilize this information in helping students develop good experiences that fit the program and meet their needs? Here are some points to consider.

First, vocational agriculture graduates who go to college rather than enter employment are not sinful, nor have they wasted four years of their life. Those who continue their education in agriculture are applying their knowledge and the skills they learned. Students in that category still need good SOE programs; those experiences will be a sound basis for their college studies.

Students who continue their education outside of agriculture also need good experiences through their SOE program. Although the specific technical information may not be immediately useful, the problem solving skills, management and business practices are always an asset. Who knows, these non-agriculture majors may return to agriculture after completing their formal education. Studies indicate that a fair number of vocational agriculture graduates return to agriculture after a period of years.

Secondly, there is more than one way to provide SOE for students, regardless of their career choice. Group enterprises on school property can be utilized to provide the same management experiences as individual projects on the home farm. In addition, placement experiences in agriculture can be an asset to all students. Learning skills and earning money are important to all, including those who continue their education.

Thirdly, SOE programs should provide lifelong learning skills, not just skills essential for entry level employment. SOE should help students develop the ability to solve problems not previously encountered, to make decisions in addition to performing skills and to transfer learning from one situation to another. SOE that is appropriate for the program and the student will help ensure the development of those higher order processes.

Finally, SOE programs must be planned to provide as many experiences as possible with as much depth as possible. Only 40 hours of occupational experience for a senior is probably not enough, regardless of the student's career selection.

If your students are like those in the study, you have probably been criticized for having the wrong students in vocational agriculture, but when vocational is used in a broad sense, as it should be, those students probably belong in your program. It is up to the teacher to look at why the students enrolled, what they intend to do and then to design SOE programs to help them get there.

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ARTICLE

Effective Use of School Based SOE

By Arthur L. Berkey and H. Dean Sutphin

(Editor's Note: Drs. Berkey and Sutphin are Professor and Assistant Professor, respectively, of Agricultural and Occupational Education, Department of Education, College of Agriculture and Life Sciences, Cornell University, Ithaca, New York 14853.)

The national workshop on supervised occupational experience (SOE) in 1982 established the broad categories of ownership and placement for supervised occupational experience (SOE) programs. Within these categories, SOE for students can be one or more of four types, each of which can be farm or non-farm. These types are: work in the family owned business (e.g., greenhouse or farm), placement with an employer (e.g., landscaping service or animal enterprise), and school based SOE which takes place outside of class time on school or school operated community facilities/sites.

School based SOE offers both advantages and limitations. The advantages include: (a) providing SOE for students with limited opportunities, students with handicapping conditions (e.g. where school facilities are adapted for access and safety), and for students who have yet to achieve the level of maturity for SOE in the community; (b) funding and time for placement and coordination/supervision by the teacher is reduced, especially where an area school enrolls students from a wide geographic area; and (c) maximizing use of school laboratories.

The major limitations of school based SOE are the presence of a simulated, rather than a real work environment, and the need for staff time and funding to provide supervision legally necessary for student SOE activities (both during and after the school day) beyond that provided by the teacher. A lesser limitation is the loss of public awareness and support that typically results from student SOE in the community. Also, the scope of SOE is limited to the size of school laboratories (on-site and community) and the number of students involved in school based experience. Depending on the nature of the experience, students may have limited opportunities to earn money, invest in agricultural enterprises, and/or to expand agricultural enterprises with school based SOE.

School based SOE is often used as a supplement to the three other types because of the limitations involved. However, as described in the advantages, for some students the circumstances may be such that SOE in school laboratories may be the only viable option during a given school semester or summer. Thus, the opportunity for quality school based occupational experience can be important for many students.

Guidelines and Strategies

The legal considerations in school based SOE are an extension of those for in-school classes since the same insurance coverage typically is used for both. This means continuous and reasonable (non-negligent) supervision of students. Supervision of students on SOE requires special arrangements, especially school based SOE that takes place outside the school day during weekends, vacation periods and summers. In addition to instruction, supervisors must assure student safety, and access and security for facilities and

(Continued on Page 22)

Effective Use of School Based SOE

(Continued from Page 21)

equipment. During the school day the school is legally responsible for student transportation to off-school site laboratories. Also, as discussed under planning and development, qualified staff will be needed.

School Administrative Support and Policy

Planning and development of school laboratories sufficient for school based SOE requires administrative support for the time and resources required. Additional land may need to be purchased and additional facilities for housing animals or for storage may need to be constructed. Or, the development of school owned property may be sufficient. Use of community based laboratories such as state forests, botanical gardens and farms may be available through a lease or other cooperative arrangement. The planning and development process may require more than one year. A written plan should be developed with the active participation of the agricultural advisory committee. Administrative and board of education approval of the plan as a basis for allocating budget is a necessary step. A policy for conducting school based SOE in the laboratories developed should be part of the plan.

The need for resources to provide supervision and transportation equivalent to that during class time has already been addressed in the legal considerations section. Staffing for such supervision will need to be included in the budget. In cases where the school laboratory involves major enterprises, (e.g. an operating farm) a laboratory manager may be needed. Cost recovery from products and services sold from the enterprise(s) may offset the cost of a manager's salary.

Policy for school based SOE is needed to establish responsibilities for SOE activities involving student ownership. Questions to be answered include:

- Who is responsible for profit and loss?
- What charges will be made for use of school materials, equipment and facilities?
- How are students selected for ownership SOE when more students than can be accommodated request this opportunity?
- Are student owned projects covered under school insurance, e.g., for vandalism, theft, or crop damage due to failure of the heating plant during winter?
- To what extent may ownership projects be used by the teacher for instructing the other students?

Policy to answer these questions needs to be established in advance.

Another policy issue is the scheduling and scope of school based SOE so as not to limit use of school laboratories for student practice during class. Priority should be established for class activities.

Planning and Selecting School Based SOE for Students

The decision to utilize a school based SOE should be derived from a comprehensive planning effort to determine a student's total supervised occupational experience program. In no case should a short or long term school based SOE be assumed as the most appropriate option for all students. Student maturity level, need for career related skill development, home and community occupational experience opportunities, and the seasonal nature of experience opportunities are among the many factors to consider in planning a total SOE program of which school based SOE is an option.

A school based SOE can be conducted individually or by a group of students. Planning with each student is needed to determine the nature, scope and length of school based SOE. Whether individual or group projects are utilized, a clear understanding of ownership and/or responsibility for each student associated with a project closes the gap between a school based and a "real world" agricultural industry experience.

The steps in planning school based student SOE are essentially no different from other types of SOE. Every aspect of the experience program should meet as closely as possible the occupational experience needs of the student. Beyond the planning phase the extent of teacher involvement for school based SOE may be higher when compared with other types of SOE, particularly in the area of placement, supervision and coordination.

Placement, Supervision and Coordination

Placement for school based SOE is on the school owned laboratories, (e.g. school farm) or on a school controlled (for the purpose of SOE) community facility/site (e.g. state woodland). Supervision for this type of SOE must satisfy student educational needs and protect the school district from any liability in case of an accident. The teacher should make sure that a written policy statement which includes supervision expectations is approved by the school, and that school and personal liability insurance policies are adequate.

One of the major advantages of school based SOE is that teachers are able to provide extensive supervision. Although this is cost effective for the school system in terms of supervisory travel reimbursement, it could be very expensive in terms of providing acceptable land, equipment, facilities, crops, and animals. Demands on teacher time for supervision may prove to be a major disadvantage to the teacher unless compensatory time and/or additional staff are provided.

Relationship to In-Class Instruction

Like other types of SOE, school based activities are conducted on out-of-class time and are in addition to supervised student practice provided as part of class instruction. However, the teacher may supervise SOE for non-class members concurrently with directing practice for in-class students. Large classes occupying all laboratory work stations and lack of free periods in student schedules may limit opportunities for such dual supervision.

The use of the same laboratory facilities for both class instruction and SOE allows not only optimal utilization of school facilities but also can provide direct teacher knowledge to tie in-class instruction to students' SOE. Student recordkeeping can also be monitored by the teacher in this dual use situation and ready information for including SOE as part of school grades is provided.

Evaluation

Evaluation of school based SOE is easier than any other type in terms of accessibility, frequency of observation, and direct knowledge of progress. However, the lack of an employer or third party viewpoint limits an important dimension of the evaluation process found with placement type SOE.

Evaluation strategies should not be different from those used for the other types of SOE except such should include both the teacher and employer (supervisor) evaluation components. Criteria for evaluation include student activities in career planning and exploration; development of knowledge, skills, and attitudes related to career goals; participation in SOE related FFA activities; and general involvement/achievement in SOE.

In addition to evaluating individual student school based SOE, teachers may wish to assess the total school based occupational experience program for agriculture students. School administrators, state education department staff, representatives from agricultural industry, and advisory committee members can assist in the evaluation process. Evaluation criteria should reflect desired program outcomes by addressing the broad categories of school administrative support; instruction related to SOE; supervision, coordination, and placement activities; general/process strategies for conducting an occupational experience program; and student achievement. Evaluation of student achievement may be derived from a composite evaluation of individual student SOE.

Summary

School based SOE can be an important part of SOE for vocational agriculture students, particularly for students who have limited SOE opportunities, who need to develop the additional maturity needed for out-of-school SOE and/or who have handicapping conditions. Student SOE should ideally not be limited to school based experience due to the simulated, rather than real, work environment.

Use of school based SOE will require planning, resources and policy to meet the legal requirements equivalent to in-school instruction, and to provide laboratories of sufficient size and diversity to provide quality SOE opportunities.

RESOURCES

Many myths about the competencies of older workers are systematically refuted in a new publication, OLDER WORKERS: WHAT VOC ED CAN DO. This monograph offers insights and suggestions for how vocational education can meet the training needs of older workers who will become increasingly important to the economy as the youth population shrinks. It recommends ways for vocational educators to cooperate with employers, government, community service agencies, and other groups to support legislation and training programs targeted to this neglected source of productive workers.

You may order OLDER WORKERS: WHAT VOC ED CAN DO (IN 256, $4.95), 53 pages, from the National Center for Research in Vocational Education, The Ohio State University, 1960 Kenny Road, Columbus, Ohio, 43210; 614/486-3655 or toll-free outside Ohio at 800/848-4815.

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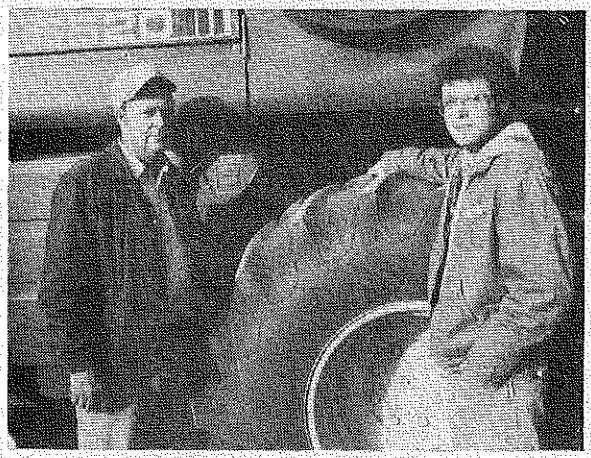

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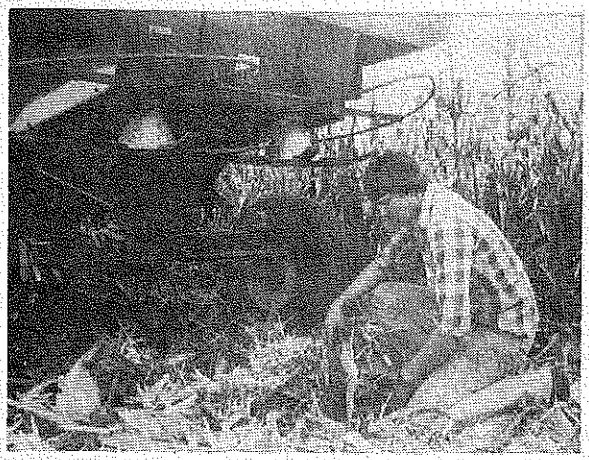

Harvest Losses

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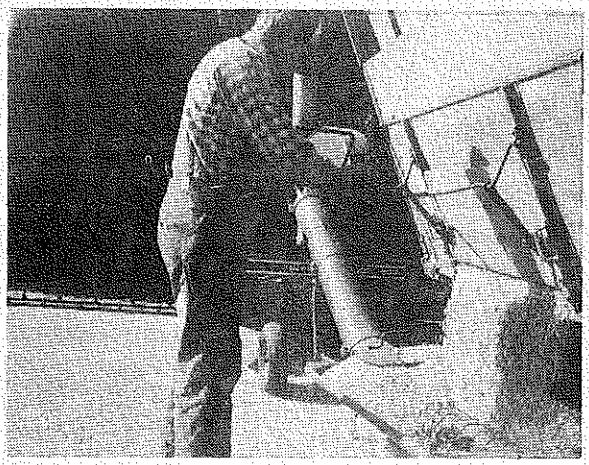

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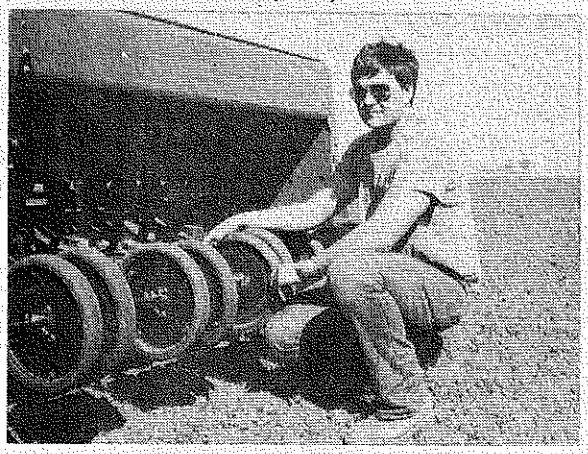

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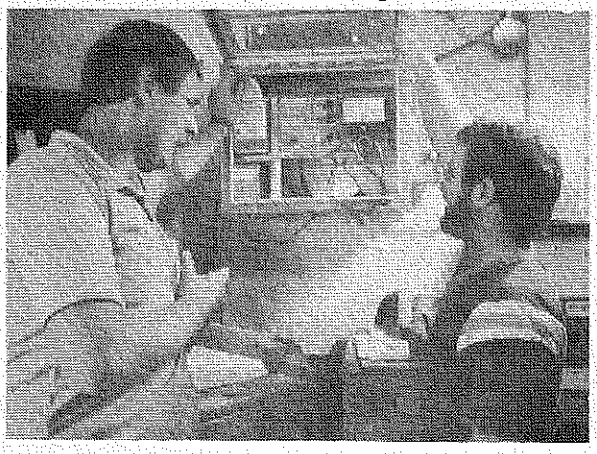

Electronic Controls

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