Agricultural Education

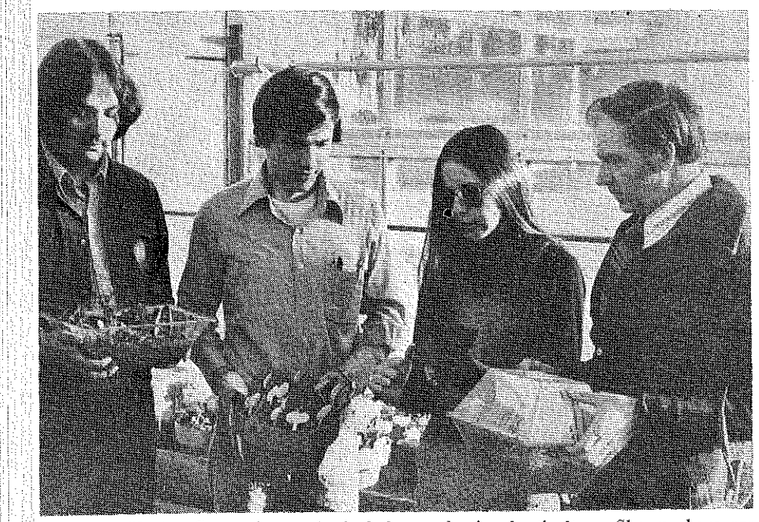
May, 1974 — Number 11

Volume 46

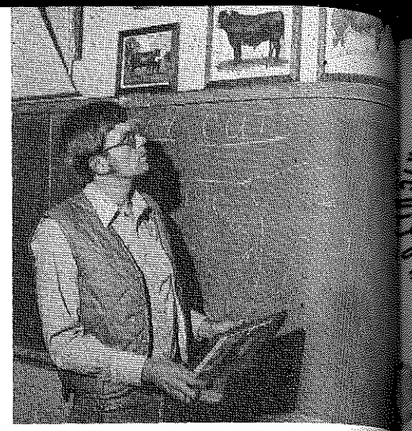
A successful crop of soybeans is measured by FFA Cowden-Herrick, Illinois chapter members (from left) Stan Collins, Tim Summers and Jim Shaffer, chapter advisor. The crop was planted using an Allis-Chalmers series 300 NO-TIL planter. Finding meaningful summer employment for young people has become a traditional problem in many areas. The Cowden-Herrick FFA chapter recognized the problem. They decided to gain experience by custom planting minimum tillage crops as a money making venture for the chapter. They reasoned that if farmers were running late, they would want to get into the fields quickly when good weather came. For this reason, farmers might be willing to try minimum tillage farming and double cropping without actually investing in a planter. By season's end, the chapter custom planted 1,218 acres. The result was so successful that the group plans an expanded operaton for 1974. (Photos from Dick Stark, Allis Chalmers)

Stories in Pictures

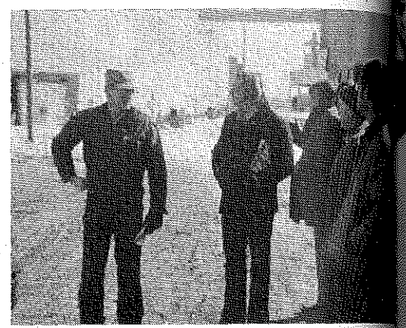
by Richard Douglass



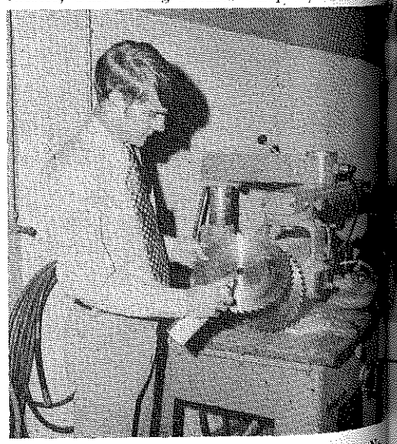
Vo-Ag, Connecticut style, includes production horticulture. Shown above are (L to R) Gregg LeBlanc, Denis Ricard, Lynn Bristol and Instructor James Dick. The E. O. Smith Regional High School is a laboratory school for the University of Connecticut. (Photo by Paul Rohacik and submitted by Dr. Al Mannebach, University of Connecticut)



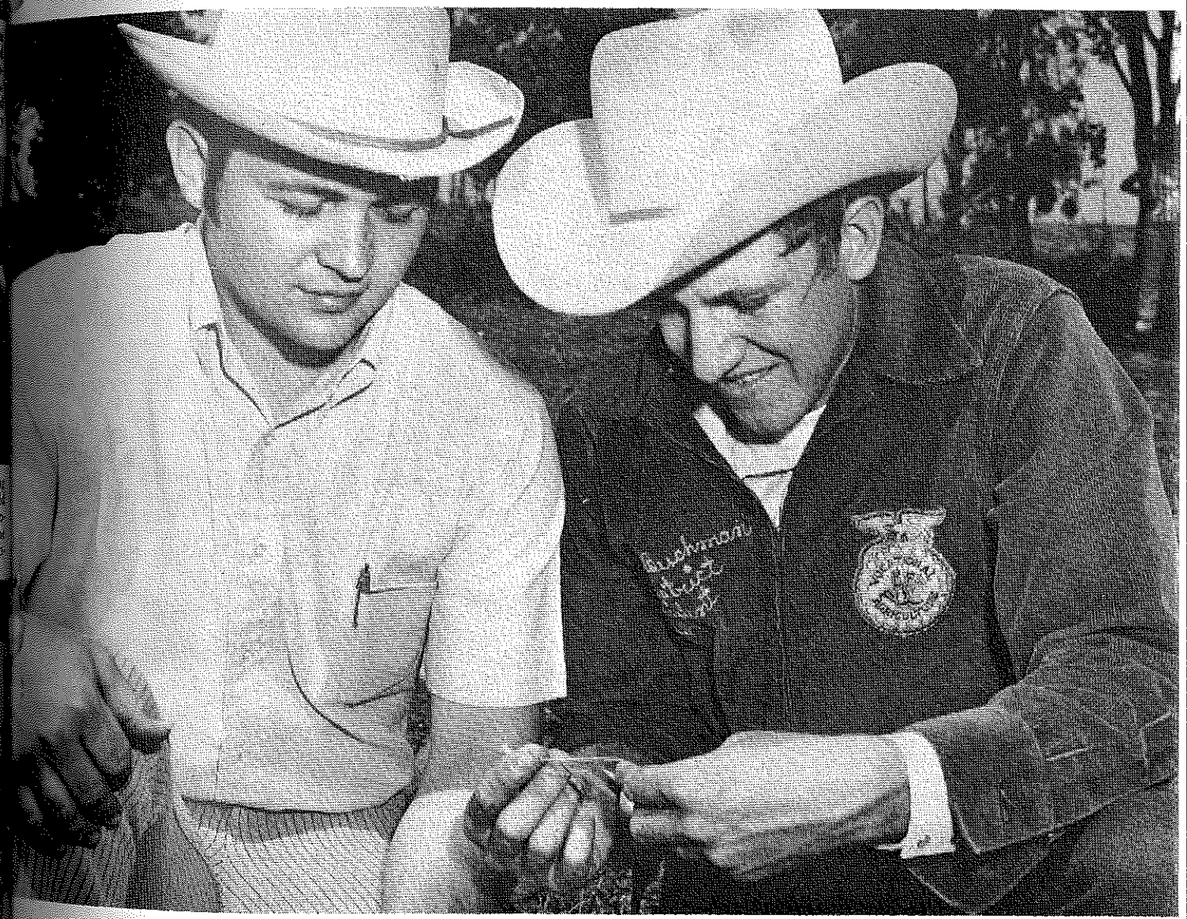
Generating an interest in Livestock Production was one of this new teacher's goals. Mr. Ronald Engelke, one of Aurora's (Nebraska) Vo-Ag Instructors, used pictures from various breed associations. The "original" frames were constructed by a cooperating industrial arts class. (Photo by Richard Douglass)



Members of the Canal Winchester (Ohio) Young Farmers Association participate in tours and field trips to supplement the classroom education program. Such events are many times one of the year's highlights. (Photo from the Canal Winchester, Ohio Young Farmer Chapter)



SHOP TIP—Mr. Dennis Kahl, Wood River, Nebraska, recommends household oven cleaner to remove the gum and burned-on particles from saw blades. He also recommends getting the saw sharpened before additional use. (Photo by Richard Douglass)



Theme—SUMMER ACCOUNTABILITY

The
Agricultural Education
Magazine

EDPRESS

Vol. 46 May, 1974 No. 11

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This publication is the monthly professional journal of agricultural education. The journal is published by THE AGRICULTURAL EDUCATION MAGAZINE, INC., and is printed at the Lawhead Press, Inc., 900 East State Street, Athens, Ohio 45701.

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Send articles and pictures to the Editor or to the appropriate Special Editor.

COVER PHOTO:

The Good Ole Summer Time — means a lot of work for vocational agriculture teachers. Learning about agriculture shifts into high gear during the summer. Teachers must plan each day carefully if they are to accomplish all the tasks. The impact of personal visits to each student will be felt through the year. (photo from Dean Prochaska, Ag. Ed. Director, Kansas Department of Education.)

From Your Editor . . . TWELVE-MONTH EMPLOYMENT IS NO LONGER FOR EVERYBODY

Martin B. McMillion

The twelve-month contract for all vocational agriculture teachers after enduring throughout the history of federally supported vocational agriculture, has been weakened recently. The term "extended contract" has become part of the vocabulary of supervisors in several states.

Only after the beginning of the "age of accountability" did the eleven- and twelve-month contract start experiencing inroads, but those inroads were not entirely the result of the search for accountability. The variety of agricultural programs, some of which have a greater requirement for twelve-month teachers than others, was what permitted the leak in the dike of universal twelve-month contracts. The increased number of teachers in each department was also a contributor. The production agriculture programs did and can endure as eleven- and twelve-month programs and so can most of the other agricultural programs.

Without the tight-money situation, every teacher of Vocational Agriculture, even the career exploration teacher, could, with some imagination and effort, plan a summer program which would give a school district a good return for the money spent; but when we are asked to accomplish more for less, priorities must be considered. Our sincerity in being accountable will convince nobody if we insist without thought or question that one hundred percent of all employees connected with vocational education in agriculture be employed twelve months a year. Demonstrated sincerity in being accountable requires that the twelve-month contract be at least considered a subject for debate.

Ideally, every teacher would have a twelve-month contract and we would meet our accountability obligation by doing more on a fixed number of weeks and salary, but we must look also at the option of accomplishing a high percent of important things on less weeks and salary as another approach to achieving accountability.

Some people in the profession have advocated splitting job roles in such a way that each teacher would have equal justification for being employed in the summer. If twelve-month contracts are still the rule in a state, it only makes sense to share the load in the summer. If the universal twelve-month contract has already been lost, then specialization in more natural and less diverse job roles seems to be the most reasonable and efficient.

Certain of the job roles will justify more summer work than others. Perhaps some job roles will be classified as requiring less than twelve months employment. Full-time teachers of shop subjects seem to be likely possibilities.

The shorter contract would have some advantages. *Retention of teachers* could be enhanced by the availability of less than twelve-month contracts. The former teacher of agriculture who now teaches biology in order to farm in the summer perhaps could have been retained in the profession. Yearly *industry experience* would be a natural result of the shortened contract. Industrial education teachers normally work in a related trade or industry during summers, and the same could occur in the case of teachers of agriculture.

(Concluded on next page)

Guest Editorial . . . ACCOUNTABILITY—A MUST FOR QUALITY SUMMER PROGRAMS

James E. Dougan
Assistant Director of Vocational Education
Agricultural Education Service, Ohio

James E. Dougan

Accountability seems to be the word on the tip of the tongue of every citizen in the United States today. We in education and especially in Agricultural Education must be keenly aware of our responsibility to the public to allow them to know that we are achieving the results which they expect from our programs and which have been defined as essential to our program.

In a society in which a majority of the people are quickly moving from a rural to an urban setting, it is urgent that we prepare and implement a communications program which will keep the lay public, boards of education, school administrators, and even our own clientele informed of the type of vocational education program necessary to nurture an agricultural industry producing in abundance the food and fiber and service needs of a nation, and even the world, at a cost equal to or below the cost possible anywhere else in the world. We in Agricultural Education are responsible for the training of a vital segment of today's youth and adults to carry out the role of agriculture in the years ahead.

There is little question that we have been successful as measured by our accomplishments in the past. However, with a majority of our population today lacking a background of truths based on an agrarian upbringing, we must adopt a communications program that will not only permit, but will insist that the lay public know that agriculture is a

(Concluded on next page)

From the Editor . . .

The shorter contract has disadvantages. Once the universal twelve-month contract is compromised, it may be difficult to hold twelve-month contracts for at least 85-90 percent of vocational agriculture teachers. Attendance at conferences and workshops would drop considerably if the teachers were not paid while they attended. Even if they were paid, they might be reluctant to take time off from their summer jobs.

I do not advocate less than twelve-month employment in agriculture teaching. Because less than twelve-month contracts are a fact of life in a number of states, we must at least think about the possibilities and consequences. I ... not accept the obvious hypocracy of being in fave... economic accountability and also being unwilling to di... or concede anything concerning the twelve-month cont...

—M...

Our sincerity in being accountable will convince nobody ... we insist without thought or question that one hundred pe... cent of all employees connected with vocational educati... in agriculture be employed twelve months a year.

Guest Editorial . . .

basic industry; it is seasonal in nature; it is the production, processing, and distribution of food and fiber, including the attendant services. They must understand that individuals entering and advancing in an agricultural occupation must be provided with knowledge and performance skills and abilities, many of which occur only during the summer months; so our instructional programs must continue throughout the year. The instructional program which occurs during the summer months in vocational agriculture is an area in which we receive a majority of the questions directed to us on accountability. The following guidelines will assist in developing a rationale upon which to build a quality summer program:

1. All available students must be involved in the summer program.
2. The majority of the teacher's time must be spent on related instruction and the supervision of the students' occupational experience program.
3. The educational program conducted during this time must be essential to the students in achieving their occupational goals.
4. The instruction and student experience cannot be obtained during the regular school term.
5. The instruction and performance skills and abilities experienced by the students must be essential to the success of their entry into the occupation for which they are being prepared.
6. The instruction and supervision of the students' occupational experience program must be conducted by a competent teacher.

To assist in determining which skills and abilities ... essential, and which occur only during the summer mo... a task analysis is necessary. Teacher educators, state su... visors, teachers, and local advisory committees all hav... responsibility and can assist in obtaining a task analys... each of the occupations or cluster of occupations for wh... the major instructional programs are designed to train ... dents. A task analysis to validate and update each of ... instructional programs is an essential element which we ... no longer afford to be without in Agricultural Educatio... we are to be accountable.

The local teacher needs the guidance of teacher edu... tors and state staff in utilizing an advisory committee ... assist in determining what should be included in the inst... tional program which will occur during the summer mon... The proposed summer program should be submitted to ... school administration by June 1st of each year. Any cha... or adjustments should be reported at once. It should inc... the related instruction to be provided, the supervision ... the students' occupational experience program, field d... demonstrations, activities essential for continuing the E... program of activities, placement and follow-up of gradu... adult education, in-service training, office schedule, ... vo-ag teachers' conference, and a well-earned vacation.

It is desirable for the vo-ag teacher to prepare a b... summary of the accomplishments during the summer to ... submitted to the school administrators by September firs... each year. The advisory committee, through the administ... tion, should release the report to the public.

A planned summer program stating the services to ... provided, for how many, by when, will provide the accou... ability that is being requested by people who are genuin... concerned about our program. ◆◆◆

Themes For Future Issues

June —	**Administration and Supervision — Local to National**	**September —**	**School Organization and Articulation**
		October —	**Instructional Technology**
July —	**Program Planning and Evaluation**	**November —**	**Improving the Profession — the Job and the Teacher**
August —	**Teacher Education**	**December —**	**Better Teaching and Learning**

SUMMER SCHOOL IN OFF-FARM AG.

Hilding Gadda
Teacher Education
South Dakota State University

Hilding Gadda

Off-farm occupations preparation can be implemented during the summer.

How does a vo-ag instructor bring about a recognition that vocational education in agriculture should be provided for all agricultural occupations and not be limited to production agriculture? It is disquieting to note that, particularly in the predominantly production agriculture states, instructional programs in the off-farm agricultural occupations are not provided commensurate with the needs, at least at the secondary level.

No doubt there are a number of factors contributing to this situation, such as the persistence of single-teacher programs, the multiplicity of duties of agriculture instructors, and the apprehensions associated with trying something new and different. We need somehow to make "believers" of more traditional production instructors. The purpose of this article is to indicate how a program of off-farm agricultural occupations preparation can be implemented during the summer.

Frequently schedules, responsibilities, enrollments and other factors make it extremely difficult to program instruction in off-farm agricultural occupations during the school year. Accordingly, a real case can be built for doing so between termination of school in the spring and the beginning of the fall term. This is the time when occupational activity is normally greatest in agricultural supply, products, resources, mechanics, horticulture, and forestry occupations. It necessarily follows that occupational experience as a part of such a program conducted in the summer would be very effective, with some exceptions of course.

The summer program here proposed is characterized by the following salient features:

1. A two-month program — June and July, or July and August (A combination of the two could also be utilized.)
2. A two-hour class in related instruction daily, 7:30 a.m. to 9:30 a.m., five days per week for eight weeks
3. Students on occupational experience, 10:00 a.m. to 6:00 p.m. six days per week for eight weeks. This could be extended to the full summer provided instructor supervision is similarly extended.
4. One supervisory visit per week to each student at his training station by the instructor

It will be noted that the summer off-farm program detailed above provides 80 hours of class instruction and at least 336 hours of occupational experience. Flexibility must be exercised in making the program practical and effective. Such time durations for class instruction and actual occupational experience compare very favorably with corresponding time durations customarily found in most full-year programs conducted during the academic year. Some instructors are using this program format or some variant thereof, and are finding it to be workable and effective.

The rationale underlying this approach to preparation for off-farm agricultural occupations includes the following very perceptible advantages:

1. It is workable in both single-teacher and multiple-teacher programs.
2. The likelihood of placing students for occupational experience is enhanced in the summer.
3. The students' occupational experience time is more continuous and concentrated in the summer, and less subject to interruptions.
4. This approach alleviates the difficulty of scheduling such a program during the school year when schedules and other factors prevent instructors from providing it.
5. It provides a structured time schedule for the instructor's efforts in the summer, thereby utilizing his time to best advantage and enhancing his image in the community.
6. It allows time for the instructor to provide on-the-job supervision for such learners, as well as on-farm supervision of other students where necessary. Time for other summer duties is still available.
7. It allows more time for travel to training stations in cases where work stations in neighboring communities need to be used due to a lack of them in the community where the program is centered.
8. It brings prestige to the entire program, school, and instructor.
9. It provides for occupational training needs to be met in situations where those needs would otherwise go unmet.
10. It contributes to a closer working relationship between the vo-ag program and the entire agricultural industry in the community.
11. It provides for a more complete utilization of the vo-ag facilities.

One of the most incessant problems of the agriculture instructor is that of establishing priorities of things to be done. The program here detailed deserves high priority in a good many agricultural communities. Even in a strong production area, an effective off-farm agricultural occupations program is a must. The reason is that virtually all off-farm agricultural enterprises service production agriculture in one way or another. This is accountability. ◆◆◆

Are Summer Programs in Jeopardy?

F. J. Doering
Head Consultant, Agriculture Education
Madison, Wisconsin

F. J. Doering

Are summer programs in vocational agriculture in jeopardy? Frankly, this writer is worried at what may very well be a national trend. In discussions with state supervisors from fourteen states recently, only five maintained a mandatory position on a twelve-month contract for the instructor(s). Wisconsin is one of the states with this requirement, and happily, we are expecting to maintain this position. Recognizing, of course, that our position weakens as an increasing number of states adopt different policies.

The summer program is vital to a good program in vocational agriculture. This has been known since the inception of the program. Such notable leaders as L. M. Sasman, J. A. James, John May, and others, were instrumental in developing the twelve-month program in Wisconsin. Our efforts will be devoted to carrying on the excellent programs these men developed.

With this thought in mind, the State Advisory Committee for Vocational Agriculture in Wisconsin has recently developed and received approval on a position paper dealing with the extended contract in vocational agriculture. The major provisions of this paper can be summarized as follows:

1. The agriculture instructor be hired on a continuous twelve-month contract, with provisions for vacation based on the policies followed for other twelve-month professional employees.
2. Whenever enrollment in a vocational agriculture department exceeds 90 students, consideration be given to the employment of additional staff. An extended contract would be given to additional instructor(s) on the basis of one day's time for each two students above the 90 enrolled in vocational agriculture.
3. A teacher on extended contract should be allotted sufficient time to participate in all vo-ag youth organization activities, and the one week vo-ag in-service program.
4. Substitutes for the instructor, for the extended summer program, must be approved by the Department of Public Instruction.
5. The above standards are considered to be minimums and most local schools would find it beneficial to exceed these recommendations.

The vocational agriculture (agribusiness) enrollment in Wisconsin, as in most other states, continues to expand. Records have been broken every year for the past decade and currently rests at 24,427 students — a forty-eight percent increase in that period of time. It is no secret that most of this growth came from the increased offerings to urban

It is disturbing to find the number of days devoted to student visits declining.

students. With the advent of urban programs our summ extended contract problems have multiplied. An all- common concern is, "what can an agriculture instru possibly do in the summer in a city program?" The situa has not changed and the question should logically re-phrased, "how can an agriculture instructor find eno time to do all the things necessary for a good summer gram in a city school?"

With the school year increasing in length, a premi has been placed upon the instructor's time during summer months. Close scrutiny of the school calendar Wisconsin indicates only 52-59 working days are availa to the instructor during the period of his extended contr When we examine the summer schedule some interes observations can be made:

1. Summer Program — 52-59 days available D
   a. Two weeks vacation for instructor .....
   b. FFA State Convention (June) .....
   c. Summer Conference (July) .....

   Total
2. Other activities for summer program D
   a. Local and county fairs .....
   b. State Fair .....
   c. Variety of instructor in-service workshops .....
   d. Farm Progress Days .....
   e. Livestock shows .....
   f. FFA Camping Trip .....
   g. Junior Dairymen's Convention and Dairy Show ..
   h. Experimental Station Field Days .....
   *i. Summer school .....

   Total

*Four week session in which instructor relinquishes his two week vacation one week of summer conference, therefore, only five days are actually from the local program.

Unless the instructor plans carefully for his summ activities, he may well run out of time without having d those things recognized as being vital to the program, na ly, student visits on the occupational experience progra It is disturbing to find the number of days devoted to dent visits on the decline. In Wisconsin, the number of d devoted to student visits averages eighteen days, but range is from 6-37 days. Certainly this indicates a lac careful planning on the part of some instructors.

A multitude of studies have indicated the value of summer program in vocational agriculture. Our finan aid to schools must reflect this well-established fact. In W consin, aid is available on summer salaries through

(Concluded on next p

Planning Summer Programs

Doug Davidson
Teacher of Vocational Agriculture
Reed City High School
Reed City, Michigan

Much has been written about the added expense of summer programs. Each school has to determine if it is getting its moneys' worth. The more information that we as teachers can provide, the easier it is for boards of education and school administrators to decide that they are indeed getting their moneys' worth. This article is written in an outline form. I am offering some suggestions for planning and communicating what is done during the summer. Each reader can fill in the blank spaces with strategies and data unique to his program. I am sure little of this is new to anybody but maybe it can be reviewed quickly and can serve as a reminder of what can be done.

PLAN

Planning comes first. Since the hours of employment during the summer are limited, I need to select the most important activities to spend time on.

1. *Identify all possible activities* such as farm visits to 120 students, in-service workshops, leadership training camps, etc.
2. *Estimate the amount of time* which may be required for each activity, for example attending a 1½ day leadership training camp with FFA officers requires about 25 hours of active duty.
3. *Select the most important activities* and review the list of possibilities with the students who will be involved, the advisory committee, and the school administrators.
4. *Submit your proposed activities* with dates to the school administration and board before June.

(Doering—from previous page)

federal and state funding. The latter is based on the instructor's student contact hours. In the less affluent areas of the state, costs of the summer program are minimal.

Our summer programs will continue to exist so long as we have hard-working, dedicated, and well-organized instructors, who keep the administration, boards of education, and the public informed of their activities. Cooperative education programs must expand. They will be particularly valuable to the twelve-month employment of the instructor in the urban situation. Summer programs will experience few problems if we continue to meet the needs of the individual student and the community in which the program exists. ◆◆◆

EXECUTE

Next, carry out the proposed activities. Be flexible but try to accomplish what you set out to do.

1. *Submit written reports* of your activities, results, hours, and mileage weekly to the administration.
2. *Consult with administrators* informally throughout the summer to keep them informed.
3. *Prepare news articles* to help keep the public informed.

REPORT

After the summer is over you are still not done.

1. *Summarize accomplishments* and weeks and hours worked. Submit these to the advisory committee, school administrators, and the school board.
2. *Appear before the board* and report in person with slides early in the fall. Show how your summer activities relate to your school-year goals. Was it an extension of the school year?

REVISE

Now its time for a little evaluation. Process the feedback you had from the groups mentioned and:

1. *Look* at those activities which were unproductive. Improve them or eliminate them from next years' schedule.
2. *Go back* to the PLAN paragraph and get ready for another successful summer program.

If what you do in the summer meets the needs of your students and you can show that it does, then the future of the summer program depends on the people who pay for it. How can they turn it down? ◆◆◆

HOW IMPORTANT ARE SUMMER PROGRAMS?

Ted Gregg
Supervision
California

Ted Gregg

Summer programs have traditionally been one of the most important segments of the total Vocational Agriculture program. Provisions were made for summer supervision under the Smith-Hughes legislation, and currently summer supervision is included as a special standard for agriculture in the California State Plan for Vocational Education.

Summer programs are so vital to Agricultural Education because so many of the essential learning activities occur during the summer months.

The practice of employing agriculture instructors on a twelve-month basis was not questioned for many years. However, because of tight budgets and a few outdated summer programs, many districts are carefully examining these summer activities and in some cases the programs have been cut back.

Because of this potential threat, we should examine our summer programs and question our summer activities in light of today's needs.

What are appropriate activities for a summer program?

Appropriate activities for agriculture instructors during summer months might include:

1. Visiting all incoming freshman students enrolled in Vocational Agriculture. Explain the program to the student and parents. Explain:
   a. Supervised occupational experience.
   b. FFA as an integral part of the instructional program.
   c. Curriculum.
   d. Program planning leading to occupational goals.
2. Visiting all continuing students at least three times.
   a. Provide assistance on the supervised occupational experience program.
   b. Assist the parents and student to set an occupational goal and plan a program that will lead to that goal.
   c. Keep parents and students informed on the summer activities and accomplishments of the agricultural program.
3. Supervising students at fairs and shows.
   a. Remember that the behavior of your students and the quality of their exhibits will serve as a showcase for your department.

FFA Summer Luncheon Honoring Legislators (left to right) semblywoman March K. Fong, Ted Gregg, and State FFA Offic

Summer programs based primarily on developing lesson plans and repairing shop equipment are in my opinion open for criticism and are in jeopardy.

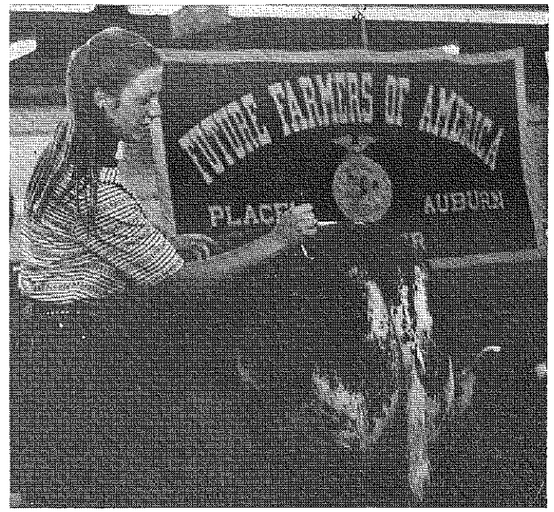
4. F.F.A. meetings and activities.
   a. Summer is an ideal time for FFA camping tr barbecues, swimming parties, etc. These sum activities provide a perfect opportunity to dev a strong positive relationship between teacher a student.
5. In-Service Training.
   a. Summer conference.
   b. Skills Week.
   c. Sectional and Regional teacher planning meeti
   d. Individual contact with farmers and agribusin people.
6. Advisory Committee Meetings.
   a. Review courses and activities.
   b. Get advice on school farm, etc.
   c. Set up field trips for the fall.
   d. Keep up to date on the most recent agricultu developments.
7. Departmental Housekeeping.
   a. Lesson plans.
   b. Repair of shop equipment.
   c. Clean up shop and classroom.

How can we justify our summer programs?

It is becoming increasingly important that we be accountable for our time and activities. The major purpose of the summer program must be student contact and supervision. Our task must be to assist students with their occupational experience and related activities which will lead the young person to an occupational goal.

The following are some guidelines which might be used to strengthen and aid in justifying your summer program:

1. Request advice from your advisory committee in developing your summer program.
2. Submit a written plan including a calendar to your administrator. Request his recommendations and approval.
3. Keep your administrator informed of your summer activities. Drop by and pick up your mail at the *end* of every day. Stop by your administrator's office and keep him informed.
4. Let your advisory committee know what you are doing. Visit with members individually and at summer meetings.
5. Include your administrator and counselors on some of your project visits or FFA activities.
6. Submit summer reports to your administrator, even if they are no longer required. List students you visit by name in the report. Include the names of farmers and agribusiness industry people contacted, also.
7. Submit an accomplishment report at the end of each month or at the end of the summer. Summarize what you did and how you did it.



Fairs and Shows are appropriate summer activities.

Summer programs based primarily on developing lesson plans and repairing shop equipment are in my opinion open for criticism and are in jeopardy. Programs on the other hand that consist primarily of working with and supervising students are on a solid footing and can be easily defended. I hope that all of us will take a sound, critical look at our summer programs and gear them toward assisting agricultural students to reach an occupational goal of their choice.

◆◆◆

BOOK REVIEWS

APPROVED PRACTICES IN BEAUTIFYING THE HOME GROUNDS, by Norman K. Hoover. Danville, Illinois: The Interstate Printers & Publishers, Inc., 1973, 4th Edition, 292 pp., $5.50.

APPROVED PRACTICES IN BEAUTIFYING THE HOME GROUNDS is a book for the rural and urban resident who is interested in learning *how* to use the many approved practices. Subjects are easy to find. It includes an index and glossary. Dandelion identification to Dahlia planting are covered in practical, easy to understand terms. Chapter titles are: Opportunities in Beautifying the Home Grounds, Home Ground Design, Construction of Walks and Drives, Grading, Establishing and Maintaining the Lawn, Plant Material Identification and Selection, Planting Ornamentals, Management of Trees & Shrubs, Home Grounds Structures, and The Flower Garden.

The teacher may use this book as a text for the technical subjects, the practical (how-to), and career exploration. The hobbyist will certainly find many answers and ideas. The farmer and homeowner can make long range plans based on their wishes supplemented with ideas and information contained in the book, and then feel confident in carrying out those plans, using the shortcuts for economy of time and money.

Dr. Hoover is a subject-matter specialist in Agricultural Education, and Professor of Agricultural Education at The Pennsylvania State University. He received his Doctor's degree from that institution; he had practical experience as a teacher of vocational agriculture in several high schools, and also taught at Colorado State University. He is the author of the timely HANDBOOK OF AGRICULTURAL OCCUPATIONS, one of the biggest-selling books in the field of agricultural education, which has been adopted by many states.

Roger Engstrom, Coordinator
Farm Veterans' Co-op
Iowa Lakes Community College

MICROBIOLOGY OF THE ATMOSPHERE, by P. H. Gregory. New York, New York: Halsted Press, 1973, 2nd edition, 297 pp. plus appendices, $27.50.

Mr. Gregory starts his book with a section on the history of the science of trapping air-borne spores. The remainder of the book is devoted to an easily understood discussion of the various spores of the atmosphere and the means by which they are distributed and deposited. Some individual spores are discussed in some detail as well as various methods of collecting air samples for laboratory study.

In general, Mr. Gregory's account deals with the spores of various plants, that is, pollen and its effects on humans.

The majority of the book is directed at the high school level student as a reference book. It would also be useful in an introductory college course dealing with the earth's atmosphere.

This is the kind of book that contains a wealth of information that a student can easily digest without much teacher assistance and would make a valuable addition to any school library. A very generous bibliography is also included for use by the interested reader.

Robert F. Monroe
Hewes Occupational Center

A VIABLE PROGRAM OF EDUCATION IN VOCATIONAL AGRICULTURE

J. C. Atherton
Teacher Education
Louisiana State University

J. C. Atherton

Churchill is reported to have told an individual, on one occasion that he had been dead for years but had failed to realize this fact. Of course he was speaking figuratively, but there could have been much truth in what was said.

Could it not be possible that some of the educational programs in vocational agriculture are dead for all practical purposes or are at the point of death? Would inspection reveal that the organism is a mere hollow shell containing only remnants which are sterile and at best barely lukewarm?

It is easy to pass by such questions and simply shrug one's shoulders. One can hide behind the screen of indifference holding to the view — "surely this can't apply to us." It is to be hoped that one does not fit into this category, but how sure is he that he does not?

There is a possibility that the program is only partially alive — functioning in a sense, but not fully alive. The writer knew of a case where a young person had a large portion of the brain removed because it was diseased. This operation left the individual completely helpless, immobile and unaware of happenings which occurred. In such a state the person remained for months. Alive? Yes, but for all practical purposes dead. Is your program in such a state?

Live beings participate in a series of functions which are essential for the perpetuation of the species. Organizations carry on the same type activities throughout their existence. These include: systematization or arrangement, development, assimilation, reaction and reproduction. The vocational agriculture program that is truly alive participates continually in these operations.

Systematization is a must for anything that works efficiently regardless of whether it is alive or inanimate. Being well organized is no guarantee that a program is functional; however, there will be little life in one which does not possess this quality.

As the program continues to exist there must be development if it meets the needs of those it is attempting to serve. Even when effort is made to merely maintain the status quo, there must be growth or development. Elements become time-worn and outmoded. Something must replace them. Conditions change sociologically and physiologically. These require modifications of many kinds so that the educational activity is in tune with the times.

Assimilation is another characteristic of a live and active program of vocational agriculture. Just as a living organism needs to utilize food, water and air for continued life and growth, so does an educational undertaking need to feed on those things that will nourish and stimulate it. These include the utilization of new ideas, new information, new procedures, and the best thought of the inhabitants of the area. When these are neglected, vocational agriculture tends to "dry up on the vine" and to wither away.

The major objectives of education in vocational agriculture are similar to those of 50 years ago when Federal stimulation had just begun to function through the provisions of the Smith-Hughes Act. There is a high degree sameness in the basic principles wh guide the program today. However, should be recognized that there i great need for the use of new me ods in the fulfillment of the ta Times have changed; conditions ha changed; and there must be a sa factory reaction to the situati Growth of the program and even satisfactory continuance of it deman that attention be given to the e vironment and the focus it brin to bear upon the educational progra Through an awareness of current nee and problems the living program mak adjustments so that it is in harmo with the educational needs of those proposes to serve. History is full of e amples of failure of individuals an groups because of their inflexibility an insensitiveness to current life.

An educational institution is design for the purpose of production. Regar less of its many other qualities, Voc tional Agriculture has failed to a complish its prime responsibilty when does not bring about desirable chan of a relatively permanent nature in t lives of its clients — the students. If fails to produce, the institution mere serves as a monument to lost oppo tunity.

It may be a worthwhile activity examine agricultural education as it applied locally and determine if it really and fully alive. To what degr does it meet the criteria of a viab program? Does the type of service an the quality of service meet mode needs? Has mature judgment, planni and action been utilized to the exte that the critical eye of considered jud ment would find little to condemn?

YEAR-ROUND EDUCATION AT A TECHNICAL COLLEGE

Robert Collins
Director of Academic Affairs
University of Minnesota
Technical College—Waseca

Robert Collins

The University of Minnesota Technical College—Waseca is a new institution that began operation in the Fall term of 1971. The Technical College has a single mission — that of preparing students for mid-management, semi-professional positions in the broad field of agriculture. To make effective use of the summer months, the year-round education concept was built into the calendar from the start. Planning for the college tied this concept into all phases of the operation before the doors actually opened.

This has resulted in a simple and effective approach to utilizing the summer months. It basically involves having a full summer quarter which is the same length and gives the same emphasis as the fall, winter and spring quarters. The 1973 summer quarter ran from June 25 to September 14; the first summer quarter in 1972 was also a full 12 week quarter. Student interest in the summer quarter has been high with 102 in June, 1972, (134 Fall, 1971) and 201 in Summer, 1973, (320 Fall, 1972). Twenty-five percent of the student body start summer quarter directly out of high school.

The Technical College — Waseca, a coordinate campus of the University of Minnesota, emphasizes laboratory and practical experiences. The full summer quarter makes use of natural outdoor agricultural laboratories which are most useful during these months. Another plus is the efficient use of the facilities and research work of the adjacent 840 acre Southern Experiment Station, another unit of the University of Minnesota. The year-round program of the college allows for maximum use of the Southern Experiment Station in the teaching program during the summer months as well as throughout the year.

Fully-developed outdoor laboratories provide important learning opportunities for students at the University of Minnesota Technical College—Waseca during the Summer Quarter.

The primary objective of the college is to develop competence for employment at the end of the technical education program which is more than two years but less than four years in length. With the four-quarter system, students may start college classes immediately after finishing high school and thus graduate and start to earn a salary at an earlier age. As a part of this, students have an opportunity to accelerate their program by going continuously throughout the year.

An area of some confusion is the thought that the summer months are the busiest for the broad agricultural industry, including farming. This is not true of the area served by the Waseca college, with the planting season falling in the spring quarter and the harvesting season in the fall quarter. These have a higher priority of work than the summer months. This factor has developed a pattern among some students at UMW to attend classes during winter and summer quarters and to remain at home for planting in the spring and harvesting in the fall.

One quarter of employment experience is part of the technical program.

(Continued on next page)

SUMMER—
Time To Recharge Your Batteries

Gail J. Sperlich
Vo-Ag Instructor
Geddes, South Dakota

Gail Sperlich

A successful school year depends a great deal on the homework and the recharging one does in the summer. Not too many days pass in the new school year before I think of something I would like to get done the following summer; but alas, I do not have a photographic memory. Therefore; I keep a "want to do next summer list" on file within easy reach. Whenever I have a brainstorm I jot it down; this allows me to remember the things I want to do when the summer break does come.

With the long and busy school year, I like to make my summer work as enjoyable as possible. One thing that aids me in this is some advance organization. With the terrain as it is in our area, when a student says he lives two north, three west, one north, six west and one south of town, that better be the route I take; because there is no gravel road on each section line. As part of registration and orientation in first-year vocational agriculture, I have each student draw a map giving directions to his place from the nearest landmark or town. I have the students draw this map on the clear side of a 3x5 note card. On the other side of the card I have blanks for the student to fill in their name, parent's name, address, birthday and telephone number. This provides me with the information I need for summer visits. It also comes in handy throughout the year. In addition, I find that where summer visits are concerned a post card mailed to the parents a few days in advance of a summer visit can solve problems. I list the date and approximate time I plan on being at the student's farm. In addition, I point out that I would like to visit with one or both parents when I do come. I ask that they let me know if the time or date are in conflict with their schedule so I can schedule another time. Granted, I still have visits with nobody home once in a while, but it surely keeps these visits to a minimum.

A monthly travel report form helps me keep an accurate record of my summer visitations. I have a form made up with a column for: date, mileage reading out, mileage reading in, miles traveled and activities and/or students visited. This, along with a blank at the top of the form for month and instructor's name make these records easy to keep. In addition to the mileage report, I find that a weekly summer work report, handed in either monthly or for the whole summer, helps keep the administration and school board informed as to what the agriculture teacher is doing. This not only helps the administration and board know what I am doing but also gives them ammunition to [illegible] when another teacher or a citizen questions an eleven-month contract. [illegible] may sound like an excessive amount [illegible] extra reports to fill out, but it actually speeds up my summer work. It should be noted, however, any report has to be simple and fast to be practical. I urge you to adapt the form to your situation.

The recharge value to the vocational agriculture teacher of these different summer activities will vary from one instructor to another. Near the top of my list is devising visual aids for new years classes. My imagination can run free when time schedules are of less concern and the anticipation of the success of my new visual gives me renewed enthusiasm — really puts a charge in my batteries. For example, one not-so-hot winter day I concluded that if I had a life-size rumen it would add to an animal science or feeding unit. I decided to go to the local locker plant, remove the four stomachs, dry and cure them for a visual aid. Both the planning and construction of the stomach project had a high vocational agriculture teacher recharging value.

It is pride in how and what I accomplish in the summer months that puts bounce back in my step when school starts. If I keep close tabs on what I do and plan, it is surprising how effective a summer can be. Personally I prefer to have a summer I can be professionally proud of and carry full charge back to the classroom. ◆◆

(Collins—from previous page)

This is called the preoccupational preparation program and gives the student practical industry experience. Year-round education helps this internship program in that it allows the student to be out in the industry during the quarter (time of the year) that is most advantageous from a learning point of view in his field. For example, in the field of horticulture, this time is usually during the spring quarter.

Greater use can be made of expensive facilities and equipment needed in the Technical College in a year-round education program. It provides for increasing the number of graduates without increasing the physical facilities in the same relationship.

All of these factors in the year-round education (four equal quarter system) give a great deal of flexibility to the program. The summer months are effectively utilized for the overall educational program. This may have increasing importance because of the renewed interest and discussions in utilizing the summer months which have resulted from the present energy shortage.

Over the years there has been interest shown in year-round education in both public schools and colleges. This interest, however, has resulted only in sporadic efforts in high schools and colleges to effectively utilize the summer months. Perhaps 1974 is the year that the separate "academic year" and "summer sessions" may no longer be in vogue and utilization of the summer months for educational programs may be an idea "whose time has come." ◆◆

Summer Activities—
The Good Impression

Clinton V. Turner
Agriculture Instructor
Halifax County Senior High
South Boston, Virginia

C. V. Turner

The public must be able to readily identify the services that Vocational Agriculture is rendering to the community.

The summer program is an advantageous and vital function of the total agricultural education program that is essential for the preparation and upgrading of enrollees for agricultural occupations. This program is designed to be implemented over a twelve-month period. If follow-up training is to be effective, then the summer program is one of the most important phases of the total agricultural program. The instructor, during this twelve-week summer period, has many opportunities to do an effective job of supervising and teaching on the farm or in a job placement situation. In areas where a well planned program is in operation, it is recognized and accepted by the residents of the area surrounding the department.

Prepare a Plan

A successful summer program depends largely on the agriculture teachers' ability to effectively plan and execute a calendar of scheduled events. It is the responsibility of every teacher to prepare an itinerary of summer activities and submit it to the department chairman, school principal, division superintendent, and state supervisors. The summer plan should be developed as early as possible after the instructor has determined the exact dates that the events are to take place. This plan should be accurate and religiously adhered to during the summer. Failing to provide such a plan may be interpreted by your administrators as being an indication that you plan to do very little during this period. According to Lloyd J. Phipps in his *Handbook on Agricultural Education in Public Schools*, there are thirty-two activities to be included in the properly constructed summer calendar. An examination of this list readily reveals that many of the items included should only be performed periodically and not every summer.

Provide for Instruction

One should establish priorities for his department consistent with the needs and goals of the department in relationship to the surrounding community. Some areas that should be given special attentions on an itinerary of events are as follows. First, provide an opportunity for the instructional phase of the program to our all-day students, young farmers, and adult farmers who are enrolled in organized classes during these months. The summer provides an opportunity for enrollees to put into practice many of the things taught during the winter in our classes. It also provides an opportunity to evaluate our winter instructional program and to do further teaching on the appropriate topic. This time should also be used to maintain the motivation of the students and continue to give purpose to the course of instruction. Aiding in formulating plans, problem solving, and influencing attitudes of enrollees are some other activities that may be conducted either at the enrollees' farm, job placement center, or at the school.

Summer is a time to discard, select, acquire, and organize teaching materials and prepare facilities that will aid in the instructional program. We should discard old bulletins and textbooks that clutter our shelves, and organize our material to reduce lost time looking for certain items once formal classes have begun. Use this time to assemble and write lesson plans to conform with performance objectives.

Focus on Improvement

Second, in order to keep abreast of the rapidly changing technology of agriculture science in a vastly complex society, it is imperative that constant attention be focused upon professional improvement. It is most unlikely for a teacher to become adequately proficient in performing the many diverse duties of the profession through undergraduate preparation alone. There are many alternatives at the teacher's disposal for obtaining these needed skills in areas of instruction. In-service short courses, workshops, seminars, and graduate courses are some of the ways used for improvement. The professional organization conventions are exceptionally helpful in providing new and innovative ideas and methods to its members. By following these practices of professional improvement within our various communities, we would have the necessary expertise to put forth a challenging, worthwhile program of improved agricultural education for the benefit of the entire community.

Publicize Activities

Third, our success in obtaining a just share of public funds will depend largely on the ability of agricultural education to demonstrate that its efforts to provide a quality program are fruitful. The public must be able to readily identify the services that Agricultural Education is rendering to the community. The need for improving our public relations is too obvious. Some methods used to improve public relations are:

1. Inform administrators of planned activities.
2. Inform the public through the local news media, advisory council, and fairs.

(Concluded on page 263)

MAKE "NO-ACCOUNT" SUMMERS ACCOUNTABLE

Alvin H. Halcomb
Subject Matter Specialist
Agribusiness Education Supervision
Auburn, Alabama

Alvin H. Halcomb

Planning on taking things easy for awhile? Have almost three months to kill before school opens again? Nobody's business what happens during the summer? Accountability? To whom?

If any of the above questions are perturbing, maybe there is a need to re-evaluate how the summer months are spent. A lot of people are taking a hard look at twelve-months teachers. It behooves each teacher to conduct a summer program that is creditable and accountable.

The community has a right to expect a good summer program from every twelve-month teacher. After all, who is providing the financial support for this program? Can the community be expected to continue their support when "no-account" programs are evident?

Much emphasis is being placed on accountability. People are not satisfied with how their tax dollars are being used. In otherwords, a day's work is expected for a day's pay. That's the way it should be.

Actually, there is little or no excuse for a "no-account" summer program. There is just too much to be done for any program to be labeled as such.

Most teachers welcome the summer months because it does afford a change in the routine of activities. The daily schedule is more flexible and, in many cases, not as hectic. But, the responsibility of wisely using this "break" remains.

How well summer programs are planned and implemented will determine to a great extent the continuation of twelve-month contracts.

A plan for summer activities is no less important than regular teaching plans. Summer programs of work, well-planned and implemented, have paid dividends in the past. Local, county, and state administrators must be convinced that summer employment is needed. How well summer programs are planned and implemented will determine to a great extent the continuation of twelve-month employment.

There is too much to be done during the summer for any teacher to "take it easy." There are usually several "fixed" activities that demand time during the summer. These activities would include the FFA convention, summer workshops, teacher conferences, etc. Time is also required for work on advanced degrees.

The summer months afford an excellent opportunity to work with adults in the community. Many activities are more suited to this time of year than during the school term.

Another important summer activity is the supervisory visits to all-day students. These visits may be to supervise students placed for work experience and those who have programs at home. This writer contends that every student should have a supervised work experience program. Do not lose sight of this fact even though there has been changes in the clientele that is served. There is still the need for the teacher to work closely with students and parents. Parental support of a program is a valuable asset.

The summer months also provide time for needed curriculum revision and the development of instructional materials and teaching aids. Planning is the key to successful teaching. Someone has well said, "Plan your work, work your plan."

Submitting a weekly itinerary during the summer is practiced by many teachers. In some instances, it is required. A schedule of weekly activities is submitted to the local principal and superintendent. Many teachers also post a copy of their itinerary on the department door so visitors and others can locate them if needed.

Training of FFA officers is time well spent during the summer. Plans for the year can be formalized in the development of a chapter program of activities.

Teachers, like everybody else, need some time off. A definite time should be scheduled for a deserved vacation. True, some teachers forfeit their vacation time in order to attend graduate school.

Accountability — Webster says it is the quality or state of being accountable! On account of accountability, do away with "no-account" summer programs. ◆◆◆

Off-Farm Adult Education

Paul F. Pulse
Supervision
Columbus, Ohio

Paul Pulse

It is generally accepted that education is a lifelong process. Present day technology demands workers who possess new knowledge, skills and abilities that were not acquired during the period when they attended school. With the rapid changes in technology, it is not uncommon for an individual worker to change jobs five to seven times during his years of employment. This situation generates a great need for individuals to upgrade themselves in order to remain employable in their present situation or to be eligible for employment in a different job classification, hopefully a more rewarding career.

This situation should offer a great challenge to any educator and particularly to those in the field of vocational education. My comments will be confined to the field of Agricultural Education, the service of my employment. What has been done in the area of agricultural education to upgrade adults?

Since the passage of the Smith-Hughes Act in 1917, and before, agricultural educators have provided instruction for young and adult students beyond high school age with supplementary educational programs in local school districts. These programs were the result of advisory committees assisting local teachers of vocational agriculture in determining curriculum, instructional materials and the most competent resource personnel to conduct the programs.

Because all programs were concerned with production agriculture it was only natural to find that practically all efforts to serve adults were concerned with providing information to enrollees which would, when applied to their individual farming enterprises, result in an improved operation returning a greater profit to the enrollees in the programs.

During the 1971-72 school year two hundred sixty-one vocational agriculture teachers in Ohio served 11,973 adults with supplementary educational programs designed to upgrade the enrollees in the area of production agriculture.

This is good. Preliminary reports for the year 1972-73 indicate an increase in the number of programs and enrollees served. However, the potential number is far greater. We should be serving at least double this number. In the words of our State Director of Vocational Education, Dr. Byrl Shoemaker, "Pleased? yes! Satisfied? no!"

Now let us look at the present situation. Thus far we have only considered the area of production agriculture. What about the related fields of employment in off-farm agriculture? In Ohio there are at least ten to fifteen workers in agriculturally related off-farm jobs for every worker in actual production agriculture. For the school year 1971-72 in Ohio there were 495 teachers of vocational agriculture in all taxonomies — 300 were production agriculture.

Why have the teachers of vocational agriculture in the taxonomies of Agribusiness Service and Supply, Agricultural Industrial Mechanics, Food Processing, Horticulture, Resource Conservation, Forestry, and Environmental Management not provided continuing education programs in these taxonomies for the workers in these fields, and for those people who desire to prepare to enter these fields? A very few have. It can be done.

Since these taxonomies provide a greater potential number of enrollees than we have in production agriculture it would appear that we are "missing the boat" in not serving them. In my judgment these are the people we need to be concerned about. If we do not function in this area to meet the needs of this group it is very evident that some other agency will. Remember! "Education is a lifelong process." Can you think of any area of endeavor where technology changes any faster than in nonproduction fields related to production agriculture?

You, the teacher of these subjects in the local educational system, have been elected to a position of trust. You have had years of occupational experience combined with technical and professional training to the point that you have been certified by your State Department of Education to serve in the capacity of a teacher, to legally be paid for this service. You are licensed. You carry the "union card." You can make a real contribution to the welfare of the citizens of your district. "The fields are ripe unto harvest." Enlist the service of an advisory committee. Develop a curriculum to meet the needs of the group. Secure the instructional materials. Provide the best resource personnel. Visit employers and prospective enrollees.

You can provide a program in your taxonomy that will upgrade adults in their chosen careers. ◆◆◆

BEATING THE ENROLLMENT PROBLEM

Andrew L. Farrar, Teacher
Gretna, Virginia

Andrew Farrar

During the twelve years that I and my co-workers have been at Gretna Junior and Senior High Schools the enrollment in Vocational Agriculture and the FFA has increased from 76 to 178 members while this county lost in population according to the 1970 census. After making careful observations this school year, we are convinced that the involvement of students and parents is the key to solving the enrollment problems.

THE PROBLEMS

Across Virginia and the United States during the past decade our technology has reduced the number of employees needed in the production of food and fiber and a change had to be made to train individuals for marketable skills. General Mechanics was established to fill the void temporarily. The agricultural mechanics laboratories were not particularly suited for increased enrollments but the Vocational Education Act of 1963 enabled the local school division to meet their responsibility in the area of equipment and supplies.

Desegregation of schools required special training in human relations. However, because of excellent leadership the adjustments were made. Fortunately the staff in Vocational Agriculture in the school system were able to establish a very friendly relationship — a necessity, we found, because it allowed for constructive criticism as well as equal sharing of work and responsibility.

From our point of view, multiple-teacher departments require much work and much long-range planning. Yet those who have been involved with multiple-teacher situations, will agree that it gives greater impetus to be creative, to be imaginative, and to explore the exciting new approaches to learning in Vocational Education.

What has helped the enrollment problem? Some of the things we think contributed to it follow:

1. Participation in the local, state and national FFA organization
2. Informing the public of activities
3. Parent-Son Awards Banquets
4. Cooperation with other organizations in the community
5. Participation of staff in workshops and seminars for continuing education
6. Enthusiasm of resource personnel available to communities
7. Active adult and young farmer programs in the school
8. Periodic evaluation of the programs with an advisory council

Advisor, B. R. Guill (rear), with portable scale for weighing hog stock up to 3000 lbs. These students weighed animals on nine different farms for the spring show and sale. Awards are presented at spring Parent-Son Banquet for student with best average daily ga

Gretna Jr. High students displaying Crop and Mechanics projects with ribbons won at local agricultural fairs.

We sought answers to such questions as: What contributions to the welfare of individuals and families are real being made through the programs now being offered? How may these contributions continue to be maintained? How can present resources be used differently, or additional resources be obtained to extend the contributions of Vocational Agriculture to every student and family in the community who might profit from what the program has to offer?

Africa— SECONDARY EDUCATION IS VOCATIONAL EDUCATION IN TANZANIA

*Eugene Anderson**

Secondary schools are becoming vocational schools through a change now taking place in Tanzania. This East African country is attempting to accelerate its social and economic development by providing vocational education for all of its secondary school students. Vocational training is seen as the most realistic and appropriate type of secondary education for present-day Tanzania.

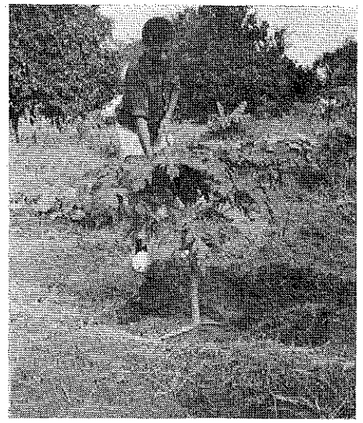
Two major factors have created the impetus for the change to vocational education. One of these factors is the limited resources available for education. Secondary and higher education serve a functional role in Tanzania because of this limitation. Investment in post-primary education is made, as it is in other segments of the economy, where it will result in the highest return to national development. The purpose of this education is to produce the trained manpower needed in the country. The type, amount, and level of post-primary education is determined by the projected manpower requirements of the national development plan. The change to vocational secondary education is an attempt to obtain a better return on the investment in secondary education.

The second factor which led to the adoption of vocational secondary education was the growing diversity between the secondary educational experience and the realities of life in Tanzania. The country had chosen a socialistic route to development. The major means of production, distribution, and marketing had been taken over by the Government. Social and economic equalization of the people was becoming a reality. However, the secondary schools were continuing in a traditional role established during the colonial period. An educated elite was being prepared for entry into higher education. Though only ten to fifteen percent of the secondary school graduates went on to higher education, the emphasis was on an arts and science preparation for college or university entry. The eighty-five to ninety percent not selected for higher education were considered "failures," though most of them obtained white-collar jobs. One of the problems of the majority of graduates was that an arts or science secondary education was of little practical value to them in these jobs.

Investment in post-primary education is made, as it is in other segments of the economy, where it will result in the highest return to national development.

A vocational education at the secondary level in Tanzania does not, as it does in the United States, prepare the student for entry into an occupation. Rather, its purpose is to provide the student with a vocational experience. This should enable him to effectively contribute to national development in the job to which he is assigned after completing his education. Very few secondary school graduates become farmers, mechanics, factory workers, or craftsmen. Some are selected for higher education. Most are assigned to employment in government or other organizations in supervisory, management, or educational positions.

National development in Tanzania is dependent upon the production of its farmers and laborers. The greater and more efficient this production is, the faster the nation will be developed. The role of the secondary school graduate in national development is to provide economic and social services such as education, medical treatment, marketing, and banking to the farmers and workers who are the producers.



A student cultivating a young papaya tree on the school farm at Tumaini Secondary School, Tanzania.

A vocational secondary education is intended to enable the student to become an effective contributor to national development. The general education and work experience in a particular vocational area is expected to make him aware of the area, more sympathetic to those working in that area, and thereby, more effective in his job.

Five vocational areas have been selected for the secondary school curriculum. These are: agriculture, technical, commerce, crafts and industry, and home economics. Initially, each secondary school will concentrate on one of these areas. Later, some schools will provide training in two or three of these vocational areas.

(Concluded on next page)

*Eugene Anderson taught three years at Tumaini Secondary School in Tanzania. He earned the B.S. and M.A. degrees in Agricultural Education at the University of Minnesota. He is now a doctoral candidate in Curriculum and Instruction at University of Wisconsin.

(Anderson—from previous page)

Agricultural Schools

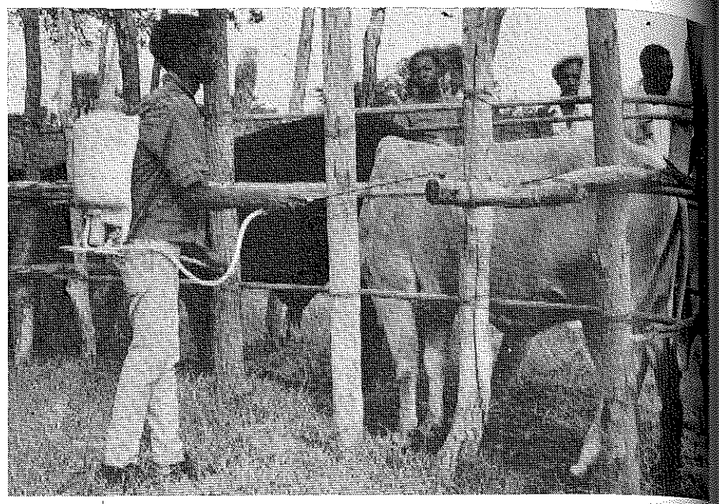
The agricultural secondary schools are an example of the new vocational emphasis in Tanzania. About thirty percent of the country's secondary schools will become agricultural schools as a result of the change to vocational education. This contrasts with the situation before the plan when only one of the 112 secondary schools in the country was teaching an agriculture course. The introduction of agricultural secondary schools is intended to contribute significantly toward national development because agriculture is the largest sector of the nation's economy.

Agriculture has been identified by the Tanzanian government as the base on which the social and economic development of the country will be built. Agriculture is important in Tanzania because no other segment of the economy is capable of producing the wealth needed to finance development. An estimated ninety-five percent of the population obtain their livelihood from agriculture. It is these twelve million people, most of whom are subsistence farmers, who must improve and increase their production in order that surplus agricultural products can be sold to finance the development of the country.

The purpose of the agricultural secondary schools is to produce graduates who have a general knowledge about agriculture production and who have developed an appreciation of farming, farmers, and rural life. They will then be better able to perform the jobs to which they will be assigned. The result should be more efficient and more rapid national development.

During the first two years, the students in an agricultural secondary school have twelve, forty-minute periods of agriculture class each week. This is increased to eighteen periods per week during the last two years. A total of forty-five class periods are prescribed each week. In addition to agriculture, the students study civics, Swahili, English, mathematics, chemistry, biology, geography, and history.

The first year of secondary school agriculture is an orientation to agriculture as the basis for national development. During that year, the importance of agriculture in the development of mankind is stressed from a socialist viewpoint. The emphasis is on socialist agricultural production for the most effective national development.



Students spraying cattle for ticks. Part of the dual purpose cattle project at Tumaini Secondary School, Tanzania.

The technical subject matter of agriculture is taught during the second and third years of secondary school. The instruction includes production of crops, livestock, poultry, bees, fish, and forests. In addition, a large part of the syllabus is devoted to agricultural economics and agricultural mechanics. The fourth year of the syllabus is devoted to planning, organizing, and managing socialist agricultural production.

The syllabus allocates approximately two-thirds of the agriculture class periods to practical work. This practical work is intended to be the application of principles taught in the classroom. Most Tanzanian secondary schools are boarding schools attended by students from all parts of the country so there are no "home" farms near by on which the students can do the practical work. The school farm is, therefore, a vital part of the agricultural secondary school.

The school farm serves four main purposes. First, it is a laboratory for the agriculture classes. The principles taught in the classroom are demonstrated and practiced on the farm.

A second purpose is to make the school partially self-sufficient. The farm is expected to produce a portion of the food needed by the students. Profits obtained from the sale of crops and livestock are used to reduce the school's operating budget.

Extension is a third function. The school farm is a center in the community for the demonstration of proper production techniques. It can serve as a source of new varieties of crops as well as a source of information and advice for the local farmers.

The fourth purpose of the school farm is to provide the students with experience in socialist management and operation of a productive enterprise. The farm provides an opportunity for the students to work together cooperatively. It is a laboratory for socialist development.

A Tanzanian agricultural secondary school, like other secondary schools in the country, is best understood if it is not viewed merely as a school. It is much more than a school. It is a community which includes students, teachers, classrooms, dormitories, dining hall, sports field, and farm. It includes physical work, classroom study, social activities, and political activities. It is a social, economic, and political unit where young Tanzanians live, work, study, and play together. It is where they learn to live socialism, nationalism, and agriculture. ◆◆◆

COMPETENCIES IN ORNAMENTAL HORTICULTURE

*Curtis E. Loewen**

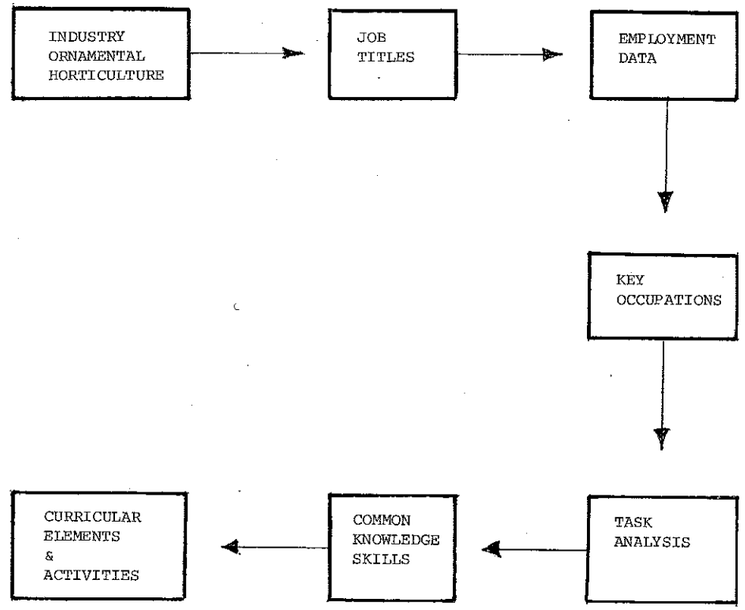
Curtis Loewen

Why do we teach asexual propagation in our ornamental horticulture programs? Are you aware that skills in taking cuttings and propagating plants are needed by very few employees in horticultural occupations?

What assurance do we have that the students graduating from our programs have the competencies needed for successful employment in the areas for which they are being trained? Are the competencies so general that they have little value for employment, or are they so specialized that they seriously limit the student's mobility for future change. What is the basis for your ornamental horticulture curriculum? What provision have you made for keeping it up to date?

During the past three years the author has been directly involved in a number of activities resulting in the identification of competencies needed for agricultural occupations in Oregon. A special project focused upon the determination of knowledge and skills required for the ornamental horticulture industry. The procedure employed to derive the competencies closely paralleled the approach used in developing Oregon's Occupational Cluster Guides. Ornamental horticulture was considered a sub-cluster, or one of the several industries within agriculture, containing several occupational groups. After each group was analyzed in terms of competencies needed for successful employment, the knowledge and skill items were reduced to those most common to all the horticultural occupations.

The following diagram illustrates the procedure used to bridge the gap between the industry and the curriculum:



A systematic procedure for bridging the gap between the industry and the preparatory training program.

The 1968 Amendments clearly stated that we were to provide training which is "realistic in the light of employment opportunities." We learned, shortly thereafter, that ornamental horticulture was the fastest growing industry in Oregon. This awareness suggested a need to determine what present and projected opportunities for employment do, in fact, exist in the industry. Our first step was to analyze the industry and its major occupational groups which included the florists, landscapers, nurserymen, greenhousemen, turf managers, parks and garden centers. Our primary source of basic information came from the various trade associations, i.e., Landscape Gardeners Association; Oregon Association of Nurserymen; Turf Managers Association; Associated Landscape Contractors. From this information we developed a

*This article is largely based upon Curt Loewen's Ed.D. dissertation, "A Curricular Model in Ornamental Horticulture for Vocational Agriculture in Oregon," which was completed at Oregon State University in May, 1970. A former teacher of vocational agriculture in Oregon, Dr. Loewen has been agribusiness Specialist with the Oregon Board of Education and is now a visiting professor, at Oregon State University, Corvallis, Oregon.

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ATTITUDES OF PROSPECTIVE AND PRESENT TEACHERS TOWARD SELECTED VOCATIONAL AGRICULTURE ACTIVITIES

Joe C. Combs

Joe C. Combs
Vocational Agriculture Teacher
Sunbright High School
Sunbright, Tennessee

and

John D. Todd
Vocational-Technical Education
University of Tennessee

John D. Todd

The job of teaching vocational agriculture involves many activities. Some teachers place emphasis on certain activities and show little regard for others. This can probably be justified when considering student and community needs, but often-time priorities given to activities are determined by attitudes which have been influenced by the background and teaching experience of the teacher. Even though attitudes are often determined by ones assessment of a situation that could vary from time to place, many of them become stereotyped and influenced by tradition irrespective of need or reason. Agricultural educators dedicated to promoting quality programs in vocational agriculture should be concerned about the influence on attitudes of teachers. There is probably a high correlation between the attitudes of teachers toward a certain activity and their performance in relation to accomplishing that activity.

What are some of the differences in attitude among persons involved with vocational agriculture programs which warrant a concern within agricultural education? Are there significant differences in attitude toward selected vocational agriculture activities between agricultural education teachers and those preparing for the profession? Are the variables of educational attainment, years of teaching experience, age, and size of school where the person teaches related to attitudes regarding vocational agriculture activities? A study was recently conducted at The University of Tennessee to determine some of these differences in attitude of prospective and present teachers toward selected vocational agriculture activities.[1]

The sample for the study was comprised of three groups. The first group consisted of 35 experienced teachers selected at random from all experienced teachers in Tennessee. Experienced teachers were those who had taught for ten or more years. The second group consisted of 26 first-year teachers representing all the first-year teachers in the state at the time the study was completed. The third group was comprised of 32 agricultural education students who were preparing to become teachers. These students had completed at least one agricultural education course but had not been enrolled in student teaching. The persons selected for the study completed a 40-item, attitudinal inventory relative to different activities of teaching vocational agriculture. Significant differences in attitude were determined by an analysis of variance or a t-test and tested at the .05 level of significance.

Major Findings

A summary of some of the major findings follow:

1. All persons included in the study gave a negative reaction to the statement that vocational agriculture teachers should be employed for only ten months. Experienced teachers and first-year teachers gave a more negative response to the statement than the agricultural education students. The responses of the teachers were significantly different from the students.
2. Experienced teachers gave a positive reaction to the statement that teachers should join all relevant professional organizations. This attitude was significantly different from the attitudes of first-year teachers and agricultural education students who both gave negative responses to the statement with students giving the more negative response.
3. Experienced teachers gave a positive reaction to the statement that regular class time should be used for FFA activities. There were significant differences among all three groups for this statement. First-year teachers and agricultural education students expressed a negative reaction, with the students giving the more negative response.
4. Experienced teachers gave the least positive reaction to the statement that an advisory group should be used to help plan the course of study. Their reaction differed significantly from the other two groups.
5. Experienced teachers expressed a negative reaction to the statement that vocational agriculture teachers should teach adult classes. Their reaction was significantly different from the other two groups who gave positive reactions to the statement. Experienced teachers gave a positive reaction to the statement that area adults should be allowed to use the agricultural mechanics facilities. This reaction was significantly different from

(Continued on next page)

1. Combs, Joe C. "Attitudes of Prospective and Present Agricultural Education Teachers Toward Selected Vocational Agriculture Activities," unpublished Master's thesis, University of Tennessee, Knoxville, 1973.

Advisory Councils and Summer Accountability

Welch Barnett
State Supervisor
Agricultural Education Service, Ohio

Welch Barnett

Identifying needed summer program activities can be accomplished through the guidance of a local advisory committee.

Teachers of Agricultural Education programs must know what they are accountable for and to whom they are accountable. The length of the program, and therefore, the amount of employment during the summer months must be established in terms of need. This can be accomplished through the guidance of a local advisory committee composed largely of persons from the area of agriculture for which the local program is designed to train individuals. Obviously, school board members must officially act on such a decision. The teacher must be accountable to the administrative personnel in the school district. He may be accountable to the building principal or vocational director, or the superintendent of schools, in addition to the students and the people of the school district community.

Since the teacher is the one who knows the program best he should submit what he believes he is accountable for, to the school administration for their review, revision, and approval if needed. Many times we have informed teachers that they must be accountable but we have not always given them the direction and assistance needed to determine specifically for what they are accountable.

Some important areas of teacher accountability in vocational agricultural education are the areas of related (classroom) instruction, the subsequent development of student occupational experience programs, and adequate vocational supervision of these programs. Thus the student will be provided with the opportunity to acquire the knowledge and performance skills so that he can be successful in the area of employment for which the training is designed. The teacher who has worked for years in the particular area of study is generally at a distinct advantage here.

The yearly program of FFA activities for citizenship, leadership, and personal development needs much attention as an integral part of the program. It is in this area that the technically capable teacher often needs additional in-service education.

Teachers of vocational programs in agricultural education need now more than ever to be a part of their professional organization and conduct themselves accordingly. No one is better qualified to get an audience with and effectively help his fellow teacher than those of us who are teachers.

Accountability during the time school is not in session has been a concern for some time. A detailed plan for student instruction and supervision during the summer months must be submitted to the school administration before June 1 of each year. This must be updated often, possibly each week during the summer. The teachers travel report also, if properly completed, gives additional valuable opportunity for accountability by providing a daily itinerary of the teacher's activities. Soon after the first of September of each year, a written summary of the summer activities must be submitted to the school administration. Certainly individualized and group instruction and the supervision for further development and expansion of the student's occupational experience programs should receive at least 75 percent of the teacher's time.

Local support for a program in agricultural education can exist only when the local people are informed of the purpose of the program, the number of individuals served, and the role of the teacher in planning and conducting the program. An active, well directed advisory committee can assist the teacher in identifying those things for which he is accountable, and help inform the public of the program and the service the community is receiving. ◆◆◆

(Combs and Todd—from page 260)

the other two groups who gave negative responses to the statement. These findings may appear inconsistent but teaching adult classes would involve more teacher time than permitting adults to use the shop facilities.

6. Experienced teachers gave the least positive reaction to the statement that FFA chapters should be allowed to conduct sales projects and also to the statement that constructing articles in the shop was an effective way to finance an agricultural mechanics program. Their reactions to these statements were significantly different from the responses of the agricultural education students.
7. All groups felt that teachers of vocational agriculture were not sufficiently trained to teach agricultural mechanics. The first-year teachers gave the most negative response to this statement and it differed significantly from the other two groups. This finding seem to indicate that first-year teachers are made cognizant of this deficiency when confronted with their first teaching experience.

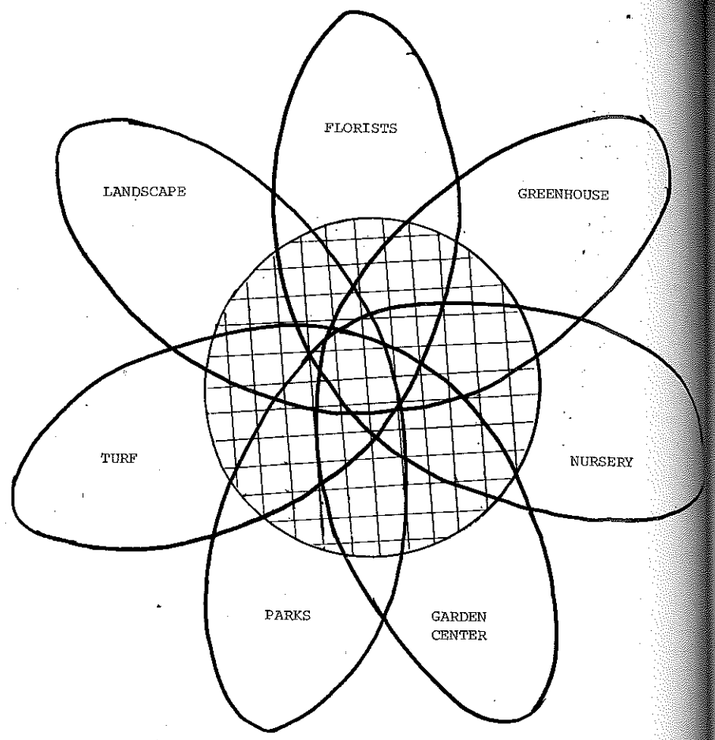
(Concluded on page 263)

(Loewen—from page 259)

list of job titles, allowing for additions to be made, and introduced it to the State Department of Employment. Their cooperation with the Oregon Board of Education resulted in a statewide manpower survey of the ornamental horticulture industry. The data obtained from the returned questionnaires not only verified the expanding employment need but also revealed that, for the most part, the job titles used had little meaning since the industry was developing so rapidly, hence standard job descriptions were inappropriate.

The next step involved a determination of the key, or most numerous, occupations found in each of the seven occupational groups. Since the job titles held little significance it was agreed upon by each of the subgroups that the term "worker" would be adequate to represent the group, i.e., landscape worker, garden center worker. Once these "worker" designations were assigned a task analysis was made for each of the representative (key) jobs in the seven occupational areas. Prior to the formal interviews an initial list of competencies was obtained by meeting with small groups of employers from each of the seven areas. At that time, a blank sheet of paper was used to list the tasks performed on the job for these respective workers. The tasks were derived from the question, "What does the worker do?" Frequently, the answer "He needs to know (thus and so)," i.e., mechanics, chemistry, botany. Immediately the author's response would be, "He needs to know (thus and so) in order to *do what?*" After the lists of the worker tasks were completed, they were combined and grouped under four categories: technical, business, human relations and communications. The competency list was reviewed, modified and accepted by an advisory committee representing each of the seven groups. This list of competencies served as the basis for the checklist used during the subsequent formal interviews.

A stratified, purposive random sample was drawn from a population of 180 firms and agencies, each one of which had a minimum of two full-time hired workers. A sample of eight firms and/or agencies was drawn from each of the seven occupational groups, making a total of 56 ornamental horticulture business firms or agencies to be interviewed. The instrument used included a list of 100 competencies considered most important by the advisory committee in performing worker tasks. The 56 employers interviewed responded by checking one of four options relating to the competency, whether it was "essential," "important," "useful" or "not needed." Not only were the competencies rated from 1 to 100 for each of the seven groups but they were subsequently combined and given rank order as a composite of the total ornamental horticulture industry. A final list of 45 common competencies evolved as being those in which 50 percent or more of the 56 respondents rated "essential" or "important" for ornamental horticulture occupations.



Shaded area represents the common competencies needed for all ornamental horticultural occupations.

The following diagram shows overlapping concentric circles representing the seven occupational groups within the ornamental horticulture industry. The shaded area suggests the common competencies where the circles overlap. The farther away from the center one moves, the more specialized the competencies become.

A few highlights of the findings showed strong agreement among the employer respondents in the importance of human relations and communications skills in horticultural occupations. All six items included in the study ranked within the first nine placings, out of 100 total, with "maintaining good relations" at the top. Technical knowledge and skills considered most important were in the areas of plant growth and development, soil composition and drainage, fertilizer materials, pest control, operating and maintaining small equipment and, in addition, basic business operation. Incidentally, "propagating by plant part" ranked below the criterion level to qualify as a common comp-

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(Turner—from page 253)

3. Invite the community to "open house."
4. Sponsor a banquet.
5. Distribute calendars depicting FFA activities.

One method that has been used extensively in my community to inform the public of programs being provided is the school survey for the employment of graduates. According to recent studies, an all-out campaign should be launched to acquaint the public with the purpose and value of the agricultural program. Personal contact should be made with agricultural businessmen, farmers, and key people throughout the community to help convey this message. This type of public relations activity will help to encourage the public to cooperate in aiding the agricultural department in developing, administering and evaluating the total program. The data gathered through surveys would indicate the extent to which employment opportunities will exist in agriculture and related occupations in the future. Efforts should be made to identify the type of jobs which will become available and the skills needed to carry out these jobs. This type of job analysis will give direction to curriculum development in addition to providing teachers with up-to-date information that can be used by the teachers to help strengthen their career guidance role.

Make Impression

In concluding, the responsibility of a good summer program is left entirely to the local teacher of agricultural education. Emphasis must be placed on planning and executing a program which justifies twelve-month employment. We must remain cognizant of the fact that we are educators first and foremost. We must plan our activities and work our plan in order to remain a viable profession as we have in the past. Put forth every effort to improve our image throughout the community by launching a public relations campaign. We need to keep in mind that we never get a second chance to make a good first impression. ◆◆◆

(Loewen—from page 262)

tency. However, upon further analysis it became apparent that by including plant propagation as a *learning activity* other important competencies could be developed, i.e., determining environmental factors affecting plant growth.

The final list of common competencies derived from the above process provides a valid basis for preparing students for all ornamental horticulture occupations. This common core also has ramifications for articulating secondary and post-secondary programs and for in-service and pre-service teacher education. Obviously, the teacher needs to be able to perform the competencies in order to effectively transmit them to the student. The above procedure may also be applied to other industries as well. Hopefully, it can serve as a model for obtaining occupational information as a basis for curriculum development and improvement. ◆◆◆

Tour Scheduled

The University of Akron is planning a 21-day occupational education study tour to Morocco, Greece, Turkey, Spain, and Portugal. The tour leaves New York June 24, 1974 and returns July 15, 1974.

Tour participants may earn five quarter hours graduate credit.

For further information, please write Dr. Bill J. Frye, College of Education, The University of Akron, Akron, Ohio 44325.

(Combs and Todd—from page 261)

8. Teachers with only a Bachelor of Science degree gave the most positive reaction to the statement that FFA officers should be required to attend leadership training camp. Their reactions differed significantly from teachers with more educational training.
9. Teachers from all age groups gave positive responses to the statement that the advisory council should represent a cross-section of persons in the community, but teachers who were over 50 years of age gave the most positive reaction to this statement which was significantly different from reactions of teachers representing other age groups.
10. All teachers reacted positively to the statement that there should be one scheduled period per day for planning and counseling. Teachers who taught in schools with 500 or more students gave the most positive reaction to this statement, and their responses were significantly different from teachers representing smaller schools.

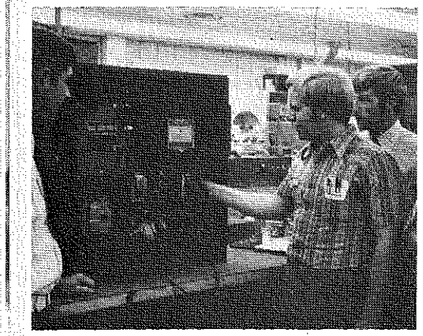
Conclusions and Recommendations

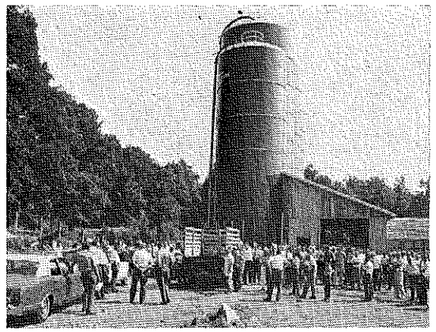
Many of the differences in attitudes which were found among the respondents were deemed important. Many of the differences related to the activities considered essential for conducting quality programs in vocational agriculture. There were significant differences in attitudes relating to the following activities:

a. Use of advisory committees
b. Number of months for yearly employment
c. Youth leadership activities
d. Membership in professional organizations
e. Teaching of adults
f. Agricultural mechanics program
g. Scheduled time for planning

There should be unity of attitude with many of these facets of the program among persons involved in agricultural education. Pre- and in-service education should be directed toward developing teachers with the proper attitudes for conducting quality programs. Since persons preparing to become teachers have definite attitudes toward teaching vocational agriculture, recruitment efforts should be directed toward obtaining persons with a good background for the profession. ◆◆◆

So Much To Do So Little Time

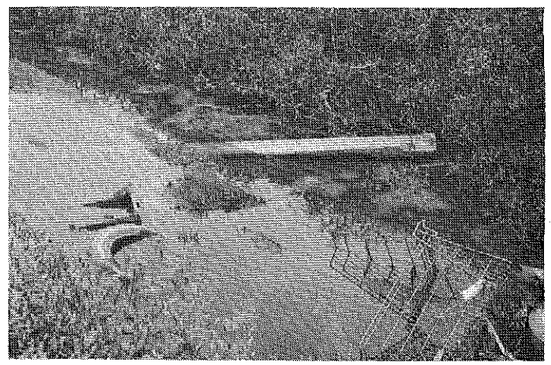


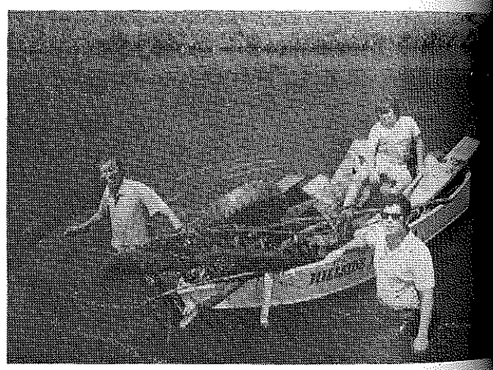


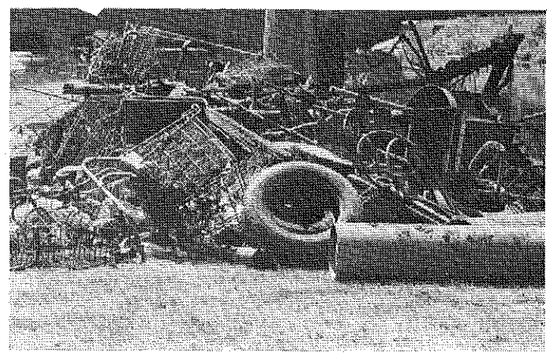
Attend In-Service Workshops (above left) — These South D Vo. Ag. Instructors are getting up to date on the new "C Fault Interrupter" circuits. (Photo from Gary McVey, Dakota State University) Set Up Young and Adult Farmer (above center) — Summer is an ideal time to do the work" on upcoming tours and Field days. (Photo from Meyers Jr. Ag. Ed. Supervisor from Virginia) Improve Te Education (above right) — Dr. Larry Miller, (second from Virginia Polytechnic Institute, is using video tape to demon the Flander's Interaction Analysis system of observing (te Cooperating teachers have considerable impact on teacher cation. (Photo by Jasper Lee, Virginia Ag. Ed. Dept.) Improve America (below) — This sequence of pictures de the efforts of the Elizabeth River Conservation and Beautific Committee to clean the river of pollution and debris and ma a habitation for pan fish. The photos won first place in the category of the 1973 Keep America Beautiful/Kodak Awards. (Photos from Kodak News)

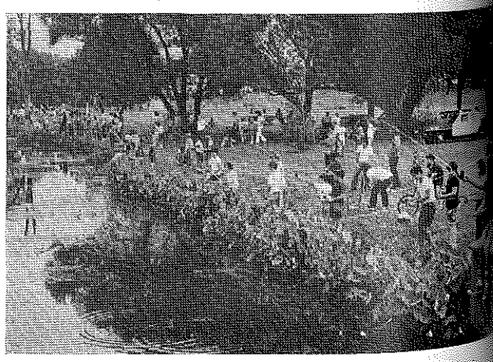
Stories in Pictures

by Richard Douglass









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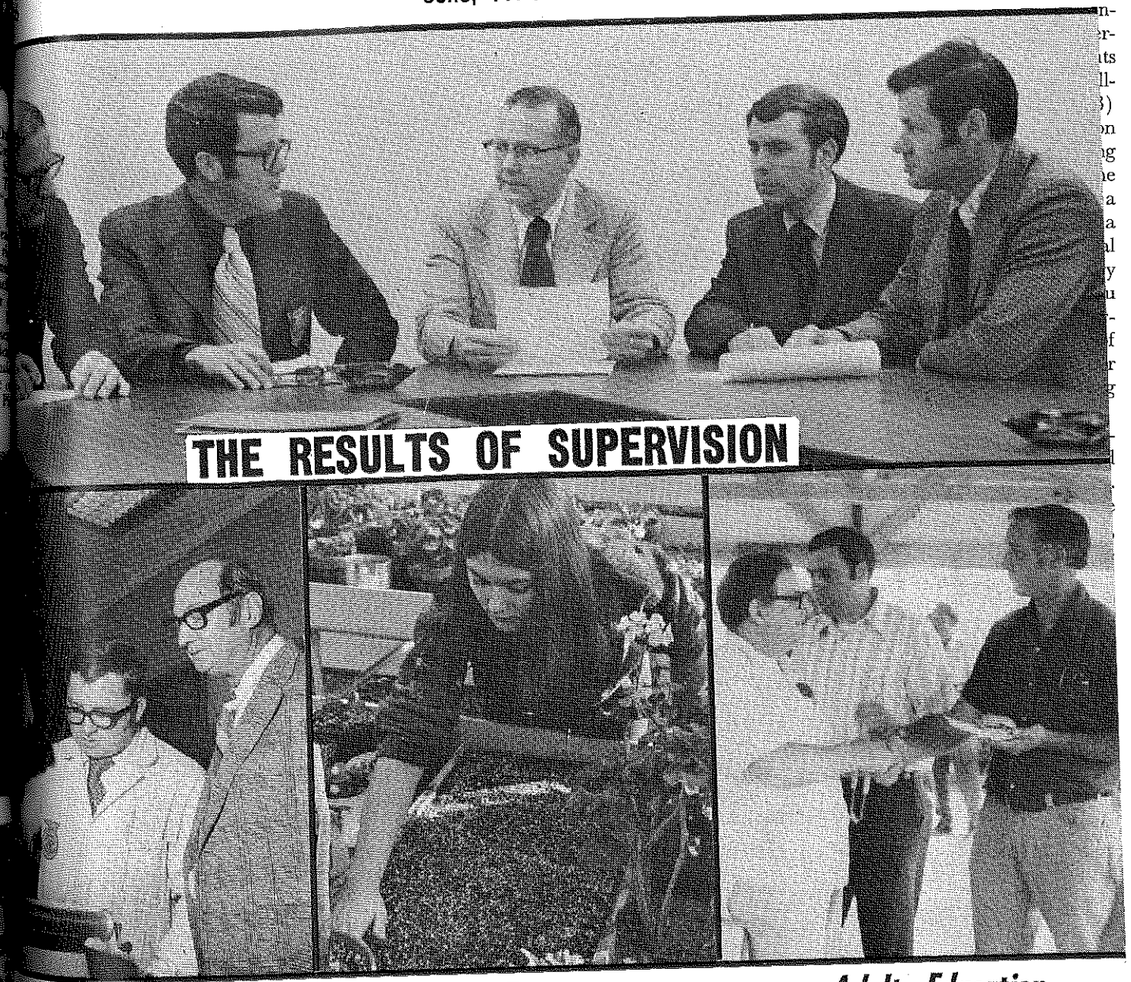

THE RESULTS OF SUPERVISION

roved Teaching *New Programs* *Adult Education*

Theme—ADMINISTRATION AND SUPERVISION

Plus—Guidelines for Adult Education