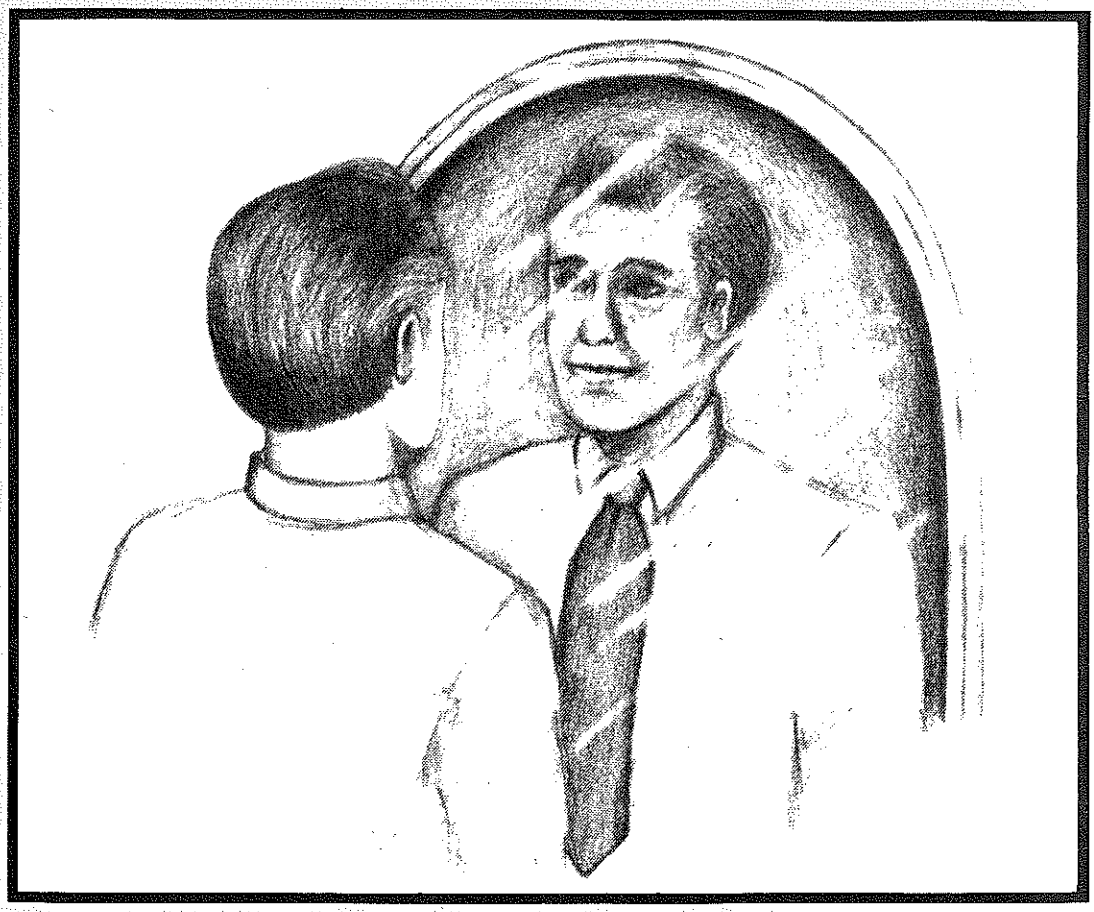
The
Agricultural Education
Magazine

September 1985
Volume 58
Number 3



Reflections: Seeing Yourself As Others See You

THEME: The Teacher Of Vocational Agriculture

1986 Themes

ISSUE AND THEME	DATE DUE	THEME EDITOR
JANUARY Vocational Agriculture and the Excellence Movement	Sept. 13, 1985	Dr. Ronald A. Brown Agricultural & Extension Education Department P.O. Drawer AV Mississippi State, MS 39762
FEBRUARY Staying Current: Agricultural Mechanics	Oct. 11, 1985	Dr. Roger D. Perritt S.F. Austin State University Dept. of Agricultural Ed. Nacogdoches, TX 75962
MARCH Staying Current: Agribusiness and Farm Management	Nov. 15, 1985	Dr. Edgar A. Persons Dept. of Vo. & Tech. Ed. University of Minnesota 320 Vo Tech Building St. Paul, MN 55108
APRIL Staying Current: Crop & Food Production	Dec. 13, 1985	Dr. Doug Bishop Dept. of Agricultural & Industrial Education Montana State University Bozeman, MT 59717
MAY Staying Current: Forestry and Natural Resources	Jan. 10, 1986	Dr. Danny L. Cheatham Agricultural & Extension Education Department P.O. Drawer AV. Mississippi State, MS 39762
JUNE Staying Current: Animal Agriculture	Feb. 14, 1986	Dr. Ray Herren Oregon State University Extension Hall 125 Corvallis, OR 97331
JULY Staying Current: Classroom and Laboratory Management	March 14, 1986	Dr. Gary Moore Ag. Ed. Department Louisiana State University Baton Rouge, LA 70803
AUGUST Staying Current: Youth Organizations	April 11, 1986	Mr. Robert A. Seefeldt National FFA Center P.O. Box 15160 Alexandria, VA 22309
SEPTEMBER Staying Current: High Technology	May 16, 1986	Dr. Fred Reneau Agricultural Education Southern Illinois University Carbondale, IL 62901
OCTOBER Staying Current: Small Animals and Specialty Crops	June 13, 1986	Dr. James A. Knight, Jr. The Ohio State University 208 Agricultural Admin. Bldg. 2120 Fyffe Road Columbus, OH 43210-1099
NOVEMBER Staying Current: Professional Affairs	July 11, 1986	Mr. Rosco Vaughn Vocational Ag. Education State Department of Education Box 3501 New Mexico State University Las Cruces, NM 88003
DECEMBER Staying Current: Horticulture	August 15, 1986	Mr. Carroll Shry Vocational Agriculture Teacher 11622 Cragerstown Road Woodsboro, MD 21798

THEME

Seeing Yourself As Others See You

By Don R. Herring, Theme Editor

(Editor's Note: Dr. Herring is a Professor in the Department of Agriculture Education at Texas A&M University, College Station, Texas 77843.)

The opening of a new school year has always been exciting to me. For school personnel, September marks the beginning of our "New Year." It is time for reflection, for new resolve, for new enthusiasm, and for renewed dedication to do the best possible job in the new school year. It is a most appropriate month to devote an issue of The Agricultural Education Magazine to "The Teacher of Vocational Agriculture."

Reflections

Mirrors serve an important purpose in our lives as we prepare to face each new day. We may not always like everything we see in them, but they certainly reveal who we are physically, and they provide a strong source of motivation to improve our appearance. However, we not only need to see ourselves from our perspective, but from time to time we need to see ourselves as others see us. Introspection is good, to a certain point, but it is also valuable to look to other sources for assessment. Evaluation experts have long recognized the value of including persons from the outside on evaluation teams.

Not a single person currently teaching vocational agriculture is an author for this issue. This was deliberate. The entire focus is on how those on the fringe view the contemporary teacher of vocational agriculture — a former student, a parent, a spouse, an agribusiness person, a college dean, a school superintendent, and a former teacher and his spouse. Additionally, two articles deal with a futuristic view of the teacher of vocational agriculture. One discusses how to prepare the teacher of the future and the other analyzes the role of the future teacher as a manager of technology.

Expected Reactions

Teachers who read this issue will likely have two reactions. First, they will feel proud, and rightfully so, that the writers perceived them in such a positive way. The overwhelming view presented is that vocational agriculture teachers are a wholesome, well-educated, dedicated group of professionals who serve as excellent role models for students.

Second, they will realize that there are tremendous challenges for the future that will not permit them to rest on the laurels of past achievements. The need to stay up-to-date technically and professionally comes through loud and clear. Teachers must embrace with enthusiasm the computer age in which we are all living. They must work hard to convey a better image of agriculture and agricultural education to the general public. They must help students understand the complex structure of agribusiness, and the tremendously important role that agriculture will play in our world.

They must cooperate more with the agribusiness community and find innovative ways to involve persons from agribusiness in the educational process. They must do a better job of individualizing instruction to meet the needs of a diversified student population. They must find the correct balance between classroom instruction and opportunities for hands-on learning experiences for students. And with all these professional challenges, they must also seek to have balanced lives with quality time reserved for spouse and family, and for spiritual, physical and social development.

The messages in this issue are not just for teachers. Those in teacher education, supervision, curriculum development, and administration must see the handwriting on the wall. How can we best prepare and assist teachers to meet the opportunities and challenges of the future?

The Cover

"Reflections: Seeing yourself as others see you" fits perfectly the theme of this issue.

(Drawing courtesy of Margaret Glazner, Artist, Vocational Instructional Services, Texas A&M University).

Coming in October . . .

Theme: Elementary and Pre-Vocational Programs

THEME

Perspective Of A Former Student

By Ron Wineinger

(Editor's Note: Mr. Wineinger is a student of Agricultural Economics at Kansas State University, Manhattan, Kansas 66506.)

Lu Archilles Wall, former chairperson of the National FFA Foundation Sponsoring Committee, annually attends my home FFA chapter banquet. The first year she participated was my junior year in high school. After the program was completed, she commented that she was amazed that our advisor had no part in the program. Students made all the presentations and completed every detail with precision. Afterwards, when she questions our instructor of his whereabouts during the banquet, he simply said, "We've got a lot of good kids." In every strong program, similar responses are common. Well prepared students allowed to gain leadership and work experiences on their own indicates the highest degree of professionalism in agricultural education.

Professional Development

Agriculture has many facets, and students in a single department will be interested in many different agricultural career areas. I have always wondered how vocational agriculture teachers could be knowledgeable, not to mention even interested, in such an array of scientific and high-tech fields. Keeping up-to-date in a rapidly changing industry is a dilemma of the vocational agriculture teacher. Perhaps it is the greatest challenge in agricultural education.

Obviously, a basic understanding of the industry is mandatory for anyone pursueing a career in agriculture. But, with fewer students returning to the farm, there is no longer a great need for generalists. Specific skills for specific jobs are in tremendous demand.

Students in a single class might have interests in beef cattle, diesel mechanics, chemical sales, beekeeping, and futures marketing. Other than providing a general background in plant science, animal science, mechanics and other basic agricultural sciences; an instructor's expertise might be stretched to the limit. Where does a teacher find current, valuable curriculum materials and equipment? When the curriculum and equipment are found, can the program budget afford it?

Successful teachers recognize their limits and do not claim mastery of an ability not possessed. Continual education and utilization of community resources is key to providing students the best possible training.

Respect of Students

Even if an instructor was competent in every field of agriculture, it would not be enough. Some of the brightest people I know would be steamrolled by students. Respect is not quickly earned. It is a cultivated element, necessary and irreplaceable.

Student respect is earned by different individuals in different ways. I have witnessed strict disciplinarians who received less respect than Rodney Dangerfield. I have seen others with a softer tone granted admiration and attention.

Respect is awarded to those who are just and sincere. My local vocational agriculture teacher annually spends the first day of class very meticulously explaining the rules of the program. When all questions are answered, it is apparent that a contract agreement has been reached. All students are fully aware of the consequences of a breach of that contract. There is no trial, no jury. There is no leniency, no plea bargaining.

Specific punishment is the result of specific misconduct. Rewards are given in the same precise manner. A student can always expect these responses to excellent work: congratulations from the teacher, display of work or winnings in the classroom, and placement of his or her name in the school's morning announcements. The peer recognition is often a more effective motivator than any plaque or trophy could be.

Motivating Students

Students need self-motivation. Instructors who instill self-motivation best serve their own and their student's interests.

External motivations are abundant and effective. The popular movie "Raiders of the Lost Ark" is a perfect example. In "Raiders," a new stimulus appears on the screen every 7 seconds on the average. Television, radio, and social activities provide entertainment of almost equal excitement.

No wonder some students are disinterested in classroom materials. By comparison, almost any activity is boring. Since mental pleasure and fulfillment are easily accessible, is it any wonder that initiative is a rare commodity? When no effort is needed to find satisfaction, why put forth any? Competing with such attention-grabbers is difficult. Once again, however, successful teachers find ways to allow students to motivate themselves.

The rewards of outstanding performance and the consequences of poor performance provide a need to excel. A feeling of self-satisfaction and the praise of peers and adults develop a desire for quality.

My classmates and I were most motivated by a desire to please our teacher and by a fear of the feeling we brought on ourselves if we ever disappointed him. Students I have visited in all successful programs were similarly motivated. But there are no sure-fire plans for developing self-motivation. It, too, is a function of each instructor's approach to the program.

A Role Model

John Naisbitt, in Megatrends, tells us that high-touch environments are necessary to combat the coldness of high-tech. Successful instructors create such an atmosphere. The teacher's personality is reflected in every program. Therefore, the personal example set by the teacher becomes a guiding force in each student's personal character development.

The need for appropriate role models has never been greater. Is there any wonder that young people are confused about proper behavior and responses? Considering uncertainty of the future, peer pressure, minimal parental guidance, mass media violence and lack of respect for authority, conduct in most vocational agriculture departments is remarkably good!

Demanding discipline is a simple act. Living a disciplined life is not. On class trips or FFA outings, I shudder at the sight of advisors who stay out after curfew hours set for their students. My ears sting when profanity is part of the routine vocabulary used with students. As minors, students should never have alcohol. I have been with too many students who were obviously aware their instructors were not playing by the same rules. Student expectations will never be greater than those of their instructors.

Every school has teachers who believe their duties extend beyond 4 p.m. and the four classroom walls. At reunion time, high school alumni are most anxious to see those instructors again. Those were the instructors who set standards for high quality work and provided examples of high personal character.

Obviously, a vocational agriculture teacher cannot be all things to all people. They cannot be expected to be perfect. But, it is not difficult to recognize that some traits and methods are more effective than others.

Summary

Effective teachers of vocational agriculture attempt to stay current in the field. Respect is earned and granted. Motivation is provided. And the instructor sets a personal example of appropriate conduct, in and out of the classroom.

As a former student and as someone who has observed numerous teachers, I have the utmost respect for vocational agriculture instructors. My father is one. And at next year's chapter banquet, people will once again marvel at the performance of the students and wonder where their teacher was during the evening.

THEME

Perspective Of A Parent

Explaining the role of the vocational agriculture teacher from a parent's point of view is quite an assignment! Can there be a typical profile, pattern, or mold into which most agriculture teachers fit? In a state as diverse as Arizona, for example, are the vocational agriculture programs similar while allowing for community needs and adaptations?

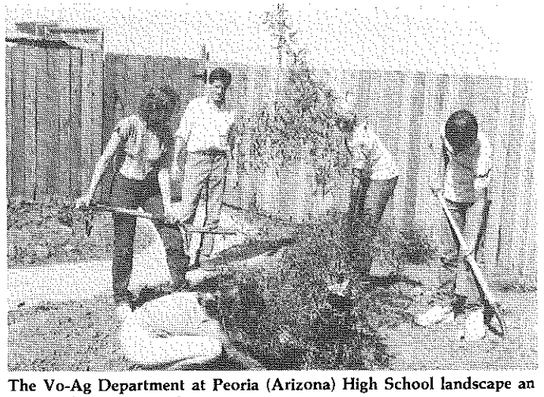
Most consumers of food and fiber take agriculture for granted. In fact, few people who eat their three-squares-a-day and enjoy the usage of fibers in linens and in clothing really consider that agriculture makes these necessities and amenities available. By the same token, it is safe to say that most of us take our educators for granted.

By Rena May Lawson

(Editor's Note: Ms. Lawson resides at 7202 W. Thunderbird Road, Peoria, Arizona 85345.)

(Continued on Page 8)

Leo Peterson, vo-ag teacher, Westwood High School, Mesa, Arizona, instructs a student on raking alfalfa at the school's land laboratory.



The Vo-Ag Department at Peoria (Arizona) High School landscape an area of the campus each year.

Perspective Of A Parent

(Continued from Page 7)

Commitment

In recent years, it has been a privilege to know a number of vocational agriculture teachers. Without hesitation, my impression is of wholesome, dedicated, inspiring, industrious men and women. These educators do a terrific job in public relations, relate well to young people, serve as role models, and have a desire to help equip their students as productive, well-adjusted citizens.

The commitment to writing this article necessitated facing-up to some harsh, frightening facts. I really know very little about the vocational educators and the potential programs. Yes, we supported our daughter in her desire to enter the program as a high school freshman, putting faith in the teachers by permitting her to be in those classes. We willingly attended the chapter banquets, encouraged her in production agriculture with the requirement that she would do the hard, physical work involved; gladly supported her and her teammates as state officers, then, so very proudly saw the culmination of six years in FFA when she was elected National Vice President of the Western Region of the Future Farmers of America.

All those years, we respected her agriculture teacher, Mr. James Brown of Cactus High School, Peoria, Arizona. We realized how many hours he had dedicated to helping with records, visiting her projects, and being a competent mentor in her success in public speaking. As parents, we had tried to do our part, but the achievements required the motivation and the nurturing of devoted educators.

Observing these wonderful experiences, even absorbing the enthusiasm by sitting on the sidelines, did not equip this parent to write an article for publication. Total lack of knowledge sent me on a quest to gain insight into the realm of vocational agriculture teachers. The multifaceted programs, the expertise of the teachers, plus the willingness of these masters to share their precious time with one more person proved amazing!

What I Discovered

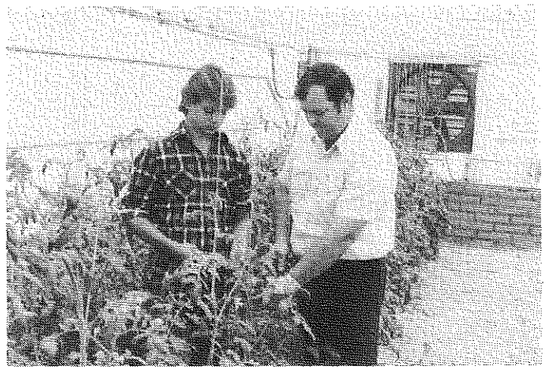
My nervous apprehension at visiting local programs turned into delightful meetings. The Phoenix metropolitan area provides great diversity. The Peoria Schools are rapidly changing from rural, small-town environs to an urban, high-density-population region. Consequently, the schools must adapt their programs to meet the changing needs of all students. Vocational agriculture must stress production agriculture as well as the related agribusiness curriculum, knowing that production agriculture will soon be history around Peoria.

Buckeye, Arizona, is a town surrounded by cotton, alfalfa, and dairy farms. Its outstanding agriculture program is filled with many students. The basic crop production course taught at Buckeye is cotton, with applications carrying over to other crop programs. Because Buckeye is less than thirty miles from Phoenix, this proximity to a metropolis does influence the students' outlook. Students see that for many in the city, an eight-hour job constitutes a normal day's work; whereas, farming often requires a 14-to-16-hour day, even around-the-clock when irrigation is the order of the day.

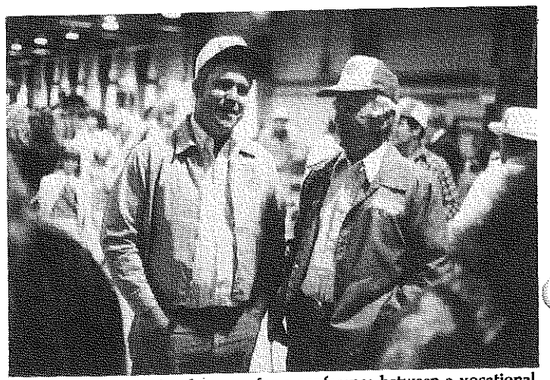
Westwood and Dobson High Schools are strictly urban schools in the middle of Mesa, Arizona. These schools' highly successful vocational agriculture programs revolve around agriculture resources. This encompasses range management, fish and wildlife resources, outdoor recreation, surveying, forestry, and ecology. The urban schools have a large emphasis on ornamental horticulture and turf management. In fact, some of the city students have already developed small businesses of their own to supply the nurseries and landscapers with the plants which are in great demand.

The vocational agriculture teachers interviewed all expressed that they were in this field of education by choice. Several stated that their first preference upon high school graduation had been farming. Because that was not an economically feasible opportunity, they had chosen as the best alternative agricultural education. All expressed immense satisfaction in teaching the broader background of knowledge available to them and in the delight of working with young people, knowing they are helping mold young people into well-adjusted, productive citizens with realistic future goals.

Mr. James Brown of Cactus High School, Peoria, Arizona, stated, "My experience as a teacher is a neat thing. Most teachers see a young person one hour a day for a semester or two, and often forget the name when the student is gone. I develop a strong relationship. The kids often return after graduation. They are still my pupils. This ongoing relationship is a rewarding payoff for teaching."



Individual work with students helps build strong interpersonal relationships.



A county fair provides the scene for a conference between a vocational agriculture instructor and county extension agent.

Mr. Jack Turner of Buckeye, Arizona, expressed, "I like agriculture. I like kids. Working with these kids is fun. It is exciting to see them mature from freshman into what they become. When they take office, particularly a state office, dramatic changes are seen in one year."

Mr. Nathan Moore of Westwood High School, Mesa, Arizona, was asked if their school tried to recruit students into vocational agriculture classes. He replied, "There's the old adage about leading a horse to water and not getting him to drink; but, we are firm believers that you can salt the oats. We do feel we give an appetite for the product of learning agricultural skills and competencies. We feel like we know our product here, and we offer employment in ag-related fields after completion of our program, or upon further training." Westwood teachers educate the school counselors and try to keep them abreast of the agriculture programs. Their administration is highly supportive. Westwood has surveys showing that this urban school has ranked first and second in the state for the past seven years as having the highest retention of students going into ag-related careers. About 60% to 70% of the vocational agriculture students enter employment in agricultural programs. This is quite a tribute to successful agriculture teachers!

Many times "city slickers" tend to drape farmers with a disparaging aura of crude clodhoppers or clover-kickers. When asked if farmers ever come to the agriculture teachers for advice, all the teachers replied that they are glad to help in this capacity. One observed that farmers are not uneducated bumpkins. Most are well-educated and are already practicing things that are being taught in the classrooms. In fact, the local farmers, as well as agribusinesspersons, are often used as resource people who give assistance to pupils and teachers.

Are the academics overlooked or minimized in vocational agriculture programs? The teachers interviewed were specific in noting that all education is vocational education. The skills learned in language arts, mathematics, social studies, and science are vocational since they are needed for individuals to function in their chosen occupations. Realizing that each student has academic abilities and skills, the teachers cater to and reinforce the skills through vocational application.

John Mulcahy of Peoria High School, Peoria, Arizona, remarked, "I feel there is an artificial distinction between academics and vocational training. In vocational agriculture, we do remediation in math skills in order to teach irrigation, mechanics, etc. We also do remediation in English and grammar skills as students prepare reports and work on speech writing. We probably do more to enforce basic skills than is done in any other area of electives."

As far as coping with the learning abilities of the students, teachers deal with both ends of the IQ continuum, from low to high abilities. There is a consensus that the vocational agriculture programs enhance the students' capabilities in all subject matter. The success students find in problem solving, working with their hands, and dealing with live plants and animals tends to whet their desire to improve in academia. Students suddenly see that much seemingly boring, abstract subject matter has definite application, and is, in fact, essential to solving their own occupational goals. Oftentimes, it is under the instruction of conscientious vocational agriculture teachers that many students lose their insecurities as they enjoy their first successes, sense genuine acceptance, and begin to develop a real feeling of self-worth.

Linda Proctor of Dobson High School, Mesa, Arizona, observed that their strictly urban program is growing rapidly. Their three-year-old program will be adding two teachers next year. Dobson has doubled the enrollment for three years in a row, evidence that the teachers are doing the super job which is causing the students and the community to respond. Mrs. Proctor said, "We require a 2.5 grade point average before our students can leave the school to attend the county fair, livestock shows, Ag Day, or any vocational agriculture function that occurs on a school day. We feel that if they are slightly above average, they can handle the makeup work. Thus, vocational agriculture is a good incentive to keep up the grades." All Arizona seniors are required to take a class in the free-enterprise system for graduation. Dobson's senior agricultural business program has been accepted by the state as a free enterprise system credit for seniors.

My husband and I were invited by the alumni association to attend the dedication of the Dobson vocational agriculture livestock pens. Mr. and Mrs. David Wick shared this observation, "The Ag teachers here at Dobson have helped our children in many ways. They have introduced our children to FFA, as well as made our sons more aware of their leadership capabilities. They have been excellent role models for our children. Our boys are now more academically inclined and are looking forward to college and careers in agribusiness." Mr. Wick, a native of New York City, is a food broker. He said he never realized he was a part of the agricultural business chain until his children entered vocational agriculture.

Parents are inclined to talk about their children and the schools. We are grateful for enthusiastic teachers who help our young people set realistically high, attainable standards. We appreciate the extra hours spent guiding the youth toward their goals. The FFA is one of the tools used by teachers to promote community service, to teach competition with wholesome attitudes, to demonstrate that not being a winner when they have done their very best does not constitute failure. Parents often realize that in the agriculture programs, their children first developed confidence in themselves.

How do our kids respond? On the visits to the schools, one is impressed with the activity and participation. Young people are at ease showing a total stranger land laboratories, greenhouses, pens of animals, and machine shops. On a one-to-one basis, they are quick to express the positive values about their teachers, noting that it was the teachers who had inspired them to aspire to current and future jobs or to go for further education. A young man who has been out of school for several years credited his agriculture teachers, saying, "It was my Vo-Ag training and the guidance of Vo-Ag teachers which made it possible for me to leave a small job in a grocery store to become the

(Continued on Page 10)

Perspective Of A Parent

(Continued from Page 9)

manager of a cotton gin. They exerted a great influence on me."

What About The Future

Futuristic glimpses cannot be divorced from current programs. Mr. Turner said, "I want the students to come out with a balanced education. I want them to have a community attitude. I believe they need a religious connection in the community. They need a neighborly attitude where they want their neighbor to be as successful as they want to be themselves."

Mr. Moorse sees vocational agriculture increasing in scope and usage. He would like to see the message of efficiency in vocational agriculture hammered home. This does not imply heading toward huge conglomerates which he sees as a false economy.

Mr. Mulcahy mentioned the image of vocational agriculture should not be one of plows and cows. He would like the focus to be of a large image from production agriculture to the many facets of agricultural business. He would like to see more students developing entrepreneurships.

All the teachers see high technology exerting great influences. At the same time, they realize that schools will need funding for the technological advances to take place. All this technology is going to bring about phenomenal changes. Some are trying to gear their programs for four years down the road when the freshmen will be graduating and seeking employment.

My Impressions

This short survey has shown me that I have not even scratched the surface of the role of the vocational agriculture teachers. These wonderful programs need broader exposure. Recently, Westwood's department had a short spot on the evening TV news. Frequent exposure of this nature would be even more beneficial if aired regularly on all local channels. Peoria School District has sent a school board member to the National FFA Convention for several years. That input has helped gain support for vocational agriculture. The teachers appreciate the assistance of alumni groups that are available when needed.

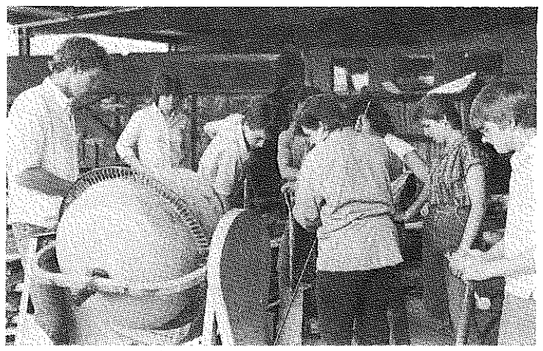
Although there was not a complaint about the long hours instructors must put in beyond normal school hours, one educator expressed a desire to spend one, undisturbed hour a day reading in the school library. He wants to keep abreast of the legislative happenings, of the views of agriculture from outside the industry, and to learn how the field relates to other areas of learning. Others wished for a four-day instructional week so that the fifth day could be scheduled with one-on-one contacts with each student.

It is evident that teachers are a special breed of hard workers; well-prepared academically, concerned with students' success and psychological fulfillment, and willing to spend many extra hours with little or no additional remuneration. The teachers all commented that they gain immense personal satisfaction from helping young people find a meaningful niche in life and from the special reward of having a student come back to say thanks.

With programs which are so broad and which embrace such extensive duties, do teachers face potential burnout? This possibility should be faced squarely with positive solutions from the educational institutions to the state departments of education, and from the school boards to the local administrators. These normal human beings must occasionally have a difficult day. There have to be aggravating times when discipline problems disrupt pleasant hours. Surely there are times when they feel they just can not get the work all done and they would just as soon stay home for a day. Obviously, money is not a supreme goal, or these capable people would have long ago forsaken the field of education for areas in which they are equally equipped to succeed — business and industry. Still, there must be some special rewards in attending state and national FFA conventions where the excitement, inspiration, and success run both ways between students and teachers.

On behalf of many parents, it is apropos to reflect and say, "Vo-Ag teachers do infinitely more than fill a job. They are well-educated professionals with a heart for humankind." The expertise they wield, their positive imprint on character development and good citizenship, their exemplary respect of moral values and love of country are as important as the book-learning and the technical skills they teach. When we see these virtues so evidenced, we are proud to entrust our children to their instruction.

These students are learning how to evaluate laying hens under the watchful eye of a Vo-Ag teacher. (Photograph courtesy of Steve Fraze, Graduate Assistant, Department of Agricultural Education, Texas A&M University.)



Students learn how to mix concrete properly in the agricultural mechanics laboratory. (Photograph courtesy of Terry Hidy, Graduate Assistant, Department of Agricultural Education, Texas A&M University.)

THEME

Perspective Of A Spouse

By Barbara Leonard

(Editor's Note: Ms. Leonard resides at Rural Route, Box M7, Mingo, Iowa 50168.)

I have been married to the vocational agriculture profession for twenty-five years. When I attended one of my first state vocational agriculture conferences with my husband many years ago, a speaker told the group of spouses that when you marry a vocational agriculture teacher, you marry the profession and not the person. How true! The profession is a family affair at our house. I do not believe that people can do it alone without the help and support of their family. Our daughter and I like to share in the activities. We used to take the FFA students to the lake every summer for recreation and to develop the FFA program of work. The students were very considerate of our daughter and she admired them. In the summertime, she would go on farm visits with her dad. She was only eleven months old the first time she went to the state fair to register an FFA member's pigs.

We live in a very small, rural community where we were both born and reared. My husband is teaching in the same school that we attended for thirteen years. Over the years, he has had his sister, my brothers, and our daughter in his classes.

I am a school board secretary in the same school where my husband teaches, so I am close to his work and get to do many things for him: type reports, duplicate papers, check state farmer and proficiency applications, make telephone calls, serve on the advisory council, transport students to contests and conventions, bake the goodies for adult farmer classes, bake pies for FFA Advisor's Pie Day during National FFA Week, and help run the FFA concession stand at football games.

If I did not enjoy the profession and believe in the young people that it involves, I would not be so excited about helping. For the past twelve years, I have helped with the scoring at the state agricultural mechanics contest. Young people, as well as instructors, have enjoyed cookies that I have furnished for many meetings and activities.

The Curriculum

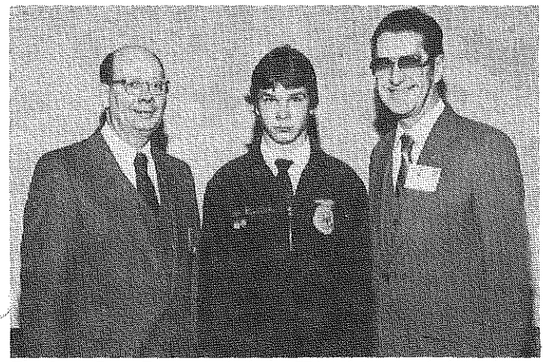
Vocational agriculture is different from the other classes in the school's curriculum. There is not any one single textbook for each class to use daily. Many outside publication, magazines, visual aids and media resources are used. The instructors learn about their students from home visits with the students and their parents.

The vocational agriculture class is a well-rounded part of the education of a student and an important part of the curriculum. Students are exposed to science in studying about animals, to soil conservation, to electricity, and to motors and computers. Math and reading are used everyday in all classes and on laboratory projects. Vocational agriculture should be included as part of the science units required for graduation.

There are many opportunities for FFA members in leadership, public speaking, the fellowship of sharing with others and the competition of contests. The knowledge gained from parliamentary procedure will be with them forever as they participate in adult organizations.

For the future, computers will be a part of the program. The software for agriculture is endless. They will be used by agribusiness students and for farm recordkeeping. The instructor can use them in individualized instruction as well as for the entire class.

(Continued on Page 12)



The Iowa Farm Bureau invited the FFA advisors and their chapter presidents to visit the legislature.

Adjusting ties before heading for Sub-District Contests is one duty of the vo-ag teacher.

Perspective Of A Spouse

(Continued from Page 11)

Departmental Management

Reports and applications are numerous but very important in keeping the program up-to-date. A good filing system helps to keep information handy. The computer should be a great help in this area in the future.

My husband is NEAT. There is a place for everything and everything has a place. His classroom and shop are very organized. If students take a book off the shelf, a hammer from the tool cabinet, or goggles out of the cupboard, they learn to put them back at the end of class time. That is a part of learning to take care of equipment and property that one day may be their own or belong to an employer. He stresses pride in their work and a sense of accomplishment in a job well done. If a student comes to class without a pen or pencil, he loans them one but they must put up collateral which is given back to them when the pencil is returned at the end of the class period. What an assortment of items he gets — keys (one boy didn't think his car was worth a pencil), pocket knives, billfolds, and dollar bills! This helps many students develop some responsibility, enables class work to proceed, and preserves the teacher's supply of pencils.

Community/Professional Involvement

Religion is a big part of our lives. My husband has taught the adult Sunday school class in our church for twenty-one years, has been chairperson of the church board, and we served as directors of the youth group for three years. We attend church weekly and feel a void in our lives when we can not be in attendance. Some years FFA members have worn their jackets as they participated in church services during National FFA Week.

My husband receives a lot of satisfaction from his adult farmer classes. Many interesting meetings are held on topics such as soil conservation, minimum tillage, estate planning, livestock diseases and health benefits, setting up a farm office, financial outlook, and tax advantages. Many former students are in attendance.

Almost everyone looks forward to being out of school in the spring. To a vocational agriculture teacher, summer is especially busy — county fair, state fair, judging contests, state conference and regional agricultural education conference, field days, professional workshops, summer school, SOE visits and equipment maintenance. These are exciting events and rewarding experiences that contribute to a better program for the students.

I believe that teachers need to be active in professional organizations. The fellowship and sharing with other instructors gives teachers new ideas for their classes. The teacher should look to the state consultants and faculty at universities for help and advice. By being active in professional organizations, we have become acquainted with the state consultants, the regional officers, and the national personnel. My husband even had the opportunity to visit with Dr. Norman Borlaug, Nobel peace prize winner.

Rewards from Teaching

When teachers are feeling down, the students often come up with surprises. The last four years my husband has served as Secretary-Treasurer, President-Elect, President, and Past President of the Iowa Vocational Agriculture Teachers' Association. The local FFA chapter surprised him at a recent FFA meeting with an appreciation award. This was added to the collection of plaques from the states and national associations.

Commemorating 25 years of teaching, the FFA officers and I planned a surprise at the Annual Parent-Member Banquet. A consultant and his wife, who had taught with us in a nearby school for several years, brought greetings from the State Department of Public Instruction. The wife of another vocational agriculture teacher baked and decorated a cake with the FFA emblem. The local chapter presented him a pen desk set. I went back through boxes of slides and presented a "Look Back Over the Years" of former students and their activities.

The smile of a freshman when a heifer is picked as champion of her breed, the members of the freshman quiz team who received a gold rating at sub-district and advanced to district competition, the soil judging team that goes to district, a chapter farmer who is picked to be a delegate at the state convention, and a member who has just received the Iowa State Farmer Degree — these are rewards to a vocational agriculture teacher.

We recall a former student who joined the Peace Corps. He wrote back to tell of a project that he had implemented with the people of Mali, Africa. He established demonstration plots to show the value of improved seed, fertilizer and chemicals, and organized a cooperative to sell the fertilizer, chemicals, and seed to the native farmers. His ideas came from corn test plots he had completed as SOE projects in high school.

There was a graduate that came back to thank his teacher for teaching him how to weld in high school because it helped him get a better job. There is a young woman, who is a former FFA member now teaching music, but helping a new vocational agriculture teacher in her school with ideas from her experiences. There is the friendship plaque a group of girls gave us after we had put up with them for four years. There was the telephone call from a farm boy in the middle of the night to look out our motel window to see the railroad bridge turn over the Mississippi River while we were attending a State FFA Leadership Conference. And we must not forget the FFA members who came "Trick or Treating" at Halloween.

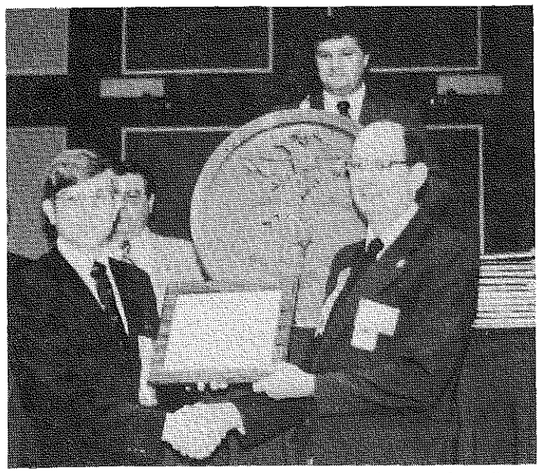
The success of former students in their adult lives makes vocational agriculture teachers feel good when they know they had a hand in helping them. Three of the present members of the Board of Education were vocational agriculture students and are serving or have served on the Advisory Council. Two students are veterinarians, one is serving in the Iowa Legislature, and others are college professors, school teachers, nurses, homemakers and farmers.

Over the years, my husband has had the support of good administrators. They have been very supportive of him and the program. Many of them have received the Honorary Chapter Farmer Degree. A couple of them were former FFA members. One wore his FFA jacket to school during National FFA Week; quite snug, but he was still proud to wear the blue and gold.

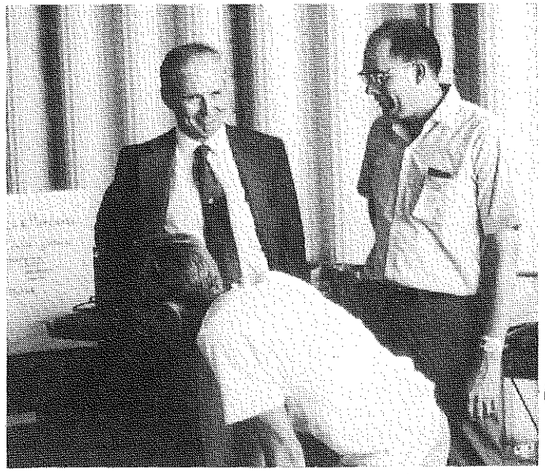
Perhaps the following, written by our daughter, Brenda, and Damita Woodard, daughter of the Hartley, Iowa vocational agriculture teacher, sums up the vocational agriculture teacher. The girls are dorm friends at Iowa State University and have grown up with fathers who are vocational agriculture teachers.

YOU KNOW YOU'RE AN AG TEACHER WHEN . . .

- — you try to dress like a cowboy
- — a student calls about his/her SOE project
- — you have to dress your students at convention time (ties)
- — you carry around a collection of blue ties at convention
- — you have a collection of free pens, paper, key chains, hats, etc., from various agricultural companies
- — every December smells like grapefruit and oranges
- — every box in the house is a fruit box
- — you take pictures of all FFA activities
- — the only reason you have a daughter is so she can carry the camera bag
- — you get more mail than the other teachers, all farm magazines
- — you tell your family not to plan a vacation during the month of August because of county fair, state fair, and then school starts
- — you realize that every month is busy
- — you carry your DeKalb datebook in your shirt pocket
- — you are always the last to leave agriculture functions; wives and daughter have to wait on you
- — you can read this and laugh because vocational agriculture teachers have a sense of humor



Professional activities often result in recognition for exemplary efforts.



Bob Leonard gets to meet Dr. Norman Borlaug, Nobel Peace Prize winner.

THEME

Perspective Of An Agribusinessman

By John A. Conrads

(Editor's Note: Mr. Conrads is Manager of Reliability with John Deere Tractor Works, P.O. Box 3500, Waterloo, Iowa 50704.)

Farming as we know it today is the result of several centuries of trial and error, science and experiment, good and bad luck, success and failure and all the lessons that have been learned and applied. Farming has moved from highly labor intensive drudgery to sophisticated agribusiness in only about 50 years, a truly noteworthy achievement. The lack of productivity that has characterized American smokestack industries since the late sixties is not a problem with American agribusiness; in fact, productivity is at an all time high. Much of the productivity on American farms is the result of large scale operations that are tightly managed and that make maximum use of mechanization and automation.

Agribusiness has become big business. Yet, each agribusinessperson runs his or her own operation. It is truly an effective decentralized organization whose success depends on a well organized and reliable infrastructure. It is this infrastructure of machinery, supply and service, of chemical and fertilizer distributor organizations, of fuel and oil supplies, of packaging, shipping and preserving, and of numerous other agriculturally related services that must function and be available when needed.

The Challenge

The main challenge is not how to provide more systems and/or how much more computerization has to take place.

(Continued on Page 14)

Perspective Of An Agribusinessman

(Continued from Page 13)

These are part of the challenge, but the greatest single challenge is to educate and train young men and women in order to develop the skills to work with, and maintain, today's complex systems, and then reach out to develop tomorrow's systems. Agribusiness requires that a high skill level be developed and applied to enhance productivity in a very competitive marketplace.

To send more youngsters to college does not seem to be the answer. College graduates already exceed the demand. Also, many college graduates find work in agribusiness to be below their expectations. After all, it is not neccessarily glamorous in all areas. Although agribusiness needs a vast number of highly educated professionals to succeed, it has an even greater need for individuals who have received intensive training in vocational agriculture. This training can be obtained at the high school level, but should be further enhanced at the junior college or post secondary level.

Importance of the Teacher

Much has been said and written about the problem with education in America. Whatever the faults of the system may be, there is still a real return on the investment that dedicated teachers make in their students. In fact, the teacher often has a more profound effect on students than parents. I believe, therefore, that the future of vocational education depends to a large degree on the teacher, and my observation of vocational agriculture teachers is that they are a hardworking, resourceful, and dedicated breed. I have confidence in their ability to train young men and women in the vital professions that benefit agribusiness.

Strong role models are important for the direction of young people. The dedicated teacher will serve such a function and live up to the expectation of students, parents and businessmen, even to the point of becoming a bit of a hero figure. Such characteristics as punctuality, honesty, industry, perseverance, dependability, loyalty, dedication, respect and gratefulness are best taught by example. Teachers cannot fake their true identity. It is important, therefore, for teachers (and everybody else) to check personal standards and behavior. Young people have an uncanny ability to emulate poor habits and traits. The truly great teacher will be a cut above the rest. In the business world, it becomes more and more evident that character is more important than formal learning because high skills rarely compensate for personality flaws. Agriculture needs strong character traits to survive and build a sure future. Teachers can lay the foundation for a sound agribusiness community.

Some Concerns

There are some areas that need specific attention to provide an effective learning experience for students. Up-to-date instructional methods on up-to-date equipment are essential to prepare the student for the work environment. Due to lack of funds or lack of vision, many teaching aids are seriously out-of-date. Instruction centered around such outdated material will leave a student largely unprepared for the real world. The rapid advancements in science and technology dictate that the vocational agriculture teacher be prepared and equipped to teach current and even advanced systems. Teachers must keep themselves abreast of new developments and take additional training to be able to pass new knowledge on to the students. Also, the teacher has to demand that training aids and other teaching supplies are tailored to today's state of the art. A teacher who's behind cannot lead students ahead.

The most successful learning experiences are generally the result of a good deal of hands-on training. Extensive emphasis on hands-on training is essential to make the transition from classroom to the work environment a smooth one. Work-study programs are also excellent ways of bridging the gap between the school and the place of employment. The teacher who finds the right balance between academic and hands-on experience will provide a great service to the student and the prospective employed.

The relatively high drop-out rate of graduates at their first job could largely be avoided by following a balanced program. Since no teacher likes to see graduates fail in their job experience, it seems only natural that teachers would strive for programs that assure satisfying employability. After all, training and education is a process of preparing students for the world of productive work.

The successful vocational agriculture teacher must function well in the role of an ambassador. The teacher can be an ambassador of the business world to the students as well as an ambassador from the student body to the business world. The teacher who takes this role seriously can be effective in creating a high level of understanding and cooperation between the educational institution and the business community. This cooperative spirit will serve to target educational emphasis on the needs in the business world and to gain support from the business community for school needs.

The rapid increases in technological development demand that our teaching and learning processes are geared to the future. Teachers must demonstrate that they build for tomorrow. This fosters an attitude of searching for better answers, for being somewhat dissatisfied with the status quo, and for reaching out and discovering new and better ways of doing things. The competitive nature of agriculture dictates that improvements in production and marketing are essential for remaining a worldwide competitor. That competitiveness can only be achieved through greater scientific and technological advances. I believe there are many breakthroughs in agriculture that are reserved for the future. Teachers must stay at the forefront of inquisitiveness, and challenge students to that same level of alertness and drive.

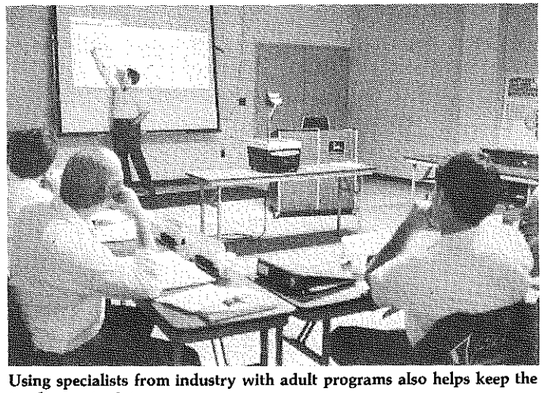
Last, but not least, teachers should be business minded. There is a danger that academicians become introspective, and promote learning for the sake of learning. I believe that successful teachers will always find their role as that of preparing students for the world of work. This is particularly important in agriculture because it is such a highly competitive, risk prone and dynamic industry that is run by so many individualists. During the sixties, it was proper to criticize business, even to malign it. Fortunately, this trend has turned, but much remains to be done. Business is an integral part of our society. We need business, even in agriculture, or maybe particularly in agriculture. Actually, agriculture is the nation's largest business. It is well to get that point across to students. The benefits of a free enterprise system are worthy of repeating again and again. Nobody can do that better than a well informed and dedicated teacher who sees business in its proper role. Students want and need to know what agribusiness, or any other business, is all about. Business is as much American as motherhood and apple pie and apologies are not needed, ever.

Summary

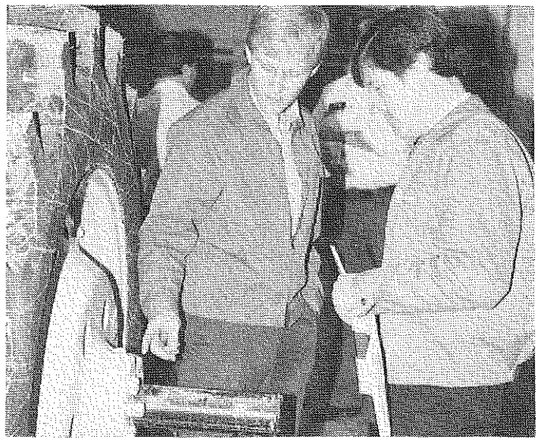
Agribusiness is a complex structure that needs the best human resources available. The vocational agriculture teacher plays a very key role in the development of latent talent in students. The job is not easy. It often takes all the skill and perseverance that a teacher can muster. But the results can be rewarding. It is important that the teacher look at the results, not at the problems. The teacher is building human beings to become productive and well adjusted members of the agribusiness community. This conceptual thinking has to prevail if the teacher wants to maintain a high level of enthusiasm and a respected leadership image. Young men and women are looking for dedicated leaders in today's era of shifting value systems. It is this combination of imparting both knowledge and character that is so very important in the building up of our young people. That is what we need.

I salute the many dedicated vocational agriculture teachers for their efforts and loyalty. They are truly the cornerstones of successful agribusiness.

Emphasizing skills plus safety equals good instruction in agricultural mechanics.



Using specialists from industry with adult programs also helps keep the teacher up-to-date.



All effective teaching, whether with youth or adults, require one-on-one instruction.

Getting students deeply involved in learning by doing is one hallmark of good training.

Coming Themes . . .

November: Teaching Tips

December: Future Programs in Agricultural Education

THEME

Perspective Of A College Dean

By H.O. Kunkel

(Editor's Note: Dr. Kunkel is Dean of the College of Agriculture at Texas A&M University in College Station, Texas 77843.)

Vocational agriculture has differed from other aspects of vocational education in that significant numbers of its students have been university bound. For those whose college majors are in the agricultural sciences or preveterinary medicine, the experiences gained in the vocational agriculture program are clearly regarded as an asset. But, beyond that, vocational programs can teach skills; and a skill learned, be it an ability to repair a motor or a capacity for leadership, can contribute importantly to the self-confidence and self-image of the student.

The value of leadership skills gained in vocational agriculture and in FFA activities has been highly visible at Texas A&M University. Four student body presidents at Texas A&M over the past decade have come out of the student ranks in vocational agriculture. Many other former vocational agriculture students have held a variety of leadership positions on campus and beyond. Obviously, colleges of agriculture have a vested interest in the successes of the programs and teachers of vocational agriculture.

Criticality

Vocational agriculture is and ought to be an important component of the broad range of education needed for agriculture and agribusiness. It can provide skills and understandings that will be critical to working with the biological systems that are agriculture. It can generate an interest in agriculture and its people that encourages the student to build a career related to the United States' food chain. It can help build the senses of responsibility and compassion, of self-confidence, of ambition and of professionalism that will profit the student in later years. Whether any or all of these are accomplished depends, of course, on the teacher as well as the student. And, in large measure, teachers of vocational agriculture have been highly successful.

Success in school depends on a faith that education will be useful. Teachers of vocational agriculture have instilled that faith in many students.

The Teacher Of The Future

Teachers of vocational agriculture in the future are likely to see an array of demands on them that reflect substantial changes both in agriculture and in the educational scene.

The food and agriculture system of the United States is now undergoing its most significant and, perhaps, its most wrenching change since the Great Depression. It is a time of severe stress on many of those in production agriculture. The market structure of food and agriculture is global, no longer local or even just national. The production system must significantly lower its input costs. Science and technology are at the heart of a world more fluid today than at any other time in our history. It is science and technology that will allow the needed rapid change required as well in the food and agriculture system.

Teachers of vocational agriculture, like teachers of other vocational programs, will be forced to elevate the tone of their courses. There is an obvious desire among some of us that vocational agriculture be presented with stronger, more competitive academic substance. We would like to see more of the most capable students in courses in agriculture. And there is a growing expectation in Texas, and I presume elsewhere, that vocational courses become as demanding of students, in their own ways, as are the general academic courses.

But the overriding issue may be a matter of survival of a course in the food and agricultural sciences as a component of the pre-college education at a time when such a course might be of even greater general value in secondary school education. The kind of student that agricultural colleges require is also benefited by strong core courses in mathematics, language, computer literacy, science, economics and communications. These courses compete with courses in agriculture for a student's time and intellect. These core courses compete particularly as they become increasingly stated as requirements for entry into universities.

Teachers of vocational agriculture of tomorrow will be faced with the imposing opportunity to be the local spokesperson for an agriculture that can be vastly different just a few years hence. What their program should be is difficult to detail because few are experts in rapidly changing conditions. But there are evident needs. The teacher will still teach skills, but they ought to be skills relevant to a service career in agriculture as much as for work in production agriculture. The competitive aspects of the FFA program perhaps ought to be pointed as much to management abilities as to skills in appraisal of animals and agricultural products, feeding an animal, or growing a fruit of beauty.

The Curriculum Of The Future

What should the curriculum in food and agriculture provide the student under the circumstances described above? Most important seem to be these components:

1. First and foremost, a fundamental understanding of the ultimate necessity for food to the health and welfare of people and nations. That understanding should include the awareness that food can never be free.

2. The fundamental understandings of the biological bases of the food chain, of how plants feed animals, and of how plants and animals feed people. The simple comprehensions that come from personal experiences with plants, animals, and foodstuffs may be important here.

3. The basic skills for physical and business management of the production unit: farm, nursery, ranch, feedlot, or fishery. Computers will increasingly be a principal tool in these aspects.

4. A basic understanding of the technology that will continue to change the food chain. The scientific bases of agriculture ought to be taught. These may include a basic understanding of mechanization and fundamental skills in mechanics and the culture of plants and animals. Welding and woodworking are useful skills to learn but they are not likely to be the skills needed for vocations in food and agriculture.

5. A basic understanding of the people in agriculture, not only the farmers and ranchers, but also bankers, truckers, lawyers, laborers, suppliers and distributors of products to producers, cooks (restaurant, fast-food and home cooks), and those involved in the preservation and storage of feeds and foods. Teaming up with the teacher of home economics may be a useful innovation.

6. Professionalism must be an increasing attribute of those in agriculture and the teacher of vocational agriculture can be the most influential role model. Recognition that there are not only economic but ethical consequences of what one does in agriculture will become equally important in vocational agriculture programs.

The Challenge

The challenge to all of us in agricultural education, in vocational agriculture as well as in higher education, will be to put up-to-date realities of agriculture, high technology if you please, into the hands of young people so that they will learn that agriculture is more than dirt farming. Physical objects — vials of plants regenerated from tissue culture, frozen embryos, paraphernalia for trickle irrigation, glass tubes containing DNA, whatever might be available — ought to be used by teachers of vocational agriculture as well as others. Regrettably, many symbols of agriculture that we used in the past — the cute and fluffy (chicks, calf or baby lamb), the grotesque (cockroach), the beautiful (flowers, ornamentals, waving fields of wheat) — to attract the young to the marvels of living things, tell little of the real meaning of agriculture. The challenge to all in agriculture education will be how agriculture, in its broadest aspects, affects the life of every person on earth on the one hand, and how understanding the agricultural sciences can be intellectually satisfying on the other.

Thus, it seems imperative that teachers of vocational agriculture define agriculture in its broadest terms. This is not only for the sake of content but also for the vision of the student. Though production agriculture is at the heart of the concept and therefore must be at the heart of the instruction, agriculture operates in a complex environment. In addition to production agriculture, there are suppliers, distributors and exporters of agricultural produce. There is the entire domestic processing, wholesaling and retailing system through which agricultural products pass. There are the science, engineering, economics and business components in modern agriculture. There is need for skilled and professional expertise. Teachers of vocational agriculture should cast their descriptions of agriculture in all of these parameters even though they themselves may have had only a traditional education in the agricultural sciences.

The initiative to accomplish what has been suggested must come from the teacher. But, obviously, the teacher will need assistance and back-up. The teacher will require the help of those of us in higher education. Many teachers of vocational agriculture took their degrees in programs that were distant in time or course content from the current revolution in food and agriculture. These teachers are generally not employed near research institutions which could provide new thinking on a timely basis.

Summer courses, in-service training, newsletters, and media coverage will certainly help the teacher to maintain currency. But it is likely that the textbooks and teaching materials will be the means by which higher education can best assist the teacher of vocational agriculture in presenting up-to-date technology and viewpoints. It seems to me that institutions of higher education ought to take a special responsibility for preparation of materials for vocational agriculture. It seems to me that teachers of vocational agriculture ought to demand that of their Land-Grant university.

Changing Our Image

Finally, for all it has going for it, vocational agriculture and its teachers are vulnerable to the popular perceptions of vocationalism. Vocational education is a subject of legislative and public review in Texas. Some hold that it is the appropriate education for many students and thus an essential part of the educational fabric. But many legislators and others question the cost of the program. They question its methods and rigor. It has a problem of image. Few view vocational education as a valid component of the general secondary education preparatory to a college education and a professional career.

The issue is also compounded by the current public misperceptions of the scope of agricultural education in both high school and college. To be sure, agricultural production today is under severe economic stress. Many people believe that there is little opportunity for employment in a stressed economy, at any level. And as it is widely believed that vocational agriculture and colleges of agriculture produce people only for production agriculture, a large segment of our population believes that scant opportunity will come of enrollment in vocational agriculture and colleges of agriculture. But these are not the realities of the future.

Teachers of vocational agriculture and university deans and faculties of agriculture should join forces together with all others who have a stake in human capital for food and agriculture to counter the common image. I think each of our two groups must examine continually the relevancy of our purpose and our ways of accomplishing that purpose. Dialogue among us, insistence upon professionalism, and joint efforts are some of the ways that we can come to shared solutions to the advantage of both vocational agriculture and higher education. Let us start talking together — now.

THEME

Perspective Of A School Administrator

HELP WANTED: **Teacher, activities sponsor, repair person, consultant for both students and adults, counselor, guardian of tools, community relations expert, motivator, fixer, builder. HOURS: Maximum. SALARY: Hopefully. Candidate should apply in person.**

By William Braksick

(Editor's Note: Mr. Braksick is Superintendent of Flanagan Schools, Community Unit District No. 4, Flanagan, Illinois 61740.

From the perspective of a school administrator, it seems that any one person qualifying for the above advertisement would certainly be a candidate for a vocational agriculture teacher vacancy existing in a typical rural high school in Illinois. The talents of the individual must be many, must be varied, and must be flexible. Needless to say, one must be energetic.

Academic Preparation

Working in a rural community, the vocational agriculture teacher will need to be sufficiently competent in all aspects of crop and animal production. In addition, skills are needed in welding, masonry, electricity, plumbing, motors, woodworking, and horticulture, to name a few. Perhaps the typical vocational agriculture is a jack-of-all trades.

Some administrators assume, in error, that the beginning vocational agriculture teacher has all the skills possessed by a teacher with twenty years of experience. Protective guidance and encouragement by an understanding school administrator will allow the good beginning teacher to meet these expectations in a few short years.

Public relations is a vital part of the survival and progress of a vo-ag department, FFA members host a public petting zoo as part of this effort.

The School Day

Teachers of vocational agriculture, unlike many of their peers in other academic positions, will generally be arriving on the school site early and more often than not be the last professional person in the building. The position will not be attractive to a person who assumes the job begins at 8:00 a.m. and concludes at 3:15 p.m. daily, 185 days per year.

Meeting with adults will sometimes be arranged for 6:30 or 7:00 a.m., prior to a typical work day at school. Being courteous and willing to assist adults will be necessary in fulfilling the community relations role of the teacher. Many adults will arrange appointments to begin immediately when school classes are dismissed and most teachers prepare for a period of relaxation.

FFA Activities

It is important for a vocational agriculture teacher and advisor of the local chapter of the Future Farmers of America to realize that the FFA is a significant part of the agriculture program, and that the agriculture program is not merely a part of the FFA.

In a small school the entire activities program is competing for the same busy students who are generally engaged in many activities. The sponsors of various activities need to compromise in demanding the students' time and support each of the other programs.

Directing students in learning activities is time consuming and demanding of preparation time. Students are shown at the local fair learning the finer points of showing livestock.

The various FFA activities and contests require considerable out-of-class time in organizing, teaching, practicing and competing. The activities are very visible to the general public and oft times the entire program is judged erroneously by the successes and/or failures at FFA contests.

Public Relations

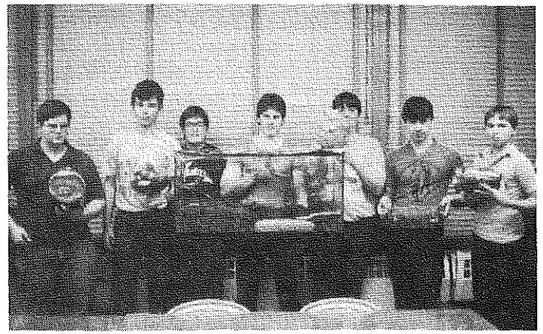
Typical agriculture teachers are an asset to a school's public relations program as they are visible to the community and convey a favorable impression of the school system. Typically, they author many news articles which describe the activities of the vocational agriculture department.

A well-organized and successful FFA program is a tremendous public relations tool for the rural public school. Locally, our agriculture department and FFA Chapter organize activities for each day during National FFA Week and include the general public in several of these activities. The local petting zoo is an example that our community has appreciated.

Many times the agriculture students, with their teacher's supervision, will do a community project. Locally, the department, in cooperation with community government, has begun a park and lake project as a conservation and community betterment program. The positive public relations received by the school during the time of construction has been outstanding.

Non-Related Services

Vocational agriculture teachers are requested to be repair persons and builders throughout the school building by other teachers and school personnel. It is not uncommon for the agriculture teacher to be welding a desk, a chair, a part for a school bus, or assisting in making a project for a fellow teacher who is uncomfortable in a mechanical environment.



Horticulture is an occupational area that is becoming more common in rural schools as the demand for production agriculturists decreases and students look toward other opportunities in agriculture.

As the day ends for agriculture teachers, they are also assigned the other typical school responsibilities which are shared among all other teachers, such as bus supervisors and ticket sellers at school events. Most athletic coaches can also have all kinds of requests for an agriculture teacher's time in the evening.

Conclusion

Vocational agriculture teaching is diversified, challenging, time consuming, interesting and rewarding. The competent agriculture teacher is an important person in the total school environment and can be a significant factor for the school administrator. Public education is in need of good teachers of vocational agriculture.

THEME

Preparing the Teacher of Vocational Agriculture for the Future

Public school education in agriculture is experiencing renewal and adjustment. The current programs have been effective in serving the varied needs of students. Students who enroll are aided in occupational orientation and exploration, career planning and decision making, preparing for advanced study, and developing general employment skills as well as specialized occupational skills. Instruction has been offered in classrooms, laboratories, the homes and home farms of students, and the workplaces of the agriculture industry. Agricultural education in public schools has given unique emphasis to the use of supervised occupational experience programs, the intracurricular nature of the FFA, the teacher as a community agricultural leader, problem solving as an approach to teaching and learning, and continuing education for adults.

(Continued on Page 20)

By L.H. Newcomb and J. David McCracken

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

Preparing the Teacher of Vocational Agriculture for the Future

(Continued from Page 19)

The future teachers of agriculture will need to be prepared to meet the changes that are anticipated in the vocational agriculture program. The program will change because of the changes that are occurring in agriculture and in education.

Assumptions About Changes

The business and industry of agriculture, both on and off the farm will increasingly become more technological, more specialized, more business-oriented, and more efficient. More part-time farmers will "live on a little land." The consuming public will have little knowledge of agriculture.

Resources for schools will be scarce. The declining student enrollment will require more flexibility by schools in serving the needs of students with differing interests, abilities and aptitudes.

Agricultural education in public schools will need to serve students who enroll for occupational orientation and exploration, career planning and decision making, specialized occupational skill development, preparation for advanced study, development of general employment skills, consumer education, continuing education and avocational study. Problem solving and application of learning will characterize the instruction.

Semester, or even shorter, time-block offerings in grades nine and ten will provide a basic understanding of agricultural science. More specialized offerings in grades eleven and twelve will provide a basis for employment and advanced study in agricultural production, horticulture, agricultural mechanics, natural resources, and animal care. More students will opt to enroll for some courses and not for others. Application of learning for all areas of the curriculum will be on school farms and in laboratories. The FFA program must be adapted to the needs of a changed society.

The nature of instruction in agriculture will increasingly be determined at the local level, rather than being dictated at state and Federal levels. There will, therefore, be a great deal of variance from community to community in their agricultural education programs. The preparation of teachers for these diverse programs will be more difficult than when programs were more homogenous.

Program Changes Needed

As the nature of agricultural instruction in the public schools changes, teachers will need to adapt to those changes and teach differently. Consequently, teacher education programs will have to provide new directions which will prepare teachers to handle both students and teaching assignments that are in many ways substantially different than is currently the case.

More Individualized Instruction

Secondary agriculture teachers will have to offer programs that serve a multitude of purposes and meet the needs of heterogenous clientele who are enrolled for variable amounts of time. Hence, teacher education programs will have to prepare teachers to do a better job with individualized instruction to meet such changing needs. Teacher education programs will have to devote considerable time to teaching prospective teachers how to truly individualize instruction such that one group of the students in a class might be studying in one area while another group studies a totally different area. Likewise, teachers must be able to organize their program so that students who need longer blocks of instruction per day can study certain basics with a larger group of students followed by independent study on their own.

A key part of this new strategy for individualization is using the computer to manage and deliver instruction to students with various needs, interests, and time commitments to the program. Teacher educators will have to prepare teachers to integrate existing and emerging learning resources, from standard off-the-shelf learning resource materials to interactive video disk and computer-assisted instruction formats.

Developing Curricula For Multiple Purposes

Teachers will also need to develop curricula for multiple purposes. They will have to be able to plan curricula that will meet the needs of students who have an avocational interest in agriculture as well as students who intend to pursue the Ph.D. in college and students in between, from those with more of a traditional vocational interest to those who wish to study agriculture as a science. In essence, the curriculum will have to be parallel to the notion of an IEP (individualized educational program). In this instance, it will need to be an individualized curriculum, tailor-made for students or certainly small groups of students. The computer will be the major tool for keeping track of the multiplicity of variables associated with students and topics that are taught through such a curriculum.

Laboratory Management

Agricultural instruction in the public schools must continue to insist upon application of concepts and principles. It is this application that sets agricultural instruction apart from most of the rest of the educational community. It is this application that makes principles come alive, gives relevance, provides clarity, allows for mastery, and promotes more permanent learning.

As teachers have more students who do not have the opportunity to practice or apply learning at home or at a business establishment away from the school. This application will have to be provided in variable time blocks. The computer can be used to sequence and manage records associated with ensuring that all students are provided with appropriate application experiences.

Land laboratories as well as in-building laboratories such as greenhouses, the traditional shop, and small animal care wards will be essential. Schools will need to provide teacher aides to assist with laboratory set-up and routine maintenance and operation. The laboratory aide may have to be funded by state departments of education to allow agricultural education programs at the local level to be what they need to be.

Managing Leadership Development Activities

If the local program changes as has been suggested by the authors, increasingly students will be in and out of the agriculture classroom (i.e. in one term or one year and out another) rather than being in constant contact with the teacher(s) for four years. Thus, the population is more transient in nature. The leadership and personal development activities that vocational agriculture has offered have been crucial to the success of the programs and must continue. Teachers will have to be taught to use class and laboratory time to more fully integrate the application of leadership and personal development activities.

The university setting can, in fact, be the prototype for training prospective teachers to handle their students in this manner. Currently at the university, students are a more transient population who are not with professors of agricultural education daily. Through strong agricultural education societies and/or collegiate FFA chapters at the university, a model can be developed that has a high degree of transfer for future teachers of agriculture at the local level.

In order to accomplish what will be necessary in managing leadership development activities, more structure will have to be put into leadership development content. Leadership and personal development competency will have to be provided via more classroom instruction and far more closely guided application of learning in the school setting. Given the changing clientele, it will be of paramount importance that the profession revise the incentive awards system such that it speaks to the needs of the new breed of student.

Computers can help manage and deliver instruction for those knowledgeable in their utilization.

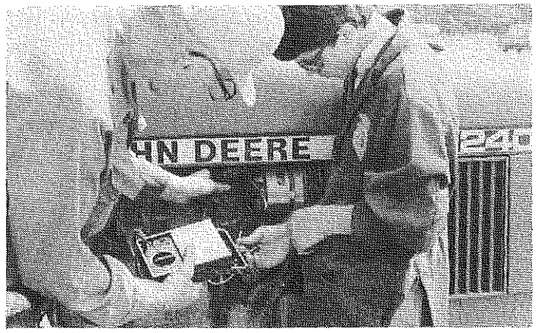
Cooperatively Preparing Teachers of Agriculture

A key strategy for the future preparation of teachers of agriculture should include cooperative education. This is a university program whereby students go to college some quarters and spend some quarters in industry. The authors would envision prospective teachers spending some of those co-op quarters working in agricultural industries to further develop their agricultural skills and understanding, and some of these co-op quarters in local school systems assisting in the delivery of agricultural instruction.

Hence, by following a program of cooperative education, students can earn as they learn, can further develop technical skills and can, over a period of time, bridge the gap between theory and practice as it relates to delivering instruction at the local level. The authors believe that this will indeed make for a stronger and more competent teacher of agriculture.

The outcomes of such a program will include a more mature student who will probably take five years to graduate but will have the incentive of earning dollars for schooling along the way. This program will provide for more screening as it relates to the development of personological, pedagogical, and technical agriculture skills.

Perhaps the most intriguing aspect of this proposal is that it would provide more application of pedagogy over a longer period of time with more structure, in more settings, and with more kinds of clientele. The sum of all of this, we believe, will be that we will have teachers of agriculture who are better prepared for a more diverse job description and who will continue to carry on the excellent tradition of agricultural instruction in the public secondary schools.



The use of school laboratories for the application of learning will have to be expanded. (Photograph courtesy of Glen Shinn, Mississippi State University.)

WANTED: Book Reviewers

One of the services that THE AGRICULTURAL EDUCATION MAGAZINE provides for its readers is the review of publications that address agriculture and agricultural education. The Book Review Editor receives current publications from over 50 publisher in the United States and from some foreign countries.

Individuals who are interested in reviewing publications should write for a copy of the books available for review. Upon receiving the list, the reviewer should choose 2-3 titles and send their request to the Book Editor. One of the books will be sent to the reviewer along with directions for completing the review. Upon the completion of the review, the book becomes the property of the reviewer who can then look forward to seeing their name in print in an upcoming issue of THE AGRICULTURAL EDUCATION MAGAZINE.

Anyone interested in reviewing publications should send their request to: Dr. Joy Cantrell, Dept. of Ag. & Ext. Education, Armsby Building, The Pennsylvania State Univ., University Park, PA 16802.

THEME

The Teacher of the Future: Manager of Technology

By Dean Sutphin

(Editor's Note: Dr. Sutphin is an Assistant Professor of Agricultural and Occupational Education at Cornell University, Ithaca, New York 14853.)

Teaching about agriculture and the agricultural industry is the primary concern of agricultural education. Technology will not change the fundamental mission of agricultural education, but is likely to affect both the agricultural industry and agricultural education programs.

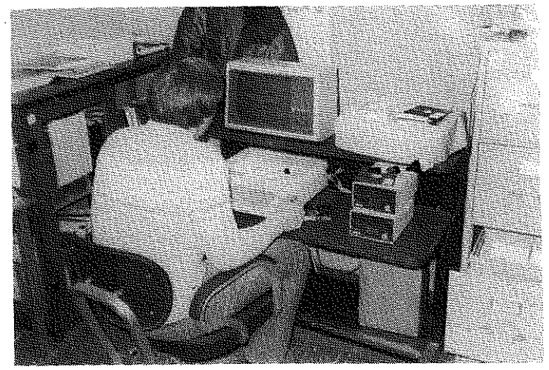
Technology is a method of putting the principles of science to work to help people (Williams, Badrkhan, and Daggett, 1984); hence, the interface between agricultural industry and education is a natural one. Technology is not limited to computers but includes applications in the agricultural industry in the areas of physical technology, biotechnology, and information technology.

Agricultural teachers should teach about technology used in agriculture and use technology as a tool for teaching. To fail to include and use new technologies in the agricultural curriculum may jeopardize the credibility of the local agriculture program and/or place teachers of agriculture at a major disadvantage in their teaching effectiveness.

As managers of technology, agriculture teachers should continually analyze, evaluate and determine the impact of new technologies in relation to their program philosophy, curriculum content and as a tool to teach subject matter. Teacher inservice education on new technology will help assure viable and up-to-date local programs. Teacher educators and state supervisory staff can assist teachers to develop competencies and to make decisions regarding the use of new technologies in teaching.

Program Philosophy

Technology integrated into the agriculture curriculum and used as a tool to teach will complement the mission, principles and goals of vocational agriculture. Preparation for entry into an agricultural or agricultural-related occupation is the primary program focus in vocational agriculture. Along with this primary purpose, research indicates that a majority of leaders (experts) in agricultural education include preparation for advanced study at post secondary schools and baccalaureate degree granting universities and other purposes as part of the program mission (Sutphin and Newcomb, 1983). The program thrust must be agriculture while integrating and using technology, rather than a total focus on technology. Maintaining a primary program focus for agricultural education, rather than being diverted by technology, is critical as teachers increase their role as managers of technology.



Utilizing informational technologies will be vital skills for the future. (Photograph courtesy of Sam Custer, Versailles, Ohio.)

The agriculture program philosophy should provide for maintaining excellence, motivating students, interfacing with the total school curriculum and upgrading programs to meet current and future needs of students. The Unfinished Agenda, developed by The National Commission on Secondary Vocational Education (1984), stated: ". . . Schools are needed to help students achieve intellectual, social, vocational, and personal goals. Vocational education addresses all these goals . . . (p.3)." Technology has the potential to contribute to these goals.

An exciting, relevant curriculum which integrates technology will attract students and provide them with the knowledge, skills and positive attitudes needed to succeed in agricultural occupations. Agricultural programs must remain current to be valued by students, fellow teachers, and the school community.

Curriculum Content

The agricultural education profession has always taken pride in providing the knowledge and skills needed for employment in agriculture. Technological changes will continue to increase rapidly; hence, the local agricultural curriculum must meet these new instructional needs. The Unfinished Agenda purports that the most useful reforms are those emanating from local schools and classrooms which consider the home, school, community, and workplace of students.

Future agricultural education curricula should include technologies used in agriculture. Physical, biotechnology, and information technologies (Williams, et. al., 1984) relate to agriculture. Physical technologies involve the use of tools and machines, power and power systems, energy and the use of energy, and structures. Biotechnologies include the various types of vital systems of living things (plants, animals and humans); and the use of genetic techniques to improve production methods, maintenance/care, harvesting, and processing. Information technologies are information handling methods/systems and tools (primarily the computer).

The potential for growth of physical, biotechnology and information technologies in agriculture is vast. A report recently released by a committee of the Board of Agriculture of the National Research Council compares modern genetic technology with the impact of the discovery of the laws of inheritence in the late 1800s. New developments in crops, animal breeding techniques, computerized recordkeeping and marketing, disease control and insect control will need to be addressed in the secondary agriculture curriculum. Likewise, the social implications of technology related to change such as the displacement of people and changing work environments should be addressed by teachers. Vocational agriculture programs of the future will likely increase in scope and in the technical level of subject matter. A higher level of basic skills, obtained in academic subjects such as math and science, will be needed by agriculture students in the future; this may narrow the gap between the traditional perceptions of academic and vocational students. The effects of change in technology will certainly call for a change in the content of agricultural courses.

Teaching Subject Matter

Technology will provide the agriculture instructor with additional options to deliver (teach) subject matter. Computer-assisted instruction in the form of computer programs or templates developed for spreadsheets such as Visicalc and Lotus can be used to teach agricultural sciences and business management. The computer can be used to manage instruction through material preparation, recordkeeping, grade management and testing. The technology alone may not prove very useful unless the teacher identifies appropriate strategies to use these technologies in the classroom, laboratory, and at the work site of students with supervised occupational experience programs.

Teacher management skills will need to be upgraded to use tools, equipment and teaching materials reflective of state-of-the-art technology in agriculture. Greater cooperation with industry and members of the community may help solve problems associated with materials and methods needed to teach new technologies. These problems may include costly equipment, facilities too complex for construction on the school grounds and scope and size of materials and equipment. Cooperative use of community and resources may need to be explored.

Inservice education for teachers concerning new technologies is essential. It will be very difficult for local agriculture teachers to self-teach themselves new technologies and make educated decisions about how, if at all, such should be incorporated into the curriculum. Of course, teachers can stay current to some extent by reading magazines, journals, and other educational materials.

Technological developments may not be used by teachers if they lack knowledge about the technology or about how to use technology in teaching. Assistance given to teachers by teacher educators and state supervisors should help solve this dilemma. In many cases, specialists from university technical departments, industry representatives, and others will need to be involved with in-service programs. Knowledge of technologies, how to teach the technologies and how to use technology to teach are critical topics for in-service programs. Only with competency in these areas can teachers become proficient managers of technology.

Putting technology in the curriculum will result in teachers being personally and professionally rewarded by having students complete the program who are well prepared to face the challenges of a technology-oriented society. The result will also include a positive image for the agricultural education profession.

Summary

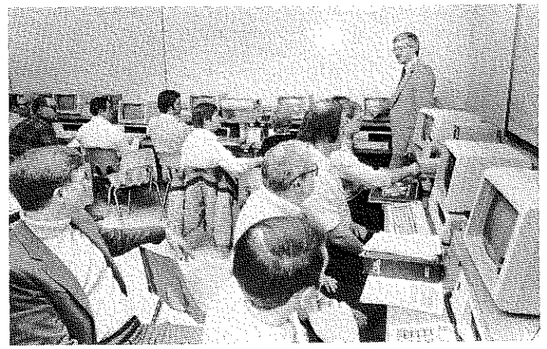
Vocational agriculture teachers of the future will need to be managers of technology by teaching about the technology used in agriculture and by using technology as a teaching tool. Physical, biotechnology, and information technologies must be coupled with appropriate teaching strategies. Agriculture teachers, teacher educators, and state supervisors each have responsibilities with regard to integrating technology into the agricultural curricula while maintaining a sound program philosophy. Success in these areas will result in a positive image for local programs and a properly educated student who can successfully enter the agricultural work force.

References

Sutphin, H.D. and Newcomb, L.H. Positions held by agricultural education leaders about selected national issues. Summary of Research. Columbus, Ohio: Department of Agricultural Education, 1983.

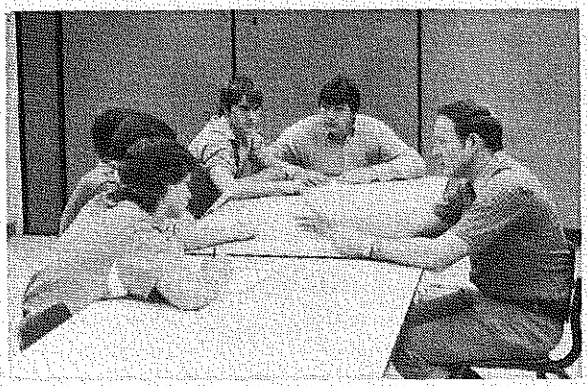
The National Commission on Secondary Vocational Education. The Unfinished Agenda — the role of vocational education in the high school. Columbus, Ohio: The National Center for Research in Vocational Education, 1984.

Williams, C.F., Badrkhan, K.S., and Daggett, W.R. Technology for Tomorrow. Dallas: Southwestern Publishing Company, 1985.



In order to teach the new technology, teachers must understand it. These West Virginia teachers are learning through a workshop. (Photograph courtesy of Dan Nelson, AgriData.)

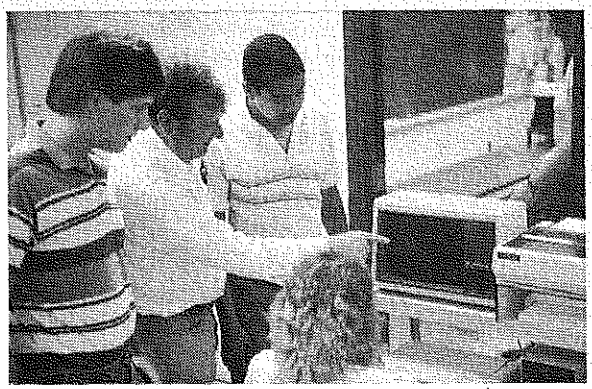
Teachers Fill Many Roles



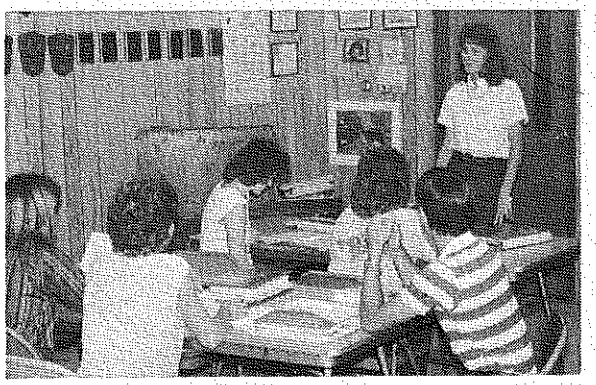
Working with FFA Committees is an important role of the Vo-Ag teacher in developing leadership ability in students. (Photograph courtesy of Steve Hall, Vo-Ag Teacher, John Tyler High School, Tyler, Texas 75702)

Vo-Ag teachers will need to be flexible in working with a diverse student population, including handicapped students. (Photograph courtesy of Terri Hidy, Graduate Assistant, Department of Agricultural Education, Texas A&M University.)

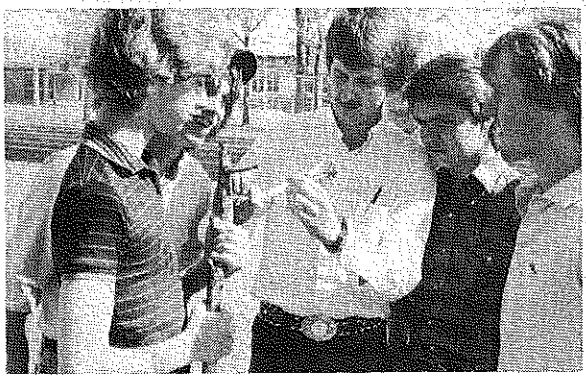
Cooperative arrangements with the agribusiness community provide valuable learning experiences for students. (Photograph courtesy of Terri Hidy, Graduate Assistant, Department of Agricultural Education, Texas A&M University.)



Vo-Ag teachers must themselves be able to manage new technology before they can teach students. (Photograph courtesy of Terri Hidy, Graduate Assistant, Department of Agricultural Education, Texas A&M University.)



More and more females are finding rewarding careers as vo-ag teachers. (Photograph courtesy of Steve Fraze, Graduate Assistant, Department of Agricultural Education, Texas A&M University.)



Providing opportunities for hands-on learning will become increasingly important in vocational agriculture. (Photograph courtesy of Steve Hall, Vo-Ag Teacher, John Tyler High School, Tyler, Texas 75702)