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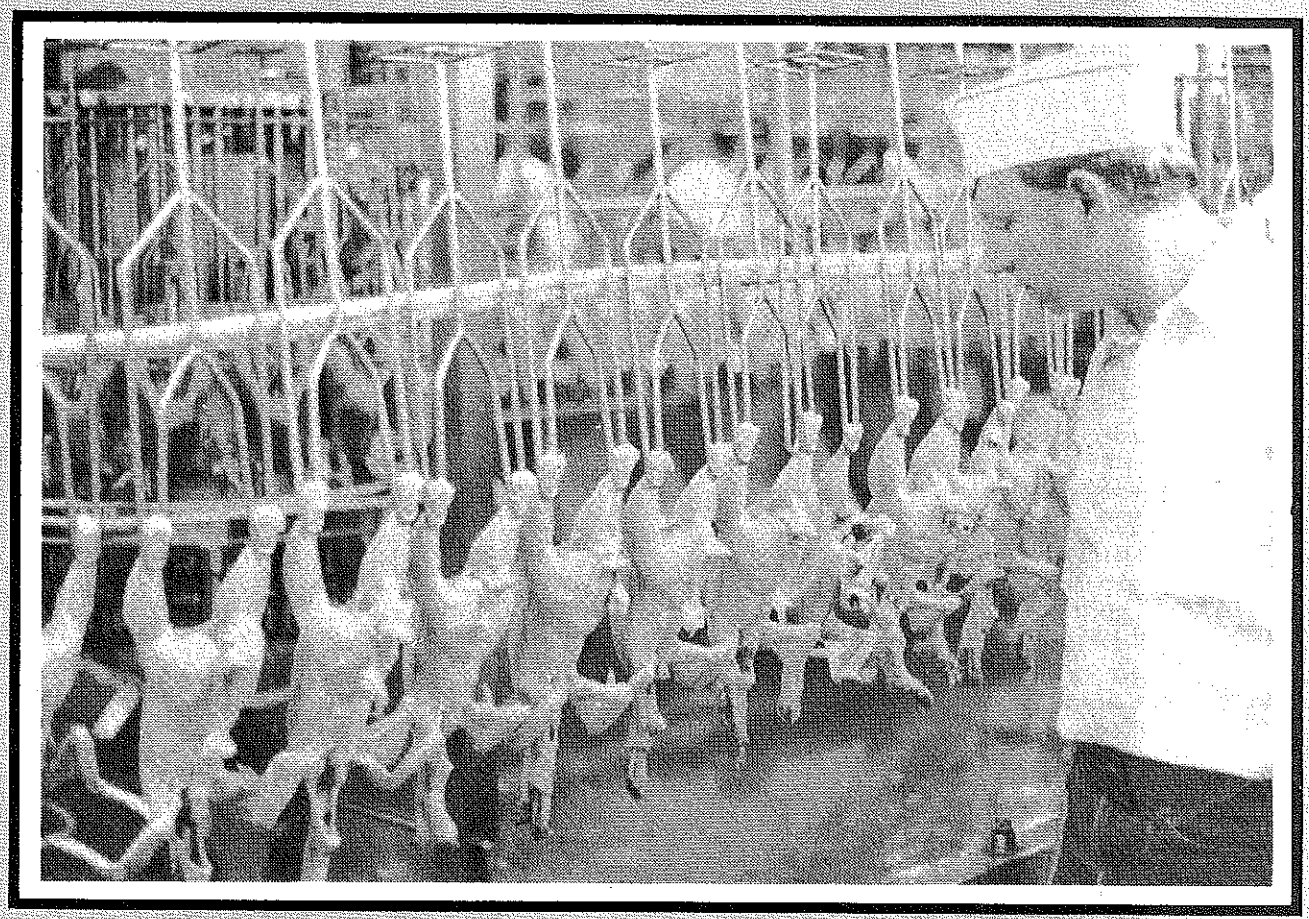

THEME: Keeping Up To Date

THE
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ARTICLE SUBMISSION

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

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EDITOR'S PAGE

Can We Keep Up to Date?

Vocational agricultural educators are faced with at least two important areas in keeping up to date: agricultural technology and educational practices. It is by no means easy to keep current in either of these areas. Further, it is difficult to specify which of the two is most important or, stated another way, which is most critical to the survival of the vocational agriculture program.

New technology in agriculture may be more critical in maximizing agricultural productivity than are new educational practices in maximizing student achievement. New agricultural technology is likely to be based on empirical research whereas new educational practices may lack evidence of substantive productivity. It is very difficult to verify or disprove most new educational practices. Regardless, vocational agricultural educators must attempt to keep up to date in both agriculture and education.

Agricultural Technology

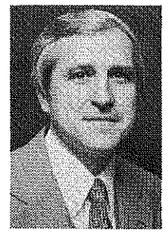
Some areas of agricultural knowledge and practice remain relatively constant, while others are continually changing. For example, the basics of plant and animal science remain relatively constant, while crop cultural practices may change considerably over a few years period of time.

Drastic changes in the way food and fiber are produced began in the early 1700's as part of the Agricultural Revolution. The Revolution was brought about by the development of new ways of growing crops and raising livestock and the invention of new farm machinery. These contributed to a system of food and fiber production which now form the agricultural industry.

Not only is there a need for agricultural educators to keep up to date in farming and ranching but they must keep up to date in many off-farm areas. The productivity of farms and ranches is closely tied to many processes which do not actually take place on farms and ranches. Agricultural educators must recognize all of agricultural industry. They must recognize and respond to the needs of the farm supply and marketing sectors for without these agricultural productivity in the United States would be drastically different.

Is it possible to keep up to date? How up to date does a vocational agriculture teacher need to be? When is a teacher up to date? The answers to these questions are not easy.

Increased specialization in vo-ag programs should make it possible for agricultural educators to more nearly keep up to date. A teacher of horticulture, for example, should be more able to keep up to date in horticulture than should a production agriculture teacher, and vice versa. The rapid rate of changes places a burden on each individual. As agriculturists, we have a commitment of keeping up to date in agriculture.



JASPER S. LEE, EDITOR
(The Editor also serves as Professor and Head, Department of Agricultural and Extension Education, Mississippi State University.)

Educational Practices

The area of education is continually undergoing change. The problem is to determine which changes make a difference in student achievement and those which are fad and may actually result in reduced student achievement. Educators do many things on the basis of opinion or personal preference.

When is an agricultural educator up to date in educational practices? Do certification and credentialing requirements contribute to being up to date? Again, there are no easy answers to these questions.

Teacher credentialing requirements are designed to assure that individuals have had certain educational experiences. In states with more than one teacher education program, there may be considerable variation in experiences due to college or university courses and instructors.

In recent years, there have been additions to teacher certification requirements in many states. These have involved increased course requirements in general professional education. As these courses are added, some reduction in agricultural courses has probably occurred. This has resulted in teachers who are less well prepared in technical agriculture. In effect, the agricultural competence of beginning teachers has been sacrificed.

Certification requirements beyond initial credentialing are also increasingly requiring general professional education courses. As these are required, it is very likely that teachers of vo-ag are less up to date than they could have been had they taken courses specifically designed for them.

Another procedure being increasingly used is teacher testing. In several states minimum scores on tests have been set. The National Teacher Examination (NTE) is commonly used. Before a teacher can be employed, the teacher must have taken the test and achieved the acceptable score. It is doubtful if the existing tests are very effective in the process of selecting the most up-to-date vo-ag teachers.

Personal Commitment

Keeping up to date requires a personal commitment from each agricultural educator. Every means available should be used. Externally imposed up-dating procedures

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Can We Keep Up to Date?

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(such as taking two graduate courses every 5 years) are helpful but not as effective as personal commitment to keeping up to date.

Personal commitment also includes teaching up-to-date practices. Having up-to-date knowledge pays off only if it is utilized. Up-to-date teachers teach up-to-date skills!

March, 1981

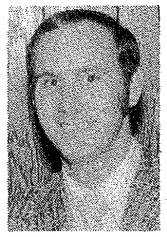
The theme for this issue of the MAGAZINE is "Keeping Up to Date." Mr. Don Michael, State Supervisor of Vocational Agriculture in West Virginia, has served as Theme Editor. He has assembled several excellent theme articles. They provide some insight into answering the question, "Can we keep up to date?"

The Cover

Keeping up to date often involves first-hand observation of practices in agricultural industry. The cover shows Johnny Allen, Teacher of Vocational Agriculture at Alcorn Central High School, Glen, Mississippi, inspecting broilers in a processing plant. (Photograph by the Editor.)

THEME

Is Keeping Up To Date a Priority With You?



By Donald Michael, Theme Editor
Editor's Note: Mr. Michael is State Supervisor of Vocational Agriculture, West Virginia Department of Education, Charleston, West Virginia 25305.

New technologies have enabled our great American agricultural industry to continue to grow and expand to meet the demands of the consumer of today. As new technologies are developed, the American agriculturalist must keep up to date if he/she is to survive. All of us are charged and challenged with the responsibility of keeping up to date if American agriculture and the vocational agriculture program that serves the industry is to enjoy the prominence that it has had in past years.

Youth and adults preparing to enter farming or off-farm agricultural occupations must have the latest facts and technologies if they expect to survive and profit in today's world. More importantly, those presently involved in agriculture/agribusiness need to be constantly made aware of new developments and receive new training to face the challenges that lie ahead. Failure to keep up to date will ultimately spell disaster. This places a tremendous responsibility on the teacher of vocational agriculture, as well as others who are in the business of providing high quality training/instructional programs for those preparing to enter or presently engaged in American agriculture/agribusiness. To be effective, one must keep up to date.

Is your program up to date? Are you constantly monitoring the needs of your service area and modifying your curriculum to keep pace with change? Are you prepared to make personal sacrifices in order to stay abreast of today's modern practices? Is keeping up to date a priority with you? It must be if you expect to be effective in serving agricultural clientile.

Supervision and teacher education personnel are charged with the responsibility of providing teachers with in-service opportunities to acquire the new knowledge and skills that are necessary to survive in the present and future agricultural industry.

A Concern

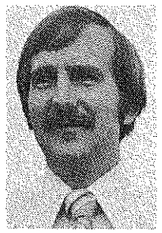
A major concern of this writer is the future of the vo-ag program. We (teachers, teacher educators, and supervisors) are all charged with the responsibility of identifying individuals and providing the necessary stimulus to guide such persons into teacher training programs that will lead to certification as teachers of vocational agriculture. If our programs are to remain up to date and expand, we must have the manpower to accommodate such change. We are hard pressed to fill the void created by teacher retiremnts and loss of teachers to other professions.

The national shortage of qualified vo-ag teachers is frightening. We must concern ourselves more with this aspect of the program if the program is expected to perpetuate itself in the future.

Many delivery systems are available to keep us up to date and are explored at length in the articles in this issue of THE MAGAZINE. After the reading the articles, one can readily conclude that the dedicated professional who believes in and takes pride in his/her work does place a high priority on keeping up to date.

THEME

Keeping Up To Date — A Must For Vo-Ag



By Rodney Wallbrown
Editor's Note: Mr. Wallbrown is Vocational Agriculture Teacher at Mason County Vocational Center, Point Pleasant, West Virginia 25550.

Keeping up to date is a must for any vocational agriculture teacher in today's changing world. Vocational agriculture students must be trained in modern agricultural practices if they are to enter into, and advance, in the agricultural world of work. With this in mind, how can we prepare our students if we, as teachers, are "behind the times"?

Three Groups of Teachers

Whether a teacher stays up to date or not will depend on the attitude of the individual teacher. In this regard, vo-ag teachers can be placed in one of the following attitude groups:

Those who see the importance of staying up to date and do everything possible to do so,

those who keep up to date as much as possible if no personal sacrifice is required, and

those who could care less about staying up to date.

Teachers in the first group are those who are sincerely interested in being the best teacher they can possible be. They strive to prepare their students to the best of their ability. They are willing to sacrifice their own time, and sometimes money, to obtain additional training.

Teachers in the second group see the importance of staying up to date but they are not willing to make any personal sacrifices, such as time or money.

Teachers in the third group are usually more interested in taking home a pay check than teaching students. The sad part is that students receiving instruction from a teacher in group three are the real losers. We as vocational agriculture teachers should take a sincere look at ourselves to determine which attitude group we fall into. If we are in anything but group one, we should do our best to change.

How to Keep Up to Date

Many people think that in order to stay up to date participation in a formal type of education, such as college courses, is needed. This is only one of the many ways. Other ways include workshops, field days, visits to various businesses, visits to modern farms, individual reading, and discussions with other teachers.

Keeping up to date can usually be classified as either mandatory or by teacher's choice. Mandatory includes teacher re-certification, graduate work, or continuing education requirements. These are usually mandated by state certification boards, graduate school committees, or local boards of education. In order to keep a job or receive a raise in pay, one must meet these requirements. Training taken by choice to keep up to date is done when the teacher sees the personal need for additional training. This might be to allow the teacher to better train students or for self-satisfaction.

In the eight years of teaching this writer has completed, he has seen many changes in the field of agriculture. This has been true in the field of agricultural science, as well as in agricultural mechanics. As a teacher of agricultural mechanics, I have done everything possible to stay up to date. With the new and different kinds of machinery and equipment on today's farms, students must be trained as to proper operation, repair, and maintenance.

This writer has used several methods of training in attempting to stay up to date. Summer workshops in specific areas have been a great help. West Virginia vocational agriculture teachers are proud of the training programs available. Many beneficial workshops have been conducted for vo-ag teachers because of the interest and dedication shown by West Virginia University staff members and West Virginia Dept. of Vocational Education staff members. These workshops have hands-on experience, formal instruction, and college credit on the graduate level.

Other methods which have proven beneficial involve informal training. An unlimited amount can be learned by attending field days, demonstrations, reviews, shows, and agricultural exhibits. Many ideas and skills can be acquired and developed by talking with or watching others. These types of activities can be attended by teachers and students with both groups receiving training and new ideas.

Adult work is another area which has helped me stay up to date. An active, on-going adult farmer class will cause the teacher to keep up on new ideas. This is partly because of the demand on the vo-ag teacher by the farmers. Adults have many questions, so in order to be able to answer these questions, the teacher cannot afford to get behind. Adult classes are also beneficial to the teacher because of the wealth of knowledge farmers possess. Much can be learned from informal discussions both before and after class. Speakers on specific subjects can also provide a great deal of information to the teacher, as well as to the adult members.

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Keeping Up To Date — A Must For Vo-Ag

(Continued from Page 5)

Along with these other methods of keeping up to date, let us, as vocational agriculture teachers, never forget the importance of reading. Agricultural magazines, bulletins, reports, papers, and books can only help if they are read and used. In agricultural mechanics, parts books, reference materials and teaching materials can be used by teachers and students. Agricultural mechanics teachers, should not be afraid to get into something new and different. The agricultural mechanics lab can be a great training station for the teacher and the students if it is used properly.

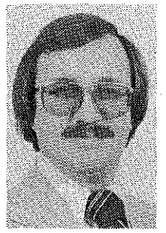
Spotting a Phoney Cheater

Vo-ag students often force the teacher to stay up to date. They are eager to learn and do new and different things. In order for them to learn these things the teacher had better be prepared. Sure, one can pretend to know something, but don't forget that students can spot a phoney and can prove one to be a phoney.

It is difficult to stay up to date. Many times sacrifices must be made. Hours away from home and family must be spent. Personal expenses are usually incurred, but all is worth it for the end results. There is nothing more enjoyable or pleasing than to see the expression of pride on a student's face when a newly overhauled tractor starts, a newly constructed wagon leaves the lab, or a difficult skill has been accomplished. Vocational agriculture teachers, let's not be guilty of cheating a student out of that experience because of our own inexperience!

THEME

Giving PTO The "Shaft"



By Max B. McGhee

Editor's Note: Dr. McGhee is Associate Professor of Agricultural and Extension Education at the University of Florida, Gainesville, Florida 32601.

Today's teacher of agriculture must constantly be on guard for a syndrome which can be diagnosed from several symptoms: lower program quality, lessened sense of accomplishment, larger numbers of students not employed upon program completion, and poorer program image in the community. The onset of this syndrome is not sudden, but is a result of poor preventative measures being taken by the teacher. No one is immune from this syndrome; however, if several preventative actions are implemented and maintained by the teacher, the chance of "attack" is greatly reduced.

The condition can be complicated and onset of the symptoms will occur more rapidly if the teacher also is infected with apathy, "tenure retirement," or lack of desire. By now, one should be able to identify the syndrome: PROTECH OBSOLESCENCE (PTO). Yes, this syndrome is simply the condition of being an outdated teacher of agriculture. PTO encompasses both professional and technical skills of the teacher.

With the rapidity at which agricultural technology is changing due to such factors as inflation, energy, environmental protection, and international affairs, it is imperative that agriculture teachers practice and take advantage of preventative measures to avoid being infected and destroyed by PTO. Likewise, with the changing composition and organization of today's schools, teachers must constantly upgrade and update their professional skills in an effort to better develop and maintain student interest, effectively present content, and assure content applicability and internalization by their students.

AVOID

The question is "How can you (we) as teachers avoid contracting PTO Syndrome?" I would like to identify what I believe are several viable answers to the question. The preventative techniques are avoid:

Advanced Academic Study
Vocational Conferences and Professional Organizations
Occupational Experience
In-service Education
Discovery of Other Opportunities

ADVANCED STUDY. One technique for preventing the spread of PTO is to pursue formal academic course work. This not only prevents the occurrence of professional and technical obsolescence, but also increases on-the-job monetary rewards. Most salary scales are tied to additional academic training as well as experience. Even with the shortage of certified teachers of agriculture, administrators prefer to employ technically and professionally competent teachers who have additional training and experience. Likewise, by enrolling in courses on or off campus, one can be exposed to the latest information available because of the research activities (professional and technical) underway at the universities.

VOCATIONAL CONFERENCES AND PROFESSIONAL ORGANIZATIONS. Peer association in an organized, mission-oriented conference is an excellent way to find out what others are doing in their agricultural programs. These conferences provide a mechanism for learning (and sharing with others) new professional and technical skills to help prevent PTO. Likewise, colleagues in other vocational areas have some benefit. The Florida Vocational Educator's Conference (sponsored by the state department of education as a professional development workshop) is of such a size and scale that it is more appealing for educational exhibitors to attend and display their latest products than if the potential audience were smaller. Thus, new products, equipment, and materials can be viewed and evaluated for their PTO prevention capabilities.

Professional organizations (state vocational and agricultural teachers) also conduct annual business meetings and workshops during these conferences. These groups help to foster an "esprit de corps" among professionals as well as provide a means for a systematic identification of activities, materials, etc., needed by the professional to avoid PTO. In Florida, various committees of the Florida Vocational Agriculture Teachers Association (FVATA) are charged with identifying needs for in-service education, curriculum materials, etc., for teachers. These findings are then used as input into the decision-making process of the State Staff in determining priorities for professional development activities.

OCCUPATIONAL EXPERIENCE. Have you ever attempted to gain new "hands-on" experiences in your subject area? If you teach horticulture, have you worked in a horticultural business (other than your own school greenhouse) in the last 2 to 3 years to become updated in "real world" business concerns? Are you knowledgeable of current prices, procedures, and problems inherent in an agricultural supplies and service business? These and similar questions relative to current occupational experiences must be answered YES to avoid PTO. Several states have programs in which teachers can gain on-the-job occupational experiences in various program areas. For several years Pennsylvania has had an extensive program of occupational experience for horticulture teachers. Florida is planning a similar program for the summer of 1981 on a pilot basis to assist teachers to be more technically and managerially competent — thus delaying the onset of PTO. Why not check out opportunities available in your state?

INSERVICE EDUCATION. Many opportunities exist for teachers to maintain professional and technical skills through participation in short courses, workshops, field days, and other activities offered on the local school district, county, state, and national level. These "PTO prevention opportunities" are sponsored, coordinated, and provided by schools, state departments of education, universities, and agri-industry. At the University of Florida, the Department of Agricultural and Extension Education has assumed a major role in the coordination of approximately 35 in-service training workshops between July, 1979, and July, 1981, related to low-energy technology (LET). These workshops are designed for agricultural teachers, county extension agents, soil conservationists, and other professional agriculturalists in answer to acute energy problems related to Florida agriculture. These problems result from the 13 billion dollar Florida agricultural industry, which on a per-acre basis, leads the nation in both total pesticide and insecticide use and ranks third in consumption of fertilizer. In addition, Florida agriculture consumes approximately 97 trillion BTU's of energy or roughly 6 percent of the state's total energy consumption. Therefore, new low-energy technology for agriculture is being developed in Florida to reduce this "energy dependence." These inservice workshops are being used as one method to diffuse this new technology. This is but one example of how inservice education workshops are helping teachers to avoid PTO.

DISCOVERY OF OTHER OPPORTUNITIES. A final suggestion for avoiding PTO infection is one which could include a number of other preventative techniques. Visiting other agriculture departments to observe what your colleagues have and are doing to avoid PTO in their local programs, and reading and contributing to your professional journals such as The Agricultural Education Magazine are two examples. Through these and similar activities you can improve your professional teaching skills as well as gain new knowledge and skills in your subject (technical) area, and, thereby, avoiding PROTECH OBSOLESCENCE. Other opportunities to improve your professional and technical competence exist. They are merely awaiting discovery.

Summary

In summary, the reduction or lessening of competence relative to professional and technical skills can result in a syndrome termed PROTECH OBSOLESCENCE or PTO. This syndrome can be compounded and occurs more frequently when the teacher is apathetic and lacks the desire to be effective. Procedures all teachers can implement to AVOID and/or prevent this syndrome from invading their system include advanced academic study, participation in vocational conferences and professional organizations, current occupational experiences, inservice education workshops, and discovery of other opportunities for updating.

PTO is not a disease, but rather a syndrome (or collection of symptoms); therefore, it does not have a yaccine. Only careful monitoring of individual symptoms can prevent a serious epidemic. A program of prevention is available for those who wish to conquer this malady and give PROTECH OBSOLESCENCE. It is "shaft!"

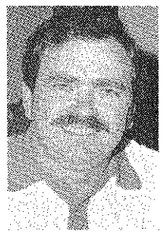
Annual Research Meeting Planned

The Eighth Annual Agricultural Education Research Meeting is scheduled for December 4, 1981, in Atlanta, Georgia. Dr. M.J. Iverson of Auburn University is serving as Program Chairman.

Individuals who wish to submit papers for consideration should do so by June 15, 1981. Additional information is available from:

Dr. M.J. Iverson, Program Chairman
National Agricultural Education Research Meeting
Department of Vocational and Adult Education
112 Petrie Hall
Auburn University, Alabama 36849

Agriculture, Education, and Life . . .
The Challenge of Keeping Up To Date



By Donald Stephens
Editor's Note: Mr. Stephens is Vocational Agriculture Teacher at Ravenswood High School in Ravenswood, West Virginia 26164.

The problem of keeping up to date makes teaching vocational agriculture interesting and challenging. While doing a community survey, one of my adult farmers noted that, "It's not so important how much education a person has had. Success depends more on how well one has kept up with the new technologies and innovations in farming." This man, in his seventies with an eighth grade education, is very successful in agriculture as a farmer. He is active in many service organizations and a member of the Agricultural Stabilization and Conservation County Committee. Keeping up to date is just as important to a successful vo-ag teacher as it was to this successful farmer.

In this article, I want to relate some things that have been helpful to me in keeping up to date. I feel that there are three areas: agriculture, education trends, and life.

Up To Date in Agriculture

In the area of agriculture, having a farm of my own has aided in finding new solutions to farming problems and learning existing practices. Many times you will have the attitude of "Will this work for me?" As well as being more observant on the farms of others, I feel that the experience has had a major impact on my teaching ability. A vo-ag teacher is probably better off in the management aspect rather than as a farm worker.

Teaching a young farmer program certainly assists in the agricultural updating process. Using resource persons to assist in the instruction keeps me in contact with the latest information. Young farmer conferences and institutes, both on the state and national level, provide worlds of information. The young and adult farmers are very aggressive and demand that the instructional program be viable and healthy.

A good positive attitude toward agriculture is a necessity. One must be up to date with agricultural facts and figures to intelligently support the nation's number one industry in every respect on the local, state, and national levels. The ability to convince students, administrators, and critics is vital. Many people are not aware of the agriculture surrounding them, or of its importance or potential. Searching the strengths and weaknesses of the industry can have a major economic impact on your community.

Up To Date in Education Trends

In the area of education trends, being involved is critical. Awareness of various happenings in the local school relative to curriculum, clubs, and other activities is necessary. The same applies to state and national level activities, although this is more difficult.

The vo-ag program is under constant change. Female enrollment in our program has increased from none six years ago to approximately thirty today. This has had a major impact on the program. I might go as far as to say that if your program does not have girls, then your program is not up to date.

Magazines, workshops, in-service activities and other things have their place in the updating process.

Up To Date in Level of Living

How about an up-to-date life for you and the students? Drugs, inflation, energy, the marketing system, and the family structure, among others, are opening up new challenges in the educational process. These areas can best be addressed by each individual based on his or her personality, convictions, and awareness of self.

Open minds will certainly reap dividends.

Themes For 1981
The Agricultural Education Magazine

Programs in Agricultural Supplies and Services	April
Energy Education	May
Adult/Young Adult Education	June
Professionalism	July
The Beginning Teacher	August
Student Management	September
Teacher/Professional Liability	October
Using Research	November
Relationships with Agricultural/ Educational Agencies	December

Is It Possible to Keep Up to Date?

The thing that hath been, it is that which shall be;
and that which is done is that which shall be done;
and there is no new thing under the sun.
Ecclesiastes, Chapter 1, Verse 9

By Kenneth D. McIntosh
Editor's Note: Dr. McIntosh is Professor of Agricultural Economics at West Virginia University in Morgantown, West Virginia 26506.

In a lifetime, each person begins anew in the quest to know and understand the accumulated information of mankind. Regretfully, the reservoir of information is so large and expanding so rapidly that our limited lives preclude anything but a skinny-dip. As a result of the knowledge explosion and finite lives we are coerced into highly specialized subject matter areas. It is from these very narrow arenas that we are expected to be professionally skilled and asked to make research contributions that will add to the store of knowledge.

Occasionally we note with envy someone who has managed to become proficient in two or more specialized areas. Such individuals are rare and should be accorded considerable respect. Most commonly, individuals dig in narrow trenches and become ardent protectors of the turf; restricting entry to new disciples who display signs of fealty, informing each other of new gleanings, providing status and rewards to the membership, and occasionally contributing a tidbit to the public weal. As the specialists probe deeper and deeper the trench of knowledge becomes ever more narrow, more difficult to comprehend and less well understood by the general public. Under these circumstances there is an extremely high cost for anyone desiring to keep up to date. In fact, it might well be that the general notion of keeping up to date has lost most, if not all, of its substantive content.

Over the past twenty years I have developed a sense of admiration for those who try to keep up to date and lose empathy for those who revolt, drop out, and ask directions to the human refuse pile. Lest we all join with the latter group, I urge that we refine our thinking, make distinctions in this aspect of life, reexamine our conceptions of keeping up to date, and be ever suspicious of those who profess to "know the latest word."

Types of Knowledge

It seems to me that our conceptions of keeping up to date would be improved by distinguishing between types of new knowledge, awareness of new knowledge, and the employment of new knowledge in our work roles. Unless we are prepared to do such classifying our communications will remain fuzzy or ambiguous and our expectations regarding the "up to date professional" will remain at unreasonable levels.

New knowledge or information may relate to a specific subject matter area or it may be related to many subject matter areas through new processing techniques. The computer may not have advanced the frontier of knowledge in basic mathematics but it has certainly improved our ability to process mountains of data. Thus, keeping up to date in mathematics may gently force one to keep up in computer science. It must be difficult for the teacher in high school to explain the basic math in deriving the square root of a number when the studenf can find the answer simply by entering the number and depressing the square root button on a hand calculator. Can we expect the teacher of math to be proficient and up to date in both areas?

Teachers of vocational agriculture are confronted with a steady stream of new knowledge concerning many subject matter areas, in addition to the unending flow of information on procedures for "delivering the message." New plant varieties, new machinery and equipment, improved cultivation practices, recent regulations concerning pesticides, new record keeping systems, new audiovisual equipment, individualized instruction, and cooperative work projects are but a few of a list that is almost endless. The individual teacher does not have the time to maintain currency in all areas. Even if the teacher had time to become informed, classroom time remains relatively constant and at some point would become a barrier to dissemination. Thus, the teacher must choose from a rapidly expanding list and such choices bear heavily upon staying up to date.

Facing the Situation

Teachers of vocational agriculture face a situation very similar to that confronting Charlie Chaplin in a silent movie clip years ago. Chaplin was demonstrating complications arising from the adoption of industrial technology. He was the last worker at the end of the assembly line in a pie making plant. As the pies came across the line Charlie picked them up, placed them in boxes, and stacked the boxes for delivery. At first he had little problem keeping up with the assembly line but as technical improvements were made the line speeded up. Charlie worked faster and faster as he grabbed and boxed pies. Finally, his arms, hands, and feet could not keep pace with the pies as they were coming over the belt line at an ever increasing speed. In the final scene Charlie was lying on the floor and the room was completely filled with unboxed pies.

Much the same is true with new knowledge flowing in on teachers. No matter how heated the debate on our form

(Continued on Page 10)

Is It Possible to Keep Up to Date?

(Continued from Page 9)

of government, everyone recognizes that it is very productive of new knowledge and as the onslaught continues to grow, the number of individuals really keeping up to date becomes smaller.

Awareness and use of new practices remains as the primary standard in assessing up to date teachers. Yet, when we pause and reflect upon the magnitude of the knowledge explosion, the high monetary cost of staying informed and the cost in time of keeping informed, we begin to suspicion that the gap between performance standard and human behavior is inexorably widening. There are many competing uses for our time: television, friends, recreation, children, travel, hobbies, and reading the latest information on our profession.

Very few of us are willing to devote our entire lives in an attempt to stay up to date. Even if we were willing to devote large proportions of our lives to staying informed, the monetary cost might be exorbitant. THE NATIONAL JOURNAL, an excellent source of current information regarding actions of all branches of federal government, is priced at $300+ annually. THE CHRONICLE OF HIGHER EDUCATION is $32.50 per year. Textbooks are rarely under $16.95. THE WALL STREET JOURNAL is $63.00 per year. The Academy of Science provides SCIENCE for $38 annually. Professional journals like the one published by the American Agricultural Economics Association are priced at $25 or more per year. Recently it was noted that the average annual cost of attending universities is currently in excess of $7,000. Even the daily newspaper exceeds $50 annually. There is definitely a high and rising monetary cost associated with staying up to date.

Implicit in staying up to date is a notion that at one time the teacher was up to date and it is simply a matter of doing enough to maintain that equilibrium. Unfortunately, there is wide variation among people with respect to levels of information. This is true even among specialists in the same area. What is new information to some people represents an old ideology to others. The disparities that exist in levels of understanding also lead to interruption in the diffusion of new knowledge. Much of the new information found in technical manuals and professional journals is written in highly quantitative form. As a result, it is not readily understood. Little wonder that many professional groups spend a large amount of their time discussing the problem of declining subscriptions and try to resolve it by increasing professional dues or page charges!

Difficulties

In short, keeping up to date is becoming increasingly difficult and will likely be even more difficult in the years ahead. The knowledge explosion continues unabated, pressing upon finite lives and constrained work periods. Time and monetary costs restrain our efforts to stay abreast of new developments. Even if these costs did not exist, the differentials that exist among people in being able to understand and use the technical and quantitative form of new information insures that most of us are effectively out of date and will remain in that condition. Under older nostrums we are supposed to avoid this circumstance by specializing, being highly selective among data sources, reading reviews, participating in inservice training programs and retreading through study leaves and sabatticals. Newer nostrums prescribe processing assistance such as key words, abstracts, abstracts of abstracts, word processing, data banks, and fast reading programs.

At the risk of disclosing old age cynicism, it is suggested that these latest techniques will also fail in keeping us up to date in any but the narrowest of areas. Nonetheless, we should doff our hats to those who give it a try and hope that they are successful. If they stumble, we should offer a hand as they rejoin those of us who passed along the road at an earlier date.

THEME

The West Virginia Story: Working Together to Keep Up to Date

By WARREN G. KELLY
Editor's Note: Dr. Kelly is Professor and Chairman of Agricultural Education at West Virginia University, Morgantown, West Virginia 26506.

The need for continuing education is not too difficult to establish. James B. Conant said, "The world has become so complicated that if man stops his education when he leaves school, college, or even professional school, he is doomed to educational mediocrity. Things are changing so rapidly. And if your talents lead you to a professional field, there is no end of your education."

The preceding statement certainly applies to teaching vocational agriculture. Vocational agriculture teachers are directly involved with an industry (agriculture-agribusiness) which employs some 17 or 18 percent of the total United States work force, and it is estimated that 6 to 7 million of these workers are in need of instruction in agriculture. To even the casual observer, it is quite obvious that the mass of new knowledge accumulated in the areas of agriculture-agribusiness is staggering and no one person can master it completely. Even so, the vo-ag teacher has a responsibility for assessing the needs and interests of the agriculturists in his/her area and subsequently to develop and initiate instructional programs that will assist those who are engaged in an agricultural occupation to solve problems which will enable them to attain higher standards of living, while simultaneously contributing more to the society in which they live. Ultimately, the teacher of vocational agriculture has the responsibility of acquiring new knowledge and assisting the clientele in the school community in solving problems related to agriculture.

Personal Inquiry

One method of keeping up to date (and one utilized by all teachers) is the personal inquiry technique. Vast amounts of new agricultural knowledge are being published daily in magazines, experiment station publications, scientific journals, and books, as well as other types of printed materials. These and other sources will continue to be important avenues for the teacher of vocational agriculture to use in keeping up to date.

The Responsibility

Providing for the inservice training needs of teachers of vocational agriculture has been an accepted responsibility of teacher educators and state supervisors in West Virginia since the beginning of vocational agriculture program offerings in 1917. Traditionally, there has been a well coordinated effort between teacher educators and state supervisors to provide teachers with up to date information in agricultural science and mechanization. Personnel in the Bureau of Vocational, Technical and Adult Education in the West Virginia State Department of Education who administer vocational education funds designed to improve the professional competencies of teachers have approved many worthwhile workshops for vocational agriculture teachers.

Teacher educators, state supervisory staff members, and officers of the West Virginia Vo-Ag Teachers Association (including District Officers) meet annually as a Program and Policy Committee. One major objective of this meeting is to plan the Annual Conference Program for vo-ag teachers. As a result, major problem areas and/or areas of high interest in agriculture are pinpointed and special sessions are set aside during the Conference for a discussion of the subject. The best known resource person is secured to discuss the topic and otherwise bring the latest information to the teachers.

Using a Survey

Even though past efforts in keeping teachers up to date have been well organized and effective, possibly the most effective plan yet developed was initiated in 1978. At that time a "Survey Form to Determine Vo-Ag Teacher Interest In and Need for Courses and Workshops" was sent to each vo-ag teacher. The survey form listed 14 possible workshops and 12 possible course offerings with directions to the teacher being to rank his/her choices of workshops and courses and indicate their intention as to when they would take the workshop and/or course if offered. Data from this survey were tabulated and subsequently discussed with all teacher educators and supervisors. It was decided that the information should be presented to the Dean and Division Chairpersons in the College of Agriculture and Forestry because if the courses and workshops were ever offered it would entail the professional services of a considerable number of University faculty within the College. Therefore, the key to the implementation of a long time plan for offering courses and workshops which are of interest and needed by vo-ag teachers is administrative approval and support by those concerned at the University level.

Using a Long-Range Plan

A meeting involving agricultural teacher educators, state supervisors of vocational agriculture, College Dean and Associate Dean, and Division Chairpersons was held at which time the information gathered from the vo-ag teachers through the survey was fully discussed. The result of that meeting was approval of a "Five-Year Plan for Offering Courses and Workshops for Vocational Agriculture Teachers." The Plan was initiated in 1979 and runs through 1983. To date, it has worked exactly as planned.

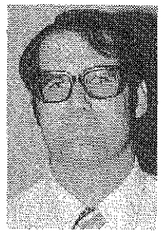
Among the many advantages to this system, several stand out as reasons for its success to date. First, teacher interests and needs were discovered by their response to the survey. Second, supervisors, teacher educators, faculty in the College of Agriculture and Forestry, and personnel in the Bureau of Vocational, Technical and Adult Education of the State Department of Education have found a common basis for planning. Third, faculty in the College have been able to plan for this instruction and work it into their schedule. Fourth, teachers of vocational agriculture have had better success in obtaining permission to enroll in workshops and courses because their administrators have been convinced of the need for their teachers to keep up to date. Fifth, the workshops and course offerings are scheduled during the summer and vo-ag teachers have enrolled in each offering in acceptable numbers.

Working Together

In summary, we in West Virginia believe it is the responsibility of teacher educators and supervisors to develop a plan whereby vo-ag teachers will have an opportunity for in-service training and thus make it possible for them to keep up to date. Teachers of vocational agriculture cannot possibly do this as well through their own efforts. We believe programs designed for keeping teachers up to date must involve administrators and faculty in the Colleges of Agriculture and Forestry and other well qualified professional persons in the private sectors of agribusiness. Any program developed for the purpose of keeping teachers up to date must have input from the teachers in order to determine their immediate needs and interests. It would be foolish for teacher educators and supervisors to ask administrators and faculty of our College to offer courses and workshops and end up with few if any enrollees.

Our plan is working. During the Summer of 1980, five credit workshops and three credit courses were offered to teachers of vocational agriculture. A total of 20 credit hours was offered and each course and workshop had ample enrollment. We believe the record speaks for itself when more than 60 percent of all active teachers of vocational agriculture in the State were enrolled in one or more of the offerings. It appears that teachers will make whatever sacrifices are necessary in order to keep up to date.

The Oklahoma Story . . .
Graduate Classes in the Field



By Steve Forsythe
Editor's Note: Mr. Forsythe is Graduate Teaching Assistant at the Oklahoma State University, Stillwater, Oklahoma 74074.

As vo-ag teachers have become busier and taken on added responsibilities, providing quality, viable instruction to them out in the field has become essential.

Many local school districts and states require a certain number of professional improvement hours every five years. This allows and encourages work on advanced degrees and recertification. As local monies and a national energy crisis cause a "crunch" on school dollars as well as on the dollars of teachers, we in agricultural education need to take more educational opportunities to the agriculture teachers. In other words, the class is taken to the teacher!?

Traditionally, many states have offered courses and credit hours during state conferences where all the state's agricultural educators gather. At Oklahoma State University new approaches to professional improvement are being offered.

Through the State Department of Vocational Agriculture and the Departments of Agricultural Engineering and Agricultural Education at Oklahoma State University, one-week extension short-courses are offered. By polling the state agriculture teachers on their interests in the area of agricultural mechanics, two areas of instruction have been developed: Electricity and Small Gasoline Engines.

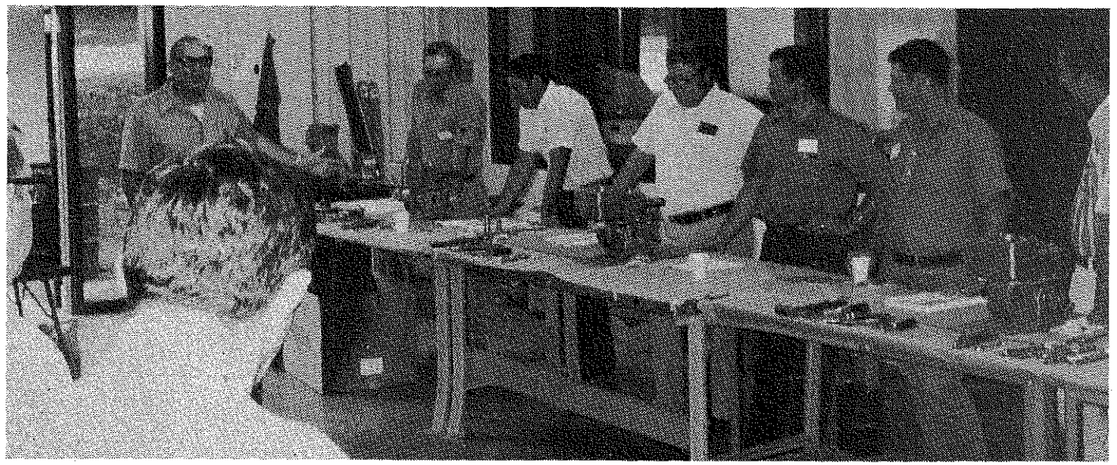
These two courses are offered for graduate credit to Oklahoma agriculture teachers during the summer. The number of enrollees was limited to 20 per course to allow for ample student-teacher attention and lab work time.

While the summer is no less busy than any other time of the year, extension graduate courses are offered at locations centrally located throughout the State. This has brought the courses to the teachers and alleviated travel and time on the road for the course participants.

The laboratory equipment in electricity and teaching materials were "taken to the teachers" in an attempt to bring quality in-service work to the field. Over 40 hours of class instruction and lab were carried on during one five day school.

The small engines course offered in the field was a cooperative effort between Briggs and Stratton corporation and Oklahoma State University to help vo-ag teachers learn to teach small gasoline engines. A special banquet at Pryor, Oklahoma, where the course was offered, was the highlight of this week long "field school" as the agriculture teachers not only received a grade but also a special certificate of completion.

Evaluation of these "courses in the field" indicates a satisfaction and desire by Oklahoma vo-ag teachers to be allowed to take more graduate work in the field. Plans are underway for next summer to provide more quality education in the field for agriculture teachers.



Oklahoma vo-ag teachers are shown being instructed in small engine repair in an off-campus class from Oklahoma State University. A Briggs and Statton representative assisted in teaching the class.

Sex Equity: Are You Limiting Student Career Expectations?

By Jan Henderson
Editor's Note: Ms. Henderson is Horticulture Teacher at Upper Valley Joint Vocational School District in Piqua, Ohio 45356. The article is based on research for her thesis at The Ohio State University.

Consider for a moment the following situation: You are evaluating a State FFA degree application. This particular student has a farm enterprise consisting of 30 gilts, 120 feeder pigs, 140 acres of corn, and 32 acres of wheat, with a net worth totaling $14,758.00. Nine home improvement projects, including the building of fences and two corncribs have been completed. Numerous exhibits at state and county fairs and participation in the district livestock judging contest are among this student's activities. During the past four years the student has been very active in the FFA organization and is currently serving as chapter president. Incidentally, this student is a girl. Would the sex of the student influence your evaluation of the application?

This question was recently addressed by a project conducted in Ohio to study an aspect of possible sex bias behavior among production agriculture teachers. The study was designed to analyze teacher evaluation of student achievement and performance as measured by the State FFA degree application.

Sixty-eight Ohio production agriculture instructors were asked to score and rank three sample state degree applications. The teachers were divided into two groups of equal size. One group was instructed to score and rank state degree applications for three different students. The other group of teachers received the same three applications to score and rank, except the name of the student on each application was changed to represent a member of the opposite sex. Results revealed that there was no significant difference between the average scores on the corresponding male and female applications.

The study concluded that when evaluating State FFA degree applications, production agriculture teachers in Ohio appear to be more concerned with the quality of the program of the student than with the particular sex of the applicant.

Sex Stereotyping

Most of us would like to admit that our evaluation of student achievement and performance would be objective regardless of the sex of the student or of any other distinguishing characteristic. Although most of us are aware of the ideal of equity for male and female students and at times are free of restricting attitudes, we are bound by many stereotypes concerning the sexes.

You may have heard a teacher or yourself express the following comments: "Girls don't want to get dirty. Therefore, they really don't enjoy shop work." "Boys are just naturally more interested and proficient in mechanical work than girls." "The girls in my program are only interested in floral design. Anyway, they can't physically handle landscape work." "Girls should be nominated for the position of secretary of the FFA chapter since they are more academic and usually have better handwriting than boys." All of these statements are attributing certain abilities, interests, and behaviors to a group of persons on the basis of sex. Individual capabilities are overlooked or ignored.

Sex Equity

The obvious forms of sex discrimination are typically rare with the passage of federal legislation, as witnessed by the increasing enrollment of female students in vocational agriculture programs and in the FFA organization, yet the more subtle aspects of sex bias and sex stereotyping still exist in many classrooms.

As teachers of vocational agriculture, we play a tremendous socializing role in American culture and can be a key to changing student concepts regarding sex role expectations. Think of the previous week's interaction with the students in your program. Were there any incidents that involved an assumption or attitude based on the sex of the student? As we begin to recognize our own attitudes and behaviors that encourage and perpetuate sex stereotyping, we will be better prepared to deal with and modify these behaviors in our students.

As we are planning either our yearly curriculum or our daily lab assignments, let us include activities that provide all of the students, regardless of their sex, with the necessary skills for an entry-level job in a chosen career. Students receive a definite message when their textbooks constantly use the generic "he" and are filled with male-dominated pictures. Reviewing curriculum materials for sex bias and including realistic examples of opportunities for both male and female students during class discussions can begin to expand career expectations.

Directive counseling regarding the various possibilities in the fields of agriculture can also assist students in developing individual career interests. While the teacher may be able to provide an equitable classroom climate, students may still encounter considerable bias when seeking employment in certain agricultural occupations. We must make an effort to place our students with employers who are willing to furnish a variety of learning environments for all students.

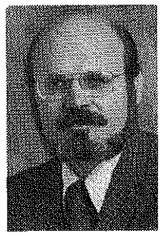
The issue of sex equity has received substantial attention in recent years. Although most of us could not explain the specific guidelines of the federal legislation, we can identify the objectives of our own vocational agriculture program. One of our goals should be to expose students to a variety of career options requiring a range of interests and abilities. Students will then be able to make an informed vocational choice based on individual capabilities, rather than a choice based on restrictive sex role stereotypes.

ARTICLE

Teacher Shortage: Missing The Boat In Virginia?

By Tom D. Burgess

Editor's Note: Mr. Burgess is Vocational Agriculture Instructor at John C. Myers Intermediate School in Broadway, Virginia 22815. He is Past-President of the Virginia Vocational Agriculture Teachers Association.



Much has been said and done in Virginia over the years in an attempt to increase the number of qualified high school vocational agriculture graduates to choose agricultural education as their major at the state's two teacher training institutions. The state agricultural education supervisory personnel, the Virginia State and Virginia Tech university teacher training staffs, the Virginia Vocational Agriculture Teachers Association, and the Virginia FFA Association have, in tandem and separately, been attempting to stimulate interest in the teaching of agriculture as a career. The results have reaped but modest results in recent years.

At the university level every attempt is being made to hold the interest of those enrolled in the agricultural education curriculum. At Virginia Tech some students in the college of agriculture, particularly those in horticulture and animal science, are finding their way to the school of education and taking courses that will qualify them to become teachers of agriculture.

At graduation time there is some loss of these teacher prospects due to the attractiveness of other opportunities. Because of this and expanding programs of agriculture in the public schools and a relatively high turnover rate among experienced teachers, Virginia continues to fall short of its vocational agriculture teacher needs.

Are we in a profession that has a leak? We are bailing as fast as we can in our retirement efforts. we are plugging holes as quickly as possible by bringing in teachers from other states. But are we missing the boat completely?

Measuring Teacher Morale

Stemming the turnover rate appears to be the main problem at hand, and low teacher morale appears to be one of the culprits in our leaky boat. Larry E. Miller (1976) conducted research projects in 1974 and 1975 to determine teacher morale in the state. Using the Purdue Teacher Opinionaire, an instrument which purports to measure morale, he found that agriculture teachers in Virginia rated rather low in morale level when compared with the norm group representing junior and senior high school teachers.

After reviewing Dr. Miller's research and similar research done by others (Mattox, 1974; Shinn, Stewart, & Richardson, 1977; Craig, 1977, 1978; Knight, 1978), the author initiated an updated morale survey. The cooperation of the state supervisory staff and the teacher training personnel at Virginia Tech was enlisted for the conduct of the survey. The Purdue Teacher Opinionaire (P.T.O.) was again utilized because the 100 item instrument deals with ten ever important areas and appears to be the most accurate commercial instrument available for this purpose.

The Manual for the Purdue Teacher Opinionaire (Bentley & Rempel, 1970) describes the ten major factors as follows:

1. Teacher rapport with the principal which deals with the teacher's feeling about the principal.

2. Satisfaction with teaching which pertains to teacher relationships with students and feelings of satisfaction with teaching.

3. Rapport among teachers which focuses on the teacher's relationships with other teachers.

4. Teacher salary which pertains primarily to the teacher's feelings about salaries and salary policy.

5. Teacher load which deals with such matters as record keeping, clerical work, community demands, extra-curricular load, and keeping up to date professionally.

6. Curriculum issues which solicit teacher reactions to the adequacy of the school program in meeting student needs and in preparing students for effective citizenship.

7. Teacher status samples the feelings about prestige, security, and benefits afforded by teaching.

8. Community support of education deals with community understanding and willingness to support a sound educational program.

9. School facilities and services concerns the adequacy of facilities and efficiency of procedures for obtaining materials and services.

10. Community pressures relates to communiy expectations regarding a teacher's personal standards, participation in outside-school activities, and freedom to discuss controversial issues in the classroom.

The Morale of Virginia Teachers

The Purdue Teacher Opinionaire was administered to all teachers of agriculture in the state during the fall of 1979. Eighty-seven percent, or 351, of 405 teachers of agriculture responded. The main thrust was to determine the relationships between the morale of teachers of agriculture in Virginia who are natives of their school community (currently teaching in the same school system in which they attended at least their last five years of school prior to college) and non-natives (persons who are not currently teaching in the same school system in which they received their high school training).

No significant difference was found in any of the ten P.T.O. factors between the natives and non-natives, although the natives did score slightly higher on seven of the factors than did the non-natives. However, the total morale of Virginia agriculture teachers was notably low when compared to the national norms for junior and senior high school teachers.

In reviewing the results of the survey, only factor 6 dealing with curriculum issues and factor 8 concerning community support of education ranked above the fiftieth percentile in comparison with the total norm group of all junior and senior high school teachers.

No factor responses ranked above the seventieth percentile.

On three factors, both groups ranked well below the tenth percentile. This indicates that over ninety percent of the representative norm groups of junior and senior high school teachers expressed a higher morale response on these items than did the Virginia agriculture teachers.

Teacher load, which included such matters as record keeping, clerical work, community demands, extra-curricular load, and keeping up to date professionally, ranked lowest at the first percentile in both the native and non-native groups. It appears that teacher responses reflect concern for lack of sufficient secretarial help, uncompensated FFA activity and supervision, lack of effective professional organization contact, and use of the agriculture instructor as a school and community free service benefit.

The next lowest factor expressed by the respondents was satisfaction with teaching, which ranked in the fifth and third percentiles among native and non-native groups, respectively. Perhaps many teachers are feeling that their program has become a dumping ground for the school's collective problem students who create safety problems in the laboratory as well as roadblocks to effective instruction. Does work after hours (necessary to maintain an effective student visitation schedule) and school-imposed police details during critical planning and coordination periods create frustrations?

The community pressures factor ranked at the sixth and seventh percentiles.

The remaining factors for both natives and non-natives ranked anywhere from the fifteenth percentile to the forty-first percentile.

Morale and the Teacher Shortage

This study indicates that low teacher morale is continuing to be a possible factor in creating the teacher of agriculture shortfall in Virginia.

The problem transcends locating the best available student teaching experience centers, instructional classes in problem-shooting being offered to first year teachers, and pep talks by supervisory personnel — all of which are currently being done. As Phillip R. Zurbrick, stated, "What needs to be done is to apply our efforts so as to increase the availability of teachers. Specifically, teachers, state supervisors, and teacher educators need to make school administrators, school boards, and the general public aware of the inadequcy of current salaries and working conditions" (Zurbrick, 1980, p. 21).

It is evident that many teachers of agriculture in Virginia feel that they are being used instead of useful, that their concerns are being ignored by those in a position to do something about them, and that the misinterpretation of the purpose of the agricultural education program and the agricultural education instructor will eventually cause a deterioration of the program which will render students, communities, and our nation's agriculture a grave disservice.

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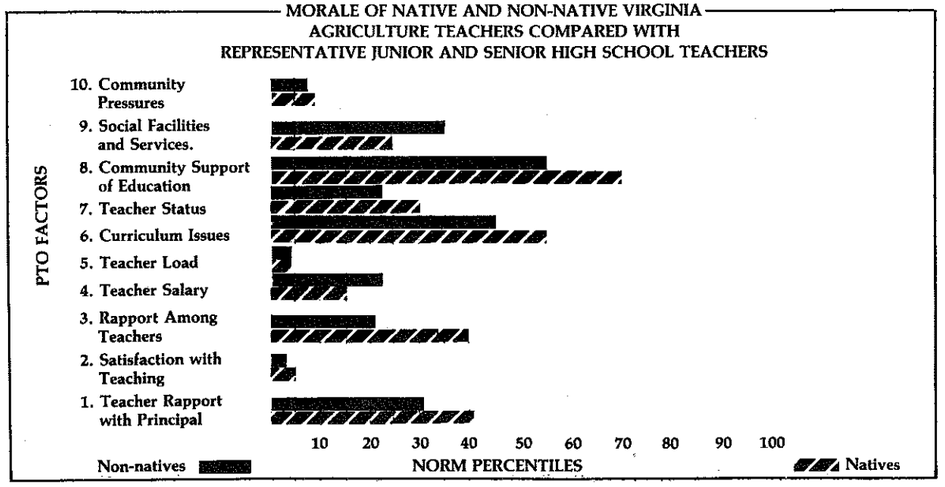
MORALE OF NATIVE AND NON-NATIVE VIRGINIA AGRICULTURE TEACHERS COMPARED WITH REPRESENTATIVE JUNIOR AND SENIOR HIGH SCHOOL TEACHERS



TEACHING TIPS

Developing Your Own Teaching Slide Sets

By Ray Erwin
Editor's Note: Mr. Erwin is Vocational Agriculture Teacher at Senior High School in Stillwater, Minnesota 55082.

The local preparation of teaching aids, such as slide sets, can be a rewarding activity that includes the important feature of adding your own personal experience and knowledge. Although somewhat expensive, locally-prepared slide sets can be specifically tailored to your own curriculum.

The development of the slide set is both a preparation as well as a teaching aid. You become a living script, adapting and amending as you progress and pausing as needed to emphasize particular features.

It has been observed in recent years that many young vocational agriculture instructors pay lip-service to the need for incorporating visuals into their teaching but that the outcome is far from extensive. Usually, the cost of really good 35mm equipment is prohibitive, resulting in a small first investment in equipment that will never serve the purpose.

Photography

How does one evaluate a good camera? The questions are: "Will it accomplish what you want it to do in improving your classroom teaching techniques and in meeting your instructional objectives?" Is supplementary equipment available for that camera to do more than simple snapshots? Can you use it on a copy stand and obtain additional lens?

Another factor that seems to prevent young teachers from becoming actively involved in upgrading and developing visual aids is simply a genuine fear of making photographs. Even if they do make photographs, they usually stop short of taking enough from which a teaching slide set might be made. The secret of creating quality slide sets is to have plenty of photos from which to select!

Slide Set Preparation

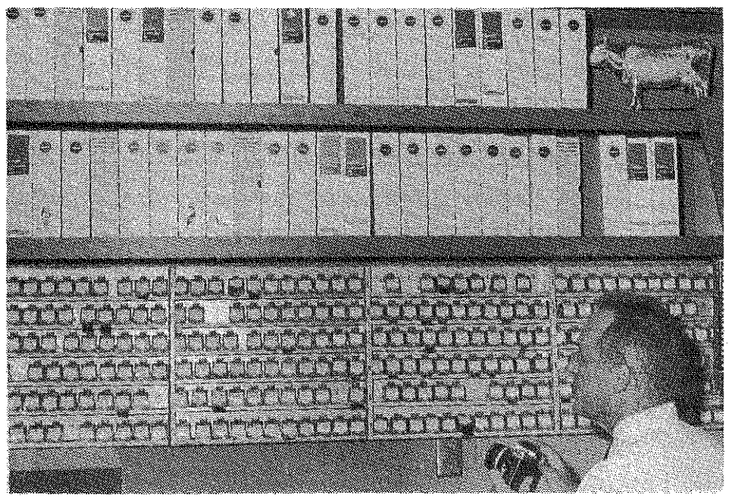
I've ruined a lot of film in attempting difficult photos. It takes considerable experience in shooting under poor light or other adverse conditions before you can get successful slides. Exposure, focusing, shutter speed selection, and other problems take a lot of practice before becoming perfect. Just getting to know the camera may take a lot of film before you realize when batteries go dead, threading was not started, and the other little failures that can creep in to ruin some shots that may never present themselves again.

Going by the book, the proper technique used in creating a good slide set is to do some outlining or sketching of slide-photos in advance and prepare a tentative script. This can be time consuming and self defeating, even though it might create a better slide set. The technique to which this author has gravitated is to always have at least one or two loaded cameras available for taking slide photos that might be useful for the classroom. I also have available a close-up lens and other equipment that may prove useful in special situations.

Interesting slide-set construction techniques that offer immense possibilities are the photographs contained in the many agricultural publications and periodicals. This gold mine of material is found in most local vo-ag departments and can be easily utilized if the 35mm slide-camera has some really useable attachments, especially a close-up lens. Most advertisements feature attractive color pictures that copy well into color slides. Photographing ads or portions of advertisements can do much toward either complementing an existing slide set or often as slide sets by themselves. For example: How can one do a good job of teaching swine feed additives without having the students go over the many advertisements in the *National Hog Farmer*? An even better way might be to photograph the ads, project them onto the screen for group discissuion of each, reading the claims, etc. The same might do well with the labels on the packaging of some additives. This teaching approach is limited only by your creativity.

Using and Filing Slides

To make full use of slide sets, filmstrips or other projectables, the instructor must have projection equipment and a room darkening technique available with a minimum of effort. I have everything set up so all I have to do is insert a carousel or filmstrip, lower the screen, turn down the lights and start the show, often without any extra preparation.



The author is shown working in the slide and filmstrip library of his vo-ag department.

The filing system for slides and slide sets becomes a problem if you follow the advice to shoot indiscriminately and in large volume. Your own logical system is probably the best. I file FFA by divisions of the Program of Activities. Technical slides are filed essentially by subject matter, similar to Agdex. The most useful, but expensive, is maintaining complete sets in carousels ready to go. Both the cost of the carousels as well as the storage space might be limiting features.

Financing

To counterbalance the costs involved in creating slide sets, you might investigate the possibility of using depreciation as an income tax deduction, similar to allowances for professional libraries, etc., if you purchase materials and do the processing yourself.

Another possibility is to work closely with school principals and superintendents in obtaining camera, film, processing, storage, and other items. Convince them that locally-produced slide sets can be much more effective in meeting the instructional objectives of the local program than a commercial set developed somewhere thousands of miles away.

Other Uses of Slides

There are many uses for slides in a well-organized vocational agriculture department. Keeping a pictorial record of completed shop projects, judging teams, executive committees and other events can contribute in good public relations.

To complete the teaching-learning effectiveness of a good visual aid, develop some good quizzes to immediately evaluate the expected learning outcomes. Having coordinated quizzes and carefully constructed user-guides for your slide sets, adds to the effectiveness of the presentation and can make you much more secure in the feeling that you accomplished your instructional objectives.

The possibilities are so endless that the local vocational agriculture instructor should take advantage of this teaching technique. Keep in mind, however, that it does take time and money. If you do become equipped to do an efficient job in creating quality slide sets and filmstrips, then you undoubtedly will come to the realization that the possibilities are boundless and the rewards are well worth it!

BOOK REVIEW

Livestock and Meat Marketing, 2nd ed., by John H. McCoy, AVI Publishing Company, Inc., 1979, 479 pp., $26.50.

This is a comprehensive book that addresses the over-all problems of livestock marketing. The book includes 16 chapters, each having an individual bibliography. A logical approach is used by building on the historical perspective, economic theory, livestock production supply, and meat consumption. The next step is to cover the types of markets, meat packing and processing, and meat marketing, both wholesale and retail. Once the reader has this understanding, the author moves to futures marketing, grades and grading, market intelligence, regulation and inspection, and international trade. The final chapters discuss marketing costs, meat substitutes, and synthetics.

The tables and figures used to illustrate the text are excellent. Any reader will gain an added understanding of the material by relating the printed word to these up-to-date illustrations. Dr. McCoy does an outstanding job of explaining futures marketing. An easy to understand description of futures marketing and an indepth review of futures market functions are included. Many examples are given of both speculation and hedging transactions. The discussion of cash-futures price relationships will help readers gain an increased understanding of the importance of hedging.

The author is a senior agricultural economist at Kansas State University. His years of experience and evident interest in animal science make for a lively student-oriented text book. The book is targeted towards undergraduate and junior college students. Vocational agriculture instructors would find this book to be a valuable reference. Adult farm management teachers would also find this book useful.

Wayne Berry
Agribusiness/Farm Management
University of North Dakota-
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Williston, North Dakota

Beef Production in the South, by Stewart H. Fowler, Danville, Illinois: The Interstate Printers & Publishers, Inc., 1979, 934 pp., $22.35.

Dr. Fowler has combined his educational training and practical experience in writing an excellent textbook on beef production. In addition to discussions on the historical development of cattle in the United States and recent changes in the beef cattle industry, the book contains information on such important topics as breeding and improving beef cattle; reproduction and fertility; nutritional needs, feeds, and feed additives; selecting feeder cattle; finishing cattle for slaughter; handling and management practices; and buildings and equipment for beef cattle.

Also contained in the book are chapters on pastures, rangelands, and forages; judging; keeping cattle healthy; breeding and feedlot diseases; internal and external parasites; selecting, fitting, and showing beef cattle; beef processing, distribution, and consumption; and selling purebred cattle. A final chapter discusses the relationship of wildlife to ranching.

While the book was written to specifically describe beef production in the southern region of the United States, a large portion of the book is applicable to all parts of the country. The book is perhaps most applicable to students enrolled in beef production courses at the college level, although high school students enrolled in vocational agriculture and farmers should find the book a valuable reference.

Hobart L. Harmon
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Constructing a Gas Welding Bench

A gas welding bench can be easily constructed for the vo-ag or farm shop. While providing adequate space for working on 1/8" x 1" x 3" practice plates for two students, it is also large enough for common oxyactylene welding, brazing, and soldering repair jobs.

Each student works at the "short" edge of the bench, and the sheet metal divider keeps one student from distracting the other. The adjustable leg allows the same bench to serve a variety of ages and sizes of students. The disc base is very stable and a broom easily passes over it during cleanup.

Construction Notes

The following comments are useful to anyone constructing the bench:

1. Vary sizes of angle iron, pipe, and bolts to suit local materials availability.

2. Sheet metal divider may be omitted.

3. Build top frame to fit local size of fire brick.

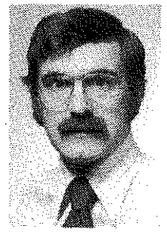
4. Drill clearance hole in pipe for locking bolt, and place bolt in nut and through hole to center nut over hole, then weld nut to pipe.

5. Cut clearance hole in disc blade (with torch) for larger pipe (rather than butt welding pipe to blade), insert short pipe through blade to floor, and weld all around on both sides of blade.

6. Insert smaller pipe into short pipe, weld all around at top of short pipe.

By George M. Brown

Editor's Note: Dr. Brown is a member of the Agricultural Engineering staff at Michigan State University in East Lansing, Michigan 48824.



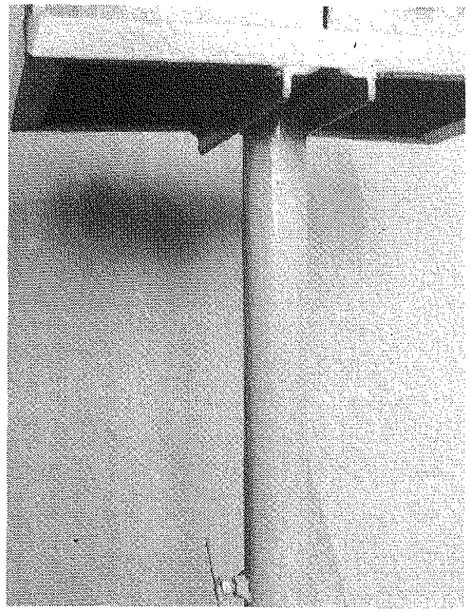
TOOL LIST

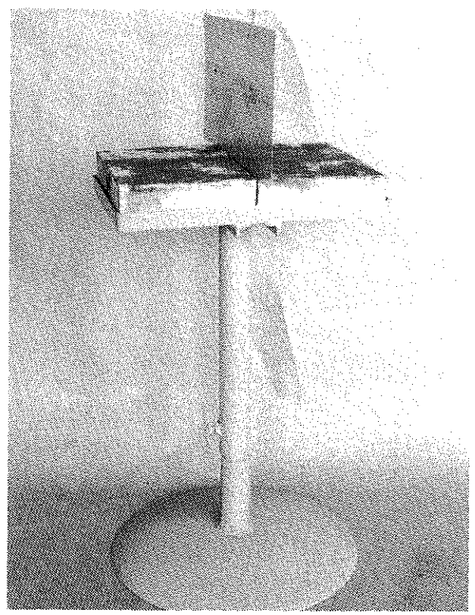
The following tools are need to construct the bench:

Measuring Tape	Pipe Cutter	Hack Saw
Level	Bench Grinder	Welder and Rod
Ball Pein Hammer	Combination Square	File
½" Portable Electric Drill	Center Punch	Cutting Torch
	Twist Drill	

BILL OF MATERIALS

1 each Used disc blade (the larger the better)
1 piece 2" pipe 20" long (black pipe preferred) — upper outside pipe
1 piece 2" pipe 9" long (black pipe preferred) — lower outside pipe
1 piece 1½" pipe 29" long (black pipe preferred) — inside pipe
1 each ½" round stock, mild steel — bolt handle
1 each ½" hex nut, NC thread
1 each ½" hex bolt, NC thread, about 2" long
1" x 1" x 1/8" angle iron for frame around bricks and two cross pieces under bricks
6 each Firebricks
Gray paint
Paint thinner
1 piece 18 gauge sheet metal approximately 20" x 12" — divider





Community Development: An Overview Of Principles, Process and Practice

By Lee J. Cary

(Editor's Note: Dr. Cary is Professor in the Department of Community Development at the University of Missouri, Columbia, Missouri 65211. He has served as a member of writing teams for the National FFA Center.)

The community development process is a well-established, almost traditional way of going about community decision-making and action. In its simplist form it is people getting together to work on matters of mutual interest. As Roland Warren has described it, community development is "the deliberate attempt by community people to work together to guide the future of their communities, and the development of a corresponding set of techniques for assisting community people in such a process."[1]

There are three aspects of community development which may help to spell out more clearly what is involved in this process and what seems to be its advantages for the individual and the community. We will first consider some of the assumptions on which the process is based, next look more closely at the process itself, and, finally give attention to how this process is carried out in practice.

Process Assumptions

Looking first at some assumptions about the process, it should be pointed out that the major purpose of development work is, quite simply, the achievement of a particular task; the carrying out of a specific activity by a community group working together to reach some objective. In addition, there is the strengthening of relationships among community members and the developing of a better capacity to deal with community issues. One writer in the field ends his definition of the process by noting that working together . . . extends and develops cooperative and collaborative attitudes and practices in the community."[2] A British writer makes the same point when he states that "Engagement in decision and action is not only intended to effect a solution to specific problems but also to allow the group to learn how to decide and act, in a concerted manner."[3]

So again, the goals of the process are at least two in number: to get a job done and to gain some experience in working together. Over time, community people can not only learn to work effectively together but can gain personally and as a community from such joint efforts. Our early history as a country contains numerous examples of group effort to resolve a problem with the results that the task was accomplished and individuals and the group gained through the experience. Barn raisings, joint efforts at harvest time, and volunteer fire brigades are just three examples which come to mind.

Before going on we need to look at the term "community." It is a word used frequently but not well defined. In community development work, a community, a locality, a geographic base for participation is essential. It can be a rural area, small town, or an urban neighborhood. The important point is that whenever we have a cluster of people with some shared interest and whenever interaction occurs among these people over time, we have a community. Community development work, according to some people, tends to be limited to rather small towns and urban neighborhoods. This is true only to the extent that we have had more experience in these locations and much less experience working in larger areas with larger numbers of people.

Let us go back now and look at some of the assumptions on which community development is based. Murray Ross, suggested a number of assumptions which influence what we do and how we go about it. For our purposes, his first four assumptions will be quoted here:

(1) We assume communities of people can develop capacity to deal with their own problems.

(2) We assume that people want change and can change.

(3) We assume that people should participate in making, adjusting, or controlling the major changes taking place in their communities.

(4) We assume that changes in community living that are self-imposed or self-developed have a meaning and a permanence that imposed changes do not have.[4]

These are some of the value assumptions underlying community development. The emphasis in the process is on cooperative effort and extensive involvement of many people. This emphasis does not deny the importance of individual effort or other approaches to the solution of community concerns and the bringing about of community change. Community development simply puts its eggs in the citizen participation basket. This is a value position openly stated and regularly followed by community development workers throughout the world. Elsewhere I have referred to three of these value assumptions: "(1) people of the community should actively participate in community change; (2) participation should be as inclusive as possible; and (3) participation should be through democratic organizations." Three necessary conditions for participation are: "(1) freedom to participate — autonomy; (2) ability to participate; and (3) willingness to participate."[5]

This is enough on basic assumptions and value positions. Community development is based on faith in people and their ability to make their own decisions. It is based on faith in people working together to reach community decisions and take effective action. In community development work, there is a preference for this kind of joint ef-

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Community Development: An Overview of Principles, Process and Practice

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fort by people to guide the future of their communities and for them to learn and gain through the process. These value assumptions form the basis for the process of community development and process is the second of the three aspects of community development to be discussed here.

The Process

William Biddle, speaks of process as "a progession of events that is planned by the participants to serve goals they progressively choose."[6] In other words, the community development process is not a cut-and-dry series of steps that are followed mechanically. Instead, the process is a rational, common-sense way of going about getting a job done. First, you begin with the interests and concerns of people. You need to know what they are thinking about and what they would like to accomplish. This may be achieved through a series of open, public meetings. Perhaps a community self-survey will get at the top priorities. A study-action committee may be able to arrive at a list of community goals. However undertaken, the first part of the process is aimed at identifying what people think is important to them and within their ability to change.

The next step is deciding what can be done with regards to those things the community would like to change. For example, it is one thing to identify the need for more employment in the area. It is another matter to decide how you might go about achieving the goal of more employment. This gets into the matter of alternatives and calls for full community plans to go about resolving a particular concern. The community might pass a bond issue, purchase land, and develop an industrial park. It might encourage loans to local concerns to expand. The community might visit companies at some distance and try to get them to relocate or expand into the community faced with the unemployment.

The point is that with every objective — more employment, better medical services, more summer recreation — there are a number of ways we might go about trying to meet each of these objectives. You first need some community expression of what is needed or desired. But equally, if not more important, you need community guidance on which of a variety of alternative ways of reaching the goal will be attempted.

So people work together to decide on goals and on how to go about achieving these goals. Through the process they form into committees and task groups and before long you have a "going" organization built around a particular project. What should be pointed out here is that even if some community council or community group initially sponsors the community development activity, a whole life builds up around each special project. It is important to recognize this and to work with this emerging organization.

Next in the process, after deciding upon a goal and also deciding on a particular way to work toward that goal, is to carry the decision into action. The final step is to constantly evaluate what is going on so that what is not working can be modified and successful approaches can be continued and strengthened. In review, the process is made up of a series of events which are simple, logical, and follow in a particular order. Each stage in the process is a complex activity with many details involved, but the process generally is easy to understand and easy to follow.

If people are willing to work together, to make use of the best information available, and to openly and democratically consider various goals and alternative ways of reaching these goals, then the process will work and work well. If people operate too independently of one another, if decisions are based on emotion and half-truths, and if a course of action is decided upon without considering alternatives and consequences then you have problems and you have breakdowns in the process.

Process Into Practice

Now let us move on to the third aspect which has to do with how the process is carried out in practice. In practice, the community development process works best when carried out at the local level. Whatever else community development may be, there is a strong local thrust involved. Yet more and more of the issues facing local communities today are decided outside the community. Decisions made at the state capital and in Washington, D.C. may have more impact on you and your life than the decisions made by our locally elected officials or any local community group. With the growing trend toward consolidation, regionalism, and decision-making at a distance, community develpment and its local emphasis may sound like a good idea 30 years too late. Not at all.

The more we move toward regional and national policy and planning the more we need local efforts to carry out these policies and plans. Decisions may be made at the state or national level but decisions are carried out at the local level. Likewise, action at the local level must be supported by and coordinated at higher levels if it is to be effective. We have found that over-all plans and programs are frequently modified by the experience gained through their application at the local level. This modification may be in terms of an adjustment for a particular locality or a change in the plan or program for all local areas.

Some years ago a writer on community development suggested that the objective of the process was to bring about "an increased capacity on the part of the people to think, plan, organize and implement more effectively, with increasing consciousness of their role in the network of economic and social relationships which constitute national life."[7] This points out the dual focus of working on local issues and also seeing how these local issues fit into and complement concerns, plans, and programs of the larger society. Unfortunately, we have been more successful in building large bureaucratic structures — state and national government, large corporations — and less successful in building strong local community groups that can speak to the needs of the local community and can organize to resolve these needs.

Local community groups, once formed, can focus on immediate interests at home, but equally important, can build ties with other groups to respond to area, state, and national interests. In our complex society, it makes sense to relate to and work with groups that share an interest in a particular activity without spending a disproportionate amount of time on matters of structure and organization. In other words, active local community groups work on both local concerns and concerns in the larger society. As they move out of their community and focus on larger issues they link up with other community groups interested in working on the same issue. This can give flexibility and direction to our efforts not found in most organizations.

In practice, members of a community group can carry out much of the work themselves. They can usually be more effective if they have assistance from individuals who have been trained in the community development process. There are a number of colleges and universities that prepare professionally-trained community development workers. These workers know how to help community members organize and how to make such organizations function effectively. They can help to get information on which to make a decision and they know where to turn to tap additional resources. Their major skills are in the areas of organization and education. They do not "run" any program but they can help the community members in running a successful program.

People Make the Difference

Finally, we need to be reminded that communities are complex and the issues and concerns facing communities are equally complex. While no one individual or group is going to solve all problems, people involved in a community development process can do three important things: (1) help resolve some local issues and problems; (2) learn how to work more effectively together in matters of mutual interest and concern; and (3) in the process of working together, develop a response, a way to deal with the increasingly complex issues of modern living. The process takes people, time, and a willingness to work jointly for a better future. They key factor is that the choice of both ends and means (where you are headed and how you plan to get there) is made by those who will be affected by the decisions. That, in essence, is what community development is all about.

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ARTICLE

Why People Volunteer

BY MARTIN B. McMILLION

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

The agricultural education profession is better at soliciting money than at soliciting time. Obtaining funds is important, but obtaining time is also important. Scouting and 4-H clubs make extensive use of volunteers. The 4-H clubs have 238,000 volunteers in the United States. If FFA had as many volunteers, there would be less than two FFA members per volunteer.

The need for volunteer services for vocational agriculture education programs becomes greater as the financial pinch is felt in public school budgets. Recent headlines in Virginia newspapers warned of the possibility that driver education and even football might be sacrificed. But, as a certain old song goes, "the band played on." School bands are less threatened because volunteer service and contributions finance the band to a considerable extent. Volunteer service to vocational agriculture can be increased. A Vo Ag "VISTA" is needed. Instead of Volunteers in Service to America, a Vo Ag VISTA would be Volunteers in Service to Agriculture.

FFA Alumni was organized to solicit volunteer sevice. The FFA Alumni has succeeded in doing so to some extent. However, the emphasis has been in the usual one of collecting money. 4-H volunteers do not pay dues. Cards identifying them as volunteers are given without charge to each volunteer, and recognition pins for years of service are available.

Teachers of agriculture must be bold in their requests for volunteer service. It is everybody's duty to volunteer at some time for worthy causes. Many people already feel it is their duty to donate what is expected of them. It is reasonable to expect that people will volunteer to assist the vocational agriculture program and FFA.

Knowing the reasons why people volunteer is important. Some people volunteer because they believe it is their duty. Some people volunteer because they like to mix with other people. Some people volunteer because they wish to trade favors. (I'll do this for you, and you can do that for me.) Some people volunteer for recognition. They would rather work in the show ring at a steer show and sale than help an individual prepare a steer for the show. Younger persons will volunteer for the work experience. The experience may be valuable for occupational exploration or for credentials needed to get a job or win an award. The five kinds of volunteers based upon motive are named for purposes of discussion. They are as follows:

1. Duty Bound.
2. Mixers.
3. Trader.
4. Publicity Seeker.
5. Self-improver.

Duty Bound. The person who feels duty bound to perform volunteer service will do so even under unpleasant

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Why People Volunteer

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circumstances. This type of person will work alone and with little recognition. Satisfaction gained from being of service is the reward of the Duty Bound.

In working with young people, a sense of duty can be taught. The "Living to Serve" line of the FFA motto, if emphasized, should help increase the availability of Duty Bound volunteers in future years.

The Mixer. This person prefers to work in groups. Putting up a tent for the livestock show and having refreshments afterward is ideal for this type of volunteer. Mixers are rewarded for their effort by the social interaction. They like to learn the latest news (gossip) and pick up a story or joke to tell.

The Trader. Traders may know in advance what they want as "pay" for the "volunteer" work they do. An hour or two of volunteer service will likely be followed shortly by, for example, a request for some welding to be done or other return service. The Trader is the least altruistic of the classifications of volunteers.

Publicity Seeker. People vary in the amount of recognition and approval they desire. The Publicity Seeker has a high need for attention. The Publicity Seeker wants to be seen and heard by as many people as possible. Being an announcer at a tractor pull, especially if pictures will also appear in the newspaper, is tailor made for this person.

Self-Improver. People can volunteer in order to gain experience. Volunteering is a way to learn to do something new. Young people, including students, can gain much through volunteering. There is a little bit of the Trader in the Self-Improver. "I will help hold the show steer, and you will tell me what you are doing."

Although one motive for volunteering may predominate, usually several motives influence the volunteer. The true Mixer or Trader or any of the other five classifications of volunteers may not exist. These classifications are useful in understanding the various motives of people for volunteering. An understanding of motives for volunteering will help the teacher of agriculture to obtain volunteers more easily, and the volunteers will enjoy it more.

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TEACHING TIPS

Constructing a Welding Positioner

BY GEORGE M. BROWN
(Editor's Note: Dr. Brown is a member of the Agricultural Engineering staff at Michigan State University in East Lansing, Michigan 48824.)

The "welding positioner" is a handy addition to any farm shop or agricultural mechanics laboratory. When made from scrap materials, the cost is minimal and the utility is high.

The design stresses simplicity; rather than a fancy clamp affair. The work piece or practice is held to the adjustable arm in an infinite variety of positions with a pair of "Vise Grip" pliers (Models 7R, 9R, or 11R). This stand can be used in many other ways.

BILL OF MATERIALS

Base	Mild steel plate	¾" x 6" x 8"
Riser	Black pipe	½" x 18"
Collar	Black pipe coupling	¾"
Arm	Mild steel flat	1/8" x 1" x 10" (Bend over last 1")
Nut	½ - 13 Hex nut	
Bolt	½ - 13 x 2" Hex Bolt	
Handle	Mild steel rod	¼" x 3"
Vise Grip Pliers		
Welding Rod		

TOOL LIST

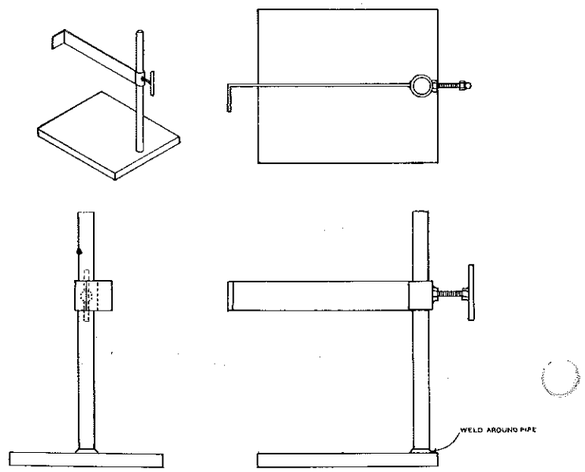
Hack Saw	Cutting Torch	Square
File	Grinder	Center Punch
Drill Press & Bit	Hammer	Arc Welder
Scriber	Vise	Pipe Cutter

NOTES:

(1) Any combination of sizes of pipe and pipe coupling that is available is satisfactory.

(2) Base can be most any scrap (plate, channel, I-Beam, etc.) as long as it is stable (weight counts, but try to keep to the minimum sizes shown).

(3) Adjusting Screw — Be sure you drill a **clearance** hole in the pipe coupling. The "handle" should be at least large enough to be worked easily with the gloved hand found in arc welding.



FFA PAGE

A Landscape Installation Contest: One Way to Get FFA in Horticulture Programs

BY JIM C. FOSTER
Editor's Note: Mr. Foster is Horticulture Teacher at Warren Occupational Technical Center, Golden, Colorado 80401.

One of the major needs in vocational agriculture is to make FFA an effective part of programs in horticulture. There are many states and local chapters that have excellent vocational horticulture and FFA programs. There are also many who feel that FFA with its "farmer" connotation "won't fit" into horticulture programs, especially those in urban settings.

The Colorado vocational agriculture programs that have specialized instruction in horticulture have found a very successful way to make FFA a vital part of their programs. The students also receive realistic work experience and work cooperatively with Colorado's horticulture industry.

Each February in Denver, the horticulture and building industries combine efforts to put on the Garden and Home Show. This show attracts in excess of 100,000 visitors and many more media readers and viewers, including most of the horticulture industry in the Denver area.

Show space has been donated to the Colorado FFA for a Landscape Installation Contest. This contest was jointly developed by the vocational horticulture programs and the horticulture industry. The show gardens are designed by a landscape architect, and an appropriate number of uniform spaces are allocated for the FFA competition gardens. Each space has from 300 to 500 sq. ft. of space and will have edges of fencing or walls and sand for building the garden. The show also provides sod and about 200 flowering plants. The rest is up to each competing FFA chapter. They will draw a landscape plan and then install the plan in the space provided. The gardens must be completed in two days and ready for the opening of the show.

Before starting work, each chapter must submit a sealed landscape drawing of its proposed installation. One of the criteria used by the judges will be the accuracy of the landscape plan in the actual construction of the landscape. Other criteria for judging include safety of construction, construction techniques, appropriateness of plant material and its placement in the landscape, overall appearance of the completed landscape, and practicality. Judges are professionals selected from the horticulture industry.

This activity has helped the Colorado vocational horticulture programs in several ways:

1. Recognition is given to the skills learned by horticulture students.

2. The competition between chapters has challenged the students to higher levels of accomplishment.

3. The involvement of industry has helped to teach correct landscaping techniques.

4. A great deal of pride in accomplishment has been generated by the completed displays.

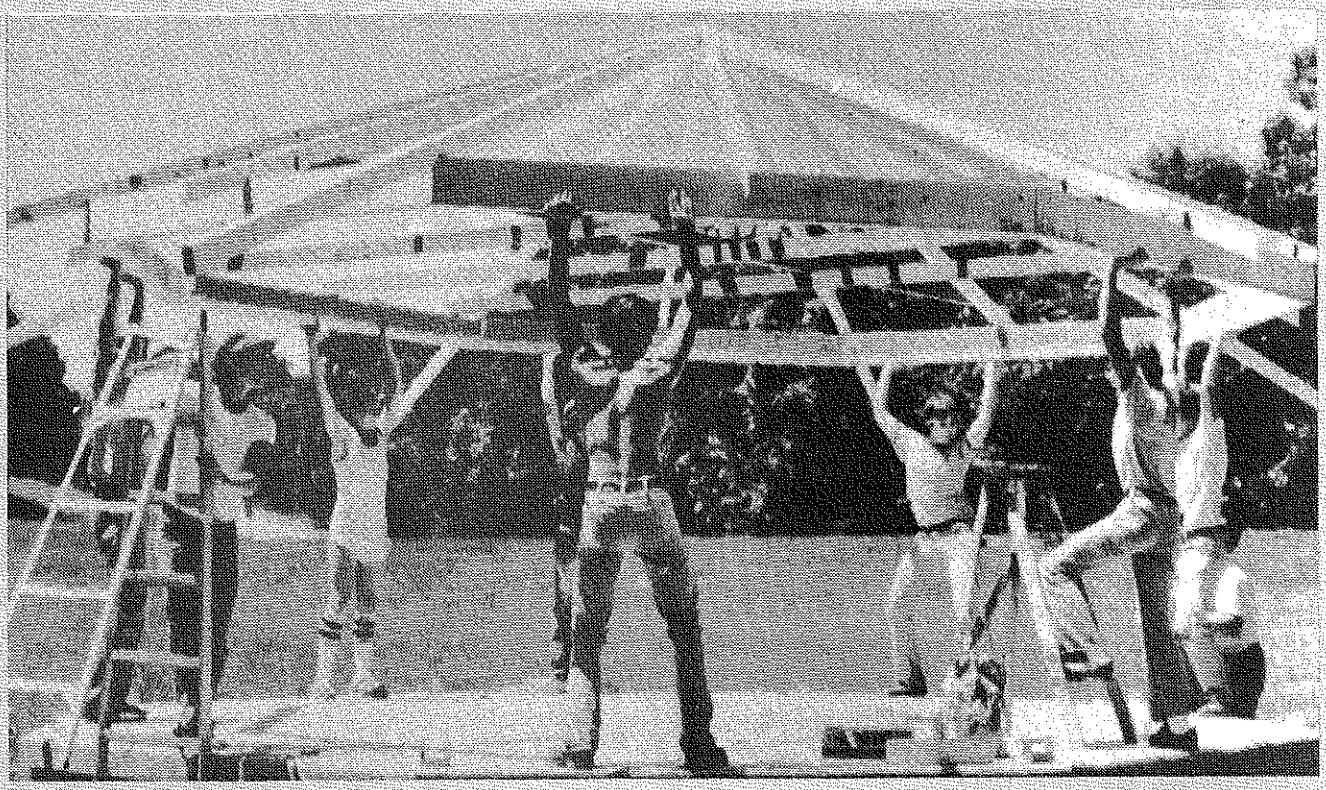
5. FFA and vocational horticulture have been promoted to many people in the community and the horticulture industry.

6. The cooperation between industry and FFA has led to an increased mutual appreciation for each other. This has even resulted in job opportunities for some of the students.

Most of our states have cities that have horticulture shows in the early spring. In most cases, mutually beneficial arrangements could be made that would allow this type of FFA activity to be set up. In Colorado, this has been an excellent way to combine FFA, vocational horticulture, and our horticulture industry in a very successful program.

The results of a lot of hard work and determination can be seen by this attractive landscape setting.

Stories in Pictures



Members of the Future Farmers of America in Monroeville, Ohio, raise the roof to a gazebo they are building that will serve as a bandstand in a community park. The project is part of the FFA's Building Our American Communities program, sponsored by R.J. Reynolds Industries, Inc. The Monroeville FFA Chapter received this year's BOAC Award.

The bottom photographs show teachers learning up-to-date practices through first-hand observation of agricultural industry. At the left, teachers are instructed in cotton classing by a classer at Staplcotn in Greenwood, Mississippi. Above, teachers are learning new procedures in agri-chemical processing at USS Agri-Chemicals plant at Becker, Mississippi. (Bottom photographs by the Editor)