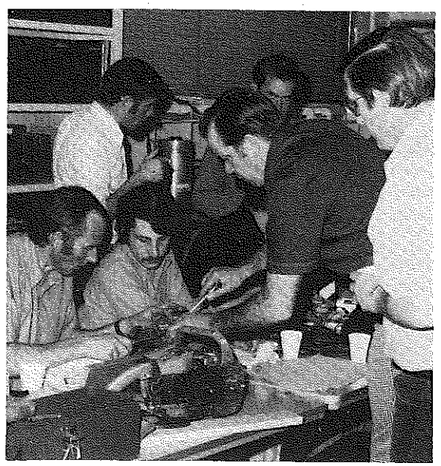
STORIES IN PICTURES

by Joe Sabol

These officers of the Louisiana State University Collegiate Chapter FFA provide leadership for the fiftieth year of operation of the first Collegiate Chapter of Future Farmers of America. In addition to FFA activities, the local membership contains the College of Agriculture President, Queen (second from left in photo), comptroller, secretary, ASA representative, and a state officer of the FFA. (Photo courtesy J. C. Atherton, Louisiana State University)

Roses pruned properly make student teacher Wendy Gauld happy to be outdoors working one to one with her students at Sierra Jt. Union High School in Tollhouse, California. (Photo courtesy Joe Sabol, Cal Poly, San Luis Obispo)

Learn by doing! This horticulture class, under the supervision of student teacher George Kaas and cooperating teacher Matt Zemny, get to practice weed control after many hours "inside" during a very wet year at Soquel High School in Soquel, CA. (Photo courtesy Len Harzman, Cal Poly)



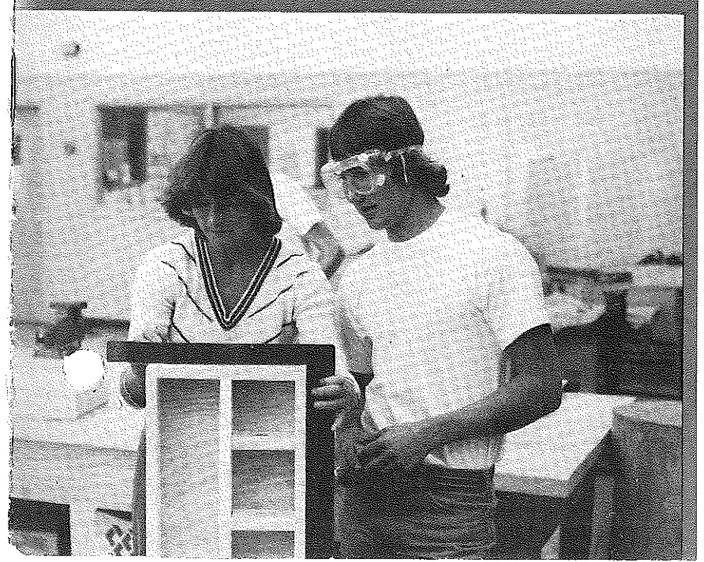
Teacher education should include in-service education using industry representatives as instructors. A group of California North Coast teachers are attending a small gas engine workshop held at Santa Rosa High School, Santa Rosa, CA. (Photo courtesy Bill Wills, San Luis Obispo, CA)

The FFA Parliamentary Law Team from Hinds Co. AHS is presented the First Place Plaque by Mississippi State FFA President, Jim Mize. (L-R) Team members are Albert Cole, Jr., Chapter Advisor; Kelvin Stamps, Team President; Edward Robinson, Andre Devine, Booker Mims, Ronald Stamps, Team Members; and J. W. Owens, Chapter Advisor. (Photo courtesy Calvin Willis, Chapter Reporter)

AGRICULTURAL EDUCATION

Volume 51 Number 2

August 1978



INDEX TO VOLUME 50
(July 1977 - June 1978)
pp. 35-38

Theme—
Teacher Education in Agriculture—Laying The Foundation For Good Teaching

August 1978 Volume 51 Number 2

AGRICULTURAL EDUCATION

TABLE OF CONTENTS

COVER PHOTOS

TOP PHOTO —
Cooperating teachers are a vital component in teacher education. These teachers are meeting for a workshop held at Cal Poly, San Luis Obispo. (Photo courtesy Len Harzman, Cal Poly)

CENTER PHOTO —
Ms. Dale Larkin, Horticulture Instructor at Northern Anne Arundale Vocational Technical School, MD, discusses methods of plant propagation with student teachers in a pre-service skills workshop. (Photo courtesy Clifford Nelson, University of Maryland — see related story on page 32)

BOTTOM PHOTO —
Demonstration is an effective method used in the shop by Ms. Drena McGhee while student teaching at Tulane Union High School, CA. (Photo courtesy Joe Sabol, Cal Poly, San Luis Obispo)

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

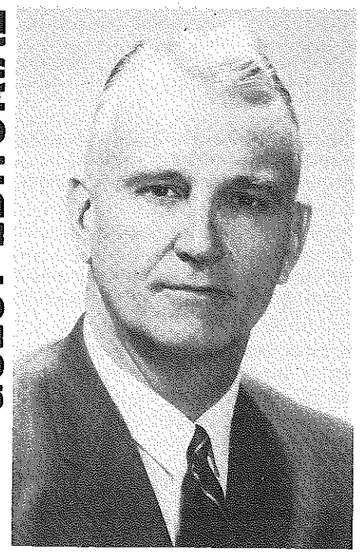
Second-class postage paid at Athens, Ohio.

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

SUBSCRIPTION PRICE: $7 per year. Foreign subscriptions $10 surface mail, $20 air mail (except Canada). Student subscriptions in groups (one address) $3 for eight issues. Single copies and back issues less than ten years old are available at $1 each. All back issues are available on microfilm from Xerox University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106. In submitting subscriptions, designate new or renewal and address including ZIP code. Send all subscriptions and requests for hardcopy back issues to the business manager: Glenn A. Anderson, Business Manager, P.O. Box 533, Mechanicsville, Virginia 23111

GUEST EDITORIAL

GUEST EDITORIAL



Harold R. Binkley

THE FOUNDATION

by
Harold R. Binkley
Teacher Education
University of Kentucky

The pre-service teacher education program for teachers of agriculture should be deeply rooted in the fundamentals of teaching and learning. This article will not get into the technical, content, and general education components of teacher preparation. Neither shall it get into the business of recruiting, screening, and selecting of prospective teachers. That will be left to another time. Needless to say, you can't make a purse out of a sow's ear.

Teaching is important because learning is important and cannot be left to chance. Learners (student teachers and, in turn, their students) need teacher guidance and direction in order to learn *what* they should learn and to become efficient learners.

There are two basic and fundamental truths which should be kept in mind as this article unfolds:

1. ***What* one is taught matters a great deal; it makes him what he will be; and**
2. ***How* one is taught affects the amount, kind, and quality of his learning, his efficiency in learning, and even his ability to learn.**

What one is taught and *how* he is taught determines the success of the pre-service teacher education program—this is where the foundation is laid for good teaching. Both the *what* and the *how* are exceedingly important.

In laying the foundation, there are two important groups (partners, if you please) who are responsible for the pre-service preparation program of teachers of agriculture: 1) the on-campus teacher educators, and 2) the off-campus teacher educators—the supervising teachers.

These two groups need to be together on the *what* and *how* of preparing teachers. This leads us to the first of 12 fundamentals.

1. *Teaching is an Intentional Process*

Teaching is conceived as an intentional process; it implies contemplated learning products—teaching objectives. There must be *clearly* defined teaching objectives—"spelling out" the learnings that are intended to be developed on the part of student teachers. Whose clearly defined teaching objectives are being talked about? The objectives that have been agreed upon, emphasis is on *agreed upon,* by the on-campus teacher educators and the supervising teachers? Half the battle in *method* has been won when the partners know just *what* they seek to accomplish and are clear on the *how.*

2. *Theory and Practice Should Be Experienced Together*

This fundamental is exceedingly important. The *what* and the *how* dealt with in methods, on campus, needs to be the same as that in which student teachers get practice during supervised student teaching under the able and careful supervision of competent and dedicated teachers in the centers.

Where the on-campus teacher educators and the supervising teachers are not together on the *what* and the *how,* there is no possibility of getting theory and practice experienced together. And, too many times this is what happens. If they are not experienced together, the student teachers will be confused and the resultant products—the new teachers and our programs in agricultural education—will suffer.

Perhaps this *what* and *how* in the teacher preparation, and subsequently in the high school program of vocational agriculture, should have more clarity and specifics before moving on. In the opinion of the author, perhaps 75 percent of the time in methods should deal with *what* to teach and *how* to teach it at the high school level. This 75 percent of the time should deal with:

- *Getting students to select and plan good experience programs.*
- *Guiding students to keep good records on their experience programs.*
- *Guiding students to carry out their experience programs (including what improved or approved practices to use and how to carry them out). (This includes the technical agriculture to be taught.)*
- *Guiding students to summarize and evaluate their experience programs.*

3. *Basic Pattern, Classroom Instruction Followed by Supervised Practice*

The basic pattern of instruction in vocational education since 1917 has been classroom instruction followed by supervised practice of the students. This fundamental has two parts: 1) the teacher preparation program on campus tied to the student teaching experiences in the centers, and 2) the instructional programs in the schools with their two parts—classroom instruction followed by supervised practice of the students on farms and in other experience program situations. *(Continued on page 28)*

During student teaching, student teachers should have in-depth experience in this basic pattern of instruction as they work with students in the training centers and in their follow-up supervision of the students. If the student teacher can experience this basic pattern in the two dimensions just named, then this will go a long way in developing this fundamental learning.

4. *Skill in Using the Problem-Solving Procedure in Teaching*

Problem solving and reflective thinking are much the same thing. Learners, both prospective teachers and their students, should do reflective thinking while being taught. Enrichment of meaning, development of understanding, acquiring information in useful form, and preparation for meeting new situations intelligently, all call for thinking. Also, training to think well in the field of agriculture is one of the desired results of the instruction in it. One learns to think in a field or subject by thinking in it. Success in a field usually depends on the ability to think effectively in that field. Prospective teachers need to develop skill in:

- *Developing situations which will cause students to have and state problems*
- *Guiding students to analyze problems*
- *Guiding students to solve problems, individually*
- *Guiding students to solve problems, as a group*
- *Guiding students to make application of the conclusions*

Skill in the problem-solving procedure is not a simple or an easy concept to master. If the problem-solving procedure is to be the predominant group-teaching method, and the author believes it should be, it will take considerable time and effort on the part of the on-campus teachers, along with a great deal of determination and dedication on the part of prospective teachers, to master the concept and the procedure.

5. *Skill in Giving Demonstrations*

Demonstration as a method of teaching in agriculture has come to the forefront.

There are literally hundreds of manipulative abilities that students of agriculture need to learn. Teachers need to be skilled in demonstrating these so that the students can learn them efficiently. Essentials in giving demonstrations include:

- *Having clearly in mind the ability to be taught, including standards of workmanship required*
- *Developing in students a desire to have the ability—goal setting*
- *Being clear on the important steps in doing what is to be learned*
- *Demonstrating the procedure: showing and explaining how to perform each step in the operation; clearing up the "why" where it is needed.*

Giving good demonstrations is *not* enough. They must be followed by adequate practice on the part of students, with enough tools and materials for each student to practice, and under the supervision of the teacher.

6. *Skill in Conducting Field Trips*

Field trips are fundamental for good teaching in vocational agriculture. A field trip should be an educational experience needed to help reach an important, planned, teaching objective. Many of the things that students need to *observe and do* cannot be conveniently brought to the classroom. Therefore, the students must be taken outside the school plant and onto farms or to other situations where they can have first-hand observation and practice in a natural setting. Without going into a lot of detail, four major things need to be considered in planning and conducting field trips which prospective teachers should learn in methods and have practice in in the centers:

- *When and under what conditions should field trips be used?*
- *What plans (detailed ones) should be made for taking a field trip?*
- *What teaching technique(s) should be used on the trip?*
- *How should the field trip be followed up by making application of the decisions reached?*
- *How should the effectiveness of the trip be evaluated?*

(Concluded on next page)

(Please submit articles 2½ months in advance of Theme to allow publication time.)

COMING ISSUES COMING ISSUES COMING ISSUES

COMING ISSUES

SEPTEMBER — Student Competition — An Incentive Approach

OCTOBER — Supervisors and Consultants — Important Members of the Team

NOVEMBER — Effective Teaching — What's the Basis?

DECEMBER — Professionalism—That's The Name of the Game

JANUARY — Golden Anniversary Issue — Looking to the Past and the Future

FEBRUARY — FFA — A Valuable Resource For the Agriculture Teacher

MARCH — Classroom Instruction — Getting the Ideas Across

APRIL — Supervised Experience—Doing to Learn — Learning To Do

MAY — Agricultural Mechanics — Developing Important Skills

JUNE — Summer Opportunities — Supervision, Planning, In-Service Education, Conferences, Repairs, Other Activities?

JULY — International Agricultural Education — Filling the World's Breadbasket

AUGUST — The Overworked Ag Teacher? — Determining Priorities

COMING ISSUES

7. *Skill in Guiding Students to Arrange for and Carry Out Experience Programs*

These two ideas were mentioned earlier, but they need further development. First, prospective teachers of agriculture must have a rich, thorough concept of good experience programs and the importance of students having good experience programs. Just because prospective teachers had vocational agriculture in high school is no guarantee that they understand *what* a good experience program is and the importance of each student having one. But a rich concept is not enough. Prospective teachers must be clear on *how* to guide students to select, to make arrangements for, and to carry out good experience programs. To get good experience programs arranged for on the part of students is half the battle in succeeding with supervised experience programs. The teacher must be enthusiastic in dealing with a good series of group problems (15-20), whose solving will be helpful to the students in deciding on and planning their experience programs. This business of getting students with good experience programs involves the parents from the beginning to the end. Parent cooperation is based on their thorough understanding of what the teacher is attempting to do and why. The teacher cannot leave it up to the students to develop parent understanding. Parent understanding, once developed, guarantees their cooperation.

8. *Making the FFA Motivate the Instructional Program*

It is not enough for the prospective teachers to have a good FFA chapter. They must know: a) *how* to organize or reorganize a chapter, b) *how* to guide the chapter to elect a good set of officers, and c) *how* to guide the chapter to set up a good program of activities which will motivate the instructional program of the department. The program of activities should provide an opportunity for each member of the chapter to participate and excel in one or more areas of the program of activities. The aim of the program of activities should be to train, not to win. If the aim is to train, winning will follow.

9. *Organizing Programs and Teaching Adults in Agriculture are Necessary Skills*

Prospective teachers in the methods courses should develop under the careful guidance of the on-campus teacher:

- *A strong feeling of the importance of adult work in agriculture and the contribution the work can make to proficiency of adults employed in agriculture*
- *Know how to organize and use a local advisory committee to get the program under way*
- *How to decide on the course of study and how to recruit the class members*
- *How to teach adults in agriculture—young farmers, adult farmers, and other adults in agriculture*
- *How to supervise adults, farmers and others on the job*

10. *Modern Programs, Facilities, and Materials and a Competent Supervising Teacher is a Must*

Student teachers should have their teaching, supervising, and other learning experiences in and through good local vocational programs of agriculture. There must be good supervised experience programs in agriculture on the part of the students enrolled in the high schools, or else there will not be good training situations for prospective teachers.

Too often forgotten is the area of instructional materials, including sets of books, bulletins and leaflets along with slides, charts, and models, properly catalogued for efficient use. Students cannot solve problems in modern agriculture out of thin air. An out-of-date library is worse than no library at all.

The competent supervising teacher is clear on *what* things are taught on campus in the methods courses and he is in agreement with the on-campus teacher(s) as to *how* these things should be taught to students. And, he provides practice of these cognitive learnings under his careful supervision so that the prospective teacher will develop the skills needed for success in his teaching.

11. *The Student is of Infinite Worth and His Learning Time Is Important*

This fundamental must be felt by the student teachers as they move through the pre-service program. They must come to feel that each student is a person of infinite worth and that the learning time (hours) the students spend in their classes is important and must not be wasted. We cannot neglect this in the on-campus courses, nor can the student teachers as they work in the centers.

12. *Conferencing Student Teachers Is Necessary for Success*

It is not enough to provide an opportunity for student teachers to get experience in the centers, in the many aspects of the job of a teacher of agriculture. There needs to be supervision of the experiences. The key to good supervision of student teachers is conferencing. There is an article in the November issue of *Agricultural Education* titled "The Role of Conferencing in Developing a Competent Student Teacher." This article points up: 1) making student teacher assignments, 2) student teacher preparation for the assignment, 3) conferencing the student teacher on his plan for teaching (or other assignments), and 4) the after-teaching conference. Conferencing is one of the most significant, fundamental jobs of supervising teachers.

A word of caution of teacher educators; we must remember that our primary job is to prepare good teachers of agriculture. Within the last decade the emphasis at the university on research and scholarly writing has caused, in too many cases, abdication of the fundamentals of preparing teachers with enthusiasm, dedication, and determination.

★ Special Features ★

Your contributions are needed for:

—CENTER PAGES FEATURE • Drawings, Sketches or Photos of Useful Ideas.

—THIS WORKED FOR ME • Methods you would like to share that might help other teachers.

—LETTERS TO THE EDITOR • Your concern, support or rebuttal of vital issues.

—FROM THE TEACHER'S DESK • Sayings, jokes, stories to help spice speeches, talks or teaching.

—COUNTRY STORE • Sources of inexpensive or free teaching aids.

Conducting An Effective Critique Conference


Paul E. Hemp

by
Paul E. Hemp
Teacher Educator
University of Illinois

The evaluation of teaching procedures and techniques is a necessary part of program improvement in agricultural education. Most teachers, including college professors, need to improve their teaching techniques and often need outside help to identify weaknesses and suggest needed changes. Too often, we rely on student or peer evaluation checklists which allow for a rating of teaching techniques but fail to suggest what teachers should do to improve or change their behavior in the classroom.

Telling a teacher that he or she is doing a poor job or that certain areas need to be strengthened is not enough. The evaluation of teaching should include a discussion of alternative procedures and new ways of handling an instructional unit.

Teacher educators, state supervisors, building principals, departmental supervisors or directors, and cooperating teachers often have a responsibility for helping teachers or students enrolled in teacher education programs to analyze and improve their teaching procedures. This assistance usually involves the observation of the teacher's classes followed by a critique conference.

THE CRITIQUE CONFERENCE

The effective use of a critique conference is an essential part of any teacher education program. At the University of Illinois, a typical critique conference at a cooperating school would be conducted as follows:

1. The cooperating teacher serves as chairperson of the critique session and starts the discussion by asking the student teacher to evaluate his or her teaching performance.
2. The second student teacher is then given the opportunity to comment on the strong and weak points of his or her fellow student teacher's performance.
3. The cooperating teacher presents conclusions and recommendations regarding the student teacher's performance or may, through the use of appropriate questions, strive to have the student teacher "discover" his or her mistakes.
4. Finally, the university supervisor is asked to present comments and suggestions.
5. A variation in procedure commonly used is to follow steps 1-4 for each phase of the classroom teaching. For example, the interest approach, the development of objectives, and the identification of problems may be discussed by all members of the critique team before anyone comments on the supervised study and concluding discussion.

The suggested steps do not insure a successful critique conference. They merely permit all parties to be involved and discourage domination of the conference by any one person.

SUGGESTIONS

The person who observes and evaluates the work of others needs to exercise considerable skill and sensitivity in carrying out his role. After all, the critique conference is a teaching situation, not a "judging" exercise. With this in mind, the evaluator needs to consider the following suggestions in conducting the critique conference:

1. The cooperating teacher and the university supervisor should remember that telling is one of the most ineffective methods of teaching. Student teachers will remember longer and will apply more readily those suggestions which they are able to "discover."
2. One purpose of critique sessions is to promote self-evaluation. If student teachers do not learn the art of self-analysis and self-evaluation before their student teaching period has been completed, they do not have the tools needed to "grow" on the job.
3. There must be a reasonable balance between praise and criticism. This balance must be determined on an individual basis for each student teacher.
4. Each person on the critique team should mention the good things first.
5. Adverse criticism, if necessary, should be specific. A statement, such as "You did a lousy job today; you'd better get to work," does nothing more than antagonize the student teacher.
6. Use a clinical, rather than an analytical, approach in working with the student teacher. Permit the student teacher to save face.
7. Avoid giving the student teachers too many "don'ts." Suggest possible procedures which he might try and use phrases such as—"If I were you . . ."; "Have you tried . . .?"; "Some teachers have found this practice to be successful."
8. Ask the student teachers to summarize the conference by asking the question, "What have you agreed on?" or "What will you do to improve your teaching?"
9. Those who are involved in the critique session must be familiar with both the problem area teaching plan and the daily plan.
10. Persons who are evaluating the teaching of others must consider the conditions under which student teachers are operating. True enough, the student teacher should adjust his methods to fit the class and the situation, but some allowances must be made for the student teacher's lack of experience and lack of knowledge concerning his class.

(Concluded on page 33)

YOU'RE ON YOUR OWN!


Douglas Bishop

by
Douglas Bishop
Teacher Educator
Montana State University

Although I have never flown an airplane, I can imagine the first solo flight would be quite an experience. I can visualize the long hours of study, careful attention to the smallest detail of flight safety and procedure, and countless repetitions of each step that is necessary to get the plane off the ground and back safely. Each training lesson would have been taken under the watchful eye of a trained, experienced instructor. During my training, the instructor would have been in the cockpit beside me, prepared to take over in case I made the slightest mistake in judgment. There would be comfort in knowing my instructor was there in case of an emergency. But then the time would come when I would have to go it alone if I wanted to obtain my license. I can hear my instructor say, "It's all yours, you're on your own." It would be a thrill and a responsibility. Your first job might be compared to that first solo flight.

THAT FIRST JOB

How well I remember the first time I walked into a Colorado High School as the teacher of vocational agriculture. I had spent four years at the university and a period of time student teaching. I had all the appropriate text books and reams of college notes and a lot of experience from a wide variety of professional and technical classes. I knew how to make unit plans, lesson plans, and felt quite confident that I could develop a budget and curriculum for a total vocational agriculture program. I was also sure I had a good technical background. But as I closed the door to the department that first Monday morning in late July, and I looked around at the tools of my trade, a big knot developed in the pit of my stomach. All the doubts and fears I had about teaching rushed in around me as I stood there with no one to turn to for advice. But, I gained confidence in what I had been taught. At that moment, I determined that I was going to give teaching my very best effort.

THAT PERSONAL INTEREST

Now, I don't want to sound over sentimental, but I must remind you that we as teacher educators have done our best to prepare you, and we do feel responsible. We know that our success or failure as teachers will show up in what you become, just as your students will reflect your teaching. Just wait a few years. You'll know what I mean. Successful teachers feel responsible for their students.

Those of us who have worked with you during your college career like to feel we have been instrumental in starting you on your way to becoming a master teacher. To this point, we have attempted to guide your every move toward professional development. We have encouraged you as much as we could, even criticized you at times. But through it all, our underlying motive has been to prepare you to take charge of a department or program on your own.

We have pointed out the importance of being ambitious and becoming a craftsman of your trade. Our goal has been to help you develop needed teacher competencies. You have been asked to spend time studying the elements of planning a total program and we have told you where to find help in answering the many questions that may arise when you are on your own. We have told you that the job of a teacher will be to determine what, when and how to teach.

But always remember, when teaching, you must take a personal interest in your students. The individuals in the classroom are the ones that count.

Good teaching can and must penetrate the very core of our society.

YOUR PHILOSOPHY

Develop your own teaching philosophy. The most dissatisfied and ineffective teacher is one who has neither seen the need nor taken the time to develop a sound teaching philosophy. A sound concept of the learning-teaching process will assure that personal egotism and self-centerness will never destroy a good teaching environment. To go halfway in teaching doesn't mean much. The soundness and completeness of your philosophy will be measured by the effect you have on the students under your control. Without a sound philosophy, you will only be a shell of a teacher.

Accept what we have taught you, but think it through on the basis of a sound educational philosophy. Just remember, don't discard proven theory without first examining your own philosophy, and don't subscribe to everything new. To accept new theories without thought and discrimination is superficial. You must have your own convictions.

YOUR TECHNIQUE

Develop your own teaching technique. Remember, a good technique is the foundation for effective day to day teaching. Develop a freedom from "just traditional techniques." Try something new once in a while and use your imagination. Just remember, keep sound educational principles in mind and use common sense and ingenuity. You will be surprised at the response of students to a new approach or a different teaching technique.

Be willing to adjust to change. "My mind is made up, don't confuse me with facts," is the slogan of an ineffective teacher. Take advantage of each opportunity and adjust your teaching as you gain experience. Any teacher who is developing professionally in technical understanding and teaching effectiveness will need to make adjustments. Don't let your bias get in the way of progress, and remember that even though all plans don't work out, you must continue to plan. Set your goals, but don't be so idealistic that you can't bend without breaking.

(Concluded on page 33)

SKILLS WORKSHOPS FOR STUDENT TEACHERS

Clifford L. Nelson

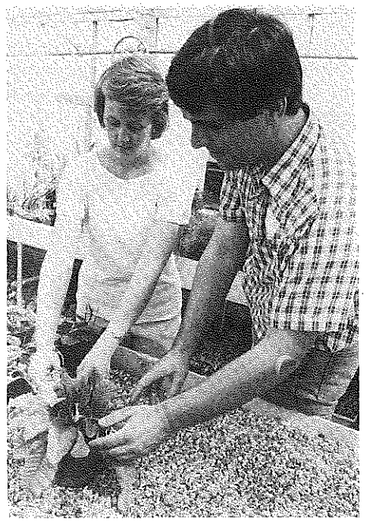
Joseph J. Dymek

by
Clifford L. Nelson
Teacher Educator
University of Maryland
Joseph J. Dymek
Horticulture Education Specialist
University of Maryland
Robert G. Keenan
Horticulture Teacher
Lansdowne, Maryland

Robert G. Keenan

Graduates of teacher education programs often do not have the opportunity to learn technical and manual skills that are important for teaching. Several universities have instituted well organized programs of skills training that are conducted in cooperation with teachers in the field and agricultural businesses and farms. As examples, The Ohio State University and The Pennsylvania State University have been active in these types of programs. Smaller teacher education institutions have typically not had the resources to apply to solving this problem.

The University of Maryland had similar problems with providing preservice teachers with requisite skills. Two joint agriculture teacher-university staff committees developed lists of skills needed for beginning teachers in horticulture and agricultural mechanics during the past school year. Approximately 60% of the undergraduates in the curriculum do not come from rural backgrounds nor do they have work experience where they would have acquired these skills.



Ms. Dale Larkin, participating horticulture instructor, and Mr. Joe Dymek, horticulture education specialist, discussing plant problems.

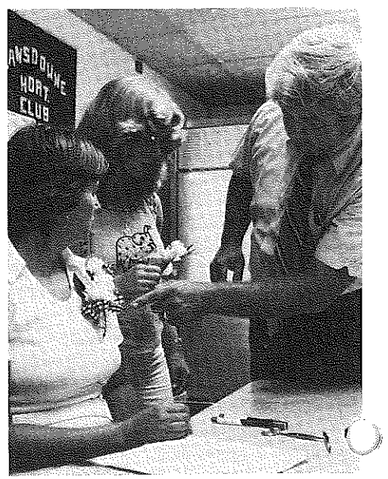
HOW TO OFFER SKILLS

Several alternatives were explored on how to offer these skills. For ornamental horticulture two methods have been introduced to meet the needs of preservice teachers. One is the offering of a special skills course in the Department of Horticulture during the student teaching block. The course, taught by the Horticultural Education Specialist in the Department of Horticulture, consists of laboratory experiences that students have not previously encountered. The other is a special workshop series conducted by experienced horticulture teachers.

TEACHERS AND EXTENSION SPECIALIST

Robert Keenan, Horticulture teacher at the Lansdowne High School, Maryland, offered to organize the skills workshops for student teachers. Mr. Keenan, an experienced student teaching supervising teacher, had noted the lack of experiential background of his previous student teachers. He spent considerable time with his student teachers showing them how to perform various horticultural jobs. He felt it would be a better use of time to teach these skills to all student teachers at one time. With the cooperation of two other horticulture teachers, Miss Dale Larkin of Northern Anne Arundel Vo-Tech, and Richard Weaver of North Carroll High School, a three day workshop was planned. Mr. Joseph Dymek, Horticultural Education Specialist at the University of Maryland, worked with the planners.

(Concluded on next page)



Mr. Robert Keenan, participating instructor, evaluating corsages made by student teachers.

The 23 student teachers were divided into three groups. Each group spent one day at each school. One school concentrated on floriculture skills, another on greenhouse management and operation and a third on landscaping skills. Each school offered a 2-hour field trip to two different horticultural businesses.

FLORICULTURE

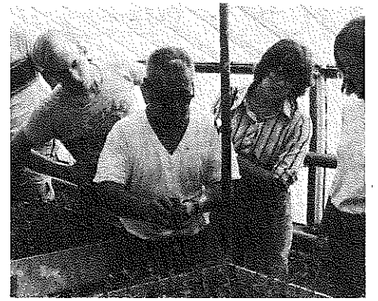
At the floriculture school students worked on wiring flowers, taping flowers, feathering, ribbons, corsage assembly, wreath making, basic flower arranging, ribbon roses and ideas for holiday decorations and drying flowers.

GREENHOUSE MANAGEMENT

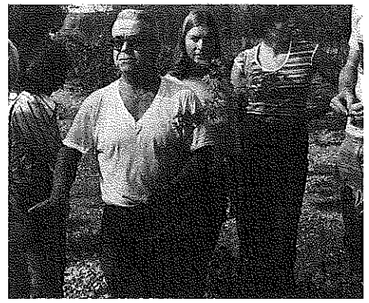
The greenhouse management school offered skill instruction in preparing soil mixes, soil amendments, pricking out seedlings, leaf cuttings, propagation medias, soil sterilization, soil testing and greenhouse fertilization methods.

LANDSCAPING

The high school that put on the landscape workshops instructed in balling and burlaping trees and shrubs, grafting and budding, and working with cold frames.



Student teachers watch Mr. Dan Stoner of Westminster Nurseries, Westminster, MD, evaluate root system of newly planted cutting.



Mr. Dan Stoner of Westminster Nurseries, Westminster, MD, explaining stock production to student teachers.

The student teachers worked in each school from 8:00 a.m. - 4:00 p.m.; brought their lunches and worked through the noon hour. The student teachers were uniformly enthusiastic about their learning experiences. Both the horticultural education and the agricultural education student teachers profited from the experience.

FOLLOW-UP

The horticultural course offering during the student teaching block picked up the skills training from where the 3 day workshop left off. It is felt that the skills training will make more successful student teachers and future teachers in Maryland. ◆◆◆

CONTINUED *CONDUCTING AN EFFECTIVE CRITIQUE CONFERENCE*

11. We must not expect perfection from our student teachers, but we should expect professional growth and development throughout the training period.
12. Cooperating teachers should provide student teachers with regular evaluative feedback on their performance.
13. University supervisors should follow up the critique session with a written summary or report sent to the student teacher and the cooperating teacher.

Even though the suggestions included in this article refer to the critique of student teachers and their teaching, the reader is reminded that the principles involved in the evaluation process also apply to other types of evaluation sessions. The critique conference, when properly used, is one of the most helpful teaching-learning activities in preservice and in-service education. ◆◆

CONTINUED *YOU'RE ON YOUR OWN!*

A WAY OF LIFE

Make teaching a way of life. Be willing to sacrifice to be effective in your job. Don't make teaching a sideline occupation. Be a full time teacher. Plan for professional improvement to make the best of your every opportunity. It is a sad commentary to hear such statements as, "If I can't find anything else I want to do, I will teach"; or "I will teach until I find something that is more interesting."

Don't be satisfied with mediocrity. Master teachers realize that after years of experience, they still know very little of what is to be learned. There is no finality in teaching. A casual approach to teaching will lead to personal failure and cheat your students of the education they deserve.

AMBITION

Be ambitious and become a master of your trade. Don't limit yourself to teaching only that which you enjoy doing or what is easiest and most readily accepted by the students. When you go onto that first job, the only chaperon you will have is yourself. Teach them what they will need to know to be productive workers. You have been taught high standards, but have you truly embraced such standards? We cannot force you to be effective, but we do ask you to strive to build self-confidence and self-reliance as you grow in the profession.

GOOD JUDGMENT

Finally, remember, good judgment in teaching is not necessarily a matter of age, but more an application of your knowledge to different situations. Maturity in teaching is the ability to react to all teaching situations so that your teaching is most beneficial to your students. Don't feel you can skip a lot of lessons that the more mature teachers have had to learn. There may be times when you can take a short-cut by using experiences and precepts of others and make the necessary adjustment to fit your teaching environment. However, a word of caution, when you bump your head against a new situation, take time to figure out what happened and why. You cannot avoid making the same mistake over in your teaching unless you learn what the mistakes were and how they came about. The experience that counts is not acquired quickly and without hours of toil.

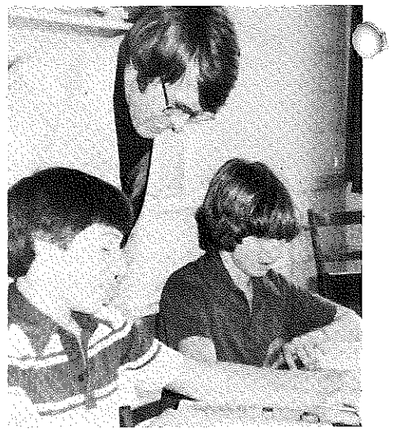
WORK UP TO YOUR BEST

A runner may work continuously for years to break that long standing record. I have read that Roger Bannister broke the four-minute mile after he had trained continuously for eight years. You will not become a master teacher overnight, but may I leave you with a couple of final words. Do your very best always, and remember too that a lot can be accomplished in teaching if we as teachers don't care who gets the credit. ◆◆◆

TEACHER EDUCATORS NEED IN-SERVICE TOO!

The author discussing the exchange with Posey Jones, agricultural education teacher at Blacksburg Middle School.

by
John Hillison
Teacher Educator
Virginia Polytechnic Institute
and State University



John Hillison working with students during supervised study which occurred while he was teaching at Blacksburg Middle School.

"Students have changed a lot since they taught. They don't realize the discipline problems we face that they never dreamed of a few years ago. "The "they" referred to is teacher educators and the comments may be typical of some made by classroom teachers.

On the other side, most classroom teachers have never assumed the role of a teacher educator. Most teacher educators have served in the role of a classroom teacher. However, for many teacher educators that experience was some years ago. Since that time different students, different student attitudes, and different agricultural technology have entered the classroom.

One possible way for bridging the gap that exists between the teacher and the teacher educator is by one assuming the role of the other. Such a role reversal can occur by the use of an exchange program.

The type of exchange program I have participated in involved a reversal of roles and responsibilities for approximately one-half day at a time. A local teacher of agriculture taught my methods class while I taught his school classes during the same time. Personal teaching experiences which have occurred during the five exchanges held so far have been to teach subjects ranging from public speaking and parliamentary procedures to soils, fertilizers, and supervising the building of woodworking projects.

TEACHER EDUCATOR TEACHES IN PUBLIC SCHOOLS

The high school or middle school students frequently have interesting questions to ask. When one student found that I was a doctor, he wanted to know if I was a veterinarian. Another student wanted to know why I had picked his class to teach. Occasionally other faculty members at the school who know me from graduate courses are mildly surprised to see me wearing coveralls after teaching a laboratory class. However, there is almost unanimous support among faculty members wanting to see other teacher educators do the same thing.

There are two agricultural instructors who have participated in this type of exchange with me. One is Gary Vincent, teacher at Warren East High School in Bowling Green, Kentucky. The other is Posey Jones, teacher at Blacksburg Middle School in Blacksburg, Virginia.

Both Mr. Vincent and Mr. Jones have been very helpful in involving their school's administration in obtaining approval for the exchange. In both situations the school principal and superintendent approved and encouraged the exchange.

TEACHER TEACHES AT COLLEGE

My methods students have always commented favorably upon the practical "real world" orientation which the practicing public school teacher can bring to the classroom. They have appreciated having the opportunity to discuss a series of questions with an agriculture teacher concerning his thoughts on FFA activities, supervising experience programs, teaching adult classes, completing state reports, etc.

RESULTS

I have appreciated the opportunity to once again teach high school and middle school age students. It is informative to keep in touch with the maturity level and attention span that such students have. Getting a chance to handle a real live discipline problem when the occasion arises is very helpful to fully understand the new types of problems which arise today.

The exchange program permits very quick and accurate feedback on the effectiveness of the teaching methods advocated by teacher educators. Few things can better the firsthand experience of trying out a technique advocated in the methods class.

Many possibilities exist for teacher educators to become more proficient in their role. Among these possibilities are to teach groups which are relatively new to the field of agricultural education, such as students labeled as disadvantaged or handicapped, post-secondary students, junior high school students and grade school students.

SUMMARY

There are many procedures teacher educators can utilize as means of in-service work, such as visiting other university departments of agricultural education. However, few procedures can put the teacher educator closer to the firing line. I highly recommend this type of exchange experience for other teachers, teacher educators, state supervisors, and public school administrators. A great deal of mutual understanding and appreciation can result from such an experience. ◆◆◆

The
Agricultural Education
Magazine

SUBJECT INDEX

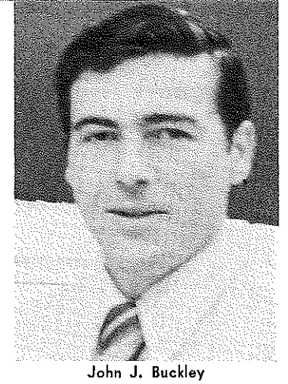
INDEX TO VOLUME 50 (July 1977 - June 1978)

INDEX TO VOLUME 50 (July 1977 - June 1978)

AUTHOR INDEX

COLLEGIAL LEADERSHIP

by
John J. Buckley
Agriculture Teacher
Warwick, New York



John J. Buckley

There are areas of study the agriculture teacher knows students need to cover. The agricultural advisory board knows the students need to cover these areas. They told the teacher so at the last board meeting. The problem is the students don't know they need to study these areas.

The teacher comes into the classroom with lesson plans ready. He launches into the first phase of the lesson: convincing students of the importance of that day's material. Valid reasons are put forth about why students should study this area. Materials are coordinated and presented with as much imagination and interest the teacher can incorporate.

He is greeted with student apathy—they could care less. They won't stay attentive. Class discipline starts to disintegrate. Students verbally express dismay at having to study the topic. Awareness for the teacher comes fast. This is not going well at all.

AUTOCRATIC LEADERSHIP

His gut reaction many times will be to fall back on the autocratic mode of leadership. "You are going to study this—like it or not. It's important and you will do it." At times he might even send a few students to the detention room or assistant principal just to settle things down. This reaction may be more immediate where the teacher has spent much time in planning and/or is trying to cover a subject he feels particularly confident or interested in. So it comes down to "I'm a teacher, you're the student, and you'll do as I say."

A situation like this can be a bore. A bore for the students—they're just putting in time suffering, and a bore for the teacher—he's just talking to himself, not really teaching the lesson since learning by students has stopped. Now it's a question of learning who is the boss. The boss usually turns out to be the teacher. The boss with an ulcer. Avoiding this situation can involve employing either of two other modes of leadership.

EGOCENTRIC LEADERSHIP

Egocentric leadership says the teacher still makes the decision but only after listening to and evaluating the advice of the students. This is a step toward a democracy but in essence a make believe democracy. "I as teacher will listen to and evaluate what you say. You can try to convince me. But, being older than the rest of you, I'm going to do it my way anyway." The students of course aren't told this. They're told, "Give a good reason why we shouldn't study this and maybe we won't."

A teacher with patience and salesmanship can convince students he has seriously considered their reasons but "it really is important; maybe we just won't spend so much time on it." He can, though, possibly encounter the same student resistance or indifference.

Two other outcomes are possible. The students may just convince the teacher that this subject matter is not needed. Then again, the teacher may convince the students and win them over to his way of thinking. Collegial leadership should lead to either of these outcomes.

COLLEGIAL LEADERSHIP

Collegial leadership involves decision by the group. The teacher and students are the group, each with an equal vote. Individual decision making is out. The group would decide, in this case, what is to be studied. Perhaps after all individuals are heard, the teacher's lesson plans and the subject matter would be dropped from the course for the year. The group would then decide on the substitute matter to be studied. In most cases this would be what interested the majority of the class members.

The problem of the passive student being cowed by the more vocal and at times aggressive students must be dealt with. There is also the danger of denying the two or three students who took the course because that particular subject matter really interested them. Neither problem is that drastic or insurmountable. Simply being sure to call on the less responsive students to get their opinion can overcome some of the shortfalls.

Collegial leadership may say "we won't study this because the group decided so." On paper this is a very democratic process and may lead to the immediate reaction that this is the best form of leadership. In practice, it may not prove to be the most beneficial. Classroom situations are going to involve the use of all three methods.

Collegial leadership may have led to the decision to study tractor operation even though it was not an original part of the year's course study. The group vote may also have been to skip the fundamentals and get right to the driving of the tractors. The initial decision may be sound and a benefit to the group, the second is going to present some problems. Common sense will dictate to the teacher that students should not drive until they know the safety regulations. The law as well as the rule of the school board will say students must have the safety regulations taught to them before driving.

COMBINATIONS?

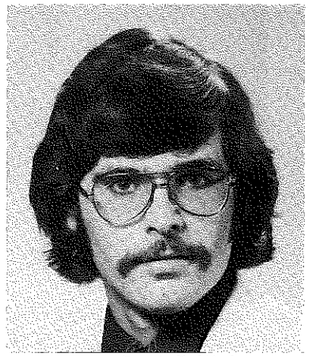
Egocentric leadership and salesmanship had best be employed to convince students that rules for safety are needed first. Failing at that method better lead to "you'll study them first because I say so and because you won't drive those tractors at all if you don't." Occasionally, we all have to endure the ulcer.

Listening to the student complain can often lead to the solution. Are they objecting to the subject matter or just the method of presentation? Is the complaint against the safety rules or rather the fact that they are being forced to read them? Would the reaction be better if the rules were presented in a slide or film? Autocratically we can force students to sit and read from a book (at least make believe they are reading). Egocentrically we had better make some changes if we are to satisfy our goal of having safe tractor operators.

(Concluded on page 45)

ARE FRATERNITIES FOR AG. ED. MAJORS?

by
Dennis T. Worley
Senior, Agricultural Education
North Carolina State University



Dennis T. Worley

One might ask the question, "Why should one become involved in a fraternal organization?" In American colleges and universities, fraternities exist as student organizations formed chiefly to promote friendship and the welfare of their members. Fraternities, whose names usually consist of Greek letters, have secret rites and insignia which bond the group into one. Members of fraternities choose to live together and enjoy the benefits of their association with the greatest thing they have to offer, themselves in friendship. Within the realms of brotherhood and life-long friendship, a spirit of young men working in unison to help each member realize his fullest potential exists as the basic foundation for fraternities. Fraternities are more than merely social institutions; they are a business since they manage millions of dollars of real estate each year.

THE FRATERNAL SYSTEM

The fraternal system is an American institution as old as the nation itself which fosters and reflects ideals of the American society. Fraternal organizations are a self-governing family as America is a self-governing nation with individual tolerance and development. Fraternities are anvils on which the characteristics of individuals can be fashioned for public service. This is illustrated by the fact that every President and Vice President of the United States except two since 1825, along with 40 Supreme Court Justices since the Civil War, have been members of fraternal organizations.[1] Our 38th President, Gerald R. Ford, came from a family of modest circumstances when he enrolled at the University of Michigan. He joined a fraternity during his sophomore year and earned money by washing dishes and performing odd kitchen jobs. Fraternity membership meant certain things to Ford, "It gave me a certain extra friendship and dimensions in the life of the University . . . Fraternity life gave me a broadening impact . . . it presented an opportunity to see a cross section of society."[1] Many members belonging to fraternities have acquired important roles in society through accomplishing a challenge extended to them by a fellow member.

College life is more than attending classes, for there exist many opportunities in which one might engage during spare time. One might ask, "What is in it for me?" Whatever you are willing to make of it, on an individual basis, might be a logical conclusion. The decision to join a fraternity, whether it be social, service, honorary, or academic, will have an impact upon one's life. Like one's career choice, the choice an individual makes regarding his association with a fraternity is also important. Whenever a man reaches a decision about a fraternity, whether it be to accept or reject, he is essentially mapping out a significant segment of his college life and life after graduation.

PLEDGING

Membership into most fraternities is by invitation only. To become a brother, one must go through a pledge period in which he comes to know the brothers and himself better. During this period the brothers and pledges are equally benefited because each party is able to evaluate the other in the ultimate decisions of becoming brothers. The progress of each pledge is determined by his actions. Participation in campus activities, intramural sports, social and recreational activities, compiling a good scholastic record, showing willingness to accept responsibility—these and other actions are indicative of the individual's desire to improve himself and the fraternity. A brother in the process learns to help and serve his fraternity.

Fraternities are important to our institutions and have influenced America's history. Fraternities have and will continue to play an important role in the lives of numerous Agricultural Education majors.

Agricultural Education majors work to improve their communities by working with the people in the community. This role as an agriculture teacher can be improved by the encounters one has in a fraternity and the opportunities existing for members to work cooperatively.

Fraternities are models of society and, thus, if a member can successfully live in a fraternity, then he should be successful in life. Agricultural Education majors who are members of fraternities become aware of the social structure as it exists in their organization.

RESULTS

Fraternities reward one in proportion to the effort put into the organization as does the involvement an agriculture teacher puts into his profession. As a fraternity member, one learns to accept responsibility and undertake the task of accomplishing different duties. The idea of self-discipline is evident in fraternities, in that one learns to formulate objectives in regard to life's goals.

The idea that fraternities are only social organizations has been misunderstood in relation to other important attributes of fraternities. Most fraternities are established around strengthening the moral, social, and intellectual welfare of the members. An Agricultural Education major can strengthen these areas which will aid him in performing his duties as a professional teacher.

Despite many assumptions, fraternities engage in numerous service projects with benefits accruing to both the campus and the community. Projects of these sort require each brother to allocate his time in performing the service project. These types of activities will aid an Agricultural Education major in pursuit of helping or improving his community.

(Concluded on the next page)

ADVISORY COUNCILS—NEEDED?

When selected and utilized properly, the advisory council can be a very constructive part of the vocational agri-business program. It can strengthen the internal functioning of the program, update and improve educational content, and help build a desirable working relationship between the school and the community.

by
Spencer W. Smith
North Sand Mountain High School
Higdon, AL

Are advisory councils really needed in vocational agri-business education? This is a question that many of you may need to ask yourselves if your agri-business program does not include an advisory council.

WHAT IS AN ADVISORY COUNCIL?

Who and how many should comprise it? What are its functions? What are some of the things in which the advisory council should not become involved?

An advisory council is a group of selected individuals who serve in an advisory capacity to the vocational agri-business instructor. The advisory council lends direction to the entire scope of the agri-business program of a given school. When properly utilized, it becomes an important device for implementing policies and principles that are not only important to students, but also to the adults in the community who are concerned with and affected by the vocational agri-business program.

The members of the council should be chosen from individuals who understand something of the vocational agri-business program and who support it and the teacher in the community. These individuals should be able to give sound, unprejudiced advice and should be representative of the total population of the community. Members may be chosen from various occupations and groups within the community, some of which might include farmers, school administrators, parents of students, former students, agricultural leaders, and many, many others.

Members should never be chosen strictly upon the basis of friendship as friends tend to hold similar ideas and beliefs and may possibly hesitate to disagree, lessening the objectivity of the group. Ideally, the council should not be this way. Its decisions and advice should be made after careful consideration of alternatives for the betterment of the program.

The number serving on the council will vary, depending upon the size of the community and school. The council should be large enough to represent the community, but not so large that nothing can be accomplished. It is also important that the council not be so small as to limit the input of new ideas and draw criticism from the community. It is the responsibility of the individual instructor to determine the workable size of the council selected for his particular school and community.

WHAT ARE ITS FUNCTIONS?

The advisory council has many important functions. Its contributions to the vocational agri-business program can be generally categorized into three broad areas: (1) policy formulation and evaluation, (2) educational content, and (3) community relations.

One of the primary functions of the council is to help the vocational agri-business instructor formulate policies concerning the use of the vocational agri-business department and its equipment. The council in its advisory capacity can be helpful to the instructor in establishing codes of conduct for classroom and field activities. The council can evaluate these policies as they are being applied and revise existing policies to best benefit the program. It can also be very beneficial in helping the department stay abreast of changes.

The council can be beneficial in surveying the needs of the entire community and in suggesting areas of study that will relate to these needs. It can serve as an evaluator of the teacher's instruction in these areas and make helpful suggestions for improvement. Being representative of a large cross section of the community, the council can be instrumental in bringing in a variety of resource persons to supplement teaching and assist in FFA activities. In the same manner, it can be instrumental in bringing in needed teaching materials and equipment, and can be especially helpful in securing work stations to place students in various occupational experience programs. Likewise, the council can sponsor adult education programs and workshops and aid in the teaching of them.

As previously stated, the council can be very instrumental in determining the community's needs and broadening the scope of the vocational agri-business program so as to be more relevant to the whole community. The council is an excellent means of keeping the community informed as to the activities and events that take place within the program.

HOW SHOULD IT NOT BE USED?

There are some ways the advisory council should not be used. The council should not be used as a scapegoat taking the blame for things for which the vocational instructor is responsible. The council should never be used as a political pressure group to achieve desired needs and goals. The council should never do the vocational instructor's talking for him. Should a question arise about some aspect of the program, the instructor is the one to explain, with the council backing him up. ◆◆

CONTINUED *ARE FRATERNITIES FOR AG. ED. MAJORS?*

North Carolina State University fraternities offer members opportunities to share responsibility and to develop into more complete individuals. Many of the members serve as officers in the organizations, which tends to indicate the leadership abilities existing and developing within the curriculum. Agricultural Education students at North Carolina State University have found that experiences gained in a fraternity setting are valuable in the vocational agriculture teaching profession. ◆◆◆

[1]*College Fraternities: 200 Years a Proud Heritage.* Operation Brass Tacks Committee of the National Panhellenic Editors Conference, Columbus, OH.

★ ★ ★ THIS WORKED FOR ME! ★ ★ ★

ORGANIZED TOOL BOARDS

by
Tobie R. Titsworth
Teacher Educator
Texas A&M University

The old adage that begins "A place for everything and . . . ." should be our watchword in vocational agriculture shops. Most of us have decided that tool boards of some kind or the other are the best answer to this problem. But that's the end of the easy part. If you are like I am, you have tried at least a half dozen ways to hang and outline tools ranging from hand-painted designs to cutting out dark contact paper in the shape of each tool. These methods are at best slow and tedious, usually resulting in unfinished tool boards.

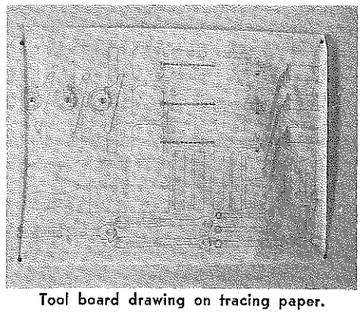
HERE'S HOW

One of the best methods I have seen is in use at the Mechanized Agriculture Labs at Texas A&M University (No prejudice intended). Some of the boards have been up for 7-8 years and still look fairly good. The key steps in getting the tools "hung up" instead of you, are as follows:

1. First, outline the tools on tracing paper. An easy way to do this is to lay the tool down and trace around it lightly, then retrace with a ruler and/or other drawing tools for the final drawing. This allows multiple copies to be made at most engineering supply stores. (Each tool area could be shaded for more contrast).

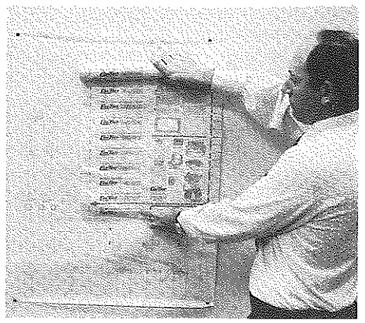
2. Attach the "run" copy to a ⅛" white poster board. (Outline the tools directly on the posterboard if only one copy is needed.)

3. Tack the poster board to the tool board (Preferably plywood at least ½" thick).



Tool board drawing on tracing paper.

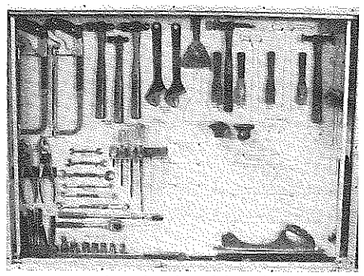
4. Apply clear contact paper over the entire area. This protects the sheet from oil and grease and makes clean-up a snap.



Attach the copy to cardboard and apply contact paper. Tobie Titsworth shows us how its done.

5. Next, attach nails, screws, hooks, or whatever is desired to hang the tools. I have found that different sizes of nails (bent to fit) work about as good as anything and are much cheaper than specialized hooks.

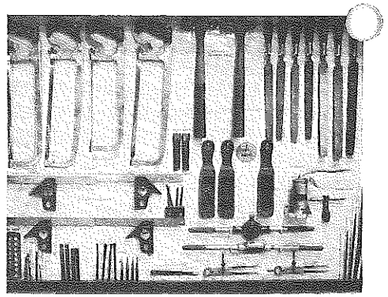
6. Put a small amount of glue around each nail to seal the hole. This will prevent oil from ruining the paper beneath.



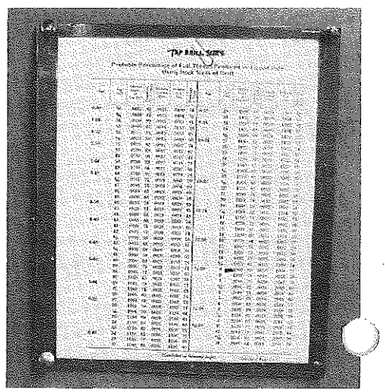
Completed tool board.

TAG MISSING TOOLS

I have not attempted to reiterate the many advantages of having tool boards; however, the biggest advantage (i.e., being able to quickly spot a missing tool) is lost if the boards are not complete at all times. As you know, this is next to impossible. Try this system: at the beginning of each period check the boards to identify the missing tools and hang a tag in its place. This tag will then remain in place until a tool can be purchased to replace it. Hopefully, by making it easier to construct and maintain tool boards, the agricultural teacher can get the full benefit from their use. ◆◆◆



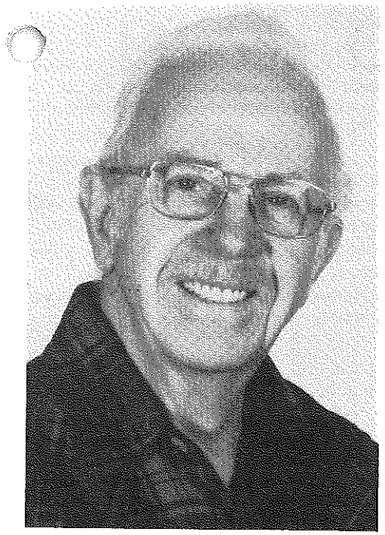
Tag those missing tools.



Contact paper protects charts.

Leader in Agricultural Education:

W. HOWARD MARTIN



*by Alfred J. Mannebach**

A critic, an innovator, a leader, a great intellect. These words describe Dr. W. Howard Martin, Professor Emeritus, University of Connecticut.

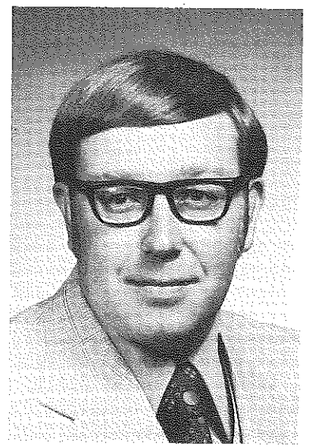
Dr. Martin served at the University of Connecticut for 25 years, from 1946 to 1971. During his tenure there, and previously in Vermont, Dr. Martin became recognized as a leading philosopher of agricultural education. He had the unique ability to conceptualize the ideal, formulate goals, develop plans, and operationalize the plans. He was able to develop the theory, then put the theory into practice.

W. Howard Martin was born in Wolcott, Vermont, on April 15, 1910. He was the oldest of nine children. He attended high school at Craftsbury, Vermont, nine miles away. Every morning during his first two years of high school he drove a horse to and from school. He boarded in the town during January, February and March. As he puts it, "It was a tough way to go to school." Howard graduated in 1927 and recently attended the 50th reunion of the class.

Howard entered the University of Vermont as a freshman in the fall of 1927. Because he lived on a farm, he majored in agriculture. Already noted for his potential, he was the recipient of the State Senatorial Scholarship. With the scholarship money, and by working in the dairy industry, he earned his Bachelor of Science Degree in 1931 with majors in Agricultural Education, Dairy Production and Dairy Manufacturing. During college he was awarded the George Walker Dairy Prize as outstanding senior dairy major and was elected to membership in Phi Beta Kappa and Alpha Zeta. He was also a member of the dairy cattle, dairy products, and livestock judging teams. During his student teaching he coached the milk judging team at his school and the team won the state contest.

Howard taught vocational agriculture in Vermont for five years. One year was spent at Cabot and four years of teaching were spent at Vergennes. While teaching he established an FFA Chapter, served as the president of the Vermont Agriculture Teachers' Association, and was the first president of the Vermont Vocational Association. He was also advisor to the first FFA member in Vermont to receive the American Farmer Degree.

Howard started his Graduate Program by attending summer schools at Cornell University. In the fall of 1936, he attended Cornell full time and completed requirements for his Master's Degree in February, 1937. He found a dual job waiting for him at the University of Vermont as Assistant Professor in Agricultural Education and Assistant State Supervisor for Vocational Agriculture.



**Alfred J. Mannebach is Associate Professor, Department of Higher, Technical and Adult Education, University of Connecticut, Storrs, Connecticut.*

Back in Vermont, in addition to getting married, Howard found himself busy developing and promoting part-time young and adult farmer education programs, and teaching classes at the University of Vermont. In 1940, he dropped the title of assistant and became the Teacher Educator and State Supervisor in Vermont. He continued his educational work in rural development by helping to establish adult education programs in farm machinery maintenance and repair, food production and preservation. He initiated the first statewide young farmers conference in Vermont. He also served as a representative from the College of Agriculture on the University of Vermont Advisory Committee.

When Franklin D. Roosevelt became President in 1940, Howard was one of four state supervisors called by the U.S.O.E. to meet and shake hands with the President in the oval office.

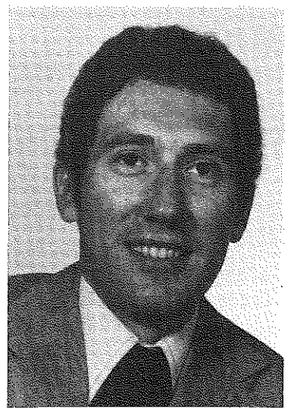
In the fall of 1946, Howard came to Connecticut as a fulltime teacher educator in agriculture. As he puts it, "I had no students, no classes, and no specific responsibilities during the first semester." However, it didn't take long for Howard to take inventory and get organized. Within three years he was appointed to the graduate faculty, had developed and was teaching graduate courses, and had increased his undergraduate enrollment to meet the needs of the state.

Howard continued his graduate work while at the University of Connecticut. He completed twelve weeks of study at Harvard University where he was admitted to the doctoral program. How-

(Concluded on page 47)

THE TEACHER WHO LOVES TO LEARN

by
Robert A. Martin
Vo-Ag Instructor
Bremen, IN



Robert A. Martin

"The teacher who does not love to learn will never cause anybody else to do so. And whether he is aware of it or not, he will be teaching best when his students see that he is learning, too. The surest way to learn something is to teach it. But there is something more than that in the situation: the students have an example of the process before them . . ." (Mark Van Doren)

THE PROBLEM

Students leave the university in their early 20's with a career of up to 40 years in front of them. In that long period the facts that they learn as students are of diminishing importance. What becomes more important are the adaptability to changing circumstances, objective thinking, and a continuing interest in one's work. These qualities are a part of character for which there is no universal ideal and which therefore gets summarized in different ways. Wild[2] suggests that one way to summarize these is the five "I's"—integrity, imagination, initiative, interest, and inquisitiveness. And Wild goes on to suggest that these traits are essential for research. I would agree with him and submit that they are just as essential for "master" teaching.

Qualities like these are not necessarily the product of formal teaching, but result from some degree of free development in a sympathetic atmosphere. Teachers and good teaching can have an important influence by giving the student a chance to think on his own, use his initiative, develop interests and be forced to make decisions. This does not mean that there is a loose and chaotic approach to education. More likely, it means a disciplined structure with flexibility and originality.

This brings us to the question then of what are the qualities of good teachers?

Turk[4] suggests that the qualities of good teachers include the following:

1. Infectious enthusiasm to stimulate and inspire students.
2. Knowledge of the subject matter and ability to deal with it simply or in a highly sophisticated manner.
3. Ability to put the knowledge across—a professional in the art of communication.
4. High standards of achievement—commands the respect of students and gets it.
5. Maintenance of good relationships and influence beyond the classroom.

Many teachers have these qualities or at least some of them. Why then do we not have more high quality teaching in our universities and colleges? Some of the frequent answers to this question are represented by the following:

1. Emphasis in graduate school is on research.
2. The Ph.D. is primarily a research degree.
3. Promotions and salary increases are made on the basis of research accomplishments.
4. Teaching cannot be evaluated as easily as research.
5. Few college teachers have had any guidance in teaching.
6. The need for greater emphasis on basic research to get financial grants results in less time spent in teaching preparation.

There are probably others, but these serve to point out the fact that, on the surface at least, there are few tangible rewards to teaching. What then can be done about this situation? The answers are not simple, but in these days of accountability it is important to make an effort to look at the possible solutions to the problem of making the teaching part of the research-teaching team even more attractive so that as much energy is spent on teaching as is spent now on the very important research aspect.

PROPOSED SOLUTIONS

First, let us recognize that there are many excellent and dedicated teachers and that, for many students, these teachers do a good job. Whiteman[3] suggests the following steps as those that may, in many instances, help teachers do an even better job:

1. *Develop highly flexible curricula . . . (to) break down the growing tendency to make everyone fit the same mold.*
2. *Develop an advisory system such that some staff member knows each student well enough to properly advise him/her.*
3. *Teach courses in such a way that students get and apply the principles from supporting sciences that are necessary for an understanding of the material.*
4. *Present subject matter in such a way that students will be encouraged to continue learning after they have graduated.*
5. *Maintain high standards of accomplishment.*

These suggestions get at part of the problem, but they may be lacking in that most teachers on the university level have had little special guidance in learning "how" to teach. Of course it has been suggested than anyone can teach, or the idea that if one cannot do anything else, one can teach. It is doubtful that these ideas could be corrected in any way. To even consider the idea that learning takes place in any situation where there is an instructor and a group of students is to make a mockery of the teaching profession.

Now that students are calling for relevancy in education, educators need to consider the fact that the problem of improving teaching on any level cannot be handled by the individual teacher in his particular little world of his classroom. It is going to take a concerned group and departmental effort to get teaching to improve.

This means that there should be preparation for teaching at the graduate level if individuals who are working toward a Ph.D. degree intend to teach and do research on the university level.

(Concluded on next page)

CONTINUED THE TEACHER WHO LOVES TO LEARN

This does not mean that all graduate students must go through some program of teacher education, but it does mean that if any student has an idea about teaching at the advanced level, he should have some instruction in the "how" of teaching.

Turk[4] suggests that we should have (a) more graduate assistantships and fellowships for teacher training under the guidance of outstanding teachers; (b) post-doctorals for teaching; (c) programs of study that include communication arts and skills including writing, public speaking, and visual aids; (d) greater emphasis on mutual stimulation of teaching and research; (e) special conferences and seminars involving students and faculty for demonstrations and discussions of new techniques, new instruments and equipment for visual instruction; (f) development of optional courses and seminars on college teaching and teaching techniques.

In addition to these suggestions, this writer suggests that university teachers would go a long way to improve their teaching if they would do the following: construct and use behavioral or action objectives, develop a more favorable personal attitude toward teaching, and video tape and critique teaching.

OBJECTIVES

More specific objectives need to be used. Objectives stated like ". . . to understand the reproductive process of . . ." does not tell the student much at all. The teacher may have a very clear idea of what he is trying to accomplish, but if the student does not know what it is *he* is supposed to do or accomplish, then there is no real point in stating an objective on paper or on the chalkboard. Taking the above objective for example, I would ask, "HOW is the student going to understand?" What does he have to do to understand? To say that the student is going to understand or is going to be aware is not really saying very much. The lack of a clearly stated objective only serves to confuse a student. Make sure the student knows what it is you want him to do and what is expected of him.

PERSONAL ATTITUDE

This next point is always something worth considering often. Teachers should be more concerned with teaching *students* rather than teaching content. Content is important, to be sure, but is it more important than the student? I think at times we get carried away with pushing a lot of content or subject matter in front of students, instead of making sure a few very sound principles of a course are very thoroughly understood to the point that the students can take these principles and transfer them to a real situation at another time.

VIDEO TAPING

Video taping one's teaching is another excellent way to draw attention to a particular teacher's strong and weak points. Many times we as teachers are not aware of the way we come across to students. Once we see ourselves as others see us, we begin to make some worthwhile evaluations of our performance in front of the class and try to do something about our weaknesses.

The really good teacher is never satisfied. He constantly strives to improve his techniques, his knowledge and his teaching. These suggestions, if followed, will require that many teachers will give more time and effort to their teaching responsibilities than they have in the past. It is further suggested that, as important as research is, teaching is of just as much importance and should be given just as much attention. Knowledge gained from research is of little value if only scientists are aware of it. But at the same time, teaching cannot be kept up-to-date and refreshing if research is not done. They go hand-in-hand.

Finally, teaching will get more teacher attention when administrators give it more attention in terms of recognition and promotion of good teachers and teaching. Whiteman[3] suggests that excellence in teaching is no harder to recognize than excellence in research, and that constructive criticism by administrators is not a violation of the principle of academic freedom.

Teachers must face up to the responsibility that they have in preparing young people for the world of agribusiness. Students cannot possibly improve until there is a concerted effort on the part of teachers to do the very best job that they can to improve teaching.

SUMMARY

Krider[1] states that "no longer can we remain academicians in the 'ivory towers of education' and survive . . . . The vigorous, frank counselor who is an excellent teacher is the key to getting the job done with the student."

When educators make every effort to get students deeply involved in the learning process, the students will gain more in the long run, and the students will be even better prepared to accept the challenges of the world of agribusiness. ◆◆◆

BIBLIOGRAPHY

1. Krider, J. L., "Preparing Today's Students for Tomorrow's Opportunities," *Journal of Animal Science*, Vol. 23(1):289-292.
2. Wild, A., 'Education, Research, and Extension in Agricultural Development," *Samaru Agricultural Newsletter*, Vol. 12, No. 5, October, 1970, p. 84.
3. Whiteman, Joe V., "What Should We Teach and How?", *Journal of Animal Science*, Vol 23, 1964, p. 283-288.
4. Turk, K. L., "Preparation for Teaching, Research and Extension in Animal Science," *Proceedings of Second World Conference on Animal Production*, July, 1968, p. 232-240.

CONTINUED COLLEGIAL LEADERSHIP

Teachers are, of course employed to teach and lead students. This leadership can take the form of dragging the screaming and kicking group to the point where it finally sees the light and accepts the ends. It can also take the form of shoving the group along with as little resistance as possible, again until it sees the light. Better still is having the group hang onto your coat tail and trying to beat you to the light. A combination of all three will take place during the year. Let's hope a majority of the time the last two methods are employed. They make life so much more enjoyable for all concerned. ◆◆

BOOK REVIEWS

EVOLUTION OF CROP PLANTS, Edited by N. W. Simmonds. New York: Longman, Incorporated, 1976, 339 pages, $35.00.

The purpose of this book is to trace the historical evolution of crop plants, summarize the present stage of development and make predictions on future evolutionary prospects for the world's important crop plants. The evolution of crop plants is treated as a phenomenon which began long ago, is occurring today and will continue into the future.

Eighty-seven chapters of the book are devoted to major crop plants. Generally, each chapter is devoted to a single crop, although several chapters include closely related crops. The final chapter describes 81 crop plants of minor importance with brief essays of one to ten paragraphs for each.

The chapters are arranged with the genera of each crop family together. Each chapter was written independently of the others by seventy-seven authors from around the world. A standard format of six sections is followed throughout the book.

The introduction section describes the general botanical characteristics of the plant, why it is cultivated, its importance as a crop, amounts produced, uses made of the crop, and the locations of major production. Cytotoxonomic background is the second section. Here the genetic makeup of the genera and species of the crop is described and their world distribution identified.

The third section, early history, identifies the place or origin of the crop and its wild ancestors. A description of the early uses of the crop is made; people who first produced the crop are identified; and the spread of the crop is traced from place of origin to present location. The crop's early botanical characteristics are described, and contrasted with present important species. The recent history section describes attempts to further develop the crop and improve it or make new uses of it through research efforts. It reports on selection of new varieties and adaptations.

Prospects is the fifth section. Here, predictions are made as to how much further the crop may be improved through breeding research and experimentation on yield, quality, disease resistance, adaptability to other areas and the possibility for increased use of the crop. The final section is References. Here a brief list, usually ten or more, of essential reference sources is made for each major crop.

The editor of the book, N.W. Simmonds, is the Director of the Scottish Plant Breeding Station at Roslin, Midlothian. He has a deep interest in plant evolution as it relates to crop plant development and improvement. As editor, he has successfully put together the contributions of many authors. The chapters follow a similar format and each is written in precise, clear language.

This will be a fascinating and informative book for the reader with a general interest in crop plants. At the high school level, this book will be a very useful reference as a source of background material and as a general introduction to crop production. The concise scientific data and reference list for each crop will make this book an invaluable source of information for the college student and crop research specialist.

Eugene Anderson
Office of Special Programs
University of Minnesota
St. Paul, MN

FOOD AND AGRICULTURE: Readings from Scientific American, San Francisco, California: W. H. Freeman and Company, 1976, 154 pages, $9.00 hardcover, $4.95 softcover.

Food and Agriculture describes the present world food situation and analyzes the reason why current food production does not meet the nutritional needs of all people. It also examines the possibilities for alleviating world hunger.

The book provides background information on the world problem of human hunger in both quality and quantity terms. The nutritional requirements of humans are described, a comparison of energy and nutrient requirements for plants and animals is made, and a historical review is made of the plants and animals that people use for food. One chapter describes agricultural systems and explains why they vary from one nation and society to another. The agriculture of the United States, Mexico, and India are described to illustrate the differing levels of development as well as different types of agriculture. The present situation with its problems of localized drought and low production, an inadequate worldwide food distribution system, and high birth rate and lack of technology in some areas is compared with what the situation could be.

An optimistic view of the world food situation emerges from the book. It points out that technology is available to solve current and future food problems. People and nations must only be willing to make the required investment in effort and funds. The changes needed, the amount of effort required, and the costs to provide adequate nutrition for all the people of the world are described.

The final portion of the book, which deals with the future of agriculture, presents several conclusions. The resources available for agriculture are examined. It is concluded that they are not being fully used. Scientific agricultural development in the United States and the green revolution in other parts of the world demonstrate the potential for development. The basic scientific need is identified as increased crop breeding efforts. The book emphasizes that agricultural development, not industrial, must be the basis for national development if developing countries are going to solve their food problems, and that this agricultural development is dependent on assistance from developed countries.

The book is a challenge to farmers, agricultural scientists and technicians, and governments. The message to them is that even though technology and potential exist for adequate world food production, there is still hunger in the world. It details what is needed to eliminate hunger and what the cost will be.

Fifteen authors have contributed to the book, which is a reprint of articles which appeared in the September, 1976, issue of *Scientific American* magazine. All are authorities through education and experience in nutrition and food production.

This book is a technical presentation of the broad area of world food production. The many photographs, diagrams, drawings, and tables make it a well illustrated book. In addition, it contains a bibliography and an index. It is an excellent source of information on world agricultural development and should be of interest to everyone concerned about world food problems.

The book will be a good reference source for students at the senior high school level and above who are interested in world food and agricultural development problems.

Eugene Anderson
Office of Special Programs
University of Minnesota
St. Paul

CROP PRODUCTION - PRINCIPLES AND PRACTICES, by Steven R. Chapman and Lark P. Carter, San Francisco, California: W. H. Freeman and Co., 1976, 566 pp., $15.00

This book discusses all of the major agronomic crops raised in the United States and Canada. The discussion is carried out in a very thorough and in-depth manner. The book's contents are divided into three major parts.

The first part is entitled principles. This part has chapters on plant science and human welfare, cell structure, vegetative growth, reproductive growth and plant classification.

The second part of the book is entitled plants and their environment. This part has chapters on soils, moisture, light and temperature, cropping systems, and a chapter covering the topics of insects, diseases and weeds.

The book includes a list of selected references and a set of study questions for each chapter. It is designed primarily for use as a textbook in a crop production course, an introductory agronomy course or an introductory plant science course.

Both authors are eminently qualified to be writers on the topic of crop production. Stephen R. Chapman is a Professor of Agronomy and Genetics at Montana State University. He teaches a number of courses including introductory plant science. Lark P. Carter is Associate Dean of Agriculture and Professor of Agronomy at Montana State University. He has taught both introductory and advanced agronomy courses.

This book is designed primarily for college level students. It will be most beneficial to high school agricultural education programs as a reference — not as a text.

John Hillison
VPI & SU
Blacksburg, VA

CONTINUED

LEADER

ever, wanting to continue in agricultural education, he transferred to the University of Illinois. He took a full-time sabbatical leave at one-half pay and completed his Ed.D. in 1954 under the direction of Dr. H. M. Hamlin, his major advisor.

Upon returning to Connecticut, Dr. Martin found the time was ripe to initiate a "new look" for vocational agriculture in Connecticut. A state law endorsing "Regional Vocational Agriculture Center" was enacted. The law was the real beginning of a successful program of vocational agriculture in Connecticut. Coupled with an updated curriculum, new multiple teacher facilities, and quality undergraduate and graduate education, the program of vocational agriculture in Connecticut increased in quality and number of students served. Substantial leadership for the program was provided by Dr. Martin. During his tenure in Connecticut, the number of teachers and students in vocational agriculture nearly tripled.

In his later years at the University of Connecticut, Howard was instrumental in broadening the base for the graduate program in vocational education. In 1963, he served as an agricultural education consultant to Zambia for a six-month period. He conducted a national workshop in technical education and directed a U.S.O.E. Project entitled "A Study of Supervised Farming Programs." In 1969, he was director of one of the first twelve E.P.D.A. leadership programs funded in vocational education.

Dr. Martin was very active in professional organizations and writing. He served three years each as Editor-in-Chief, Special Editor, Consultant Editor and Business Manager of the *Agricultural Education Magazine*. He served nine years on the Research Committee of the Agricultural Education Division, American Vocational Association, several as chairman. He has compiled and edited "Summaries of Research in Agricultural Education" and wrote a chapter in the *Review of Educational Research* in Agricultural Education. He wrote the first chapter in *Teacher Education in Agriculture,* published in 1967. He has written chapters in other books and is the author of numerous articles. He holds the Honorary American Farmer Degree and has been awarded the Honorary State Farmer Degree in Vermont and Connecticut. In 1969, he delivered the AATEA Distinguished Lecture.

In addition to being a member of the faculty at the University of Connecticut, Dr. Martin has taught at Colorado State University, Cornell University, Michigan State University, the University of Illinois and the University of Missouri.

Retired and Emeritus Professor since 1971, Howard and Betty are back on the farm in Wolcott, Vermont. He spends some time snowmobiling, snowshoeing, and deer hunting. Thirty-five of his some 200 acres are involved in a timber stand improvement program. In addition, he cuts his own wood for heating. He is well known for the "cozy" fireplace atmosphere he can create.

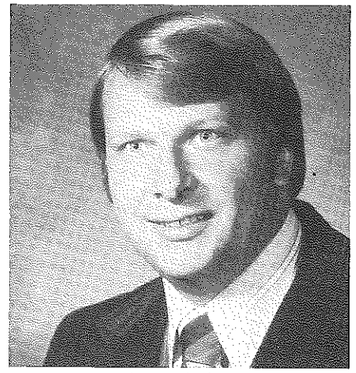
He still finds time to travel and has continued to be active in education. He served three years on the Wolcott Board of Education, served as consultant on special projects, and is a member of the University of Connecticut E.P.D.A. Advisory Committee.

Howard is the father of four daughters. His influence on his own family is attested to by the fact that all four are college graduates and all four are certified teachers.

In summary, Dr. W. Howard Martin has made a positive impact on the agricultural education profession. He is warm, personable, and friendly. Yet, he will challenge your ideas and really stimulate your thinking. As one former student said, "He really had the ability to get between your ears and make you think."

Howard truly deserves to be honored as a leader in agricultural education. He has provided leadership as a teacher, a state supervisor and as a teacher educator. He has served the profession at the local, state and national levels. I have heard him say that "Leadership is the ability to get control of the situation." Dr. Martin has had control of the situation many times during his exemplary career. He remains truly a "Leader in Agricultural Education." ◆

SOUTH DAKOTA AGRICULTURE TEACHER OF THE YEAR



Roger Carlson

Roger Carlson, Agri-Business instructor at the Lake Area Vocational-Technical Institute of Watertown, South Dakota, was selected Agriculture/Agri-business Instructor of the Year for 1977-78.

Roger is in his sixth year of teaching and has had many accomplishments during that time. He is secretary of the South Dakota Vocational Association; he has designed the Agri-business Salesmanship Contest for the South Dakota Future Farmers of America and is presently chairman of the contest on the state level. Roger represented South Dakota as a consultant in developing a curriculum in Ag. Sales and Service with the Mid-American Curriculum Consortium in Oklahoma City and Denver. He has also represented South Dakota as a consultant in developing Standards for Quality Agriculture-Agri-business Programs. These are but a few of his many accomplishments as an instructor at the post-secondary level in this rapidly changing field of Agri-business.

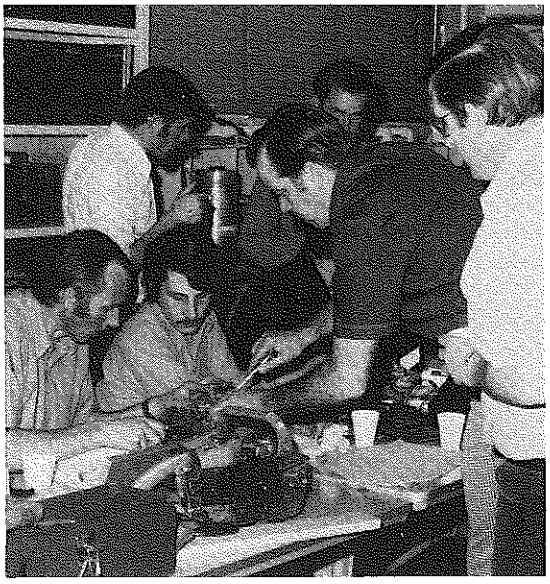
STORIES IN PICTURES

by Joe Sabol

These officers of the Louisiana State University Collegiate Chapter FFA provide leadership for the fiftieth year of operation of the first Collegiate Chapter of Future Farmers of America. In addition to FFA activities, the local membership contains the College of Agriculture President, Queen (second from left in photo), comptroller, secretary, ASA representative, and a state officer of the FFA. (Photo courtesy J. C. Atherton, Louisiana State University)

Roses pruned properly make student teacher Wendy Gauld happy to be outdoors working one to one with her students at Sierra Jt. Union High School in Tollhouse, California. (Photo courtesy Joe Sabol, Cal Poly, San Luis Obispo)

Learn by doing! This horticulture class, under the supervision of student teacher George Kaas and cooperating teacher Matt Zemny, get to practice weed control after many hours "inside" during a very wet year at Soquel High School in Soquel, CA. (Photo courtesy Len Harzman, Cal Poly)



Teacher education should include in-service education using industry representatives as instructors. A group of California North Coast teachers are attending a small gas engine workshop held at Santa Rosa High School, Santa Rosa, CA. (Photo courtesy Bill Wills, San Luis Obispo, CA)

The FFA Parliamentary Law Team from Hinds Co. AHS is presented the First Place Plaque by Mississippi State FFA President, Jim Mize. (L-R) Team members are Albert Cole, Jr., Chapter Advisor; Kelvin Stamps, Team President; Edward Robinson, Andre Devine, Booker Mims, Ronald Stamps, Team Members; and J. W. Owens, Chapter Advisor. (Photo courtesy Calvin Willis, Chapter Reporter)