THEME: Keeping Up To Date
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Vocational agricultural educators are faced with at least two major areas in keeping up to date: agricultural technological education and educational practices. It is by no means easy to keep current in either of these areas. Further, it is difficult to be too specific because the two are 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 whether new educational practices are important, less, 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 forms 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 which 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 rate of changes places a burden on each individual. As agriculturalists, we have a commitment to keeping up to date in agriculture.

March, 1981

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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, Glencoe, Mississippi, inspecting broilers in a processing plant. (Photograph by the Editor.)

THEME
Is Keeping Up To Date a Priority With You?
New technologies have enabled our great American agricultural industry to continue to grow and expand to meet the demands of the consumer 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 programs that serve 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, these 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.

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 retirements 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 True 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
Keeping up to date is a must for any vocational agriculture teacher in today's changing world. Vocational agriculture students must be trained in current 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 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 possibly 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 someone else's organization, teachers must stay up to date. 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, 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 questions, and 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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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 these students can spot a phonny and can prove one to be a phonny.

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 overhaul tractor starts, a newly cleaned room is decorated, or an art project has been accomplished. Vocational agriculture teachers, let’s not be guilty of cheating a student out of that experience because of our own insecurities.

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Agriculture, Education, and Life . . .

The Challenge of Keeping Up To Date

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 of 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 in the practical aspect.

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.

By DONALD STEPHENS

Editor's Note: Mr. Stephens is Vocational Agriculture Teacher at Ranson High School in Ranson, West Virginia 25438.

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 personal convictions, and awareness of self.

Open minds will certainly reap dividends.

THE AGRICULTURAL EDUCATION MAGAZINE

MARCH, 1981

Is It Possible to Keep Up To Date?

By KENNETH D. McGINTY

Editor's Note: Dr. McGinty 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. Regrettably, 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 areas 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 ever increasing pressure 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 convictions.

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. Last I join with the latter group. I urge that we refine our thinking, make distinctions in this aspect of life, reexamine our concepts of keeping up to date, and be ever suspicious of those who profess to "know the latest."

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 technologies. 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 greatly force one to keep up in computer science. It may be difficult for the teacher in high school to explain the basic math of deriving the square root of a number when the student 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 cultivar applications, research and studies, new weed control methods, 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 keeping up to date.

Facing the Situation

Teachers of vocational agriculture face a situation very similar to that confronting Charlie Chaplin in a silent movieclip 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. Knowledge flowed in on teachers. No matter how heated the debate on our form (Continued on Page 10)
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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 sectionize the knowledge explosion, the high monetary cost of staying informed and the cost in time of keeping informed, we begin to suspect that the gap between performance standard and human behavior is inescapably 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 all branches of all levels of government, is priced at $100+ annually. The Chronicle of Higher Education is $125.50 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 around $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 representative of an area of expertise that is not in levels of understanding also lead to interruption in the diffusion of new knowledge. Much of the new information according to research in educational and professional journals is written in highly qualitative form. As a result, it is not readily understood. Little wonder that many professional journals 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.

The need for continuing education is not too difficult to establish. James B. Conant said, "The world has become so complicated that it man stops his education when he leaves school, college, or even professional school, he be 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. Vocationally oriented 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 vocational 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 social and economic progress of their community. The teaching 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) is the personal inquiry technique. Vast amounts of new agricultural knowledge are being published daily in magazines, experiment station publications, science journals, proceedings of meetings, and standards. The practical value of all these publications is great. Many of these journals will carry as much as half or more of these materials. This new information is based to serve and support the needs of the teachers 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 of instruction. In 1969, the West Virginia Department of Education had been a well-coordinated effort between teacher educators and state supervisors to provide teachers with up to date information in agricultural science and mechanics. Permitted in the Bureau of Vocational, Technical and Adult Education in the West Virginia State Department of Education who administers 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. The teachers are from program areas and courses of high interest in agriculture are pinpointed and special sessions are set aside during the conference for a discussion of the course. In the best case scenario a 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 way to learn about the needs of teachers is a "Survey Form to Determine Vo-Ag Teacher Interest in and Need for Courses and Workshops". This document was sent to each vo-ag teacher list in 14 possible states and 12 course offerings with directions to the teacher being to rank his/her choice of workshops and courses against an interest scale and to when they would take the workshop and/or course if offered. Data from this survey were tabulated and subsequently discussed with all teachers. A priority list was decided on and the information should be presented to the Division of Chairpersons in the College of Agriculture and Forestry because if the courses and workshops were ever offered it would entail the prescriptive services of a considerable number of students. The second step was the key to the implementation of a long-term plan for offering courses and workshops which are of interest and needed by vo-ag teachers. The third step was the Plan for offering Courses and Workshops for Vocational Agriculture Teachers. This plan is being in 1979 and runs through 1983. Thus, it has been 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 all have identified a need for 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 consulted and it is their plan 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 an consecutive sequence of classes.

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 inservice education and training to keep up to date. Teachers of vocational agriculture cannot possibly do this well through their own efforts. We believe that a collaborative effort up to date must involve administrators and faculty in the Colleges of Agriculture and Forestry and other well qualified professional personnel in the related academic disciplines. 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 then enroll with few if any enrollments.

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 coupled with the interest shown by teachers of vocational agriculture in the State were enrolled in one or more of the offerings. It appears that teachers will make what ever sacrifices are necessary in order to keep up to date.
Graduate Classes in the Field

By Steve Forsythe

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Oklahoma State University, one-week extension short-courses are offered. By polling the state agriculture teachers on the federal 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 attendance was limited to 25 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 “loaned 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.

Consider for a moment the following situation: You are evaluating a State FFA degree application. The student has a farm enterprise consisting of 30 pigs, 120 feeder pigs, 140 acres of corn, and 12 acres of wheat. With a net worth totaling $16,750.00. Nine home improvement projects, including the building of fences and two corrals 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 producers and extension teachers.

The sex of the student is an interesting fact that should be considered in the total and complete picture of his or her abilities. The same sex should be expected to have similar abilities as the opposite sex. It is important that the student be properly evaluated and the sex bias be eliminated.

Evaluation of those courses which are being offered during the summer months is an interesting procedure. The men are evaluated and the women are evaluated in the same manner with the same criteria. The women are evaluated against the standards of men, and the men are evaluated against the standards of women.

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 characteristics. 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. Thinking of the previous week's interaction with the students in your program, were there any incidents that suggested 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 plan our next year’s curriculums and 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 current texts for materials for sex bias and including realistic examples of opportunity 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 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 capacities, rather than a choice based on restrictive sex role stereotypes.
Teacher Shortage: Missing The Boat In Virginia?

Much has been said and done in Virginia over the years in an attempt to correct the disgraceful condition of high school vocational education which resulted from the abandonment by many school systems of their vocational education programs. 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 arouse public interest in the teaching of agriculture as a career. The results have been modest 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 alternative employment. The cause 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 plugging holes as quickly as possible by bringing in teachers from other states. But are we missing the boat completely?

Measuring Teacher Morale

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

After reviewing Dr. Miller’s research similar research done by others (Mattos, 1974; Shinn, Stewart, & Richardson, 1977; Craig, 1977, 1978; Holt, 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 Opinionnaire (P.T.O.) was again used because the 100 item instrument deals with ten important areas and appears to be the most acceptable commercial instrument available for this purpose.

The Manual for the Purdue Teacher Opinionnaire (Bentley & Rempel, 1975) describes the ten major factors as follows:

1. Teacher rapport with the principal
2. Teacher rapport with the principal's feeling about the principal.
3. Satisfaction with teaching which pertains to teacher relationships with and feelings of satisfaction with teaching.
4. Teacher salary which pertains primarily to the teacher's feelings about salaries and salary policy.
5. Teacher load which deals with 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 preparing students for effective citizenship.
7. Teacher status scales 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 concern the adequacy of facilities and efficiency of procedures for obtaining materials and supplies.
10. Community pressures relates to community 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 Opinionnaire 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 and such factors as:

1. Community support and services.
2. Community support of education.
3. Teacher status.
4. Community pressures.
5. Teacher load.
6. Teacher salary.
10. Community support.

The results of the survey revealed that morale of Virginia agriculture teachers was not high. In fact, teachers ranked below 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 those 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, was rated in the first percentile in both the native and non-native groups. It appears that teachers respond to the need for or lack of sufficient secretarial help, uncompensated FFA activity and supervisory free-service of professional organization contact, and use of the agriculture instructor as a school and community resource person.

The next lowest factor expressed 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 evaluation schedule) and school-imposed police details during critical planning and coordination periods create teacher frustration? The community pressures factor ranked at the sixth and seventh percentiles.

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

Moral 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, instruction in the current problem-solving being offered to first year teachers, and pep talks by super-vision personnel—all of which are currently being done. As Phillip R. Zurbrik, 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 inadequacy of current salaries and working conditions” (Zurbrik, 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 renounce the program, communities, and our nation’s agriculture a grave disservice.

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Developing Your Own Teaching Slide Sets

The local preparation of teaching aids, such as slide sets, can be a rewarding activity that enhances the important feature of adding your own personal experience and knowledge. Although somewhat expensive, individually-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 accommodate 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 in-camera flash? 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 the next step 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 read 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, 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 be used again.

By going the book, the proper techniques in using a camera 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 have at least one or two loaded cameras available for taking slides. Photos which 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 photographic 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 usable 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 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 discussion of each, reading the claims, etc. The same might well do 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 to do in one hour to insert a carousel or filmstrip, lower the screen, turn down the lights and start the show, often without any extra preparation.

The filing system for slides and slide sets may take you a little while to find a way to do it. Most of the advice is misleading. I've inserted a slide or filmstrip, lower the screen, turn down the lights and start the show. You could do this at a very low cost. Some schools have a library of slides, and this could be a useful reference. Convincing them that locally-produced slide sets can be much more effective in meeting the instructional needs of the local school is not a problem, but convincing them that a classroom slide set developed somewhere else is of no use is the problem.

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.

BOOK REVIEW


This is a comprehensive book that addresses the overall problems of livestock marketing. The book includes 16 chapters beginning with a general 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 supply chain: livestock production, and meat marketing, both wholesale and retail. Once the reader has a full understanding, the author moves to futures marketing, grading and grading, market intelligence, regulation and inspection, and international trade. The final chapters discuss marketing costs, meat substitutes, and training.

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. becomes a popular writer in explaining futures marketing. An easy to understand description of futures markets and agreements and a look at the futures markets function are included. Many examples are given of both specific livestock and meat processing. The discussion of basic principles related to cattle marketing is well done.


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 beef production 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; nutrition and 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, range lands, and forage production. The book is targeted toward cattle healthy; breeding and feedlot diseases; internal and external parasites; selection, fitting, and showing beef cattle; beef processing, distribution, and consumption; and selling processed 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.

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MARCH, 1981

THE AGRICULTURAL EDUCATION MAGAZINE
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 oxyacetylene 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 goes 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.

TOOL LIST

The following tools are need to construct the bench:

- Measuring Tape
- Pipe Cutter
- Pipe Wrench
- Ball Peen Hammer
- Combination Square
- Center Punch
- Electric Drill
- Cutting Torch
- Center Punch
- Twist Drill

BOL OF MATERIALS

- 1 each 1/2" disc blade (the larger the better)
- 1 piece 2" pipe 20" long (black pipe preferred) — upper outside pipe
- 1 piece 2" pipe 6" long (black pipe preferred) — lower outside pipe
- 1 piece 1½" pipe 20" long (black pipe preferred) — inside pipe
- 1 each ⅝" round stock, mild steel — bolt handle
- 1 each ⅝" hex bolt, NC thread, about 2" long
- 1 each ½" × 1 ⅞" angle iron for frame around bricks and two cross pieces under bricks.
- 6 each Flathead
- 6 each Bolts
- 3 each Paint
- 1 piece 18 gauge sheet metal approximately 20" x 12"— divider

By George M. Brown

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forty people to guide the future of their communities. They need to learn and gain through the process. These value assumptions form the basis for the process. The community development process is the third aspect of community development to be discussed here.

The Process

William Biddle stressed that process as "a progression of events that is planned by the participants to serve goals they progressively choose." 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 way of going about getting a job done. First, you begin with the interests and concerns of people. You need to find out 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 development group will be formed. A study-action committee may be able to arrive at a list of community goals. However, understanding the first part of the process is aimed at identifying what people think is important 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 do. For example, it is one thing to identify the need for more employment in the area. The community might try to 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 invite groups to visit the area, 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 social, 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. But when this is translated into action, the process may have more impact on you and your life than the decisions made by the local community. The process may have more impact on you and your life than the decisions made by the local community. The process may even have more impact on you and your life than the decisions made by the local community. The process may even have more impact on you and your life than the decisions made by the local community.

The more we move toward regional and national policy and planning the process becomes more important. What should be planned out here is how do three important things: (1) to resolve some local issues and problems; (2) to 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, but it is 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 want to be involved by the decisions. That, in essence, is what community development is all about.

People Make the Difference

Finally, we need to be reminded that community development and issues and concerns facing communities are equally complex. While no one individual group is going to solve all problems, people involved in a community development process can and will work together. By making these and three other things: (1) to resolve some local issues and problems; (2) to 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, but it is 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 want to be involved by the decisions. That, in essence, is what community development is all about.

References


By MARTIN B. McMULLON

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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 and FFA recruited 2,500,000 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 education programs has been recognized for some time. Indeed, the pinch is felt in public school programs. Recent headlines in Virginia newspapers reveal that the need for paid teacher aides in the driver education and even football might be lessened. But, as a certain old saying goes, you can't be in boxing and have 2000 volunteers. 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 not an ide of Volunteers in Service to America, a Vo Ag VISTA would be Volunteers in Service to Agriculture. FFA Alumni was organized to solicit

people volunteer service. The FFA Alumni has succeeded in doing so to some extent. However, the emphasis has been on the usual one of collecting money. 4-H clubs do not pay volunteers for identifying them as volunteers are given without charge to each volunteer, and recognition for years of service are available. Teachers of agriculture must be told in their requests for volunteer service. It is even more important that a person volunteer service at some time for worthy causes. Many people already feel it is their duty to help and are more than willing to be expected to expect that people volunteer to be able to the vocational agriculture program and FFA.
Why People Volunteer
(Continued from Page 21)

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 exhibition 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 build the show, 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 of volunteering will help the teacher of agriculture to obtain volunteers more easily, and the volunteers will enjoy it more.

References

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

By Jim C. Futter
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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 "farm-er" 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.

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.

MARCH, 1981
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 Stapleotn in Greenwood, Mississippi. Above, teachers are learning new procedures in agricultural processing at USS Agri-Chemicals plant at Becker, Mississippi. (Bottom photographs by the Editor)