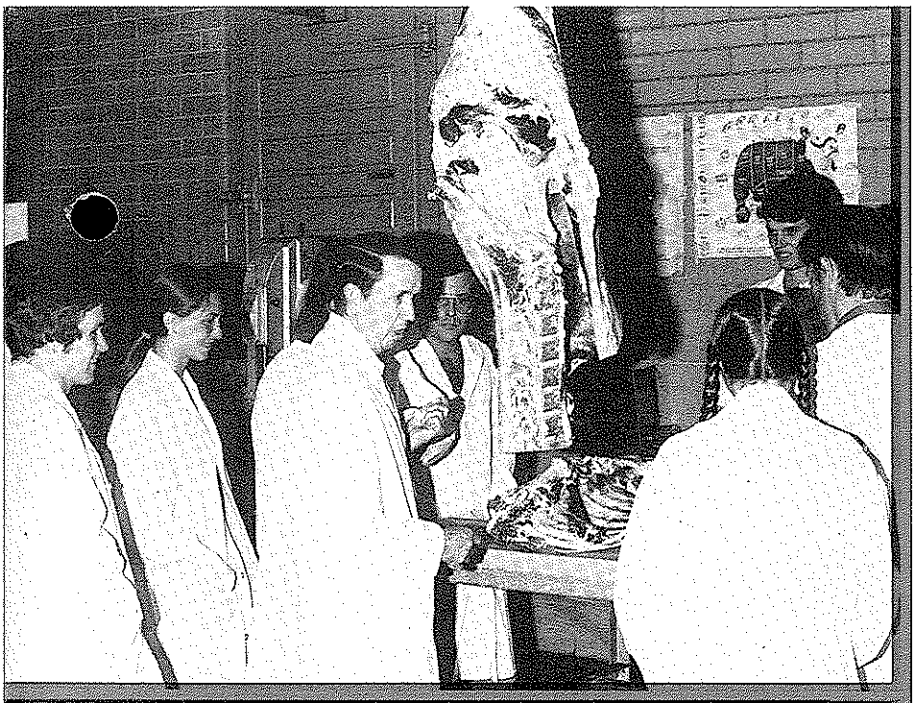
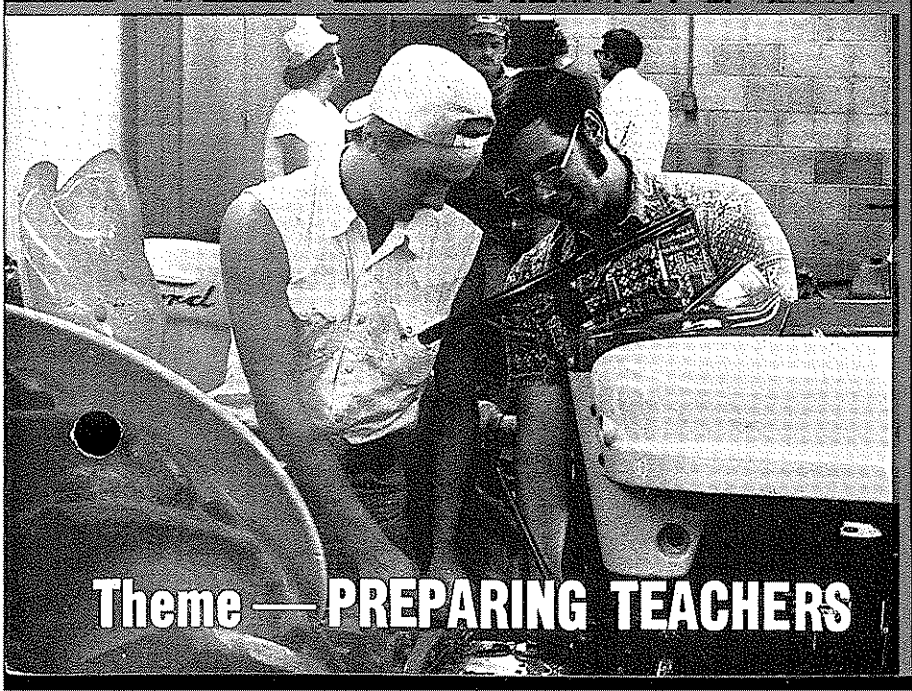




Theme — PREPARING TEACHERS

AGRICULTURAL EDUCATION

Volume 49 Number 4

October 1976

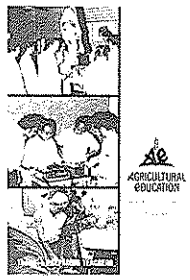
EDPRESS

AGRICULTURAL EDUCATION

October 1976 Volume 49 Number 4

TABLE OF CONTENTS

THEME—PREPARING TEACHERS



The cover photographs show a variety of activities in the preparation of teachers of vocational agriculture at Sam Houston State University, Huntsville, Texas. At the top, Sonny Sikes, Animal Science Professor, is demonstrating meats evaluation to a group of prospective teachers. The center photo shows Indonesian students learning to use videotape equipment. The bottom photo shows two prospective teachers in a tractor mechanics course. (photographs from Herbert Schumann, Sam Houston State University)

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: $5 per year. Foreign subscriptions $6. Student subscriptions in groups (one address) $2 for October-May. Single copies and back issues less than ten years old are available at 50 cents 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: Charles F. Lebo, Business Manager, RD 2, Box 639, Halifax, PA 17032

GUEST EDITORIAL

GUEST EDITORIAL

Ralph J. Woodin

TEACHER POWER IS NECESSARY TO TEACHER EDUCATION IN AG

*by Ralph J. Woodin**

Departments of agricultural education are facing an uncertain future. They need the help of teachers as never before.

The teacher of agriculture in many schools has been singled out as the best teacher in the system by school administrators and former students. The success and the prestige of the profession depends upon having large numbers of such teachers in vocational agriculture classrooms across the nation. We must keep it this way!

Outstanding teachers are usually born teachers, prepared by a quality program of teacher education. This profession has been blessed with many quality programs of teacher education since its beginning, and each September an infusion of capable, dedicated, young teachers from these programs has brought new important contributions to the profession.

Teachers have had a stronger influence on the development of departments of agricultural education than on any other teacher education program you can name. Change and improvement have been guided by much sound advice from practitioners. This has been a natural development resulting from the continuing interaction of teachers and teacher educators in in-service and graduate classes, beginning teacher programs, conferences and seminars. Such guidance from teachers must be utilized even more in the future as teacher education continues to adjust and to shape change in a dynamic society.

Erosion of Teacher Education

One of the best kept secrets of the profession during the past decade is the seriousness of problems confronting agricultural education departments in our colleges and universities. These departments face problems of reduced funding for higher education, of being a part of a state teacher education program which is accused of producing too many teachers and of being small departments with little political muscle on the home campus.

Today's emphasis on the production of credit hours by faculty members has put some teacher educators in the academic doghouse. Quality education is expensive and it costs more per unit of instruction to supervise field experience for students 200 miles from the campus than to give a lecture to 50 students on the campus.

With reduced funds, more dependence has been placed upon special grants so some teacher educators must spend an inordinate part of their time securing grants rather than teaching students and offering other needed services.

Some of the problems of agricultural teacher education originate in the state department of education. State departments and their vocational divisions have increased tenfold in personnel in the past decade. Some of the new people haven't been very knowledgeable regarding agriculture. A lack in understanding of the need for vocational agriculture as compared to the need for other vocational services has in some cases resulted in lower financial support. Agricultural education departments have in many cases found themselves at best misunderstood and at worst the victims of new state programs which have reduced their funds, personnel, and activities.

The odds are against having teacher education for vocational agriculture, as we have known it, if this situation continues. Departments of agricultural education simply must have help if they are to carry on the kinds of services that have contributed so much to the profession.

Teachers Benefit from Coordinated Activity

Teachers need the services of well-organized, effective teacher education departments. These services include first and foremost the preparation of an adequate number of capable and dedicated new teachers each year but also in-service education, graduate programs for teachers in the field as well as research and coordination of a wide variety of community and academic resources.

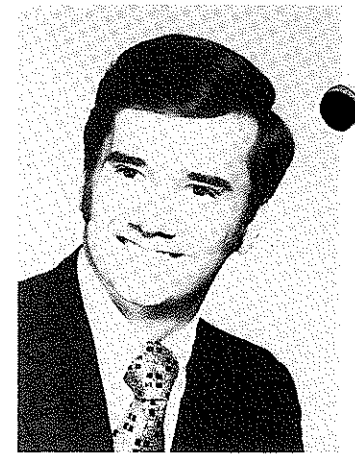
Teachers benefit from working in a coordinated manner with many different organizations and groups. Departments of agricultural education are responsible for coordination of the state program of agricultural education with

(Concluded on page 80)

* Ralph Woodin is Professor Emeritus of Agricultural Education at Ohio State and the University of Tennessee. He resides in Columbus, Ohio.

The Design of Teacher Education Field Experience to Meet the Needs of a New Clientele

L. H. Newcomb
Teacher Education
The Ohio State University



L. H. Newcomb

A new day has dawned in the preparation of teachers of vocational agriculture. This new dawn is more of an unmistakable burst of bright light than of a soft but sure arrival of morning.

In the traditional preparation of four-year graduates as teachers, we have observed recently that the nature of this clientele is rapidly changing and changing in two ways. Whereas we formerly observed that most of our prospective teachers were former students of vocational agriculture, we now find that such students are clearly in a minority of our Agricultural Education majors. In fact, we at The Ohio State University are currently experiencing student enrollments composed of about 30 percent who have been former students of vocational agriculture and/or have had work experience in their area of agriculture. Not only have these students *not* been former students of vocational agriculture but they have also *not* lived on a farm (in the case of production agriculture), or worked in other areas of the agriculture industry.

A well-planned early experience program of short duration can do much to compensate for a lack of previous experience with vocational agriculture.

What are the implications raised by the advent of this new clientele? First of all these "new" students have not had the opportunity to learn about the operation of a vocational agriculture program by virtue of being enrolled in such a high school program. Nor have they learned of the FFA through personal experience. This means the level of readiness (with respect to teacher education) of the students may be different from that of former students. We in teacher education, and our cooperating teachers in the field, must therefore redesign programs of teacher preparation. New experiences via new modes of delivery must be provided.

Secondly, today's prospective students have a deficit of practical hands-on experiences in the area of agriculture for which they seek certification. Thus, we have to offer new opportunities for vital practical experiences to be obtained. In both the case of a lack of experience with programs of vocational agriculture and a lack of practical experience, new efforts will require *planned* cooperation between the university faculty and the local cooperating teachers.

Meeting the New Needs

Now that we have identified new needs in the area of training teachers of vocational agriculture, we need begin to identify possible solutions to the problems that are being identified. Considering this "new majority" who has not been associated with vocational agriculture programs previously, it seems to be in order to examine several alternatives for such students to gain that which they did not gain through experience with a previous educational program.

One possibility is to require prospective students to spend time in depart-

COMING ISSUES COMING ISSUES COMING ISSUES

COMING ISSUES

NOVEMBER — Teacher Organizations and Professionalism

DECEMBER — More Effective Teaching

JANUARY — Production Agriculture — Preparing to Feed the World

FEBRUARY — FFA — The Intracurricular Activity

MARCH — Agricultural Mechanics — Keeping the Wheels Turning

APRIL — Supervised Experience Programs — Learning by Doing

MAY — Agricultural Products — Preparing Agricultural Processors

JUNE — Camping and Summer Activities

JULY — Facilities — Planning, Maintenance and Improvement

AUGUST — In-service Education and Teacher Conferences

SEPTEMBER — Fairs, Shows and Contests — Competition, Practice and Motivation

COMING ISSUES

ments of vocational agriculture experiencing things which they failed to experience by not enrolling in vocational agriculture as a high school student. This is generally referred to in the profession as "early experience." Certainly with a career goal in mind and with previous preparation, say through an introductory course in agricultural education and/or counseling with faculty members, a student should be able to follow a structured program of early field experience and be able to gather more from the experiences encountered than would a high school student casually experiencing the program. The point is, a well *planned* early experience program of short duration can do much to compensate for a lack of previous experience with vocational agriculture.

If this early experience is to be effective, then it is crucial that the professors who work with the students, the students participating, and the local cooperating instructor all thoroughly understand what has to be accomplished via this "early experience." Meaningful structure is essential. Before he leaves the university, the university student should clearly understand what it is that he is to accomplish during this period of early experience. This can be accomplished through written directions, assignments, and explanatory comments. Additionally, each prospective "early experience" student should meet either individually or in a group with the faculty member directing the experience. Here the students should be thoroughly briefed on what to expect, how to proceed, why certain assignments are being given, how this field experience facilitates a prospective teacher's career objective, etc.

Given that the college student understands his role and responsibilities, it is then imperative that the university formally and systematically acquaints the cooperating vocational agriculture teacher with what the university expects of him. The cooperating high school teacher needs to realize that the early experience student is in a state of testing his career choice. He has very limited technical proficiency and probably less professional proficiency. He is there to observe, examine, explore, adjust, and begin to teach, one on one, in small groups, and regular classes to a limited extent. He needs to see a variety of teachers perform, review their curriculum materials, observe their supervision techniques, and learn how to manage their laboratories rather than master these operations himself.

This "new breed" of student probably will have less technical competence that is well grounded in practical experience. Teacher educators need to help the student determine his weaknesses and develop a plan for correcting the inadequacies. This plan will of course include certain university courses in technical agriculture. It might also include purposeful internships in agricultural establishments or commercial farms in local communities. As we look at the present and to the future, we might want to combine parts of this purposeful placement for technical proficiency with planned professional experiences. For example, a student's placement for technical experience might be coordinated through the local agriculture teacher. In fact the local agriculture teacher in cooperation with some of his young farmers or agribusiness cooperators could design a very meaningful placement experience. During this time of placement, the student could and should participate in adult classes, FFA activities, vocational agriculture teacher's meetings, fairs, agricultural agency activities, etc. This combination should maximize the growth and development of the prospective teacher.

For university students who want to become teachers but feel extremely inadequate because of having no previous FFA experience, there are a number of activities they should be involved with in addition to university courses. Well planned collegiate FFA (Alpha Tau Alpha, or Agricultural Education Society) activities can help. Likewise, sessions with local or state officers can develop needed understandings and confidence as well. Participation in district and state activities is imperative. There are many other avenues available as well for use in developing FFA expertise.

A Charge to the Profession

However, we in the profession must accept the fact that our clientele (pool of new teachers) has changed markedly. There is little if any need to lament the fact. Rather, we as a profession need to accept this and move to design and implement a program of teacher education that capitalizes on new found strengths and shores up weaknesses. But the whole profession must be involved..

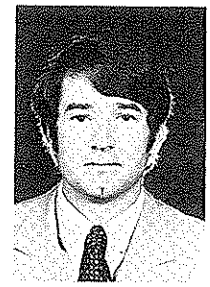
The answer is not *just* more teacher education courses. Teacher education cannot operate in a vacuum. Prospective students need to be gradually transformed into beginning agriculture teachers through field experiences that begin early in the college curriculum and extend throughout. Local vocational agriculture teachers need to be convinced of the necessity that they too become involved and accept important responsibilities. These responsibilities will need to range from allowing a student to observe and discuss, to turning the program over to him for a set period of time. Without commitment and support from the local teacher, we cannot prepare vocational agriculture teachers. This is more true now than ever before.

It is not enough for each of the parties in the profession to bemoan the fact that these new "kids" don't have this or that. We must pool our efforts and our determination to take those who *want* to teach and promote whatever is necessary to facilitate that goal.

◆◆◆

After October 20, 1976, articles for this magazine should be sent to the new editor, James P. Key, Department of Agricultural Education, Oklahoma State University, Stillwater, Oklahoma 74074 or to the special editors, who will remain the same until otherwise announced. The first new editor's issue is January, 1977. His length of term is three years.

Some Basic Responsibilities in Training Teachers of Vocational Agriculture



James H. Daniels

Earl Carpenter

James H. Daniels and *Earl T. Carpenter*
Teacher Education
Clemson University

Every other college or university, whether in teacher education or not, seems to be offering courses for teachers desiring certificate renewal.

Teacher education institutions across the nation are charged with the responsibility of preparing people to effectively teach vocational agriculture. Local school districts and local communities are looking to these institutions to supply current and future needs. At present, we are doing a less than adequate job of preparing a sufficient number of agriculture teachers to fill vacant positions. In South Carolina this year, most of our graduates had a choice of three or four different teaching positions from which to choose. It no longer seems to be a question of school administrators insisting on quality in filling a vacant vocational agriculture teaching position, but rather a question of can we get anyone at all. Large numbers of positions are being filled by persons not holding credentials expected of professional teachers.

Are we meeting our responsibility when we have to tell local school districts that we cannot supply enough qualified graduates to fill teaching positions? Is it our fault if too few students want to major in agricultural education?

Maybe the most important facet of a respectable agricultural education program should be a good recruiting policy. What should be the target population for recruitment? Encouraging only male students with farm backgrounds is a far too restricted policy. With present interest in urban horticulture and other phases of agriculture, we should welcome a broader range of people into the field of teaching vocational agriculture. Of course, those students who have good backgrounds in farming will find their practical experiences to be of great value in teaching — especially in the traditional vocational agriculture programs, but they shouldn't be the only ones encouraged to consider a vocational agriculture teaching career. We should be able to point out enough rewards and benefits of teaching vocational agriculture to entice an adequate number of people to enroll. If not, then we are in deep trouble. It's our responsibility to sell our own program.

Another major responsibility is to institute a well-planned, flexible educational program that will adequately prepare students to face the challenges they will encounter as teachers of vocational agriculture. This program should serve to a certain extent as a screening period. If success or failure can be predicted at the training level, teacher educators should have the guts to tell certain individuals that based on previous experiences, they simply should not consider teaching. With the current supply and demand situation, we have hardly dared steer a student away.

Special emphasis should be given to preparing teachers for effectively dealing with students having special needs. Too many young men and women complete student teaching and decide not to teach because they did not feel successful in motivating the students they found in their classrooms. Many of the best college seniors have expressed utter disbelief at the type of students they found in the high schools. To alleviate this problem, developing favorable self-concepts, achievement motivation techniques, humanizing the teaching process, and behavior modification are among some newer concepts which deserve a place in the teacher education program along with our older, more familiar beliefs such as the problem method, supervised study and learning by doing.

The undergraduate program normally culminates with the student teaching phase. Several considerations become important before students are placed at student teaching centers.

1. Only successful teachers with outstanding vocational agriculture programs should be chosen. The cooperating teachers will most surely have more impact on the student teacher's later performance than anyone else.
2. The student teachers should be given regular supervision from the teacher training staff. Each supervision visit should include an opportunity for discussion of problems and teaching techniques as well as evaluation of the student's performance and progress.
3. An opportunity should be provided at the end of the student teaching phase for the student teachers to share ideas and experiences.

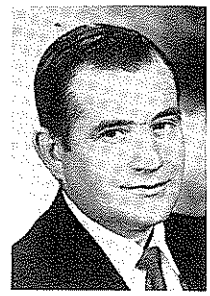
The agricultural education department's responsibility does not end with graduation. First year teachers will probably need more help during that year of teaching than at any other time. In addition to providing regular services, it is most helpful to offer a

(Concluded on page 83)

Building a Performance Base for Supervising Teachers

Douglas Bishop
Agricultural and Industrial Education Dept.
Montana State University

William E. Drake
Agricultural and Occupational Education
Cornell University



Douglas Bishop

William Drake

A highly competent supervising teacher may well be the most important single individual involved in the total preparation program of a prospective teacher. The student teaching experience is a most vital phase of teacher preparation. The individual who guides that experience must have a base of competence in addition to, but quite different from, that required to be an outstanding teacher. Socrates said, "The way to learn to play a harp well is to sit down and play it—to practice," but he added, "this is also the way to learn to play badly." In order to perform well, one must practice. The value of that practice to a prospective teacher may be largely influenced by the "teacher of teachers"—the resident supervising teacher.

Desired Performance

Many programs to train supervising teachers have dealt with the general principles of supervision but have failed to identify and seek ways to bring about desired behavioral changes in the supervising teachers. With that goal in mind, a workshop was designed for Montana teachers which would enable them to demonstrate an acceptable degree of supervisory ability by being able:

a. To identify criteria for measuring successful performance by student teachers.
b. To write meaningful summary statements relative to student teaching performance.
c. To determine if criteria for successful performance is being met by student teachers.
d. To identify student teacher behavior patterns.
e. To specify and justify in terms of anticipated pupil effects, which teaching behaviors are positive and which are negative.
f. To identify negative teaching behaviors which could be changed.
g. To identify alternative strategies for producing desired changes in student teacher behavior.
h. To be able to distinguish between effective and ineffective lesson preparation and identify improvements needed in planning efforts.

Instructional Approach

The activities of the workshop concerned four distinct stages of the supervision process: (1) pre-observation conference, (2) observation of teaching, (3) post observation conference and (4) the analysis of teaching activities.

Throughout the week the training staff utilized three instructional approaches which included acquisition of information, role playing and practical application. Participants were actively involved and spent a minimum of time in a listening role. Each individual was given an opportunity to chair or co-chair one or more activities and was asked to perform in different roles throughout the workshop.

To carry out the three instructional approaches and apply the four-stage supervision process, actual teaching episodes were used. A student teacher who had practice teaching the previous term and a first-year teacher taught demonstration lessons. Selected classroom and laboratory lessons, video taped during the previous quarter in anticipation of the workshop, were used for competency development in the supervision process. Selected readings were used to prepare participants for subsequent sessions.

Setting the Stage

The initial sessions were designed to up-date the supervising teachers. Departmental objectives for the workshop were discussed along with postulates and principles regarding the task of preparing teachers. Competencies needed by the supervising teachers were identified and discussed by the participants.

Workshop participants were encouraged to begin to identify potential student teacher problems. To facilitate the discussion, two students scheduled to student teach autumn quarter, were asked to discuss the problems they felt they would have while student teaching. Two other students who had just completed student teaching discussed the problems they had encountered. Finally, two experienced supervisors discussed the problems former student teachers had encountered while under their direction.

The key concepts underlying performance-based teacher education were presented. The application of the concepts to the supervision of student teachers was discussed while developing a list of competencies needed by the student teachers. Competencies were categorized as those needed before student teaching begins, those to be developed during the student teaching period and those which will be developed with experience.

Finally the art of communication on a one-to-one basis was discussed by a staff member in the M.S.U. Counseling Department. Each participant was shown the positive effects of asking clarifying questions, paraphrasing, perception checking, offering information and the art of active attentive listening. Numerous negative effects of inappropriate communication and their effects on the student teacher were demonstrated.

(Concluded on next page)

CONTINUED BUILDING A PERFORMANCE BASE . . .

The Pre-Observation Conference

A series of activities were designed to help the supervising teachers develop a systematic procedure for observing the student teacher. The activities involved, (1) identifying and stating the problem in behavioral terms, (2) determining the criterion or standard to be met, and (3) finally, developing a measuring instrument.

To introduce the session, participants were divided into groups and asked to identify both positive and negative teaching behavior. Contrasting video tapes were shown. Each group was asked to evaluate on the basis of their predetermined behaviors.

Participants were then given complete plans for a lesson to be presented by a student teacher. The lesson was taught by the student teacher. Group critiques were held to determine if the participants had mastered the skill and to determine if they could agree in their assessment of the student teacher's performance.

Observation of Teaching

Role playing was used to illustrate the pre-observation and observation of a student teacher's preparation and presentation of a lesson. A first-year teacher prepared and taught a lesson. A workshop participant represented the workshop group as a supervising teacher. The teacher and supervising teacher demonstrated a pre-observation and observation conference. The teacher taught the lesson to the workshop group. The supervising teacher then conducted a post-observation conference while being video taped. The entire presentation was reviewed by use of video tape which provided opportunities for diagnosing and evaluating the performance of the supervising teacher.

Post-Observation Conference and Analysis

These two stages in the supervision process were studied together. The selected supervisor conducted the conference. Emphasis was placed on professional competencies and not on technical skills and knowledge. The discussion sought to determine if the previously determined problem had been corrected and the degree to which it had been corrected. The participants were given an opportunity to evaluate the supervising teacher's critique.

Evaluation Activities

The last session of the workshop was devoted to developing an evaluation instrument to be used to evaluate the overall performance of the student teacher. Careful attention was also given to an evaluation of the workshop. A pre-test given the first day, was used as a post-test. Participants indicated they liked:

1. The use of video tape as reinforcement
2. The observation of real problems via role playing
3. Having actual teaching as part of the exercises
4. Using effective resource people
5. Actual application of material presented
6. Using variety to keep interest high
7. Having resource persons from other states

Conclusion

The EPDA-funded workshop was well received by participants and was judged to be successful by the workshop staff. Persons representing teacher certification, placement and testing and counseling were actively involved.

The aim of the workshop was to give a new, more positive direction to the preparation and supervision of student teachers. The supervising teacher must have the competencies of a behavioral scientist who understands the education process and possess the artistic qualities of the "master teacher." Just being a good teacher does not guarantee the competence required to be an effective "teacher of teachers." Planned performance preparation is essential if we are to truly up-grade teacher education. ◆◆◆

CONTINUED TEACHER POWER . . .

various colleges on the campus including the colleges of education and agriculture, with other vocational departments at the institution, and with the graduate school. Outside the university the teacher education department coordinates the efforts of the state department of education, the foundations, teachers' organizations, and professional organizations of teacher education. Coordination is also necessary with accreditation agencies, certification offices, and with local schools. The future of vocational agriculture rests in a large measure on effective use of these services through the coordination which can be best provided through the teacher education department.

Using Teacher Power for Teacher Education in Agriculture

The NEA and the AFT are examples of the power of organized teachers. The New York Times claims that teachers have had more success in money, campaign manpower, and vote getting than any other interest group in the nation. Such power from vocational agriculture teachers could provide some of the help needed by beleagured teacher educators as they attempt to meet the difficult problems of these times.

The solution seems to lie in a combination of the support of individual teachers of vocational agriculture plus the action of professional organizations in agricultural education.

There are many opportunities for teachers to support teacher education through professional organizations. State advisory committees can help. Position papers and resolutions may be developed by teacher organizations including national and state agriculture teacher associations as well as local groups.

Activities for individual teachers include serving as cooperating teachers, as coordinators of field experience, and in just speaking up for the department of teacher education at the right time and in the right place. These are but a few examples of what can and should be done.

This is it. Departments of agricultural education are facing an uncertain future. They need the help of teachers as never before. They need help from professional organizations of teachers as well as from individual teachers. The help that is forthcoming will be most important in determining the quality of the preparation of teachers of vocational agriculture in the future as well as the coordination of professional activities which, in turn, will influence the prestige and growth of the profession. ◆◆◆

Better University Supervisors and Cooperating Teachers

Herbert Schumann
Teacher Education
Sam Houston State University

The preparation of dedicated and well-trained teachers is undoubtedly the most important task facing the agricultural education profession. Other resources, such as facilities, equipment, curriculum materials, etc., are undeniably essential, however, their importance is nevertheless inconsequential in comparison to the paramount role of the teacher in the instructional process. A primary question facing leaders in agricultural education, then, is how to do a more effective job in preparing vocational agriculture teachers.

The critical importance of student teaching in developing competent vocational agriculture teachers is universally accepted by agricultural educators. It is, therefore, imperative that all involved in this process evaluate their efforts and programs in an effort to develop the highest quality product. Some critics of education have focused on the student teaching phase in their attempts to restructure the existing program. The impact of this criticism has been felt in some states where the role of teacher education has been deemphasized in the total program of professional development.

Student teaching provides the vital link between the philosophical framework established at the university and the pragmatic realities of the classroom. If agricultural education is to maintain and advance its prominent role in education, its leaders must become involved in making a critical evaluation of the on-going student teaching program.

It is essential that the efforts of teacher trainers and the vocational agriculture instructors, who serve as supervising teachers in student teaching centers, be more closely coordinated. This communication of expectations can probably be done best during a summer conference with the explicit goal of improving the student teaching program. Both of these groups have unique responsibilities and opportunities which must be given thoughtful consideration in the development of competent agriculture teachers.

Student teacher, Earl Jordan, is discussing daily lesson plans with supervising teacher, Neil Overstreet (Madisonville High School, Texas), and the author, Herbert Schumann (Sam Houston State University, Huntsville, Texas).

Many vocational agriculture teachers have been heard to remark that the university professor lives in an "ivory tower" and fails to be cognizant of the realities of contemporary vocational agriculture classrooms. It is certainly true in many instances, that the teacher trainers have probably received their teaching experiences in situations quite different from the ones faced by those "on the firing line" today. It would be well for teacher trainers to re-determine whether the principles and practices which they advocate in preparation programs are relevant in terms of modern day vocational agriculture programs. Also, competency in teaching, rather than research activities, is the most important credential for a teacher educator and should receive appropriate recognition by administrators of the student teaching programs.

Several recommendations might be made to insure that teacher trainers maintain the vitality that comes only through close relationship with practicing teachers. First, all those involved in teacher preparation must periodically visit student teachers in their respective communities to observe the changes seen in so many classrooms today. Second, college instructors should participate in in-service programs, summer workshops, etc. provided for vocational agriculture teachers, as these teacher educators can learn as much as the participants in such activities. They should listen to consultants, in state departments of education, who observe their teachers in the everyday work role. Graduate classes, involving vocational agriculture teachers, offer an excellent opportunity to be updated regarding the problems and programs of contemporary programs. University personnel could probably benefit from a periodic return to high school vocational agriculture classes in an attempt to keep more in-tune with the realities of the classroom.

Supervising teachers, who should be selected from the best of the master teachers, may also be criticized regard-

(Concluded on page 83)

THE TEACHER EDUCATOR CAN INFLUENCE THE PROSPECTIVE TEACHER

M. A. Fields, Chairman
Department of Agriculture
Virginia State College
Petersburg, Virginia

If we accept the proposition that the primary duty of the teacher is to teach, and if we agree that positive behavior patterns on the part of the learner should result from the instruction which is provided, then the value of quality teaching will continue to emerge as an essential feature. What the institutions of higher learning are able to impart to the learner will be largely dependent upon the philosophy and practice which the teacher-educators demonstrate, for without a firm commitment to the need for excellence, it is practically impossible to provide the necessary inspiration for the learner. The myth that teachers are born and not made would seem to destroy the very foundation upon which teacher-education institutions have been established. Faced with the problem of accepting individuals, with many and varied backgrounds, into the teacher-education programs, university and college professors are confronted with a real challenge, especially as this relates to meeting the employment demands. It is essential, therefore, that the instructional personnel be exemplary of those attributes which should be evident in the agricultural education teachers at all levels. Precept and example should characterize each training activity. What is expected of a prospective teacher is not materially different from what this person will later require of his students.

At the outset, the teacher-educator has to be effectively familiar with what is required of workers in the agricultural and agriculturally related occupations where employment opportunities exist. While it is possible to draw some generalizations from indirect observations which are made at a distance, the true picture can only be obtained from contacts which are both personal and sustained. Teacher - educators, then, need to be numbered among those technically and professionally oriented persons who have actually visited and even worked in situations where agriculturally trained individuals are employed. It would seem rather foolish to try to sell a group of prospective teachers on issues which the professor lacked a working knowledge of. In other words, it is impossible to convincingly inform a person of something that you do not know.

Secondly, planning to teach must be accepted as an essential challenge. Unfortunately, substituting experience for planning is too prevalent among the teacher-educators. As the result, the prospective teacher is often denied the opportunity to observe the merits of effective planning when it comes to problem solving. The professor's philosophy and practices regarding planning can contribute immeasurably to the kind of image which the prospective teacher develops. The importance pertaining herein is not to be regulated to a position of minor concern since many of the planning formats which local school divisions develop, are not conducive to problem solving in agricultural education.

Among other things, planning must include a clear statement of and definition of the problem, a critical analysis of the problem, a listing of the major considerations under each factor in the analysis, provisions for adequate resources, assurance of students' participation and evaluation, provisions for the acquisition of the essential information, the development of the necessary skills, and arrangements for the preparation of guidelines for application.

Prospective teachers should be given every opportunity to observe the merits of orderly approaches to problem solving. While the "step-by-step" approach might not be feasible in every instance, teacher-educators should be careful not to leave the impression that the answers can be secured, and that the solutions can be developed through haphazard methods. It must be indelibly clear to the learner that planning is one assurance of the establishment of sound bases for decision making.

Observations in many instances tend to suggest that teachers who plan effectively, with other factors being equal, will prove to be highly motivating and challenging in the classroom. Excellence in knowledge, and skill in techniques tend to facilitate the teaching-learning process as a dual type of confidence is developed, with the teacher feeling highly capable to do the job, and the learner realizing that a master craftsman is at work. Classroom procedures have been points for discussion for more years than one would like to mention, however, the search continues for that particular element which students can profit from in a meaningful manner, and which teachers can utilize with ease and assurance.

If the students' utility of the materials and information which are presented in the classroom and laboratory could be accepted as the primary evaluative criterion in setting salaries and making promotions, then decided differences would become evident in the instructional techniques. Unfortunately, supervisors continue to be overburdened with problems in scheduling, enrollment, budgeting, facilities and reporting, to the extent that what transpires between the teacher and the learner cannot be given adequate consideration. Hence, the preservice and the in-service responsibilities of the teacher-educator assume roles of even greater importance as the prospective teacher is given the opportunity to actually observe and to become engaged in practices which tend to promote effective learning.

Student involvement demands the orderly identification of needs, the creation and sustenance of interest, and the systematic approach to the resolution of a previously defined problem. Whether it is the result of a plea from an inquiring mind, or a possible objection to a proposed learning activity, the question of "why" still stimulates the minds of many learners. This question can only be answered in terms of the contributions which the experiences will provide in the fullest development of

(Concluded on next page)

CONTINUED THE TEACHER EDUCATOR CAN . . .

the individual and in his/her realization of an established training objective. Concern in this regard must be demonstrated for both the diligent seeker of knowledge and the object critic of the system, as well as "Mr. Average Student" who dominates the scene between the two extremes. The task here is not an easy one; however, it appears to be within a reasonable realm of possibility, especially when one looks at the composition of the classes in agricultural education which have existed for almost sixty years.

It is imperative for the prospective teacher to be continuously reminded, by actual demonstrations, of the influences which classroom and laboratory experiences can have on the resolution of the pre-determined problem. Systematic approaches will enable the individual to observe how each phase of instruction is a design which fits rather definitely into the total pattern of problem solving. If the learner has the opportunity to observe the merits of planned approaches through a study of the relative role and value of each element, then the question of "why" will be materially reduced. The failure to accept and to follow directions will no longer be of major concern once the learner is able to view the whole in terms of its component parts. The importance of the aforementioned is not to be minimized since, when application is involved, the failure to perform in the prescribed manner can render the total operation useless. It is quite unfortunate that we cannot view the steps in the teaching-learning process in the same manner as one would observe the steps in the operation of an ordinary gasoline blow torch.

It seems reasonable to conclude that the teacher-educator's chances for success in the classroom and in the laboratory are greatly influenced by the extent to which he has had quality "hands-on" experiences in terms of the prevailing employment situations. In addition, a demonstration of the value of meaningful planning for instruction should convince the learner that a well-designed teaching guide can greatly facilitate the learning process and, at the same time, provide the instructor with a comfortable instrument with which to work. Finally, the teacher-educator must exhibit the kinds of approaches in the classroom which will prove that there is a decided difference between adhering rather rigidly to acceptable procedures and the practice of leaving too much to chance. ◆◆◆

CONTINUED SOME BASIC RESPONSIBILITIES . . .

graduate course for credit to a first year agriculture teacher. This course should be structured to aid the teacher in the development of a strong vocational agriculture program.

In-service education is the final major responsibility of a good agricultural education department. Vocational agriculture teachers have learned to expect their teacher education institution to make available new and improved techniques and methods in the changing fields of education and agriculture. They also expect leadership, counseling and help in improving existing programs.

Meeting in-service education needs is more difficult today than ever before. State certification requirements and teacher pay scales have intensified the demand for courses for credit. Rapid changes in agricultural technology make it difficult for teachers to stay abreast. Many uncertified teachers need to complete their professional component. And everyone else (in teacher education or not) seems to be offering courses for teachers desiring certification credit. Furthermore, budget restrictions are making it more difficult to justify off-campus teaching to small groups. These are indeed times for new and innovative programs for keeping teachers up to date in their profession.

The responsibilities of a good vocational agriculture teacher training program are many, and if these basic responsibilities are not met, we cannot expect vocational agriculture to remain a viable part of American education in the future. ◆◆◆

CONTINUED BETTER UNIVERSITY SUPERVISORS . . .

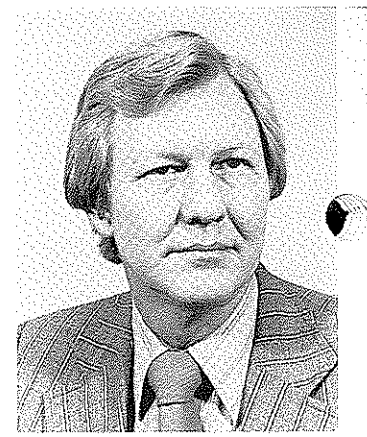
ing their responsibilities with student teachers. For instance, they should consider whether they are exposing student teachers to a balanced vocational agriculture program or one which places total emphasis on only one aspect at the expense of other important components. Given a choice, student teachers, based on their previous experiences, will become involved in only those activities in which they feel familiar. It is essential, however, that the student teacher receive new compensatory experiences which may remediate for the lack of FFA or agricultural background.

Supervising teachers must realize the model role which they are obliged to assume, as the student teacher will generally conclude things should be done the way the supervising teacher does them. If the supervising teacher has a poor relationship with his administration, fellow teachers, county agent, etc., the student teacher will probably deduce this is the typical situation. During this most important formative period, student teachers may develop some very undesirable patterns of behavior which will be quite difficult to unlearn. Supervising teachers must also ask themselves whether they are asking the student teacher to assume teaching duties, and other responsibilities, which are disliked by themselves.

Student teaching is generally accepted as the most important and meaningful phase of the preservice training program for vocational agriculture teachers. Continuous evaluation of this program is a necessity if this experience is to achieve its maximum potential for developing professional growth. The two principal groups involved in this task, supervising teachers and teacher educators, must ask themselves if their efforts in student teaching are receiving the highest possible priority. ◆◆◆

The Buck Starts Here

LeeRoy W. Kiesling
Teacher Educator
University of Tennessee at Martin



LeeRoy Kiesling

The term "agricultural mechanics" covers a broad area and involves many skills as far as a teacher is concerned. Also involved is a broad spectrum of students, ranging from the student in junior high school all the way through those in post secondary programs. The post secondary programs include the vocational-technical programs, teacher preparatory programs in colleges and universities and others. The agricultural mechanics programs at colleges and universities which train vocational agriculture teachers influence high school programs heavily. Careful planning on the part of teacher educators is vital.

Several groups should be involved in the planning or revision of an agriculture mechanics program. Included with the teacher educators should be the agricultural mechanics instructors, state supervisory staff, vocational agriculture teachers, and any other interested groups.

By including state supervisory staff and vocational agriculture teachers, teacher educators should receive valuable input concerning what is needed in the teacher preparation program. The graduates of this program should then be prepared to teach skills, which are generally approved across their state, to their high school students. Of course, there will always be some variation due to special geographical interest.

Through this procedure, it would be possible, but not always probable, to eliminate outdated skills and to include new skills in a program. Naturally, the process of bringing about these changes at the secondary level may be quite slow. In fact, it often seems that change may never take place in the high school program.

The Southern Agriculture Mechanics Workshop which has been meeting in each of the past several years has attempted to identify instructional areas and competencies in agriculture mechanics. The obvious purpose of this is an attempt to bring solidarity to the program.

A situation with which many agricultural education departments must deal is that their mechanics courses are taught in the agricultural engineering department. This may not create a problem, but quite often these courses seem to be more of a technical, rather than of a skills development nature. Also lacking in this case are methods of teaching these skills while the skills are learned and developed.

It would seem that a logical move would be to incorporate methods of teaching agriculture mechanics into the agricultural mechanics skills course. This would require a course that is performance oriented and simply would require the instructor to "practice what he preaches."

One possible way of accomplishing this would be a semi-self-paced program in which instructional packages are used. The instructor would still be allowed to use demonstrations and discussions or alternative teaching techniques, but the students would be free to work on any task at any time. In order to accomplish this, the instructional packages would have to be complete with detailed instructions.

In most agricultural education programs today, it seems that many students are urban oriented and some of those have no high school vocational agriculture background. By using a self-paced approach, these students have the opportunity to perform as well as those with experience.

One way to insure that non-experienced students can learn and perform these skills adequately is by scheduling additional "open lab" hours so that they can have extra practice time. This gives the experienced students the opportunity to complete the assigned tasks early and thus complete the course, which will allow ample opportunity for the slower ones. The instructor must be available to work with students during open lab.

The agricultural mechanics instructor could also incorporate management into this program. Through proper planning, he can teach the prospective teachers housekeeping procedures, materials and tool management, etc. Safety instruction can be included in this program. All of these areas seem to cause many vocational agriculture teachers problems. The agricultural mechanics instructor can demonstrate to them in this case by doing what he teaches.

It should be remembered that a skills development course is just that. The purpose is to structure the course in such a manner that the students will have ample opportunity to develop and improve on any skills in which they are deficient. This is contrary to the old "flunk them out" attitude which some teacher educators seem to possess.

In order to accomplish this, sufficient practice material must be made available, as well as additional lab time which has been discussed. Students should be given the opportunity to have two or more chances at performing a task which will be turned in for a grade. A decision would have to be made by the student as to which example would be best to turn in for a grade. This would give them a hint of experience in grading shop work, which seems to present a problem for the seasoned instructor.

The agriculture mechanics instructor can aid his students in learning something about the grading process by taking the time to write explanations on each student's assignment and then letting them examine their work. Also, posting their grades seems to encourage

(Concluded on page 88)

B. L. Albrite

Just One More Quiz—
YOUNG TEACHERS TALK ABOUT THEIR PREPARATION

B. L. Albrite
Agriculture Instructor
Rappahannock High School
Warsaw, Virginia

In June, 1975, three of my former students graduated from Virginia Polytechnic Institute and State University in Agricultural Education and began teaching. Vince Garland had graduated from Rappahannock High School in in 1970 and stayed on at VPI & SU to receive an MS degree. Martin Hinson and Dale Sanders completed high school in 1970. All three were active vocational agriculture students and FFA members for five years.

I thought my opportunity for giving these fellows a quiz had long since passed but when asked to write this article about preparing teachers of vocational agriculture, I had to give "Just One More Quiz."

"Fellows, this is a quiz just to be read and not to be graded but take your time and do your best."

QUESTION No. 1: "When did you decide to pursue Agricultural Education as a career?"

Dale: "I feel my decision to pursue Ag Ed as a career was made shortly after my first year of vocational agriculture and experience in the FFA."

Vince: "My decision came in my first couple of years in vocational agriculture in high school."

Martin: "I decided to go into Ag Ed when I became a sophomore in college."

QUESTION No. 2: "Why did you decide to pursue Agricultural Education as a career?"

Vince: "Ag Ed is a career that is very diversified. As an Ag Ed major in college you get to take more different kinds of ag courses than any other ag majors. Being able to take more classes in different ag. departments gives you a better background. Ag Ed is a good major to prepare you for other ag careers if you decide to leave teaching."

Martin: "I decided because of several reasons: (1) There was a wide open market in teaching positions in Ag Ed; (2) There was a scholarship available (state loan repaid by teaching); (3) I could utilize my ag background."

Dale: "There are quite a few reasons why I decided to choose Ag Ed as my career. First of all I think a lot of credit must be given to my high school agriculture instructor for taking the time to work with me and showing me that he really cared about the individual student. Another reason I pursued Ag Ed was because of the work in the FFA. I honestly feel that one of the main reasons I am where I am today is because of the FFA. Because of all the leadership, citizenship, and the many other qualities the FFA instilled in me, I felt that I owed the FFA a great debt and to help repay this debt I decided to become an ag teacher. I thought that maybe by having an active chapter, I could help some young people obtain the goals that I had reached.

These three former students of the author, B. L. Albrite, are now teachers of agriculture. They are Vince Garland, Dale Sanders, and Martin Hinson.

The two reasons above combined with having a rural background and having the cooperation and inspiration of my family and church seemed to me to be a good basis for almost any worthwhile occupation — especially the field of Ag Ed."

QUESTION No. 3: "Did you feel prepared when you began student teaching?"

Martin: "I felt prepared in my agricultural option of Machinery Service, but I was required to teach some agribusiness and exploratory ag., areas in which I had not been prepared. I'm sure these experiences helped make me a more well rounded teacher."

Dale: "I feel that there is no way in three and one third years of college that anyone can be prepared for student teaching. The only real way to achieve anything is by experience. There is no way anyone can teach a person how a student will behave and then how to handle this behavior.

I do feel I was prepared and had enough knowledge and ability to accept my student teaching position with an open mind and found it to be a valuable experience."

Vince: "Since my option in Ag Ed was Ag Mechanics, I felt very well prepared in this area. Having a farm background, helped in understanding some of the production courses in college and made me better prepared for student teaching. My advisors and teacher trainers helped me in the areas of lesson planning, motivation, field trips, etc.

I can honestly say I was well prepared for student teaching."

(Concluded on page 94)

ADMINISTRATIVE ACCEPTANCE FOR PROGRAM IMPROVEMENT

John A. Lawrence
Teacher Educator
University of Idaho

John A. Lawrence

"I had a great idea for improving our school's agricultural program, but the administration wouldn't approve it." Sometimes such comments seem almost automatic, negatively characterizing the administration and conveying the attitude that new ideas are seldom accepted. This type of attitude may reflect the true posture of the school administration, or it might better reflect the frustration arising from an agricultural teacher's failure to gain approval for implementing program changes.

During scheduled school visitations, the writer has found that most school administrators contradict this pseudo-negative characterization by evidencing an active interest in improving the educational programs offered in their schools. For example, one superintendent recently spent two hours with this writer, enthusiastically touring the school's new agricultural building and explaining how this new facility would improve the agricultural education program offered in his district. Near the end of the tour, this superintendent requested suggestions on how the program might be further improved. On another occasion, a newly appointed superintendent with limited vocational education background requested written suggestions denoting some of the ways he could effectively work with a beginning teacher to organize and conduct a better program in vocational agriculture. Action of this type by school administrators reflects a positive attitude toward agricultural education as well as a desire to improve educational programs whenever possible. Perhaps then, teachers who feel a sense of unfairness over the rejection of their proposals for program improvement need help in refining the way they develop and present these proposals to their administrators. Misinterpretation, poor communication, and faculty planning may be the real reasons why some teachers fail to gain approval to implement suggested program changes.

Guidance relative to effective teacher action directed at improving agricultural education programs surfaced in a recent critical incident study involving Idaho vocational agriculture teachers.[1] In this study, teachers attending the annual summer conference were asked to record in writing specific details surrounding critical or unique teaching events or happenings which they could recall as having occurred to them sometime during the past two years. Each recorded episode became one critical incident, and in this way a pool of 267 written critical teaching situations was collected for evaluation. The major purpose of the study was to determine if careful analysis of the incidents, through the identification and categorization of the teaching behaviors contained within the incidents, would produce information helpful to improving preservice and in-service agricultural teacher training programs.

One phase of analysis identified that the largest number of teaching situations (ninety-four or 35.2 percent) dealt with teacher actions in situations involving the maintenance, development, and improvement of high school agricultural programs. Of these ninety-four incidents, seventy-four were judged to have resulted in ineffective (failure) outcomes.

These incidents were further analyzed by identifying the teacher behaviors contained within each incident, grouping together similar behaviors, and writing statements of description for each group. Using this procedure, it was found that "high success" teachers gained administrative approval to implement desired program changes through satisfactory performance in the following courses of action:

1. Frequent use of public media, written communiques, and personal conferences to keep the community, school administration, and faculty informed about the agricultural program. These teachers did not hesitate to initiate contact with parents, business people, administrators, or other teachers to examine educational goals, resolve issues, or request assistance.

2. Preparation of well written, clear, and concise proposals to explain their suggestions for improving the existing program. These proposals identified requests for facility and equipment improvement, requests for instructional materials, suggestions for improving course content or course sequencing, suggested ways to implement the changes, and suggested student learning outcomes that could be expected if the proposals were placed in operation.

3. Presentation of the proposals to the administration and/or board of education at the proper time so that their suggestions could be considered along with other education proposals in the preparation of the district's annual budget.

4. Defending the program change proposals when necessary on the basis of what the changes would do for students rather than on how the change might make the teacher's job easier.

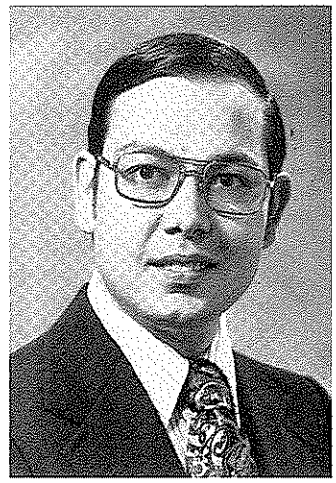
5. Maintaining accountability for affecting the change through the submission of progress and follow-up reports. Fiscal responsibility was also exercised through the preparation of realistic department budgets and through

(Concluded on page 90)

[1] Lawrence, John A. "A Critical Incident Assessment of Idaho Vocational Agriculture Teachers," unpublished doctoral dissertation, University of Idaho, 1975.

Adult Education in Agriculture: Issues Confronting Teacher Ed

Jimmy G. Cheek
Department of Agricultural and Extension Education
University of Florida



Jimmy G. Cheek

Since the passage of the Smith-Hughes Act in 1917, vocational agriculture has evolved into a program with at least four components: in-school instruction, FFA, supervised occupational experiences, and adult education. With the passage of the 1963 Vocational Education Act and the Vocational Education Amendments of 1968, vocational agriculture has been characterized by accelerated growth, expanded program offerings, and increased emphasis at secondary and post secondary educational levels. Traditional programs in agriculture have been broadened and new programs initiated. As a result, vocational agriculture has assumed a much more comprehensive purpose of preparation of individuals of all ages for occupations in agriculture, both production agriculture and agribusiness.

These vast changes that have occurred in vocational agriculture in the past and the belief that change will continue at an accelerated rate in the future have placed and will continue to place many demands on teacher education in agriculture, especially in the area of preparing individuals for teaching and conducting adult programs. When production agriculture was the only vocational agriculture program being offered it was much simpler to define the adult education role of the teacher. However, with the advent of new programs in fields such as ornamental horticulture, agricultural mechanics, forestry, and pre-vocational education, the function of adult education in vocational agriculture became more difficult to define. As a result, the demand on teacher education to prepare individuals for teaching and conducting adult programs is much more critical and difficult.

In the 1940-1941 fiscal year there were approximately 254,000 young farmers and adult farmers enrolled in adult education in agriculture (3). By 1960-1961 this figure had increased to 343,000 (3). However, in 1974 the U.S. Office of Education reported less than 269,000 adults enrolled in adult agricultural education programs in the United States (2). In other words, since 1960 adult education enrollment in agriculture decreased by over 70,000 adults. These data, when coupled with the fact that during the same period of time enrollment in secondary school programs of agriculture increased by almost 200,000 students (2,3), caused the author to pose this question: Is less emphasis being placed on adult education than in the past? This question is especially pertinent considering the vast changes that have occurred as the result of the vocational education legislation of the 1960's, the more specialized programs in vocational agriculture that have recently emerged, and the ever increasing educational needs of adults engaged in production agriculture and agribusiness.

One of the roles of teacher education in agriculture is developing in students a philosophy of adult education in agriculture. If adult education is to be re-emphasized in each state, students majoring in agricultural education and incumbent teachers must develop a strong philosophical foundation and develop a strong personal commitment regarding adult education in agriculture. Furthermore, agricultural education students and vocational agriculture teachers must develop the knowledge and abilities needed to plan and effectively implement adult education programs in agriculture. In order that a more systematic philosophy be established, appropriate professional competencies be developed, and more effective and comprehensive adult education programs be initiated, several issues must be addressed by teacher educators in the future. Listed below are some of the major issues that are confronting adult education in agriculture that need to be addressed:

1. What role should secondary school teachers perform in adult education? Are all teachers at the secondary level to assume responsibility for conceptualizing, implementing, and conducting adult education in the school districts in which they work, or is their only responsibility the in-school students? Additionally, teacher educators must address the problem of defining the role of adult education in terms of both production agriculture and agribusiness.
2. The career education philosophy has had an impact on vocational agriculture in the United States. In some states the impact has been negligible, while in others the impact has been tremendous. In Florida, for example, the largest single agricultural program area is in pre-vocational education involving students in grades seven through nine (1). This is a new program area and presents new issues and new problems when dealing with adult education. Basically, the issue that is brought forth is this: do pre-vocational education teachers have a role in adult education, and if so, what is their role and how does it relate to other adult educational activities being conducted in the area?
3. Another issue that emerges is that of compensation. If vocational agriculture teachers are to conduct adult education activities, should they be compensated for their work in addition to their regular salary and if so, on what basis? In many states, adult education is an expected function of vocational agriculture teachers; therefore, no additional monetary

(Concluded on next page)

CONTINUED ADULT EDUCATION . . .

compensation is provided. However, in some of those states, many teachers have outstanding adult programs while some teachers simply operate compliance programs in order to get by.

4. Another concern that should be addressed is the role of vocational agriculture in urban adult education. Vocational agriculture has expanded into most urban areas in the nation. The needs for adult education, while different from those in rural areas, exist and need to be met. With the immense interests that have been evident in areas such as home gardening, lawn care, and ornamental plant care and maintenance, what position should vocational agriculture assume in regard to providing systematic programs of adult agricultural instruction in urban America? While many outstanding urban programs in adult education have been in existence for many years, what should teacher educators do in order to more effectively prepare individuals for teaching and conducting adult programs in urban areas?
5. Since the passage of the vocational education legislation of the 1960's, vocational and technical education at the post secondary level has experienced tremendous growth. For example, in 1974 there were 450 post secondary institutions offering vocational and technical training in agribusiness and natural resources education with over 47,000 students enrolled (2). Also, the literature tends to indicate that this area of education will continue to expand in the future. As we have observed this change and witnessed growth in this area, the question that arises is, what role should teacher education in agriculture assume in preparing individuals for teaching and conducting adult education programs at the post secondary level? Many post secondary teachers are agricultural education graduates, so it is obvious that agricultural education has prepared many teachers in this area. However, in the future, how should teacher educators better direct their efforts in preparing teachers for filling these positions?

   Furthermore, teacher educators have assumed an in-service educational function for secondary school teachers, therefore, is it not logical that this service should be provided for post secondary school teachers? Also, teacher educators should address the role post secondary vocational-technical teachers should assume in providing adult education for students not pursuing a degree or certificate and how those activities relate to other adult education activities being conducted in agriculture.
6. Finally, another issue confronting agricultural education is the role of specialized full-time adult education teachers. Several states have employed full-time adult teachers who are responsible for conducting continuous programs in local school districts and others who serve as resource teachers on a short term basis throughout the state. The role of these teachers and their relationship to other adult education activities must be addressed.

In summary, vocational agriculture has a rich tradition in adult education. Vocational agriculture has been a leader in adult education, serving many thousands of people over an extended period of time. However, in the past several years it would appear that some states have de-emphasized adult education. Furthermore, the changes that have occurred in vocational agriculture over the past several years have made it more difficult to define the role of vocational agriculture in adult education. As a result, the future demands on teacher education in agriculture to prepare individuals for teaching and conducting adult programs becomes much more critical. Teacher education has primary responsibility for developing a philosophy of adult education and appropriate professional competencies needed to implement that philosophy, in prospective and incumbent teachers. Therefore, in the future, if vocational agriculture is to re-emphasize and redefine adult education in agriculture, a large part of the responsibility must be accepted and dealt with by teacher educators in the various states. Further, the issues raised in this article need to be addressed if adult education in agriculture is to be characterized as a systematic, coordinated and purposeful program. ◆◆◆

References

1. Florida Department of Education, *Agribusiness and Natural Resources Education Personnel Directory,* Tallahassee: Florida Department of Education, 1975.
2. Hunsicker, N.H., "Trends and Transitions in Agriculture/Agribusiness," *Between Issues,* October, 1975.
3. Phipps, L. J., *Handbook on Agricultural Education in Public Schools,* Danville, Illinois: The Interstate Printers and Publishers, Inc., 1966.

CONTINUED THE BUCK STARTS HERE . . .

skill improvement.

Naturally, the ideas expressed in this article are time consuming and require planning and management. Using students as lab assistants will aid the instructor tremendously if care is used in the selection process. Obviously, these student assistants will need to be people who have completed the course. Senior agricultural education students make excellent prospects. This need not be a paying position. The student could enroll for special problems hours which should be beneficial as well as giving him some additional valuable experience.

The lab assistant can work with the students and is often able to relate to those which the instructor can't seem to reach. The lab assistant may also be a valuable aid in the areas of tool and materials management, as well as housekeeping.

In summary, since the agricultural mechanics program at colleges and universities is very influential, it should be taught in the same manner in which teacher educators expect vocational agriculture teachers to teach in high school. They should consider incorporating teaching methods into their skills course. The course should be structured so that laboratory and materials management are included and practiced. These courses should serve as models for the prospective teachers to follow ◆

Preparing the Teacher of Tomorrow

Paul E. Hemp, Teacher Education
University of Illinois


Paul E. Hemp

"In order that people may be happy in their work, these three things are needed: they must be fit for it; they must not do too much of it; and they must have a sense of success in it" — John Ruskin

The old adage about not missing the water until the well runs dry, would seem to apply to teacher education programs in agriculture in 1976. With the critical shortage of vocational agriculture teachers and the need to prepare teachers who can operate successfully in a modern school system, teacher education has become more important to all of us.

In recognizing the need for teachers be occupationally competent, we should remember that most unsuccessful agriculture teachers fail because they cannot teach effectively. A successful teacher must know his subject matter, but a mastery of subject matter by itself does not insure success in the classroom.

The situation in which a typical beginning teacher begins his professional career is much different from the situation which existed ten or twenty years ago. The beginning teacher must have the survival skills in professional education if he is to cope with the problems faced on the job. He or she must be prepared to handle large classes, to teach non-farm students, to improvise occupational experience programs, to work with disadvantaged and handicapped students, and to defend his program against attacks from those who do not understand the proper role and function of vocational agriculture and the FFA in the school system.

Teacher educators cannot design and teach professional education courses effectively unless they are (1) aware of the survival skills or competencies which a successful teacher must possess, (2) willing and able to teach these competencies to their students, and (3) committed to a systematic evaluation plan which involves agriculture teachers, state supervisors and students in a regular review program with provisions for updating and improving the total teacher education program. Some of the suggested ways of planning and conducting high quality teacher preparation programs are discussed in this article under the major headings of student selection, sequential courses and experiences, and program design.

Selection of Students

The selection of students for teacher education is a critical part of the undergraduate teacher education program. Teaching is not for everyone, so teacher educators have a responsibility to screen students in and out of teacher education. In so doing, the welfare of the high school students who are to be taught, as well as the welfare of the prospective teacher, should be considered.

Some teacher educators are reluctant to screen students out of teacher education because they do not feel comfortable making these judgments and they are anxious to maintain or increase enrollment in teacher education programs in periods of severe teacher shortages. At the University of Illinois, a review panel consisting of a cooperating teacher, two members of the Agricultural Education staff and a representative from the College of Agriculture Dean's office, has been used in recent years to interview juniors in Agricultural Education and to make recommendations regarding their professional development. Students are dropped from teacher education programs because of substandard grades and/or serious emotional or personality problems. Other students receive from the panel some suggestions for correcting weaknesses in subject matter areas, work experience, and personal-social skills. A follow-up letter which includes the recommendations of the review panel is sent to each student.

Sequential Courses and Experiences

The failure to integrate professional education courses and experiences throughout grades 13-16 has probably hurt enrollment in Agricultural Education and contributed to some inefficiencies in the undergraduate teacher education program. Courses in Agricultural Education should be spaced throughout the four-year curriculum, not concentrated in the senior year or the junior-senior years. In this way, students can relate courses in agriculture and other areas to Agricultural Education courses and to their professional goals. By scheduling Agricultural Education courses and experiences throughout the four-year curriculum, teacher education institutions can provide more and better field experiences in FFA and in school and community activities.

Field and school experiences scheduled prior to the student teaching year, and preferably in the sophomore year, are important components of a good teacher education program. The summer internship program offered by Purdue University prior to student teaching is an example of early field experience for undergraduate students. At the University of Illinois, the following sequence of courses and experiences is offered:

(Concluded on next page)

CONTINUED *PREPARING THE TEACHER . . .*

Sophomore Year
- Votec 101, Nature of the Teaching Profession — 2 sem. hrs.
- Ed. Pract. 150, Pre-Student Teaching, Field Experience in the Public Schools — 2 weeks and 2 sem. hrs.

Junior Year
- Application for student teaching and personal interview
- Votec 240, Principles of Vocational Education — 2 sem. hrs.
- Votec 275, Summer Practice (in August) — 2-3 sem. hrs.

Senior Year
- Votec 277, Methods (8 wks.) — 5 sem. hrs.
- Votec 276, Student Teaching (8 wks.) — 8 sem. hrs.

First Year of Teaching
- Votec 370, Agric. Educ. for Beginning Teachers — 1 unit

The sequence includes courses and experiences which are started in the sophomore year and continue on through the first year of teaching. Votec E370, Agricultural Education for Beginning Teachers, is a graduate level course, but it is also a part of the teacher preparation program for those who enroll in it. In this way, most students are enrolled in an Agricultural Education course each year from the sophomore year through the first year of full-time teaching. Such a sequence helps provide the opportunity for students to participate in local, sectional and state FFA activities as a part of their course work to a greater degree than they might in a program where professional education courses are concentrated in one semester or one year.

Program Design

There are many useful ways of organizing teacher education courses and assigning appropriate content to each undergraduate course. The important point to keep in mind in designing undergraduate programs, is to make sure that each graduate has acquired the important knowledge and skills which are necessary for success as a beginning teacher. For example, a separate course on FFA is desirable; however, many universities integrate FFA content into courses which include other topics as well as FFA.

In designing an undergraduate program to prepare competent vocational agriculture teachers, the following guidelines and suggestions should be considered:

1. An advisory council composed of experienced teachers and others should be used to advise the teacher education staff regarding the pre-service program.
2. Cooperating teachers and teacher educators should meet together on a regular basis to plan and evaluate the on-campus and off-campus phases of the teacher education program.
3. Structured occupational experience and involvement in FFA programs should be a prominent part of the teacher education program, especially for those students who are deficient in these areas. Even students who have been active FFA members in high school need to learn about FFA from the viewpoint of the advisor and his role.
4. Student teachers should be supervised by fully-qualified Agricultural Education staff members, not by generalists who do not understand the unique and important procedures used in vocational agriculture.
5. Most, if not all, of the undergraduate courses in Agricultural Education should be specialized courses designed to meet the unique needs of the prospective teacher of vocational agriculture.
6. Students should be expected to participate in a variety of out-of-class activities to better prepare themselves as teachers. Some of these activities are as follows:
   - —Participate in the National Student Teachers' Conference and the Alpha Tau Alpha Conclave.
   - —Participate in student clubs, such as Alpha Tau Alpha and Agricultural Education Clubs.
   - —Teach an agriculture unit to a class in an elementary school (Food for America Program).
   - —Serve as assistant advisors in various sectional and state FFA contests and award programs.
   - —Observe and study vocational programs in agriculture for special needs students, community college students, urban students, etc.

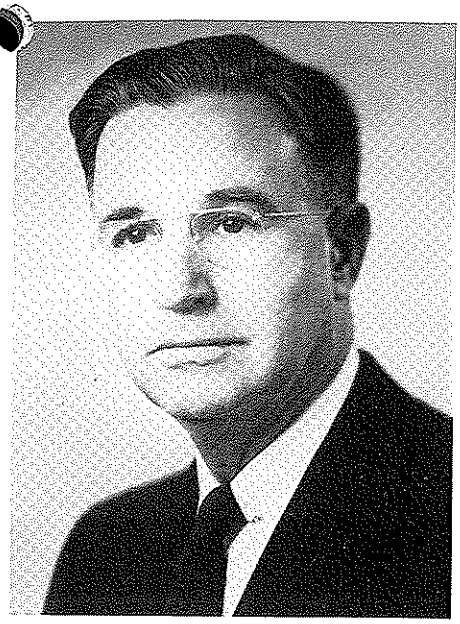
In designing teacher education programs within states, every attempt should be made to coordinate efforts where more than one university is involved in preparing teachers of agriculture. The long-range interest of vocational agriculture can best be served when statewide planning is practiced to insure an adequate supply of qualified teachers. The articulation of programs in two-year colleges and four-year institutions is also a must. Teacher education is too important to be left to the teacher educators in Agricultural Education. The responsibility of this important program must be shared by teachers, state supervisors, and teacher educators. ◆◆◆

CONTINUED *ADMINISTRATIVE ACCEPTANCE . . .*

the maintenance of accurate records of department expenditures.

This list of selected teacher courses of action should be a helpful guide for those teachers who have experienced some difficulty in gaining administrative support to implement program improvements. To agriculture teacher training programs these findings suggest (1) preservice teacher training programs ought to be closely examined to insure that graduates are prepared and can demonstrate satisfactory performance in the above mentioned teacher courses of action and (2) in-service teacher training programs could be organized to improve teacher effectiveness in designing and presenting program improvement proposals to their school administrators. ◆◆◆

Leader in Agricultural Education:



DUDLY M. CLEMENTS

*by John D. Todd**

"His great faith in boys, equalled only by their great faith in him, is the foundation upon which was erected this memorial to him and to his work."

These words are inscribed underneath a picture of D. M. Clements portrayed at Camp Clements overlooking the Caney Ford River in Van Buren County, Tennessee. These words depict qualities of character, the life he lived, activities he pursued, and the endeavors accomplished during a lifetime working for agricultural education. Camp Clements exists in commemoration of this man, but the history of agricultural education in Tennessee and the Southern Region attest to the notable work of this dedicated person.

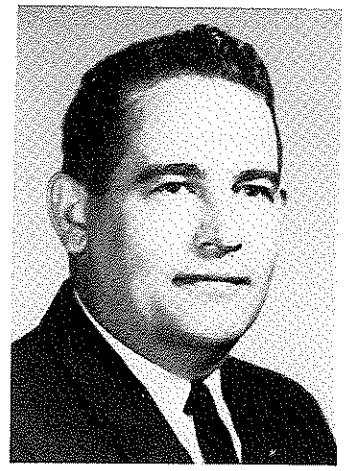
Dudly M. Clements was born May 12, 1889 at Fort Deposit, Alabama. He was reared on a large farm in Alabama where he developed a love for agriculture and rural living. He attended Auburn University and graduated in 1910 with a B.S. degree in Agriculture. He did graduate work at the University of Wisconsin, and received his M.A. degree in 1927 from George Peabody College for Teachers in Nashville, Tennessee. He was a life member of the American Vocational Association and the first person from Tennessee to receive the FFA's Honorary American Farmer Degree.

D. M. Clements began teaching agriculture in 1911 at Jones High School in Lynnville, Tennessee. In 1915 he moved to the E. W. Grove High School in Paris, Tennessee, one of three departments of agriculture established in public schools in Tennessee at that time. The high school qualified for federal funds in March 1917. He was the first vocational agriculture teacher in Tennessee and reputed to be the first in the United States.

D. M. Clements was selected as the first state supervisor of Agricultural Education. He later became the first director of Vocational Education in Tennessee. He worked tirelessly to establish vocational agriculture departments in Tennessee. During his tenure as state supervisor, the enrollment in vocational agriculture grew from a mere beginning to fifth in the nation.

Mr. Clements was concerned about the college preparation of persons studying to become certified as vocational agriculture teachers. He worked with Professor N. E. Fitzgerald at the University of Tennessee in developing a program of certification for vocational agriculture teachers. To further the education of teachers who were employed but needed inservice training, he instituted group conferences.

Shortly after assuming the position as State Supervisor in 1919, Mr. Clements called the first vocational agriculture teachers' conference. He presided over the conference and at the outset of the meeting appointed committees to formulate plans for future conferences, home projects, exhibits, contests, courses of study in vocational agriculture, teaching of farm mechanics, and adult education. Most of these facets have been incorporated into vocational agriculture programs and have remained until the present time.



John D. Todd

*John Todd is Head of Agricultural Education at the University of Tennessee at Knoxville.

One of Mr. Clements' greatest accomplishments was in helping to organize and promote an organization for rural youth. He was very instrumental in organizing the Future Farmers of Tennessee in 1927. Mr. Clements was later given the title at an annual convention of the FFA as the "Daddy of the FFT." In 1929, the FFT became an affiliate of the FFA.

The first convention of the FFT was held in 1928. At this convention Mr. Clements told of his dream of a place in the mountains that would serve as a training center and a place for wholesome recreation for the vocational agriculture students of Tennessee. Mr. Clements appealed to all teachers of vocational agriculture to help in soliciting funds and support for the camp. He co-signed a note for $3,000 with two other leaders in agriculture to start work on the camp. The camp was built in the foothills of the Cumberland Mountains near the Caney Fork River, twelve miles south of Sparta, Tennessee. The camp officially opened in 1931 with 543 FFA members attending. In 1934, the State Association of the Future Farmers of America honored the State Supervisor of Vocational Agriculture by naming the newly built camp, "Camp Clements."

D. M. Clements left Tennessee in 1936 to become Federal Agent for Agricultural Education for the Southern States and Puerto Rico with headquarters in the U.S. Office of Education, Washington, D.C. He served on the

(Concluded on page 94)

The Purdue Summer Internship

*by William Hamilton, Royce Costin and Randy Coffman

Some ten years ago the Purdue Agricultural Education Staff in cooperation with the State Department of Public Instruction began a unique program of preservice teacher education. Agricultural Education majors between their junior and senior years were placed with vocational agriculture teachers for 10 to 12 weeks as an assistant teacher to gain experience in conducting a summer vocational agriculture program.

The program was proposed as a means of giving experience in the summer Vo-Ag activities similar to that gained from the student teaching experience. Since most students must earn a large share of their college expenses through summer work, the program has been set up with a modest salary funding to local school districts who in turn employ the intern for the summer months. Costs to the local districts is for mileage paid the intern on the same basis as the local teacher.

Over the years interest in the program has remained active and teachers and administrators have requested that their schools be considered for the intern program.

Due to the modest stipend, we can pick active programs with a broad range of experiences for the interns, within a commuting distance of the interns home so most of the earnings can be saved for college expenses. Once the interns have been selected, schools are identified by the two staffs as listed and the interns are given their choice in the order of their selection, and the schools are contacted for their interest in participating in the program.

Interns are then asked to go to the school for an interview with the Vo-Ag teacher(s) and administrators. Both the student and school have the privilege of saying yes or no to the arrangement.

One of the schools in the 1975 program was Delta High School, near Muncie where two of the authors are vocational agriculture teachers. Jack Mason interned and participated in many summer and routine departmental activities. Jack was helpful to the authors in a number of ways through the responsibilities he assumed and the tasks he carried out.

Some of the departmental activities were only observed by him due to their nature, others he assisted the authors with and others were completed on his own. Among the activities experienced were:

YOUTH WORK:

- Recruited new students for the FFA orientation camps
- Attended and helped conduct orientation camp
- Attended FFA leadership camp
- Attended the State FFA convention
- Participated in local FFA Meetings
- Attended 4-H leaders meetings
- Worked with FFA concession stand
- Worked with FFA at an annual appreciation day at a local business

SCHOOL AND FACILITIES

- Helped maintain the school greenhouse
- Painted classroom equipment
- Helped maintain shop and greenhouse equipment
- Helped obtain instructional materials
- Observed classes at the close of school
- Helped prepare for school opening in the fall

COUNTY FAIR ACTIVITIES

- Helped obtain funds for Young McDonald's farm building
- Helped build the Young McDonald's farm building
- Served as night watchman at the fair
- Helped with the FFA fair caravan
- Supervised 4-H and FFA members and projects at the fair

JUDGING ACTIVITIES

- Helped with judging team practices
- Attended State FFA Judging contests
- Attended Swine Contest at Purdue

VISITATIONS

- Called on prospective students
- Supervised vocational agriculture students
- Called on local businessmen

During the summer experience Jack was supervised on a regular visitation schedule by the University Program Director. For the school, the apprentice provided an extra agriculture teacher for the summer at a minimal cost, for the teacher the program provided an extra pair of hands, an opportunity to provide input to the improvement of the profession, and service to prospective teachers. The program provides Purdue with a means of preparing teachers with a greater range of experience within the vocational agriculture program.

(1)See: "Summer Internship in Teacher Education," *Agricultural Education Magazine*, pp. 282, 290, June 1968.

*William Hamilton is a teacher educator at Purdue University. Royce Costin and Randy Coffman are teachers of agriculture at Delta High School in Muncie, Indiana.

Attitudes and Personality for Employment

Albert Penn
Agriculture Supervisor and
Public Relations Coordinator
Wayne County Joint Vocational School
Smithville, Ohio

Attitude Affects Personality

One of the most common reasons for a person losing his job is his/her inability to get along with fellow workers or employers! This statement bears repeating.

The individual is a part of a working team. One must have good relations with fellow employees and customers in his place of employment.

Personality is very important. Personality — what is it? Webster's International Dictionary defines: "that which constitutes distinction of a person; distinctive personal character; individuality; magnetic personal quality," or Stanley Gray in his book, *Psychology in Human Affairs,* states: "Personality is the sum total of those habits a person has formed in adjusting himself to life situations."

One's attitude affects one's personality. Personality is controllable through one's attitude and values. Even though one's attitudes change, which some call a "mood cycle," meaning one has cycles of depression and anxiety alternating with the feeling of well-being and ambition.

Many things affect one's attitude, which in turn, changes values. Success in life depends on work habits and work habits are a part of one's attitude and values toward work.

Physical Appearance

Our personality plays a role in the way one looks and in one's mental attitude.

If others become disappointed in one's appearance, then one may never be able for them to become acquainted with one's real mental attitude.

Take a look — how do you rate? William H. Danforth, in his book, *I Dare You,* helps create better attitudes and values:

1. I DARE YOU to be strong.
2. I DARE YOU to think creatively.
3. I DARE YOU to develop a magnetic personality.
4. I DARE YOU to build character.

This book is written to point out some things that make five percent of our population the leaders in our society, compared to the 95 percent who are satisfied to go along with the masses.

One needs to observe personality factors which affect people with whom one works.

The Way One Talks

Voice qualities one should consider are:

1. Distinctness
2. Loudness
3. Emphasis on key words and phrases
4. Pitch
5. Speed with which one speaks

The Way One Listens

One's attitude toward listening may affect his employment. Listening at times may be more important than talking.

One must ask himself, "Do I concentrate on what the other person is trying to say, or do I interrupt before he finishes?" Also, concentrate on names and faces. Persons like to be identified by name.

There are a few things people should look at in themselves, as well as fellow employees, that relate to physical actions:

1. Ambition — One should have a steady drive to improve, not just a vague desire of one day but not the next.
2. Industriousness — One should be able to perform even if the job may be distasteful.
3. Persistence — One needs to see the job through, even if it means working overtime.

The way one acts emotionally affects one's attitude and values in employment. Make a check of your emotions. There is no real rating for emotions; it becomes a judgment situation. Check for cheerfulness, friendliness, judgment, forcefulness, self-confidence, and tact.

A philosophy of life helps one to set attitudes and values. Everyone should have some standards by which he works and lives.

Some suggestions for people to consider in their philosophy for life:

1. Develop concept and fundamental values of life.
2. Include code of personal ethics and moralty.
3. Know what they stand for.
4. Be able to accept change.
5. Be tolerant — nobody has the same ideas.
6. Be able to accept the customs of one's surroundings.

The following is a plan to aid an individual who would like to improve:

1. Be personable — Identify traits, attitudes, values, and other factors that make up personality.
2. Be positive — Act and think positively. Play down the negative. Persons do not like negative attitudes.
3. Consider the other person — Try walking in his shoes for a while. Give less to self and more to others.
4. One's service to others is what persons are really looking for. "He profits more who serves best."
5. Personality should be a habit. One should concentrate on being positive.
6. One should check daily on his positive and negative attitudes.

Summary

One may find other factors that may have been included in working with individuals in attitudes and values for employment.

The vocational teacher, supervisor, and administrator should assist the student in his or her pursuit of self-improvement. ◆◆◆

CONTINUED JUST ONE MORE QUIZ . . .

QUESTION No. 4: "Did you feel qualified to teach when you began?"

Dale: "I was lucky to have had excellent supervision while student teaching. The cooperation, helpfulness, dedication and inspiration of these men were most important to me in my first year of teaching.

Vince: "I did feel qualified."

Martin: "Yes, I did feel prepared for the situation I was going into, although I was a bit skeptical about going back to my old high school. Everything has worked out fine."

QUESTION No. 5: "After a year of teaching, what do you think should have been done to better prepare you for the job?"

Vince: "No major changes should probably be made in training teachers for an Ag Ed career. A few little things need more attention like how to order supplies, training FFA judging teams, and FFA training in general, especially for those without this background."

Martin: "I think more realistic facts should have been dealt with. An example would be, 'how to plan for twenty students in the mechanics lab instead of the ideal sixteen or less. More should have been done to prepare us to be Young Farmer and Adult Farmer advisors. More training should have been provided in motivating students."

Dale: "The best teacher in the world is experience, and more experience in dealing with students would definitely be helpful in teacher preparation."

QUESTION No. 6: "What will you tell your students about pursuing a career in Agricultural Education?"

Martin: "I will tell them facts such as: there are many opportunities for employment, it's year-round employment, it gives you professional status in the community, and it's a secure career with good retirement; but they need to know on the other hand that it's not an 8 to 5 job and sometimes it requires much longer hours of work, and it's extremely difficult to make a fortune overnight."

Dale: "I tell my students that Ag Ed is a very worthwhile and rewarding career."

Vince: "I tell my students that Ag Ed is a challenging career, full of opportunities. An Ag Ed major in college will help a person in any ag field he decides to enter."

"Thanks for taking 'Just One More Quiz', fellows."

Vince and Dale are teaching together at Essex High School in Tappahannock, Virginia and Martin has come back to teach with me at Rappahannock H. S. in Warsaw, Virginia.

It was a pleasure to work with these young men when they were active in vocational agriculture and the FFA, but it is especially gratifying to be a fellow teacher of theirs.

Rappahannock High School's principal, Frederick Pitman, remarked "These fellows were destined to become leaders in agriculture after their outstanding accomplishments in our program. More students will benefit because they chose Agricultural Education." ◆◆◆

CONTINUED LEADER IN AG ED

National FFA Advisory Council for 14 years, and was involved each year with the Exhibit Room at the National FFA Convention.

In 1943, Mr. Clements received the "Man of the Year in Service to Southern Agriculture" award. This award was given to him by the *Progressive Farmer Magazine* primarily for his accomplishments during the war in rallying southern farmers and rural families to learn more about producing and processing food. In the six years that Mr. Clements had charge of agricultural education in the South, the enrollment in vocational agriculture in the twelve southern states increased from 91,032 to 165,409 in 1947.

D. M. Clements was appointed Assistant Chief of Agricultural Education in the U.S. Office in 1949. He held this position at the time of his death. In the last year before his death he had devoted considerable time in preparing and working for the passage of a bill in Congress to provide a Federal Charter of Incorporation for the Future Farmers of America. He died July 25, 1950, and the legislation that he helped draft for an organization that he loved passed Congress one day after his death.

In 1974, he was inducted into the Tennessee Agricultural Hall of Fame. This honor was posthumously bestowed upon him for his many contributions in the field of agricultural education. Only nine other persons have received this award; one being Andrew Johnson, the eighth president of The United States.

Dudly M. Clements was a pioneer in the field of Agricultural Education. He contributed more in this field than any other person from Tennessee. He was the "first" in most movements that were undertaken to establish vocational agriculture programs. His impact was felt not only in Tennessee but in the South and other regions of the country. He devoted a lifetime working for agriculture and the betterment of rural people. ◆◆◆

BOOK REVIEWS

INSECTS IN RELATION TO PLANT DISEASE, by Walter Carter. Honolulu, Hawaii: John Wiley and Sons, Inc., 1973, Second Edition, 759 pp. $39.50

This book is divided into three main sections (1) "Plant Pathogens Transmitted by Insects" (2) "The Toxicogenic Insect and Phytotoxemis" and (3) "The Plant Viruses." The transmission of bacterial and fungal diseases by various insects on several plants through feeding and oviposition wounds is explained. Effects of hemipterous insects feeding on plants causing lesions, tissue malformations, galls and other plant deformities are related to diseases of a variety of plants.

The major material in the book is on plant viruses including virus transmission by other than insects. History, definition, origin and classification of viruses is given for background information. Other chapters discuss virus symptoms and methods of transmission. A detailed chart of viruses and their vectors has also been included.

Each chapter includes several reference sources which could be very helpful to an individual doing research or wishing to become more knowledgeable about plant diseases and their relation to insects. Disease symptoms and controls are listed. The reader must be aware of outdated chemical con-

BOOK REVIEWS

trols which are not recommended at this time.

The author is entomologist and Senior Scientist Emeritus at the Pineapple Research Institute of Hawaii. He is also Professor of Entomology, Emeritus, University of Hawaii.

This book is directed to senior college and graduate students and may be used as a text. It will also be useful as a reference.

Loren Lilly
Scott Community High School
Scott City, Kansas

TURF MANAGEMENT HANDBOOK, by Howard B. Sprague. Danville, Illinois: The Interstate Printers & Publishers, Inc., 1976, Second Edition, 258 pp., $8.50

This book covers all the basic principles of establishing, improving, and maintaining a good turf for lawns, parks, and playing fields.

Some of the principles covered are soil conditions, use of lime and fertilizer, how grasses grow, regional characteristics of grasses, establishment of turf, regular care of turf, and control of weeds, disease, and insects. Another area which is covered quite thoroughly is the recommended seasonal schedules for the management of turf by climatic areas. There are other areas covered that I have not listed here.

This book is organized so that the reader can follow the chapters in sequence to obtain complete information on turf culture or refer directly to a particular section for details on a specific topic. The text also contains excellent illustrations of grass and weed species, disease symptoms, insects which infest turf, and equipment used in turf management. In addition, there is material on recommended and EPA approved pesticides for turf.

The author, Howard B. Sprague, has been recognized for his pioneer work on many aspects of turf culture. Dr. Sprague was formerly Head of the Agronomy Department and Chairman of the Plant Science Division at Pennsylvania State University (1953-1964). From 1964 to the present he has had the opportunities to review turf research and management in many sections of the United States and some thirty other countries. Dr. Sprague's knowledge of turf management is very evident in this publication.

This book, because it is so well illustrated and written, has value for anyone interested in turf. There is a section at the end of each chapter devoted to the explanation of technical terms used in that chapter. This together with the apparent attempt to avoid their use wherever possible, makes the book easier to read for the student, the teacher, and the general public.

Gordon Darmody
University of Wisconsin
Madison, Wisconsin

PRODUCING FARM CROPS, by Lester V. Boone, A. Chester Richer, and Harold K. Wilson. Danville, Illinois: The Interstate Printers and Publishers, Inc., 1975, Second Edition, 303 pages, $7.95

This book deals with one of the most important endeavors of man — the production of field crops. Its importance promises to increase during the next 25 years. The world needs food. This need will increase. The production of food is wholly dependent upon people with the practical knowledge to plant, grow, harvest, and make available to consumers all the various crops that are the raw materials of our food supply.

PRODUCING FARM CROPS has the objective of presenting current knowledge about the efficient growing of farm crops. Emphasis is on principles and how they are applied in specific crop situations. New developments in the science and production of crop production are discussed. Crop management practices and their relationships and interdependence with weather, soil, pests, and the market place are delineated.

The authors represent top leadership in crop production, research and soil science. They bring together many years of experience in teaching, research, and extension work in these areas and combine these in an effective presentation.

The book is a comprehensive and down-to-earth treatment on how to raise farm crops economically, scientifically, and profitably. It is written in an easy-to-read and straight-forward style. Thus, it is especially suitable for high school vocational agriculture programs, for crop production technology programs in post secondary institutions, and for the farmer or farm owner currently engaged in crop production.

Joseph R. Clary and Jerry V. Byrd
North Carolina State University

RAISING POULTRY THE MODERN WAY, by Leonard Mercia. Charlotte, Vermont: Garden Way Publishing, Copyright 1975, 231 pages. Softback $4.95

Whether you want to start with a couple of chicks or become a semi-commercial poultry producer here is a complete, practical and up-to-the-minute guide. The author is a poultry specialist with the Vermont Extension Service and covers in detail everything you'll need to know about housing, equipment, selection of stock, feeding programs, brooding and management of the common types of poultry.

The book is well illustrated and includes plans for a poultry house and furniture and even a plan for a home-made incubator. Tables depicting feed consumption, costs and returns are also included.

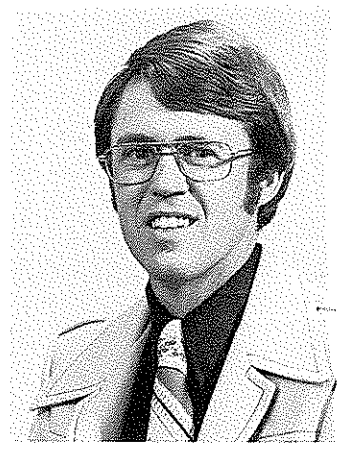
The chapter on disease prevention, diagnosis, and treatment is perhaps the most complete ever prepared for the small flock reader. Several types of breeds of poultry are individually covered (laying flocks, meat birds, turkeys, ducks, geese) so answers to specific questions may be readily found. Descriptions of such skills as culling, debeaking and caponizing, home processing and preservation of eggs and poultry are included.

Whether one is considering poultry production as a low cost source of fresh, wholesome meat and eggs or as a hobby, this is a complete guide to how to do it. Although prepared primarily for the small flock enthusiasts it has proved to be useful as a textbook for FFA students in junior high and high school as well as for agricultural majors in vocational schools and colleges.

George M. Dunsmore
Agricultural Education
Vermont State Department of Education

NEW BOOK REVIEW EDITOR

Dr. John Hillison is an associate professor of Agricultural Education at Virginia Polytechnic Institute and State University. He previously served as an assistant professor of vocational education at Western Kentucky University. Prior to that experience he served as agricultural occupations instructor at Mount Carmel, Illinois.



John H. Hillison

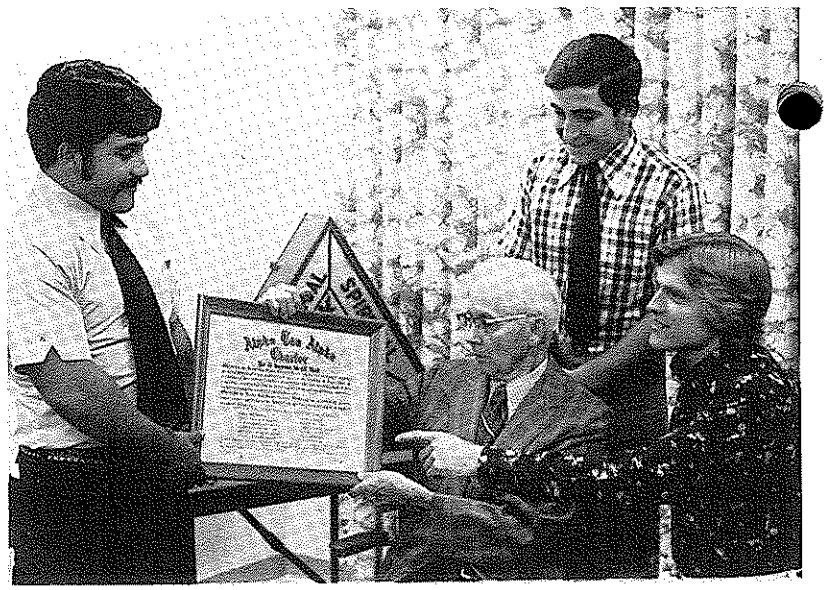
Dr. Hillison's educational background was obtained by receiving a Bachelor's degree and Master of Education degree from the University of Illinois. His PhD work was completed at The Ohio State University.

Dr. Hillison's responsibility at VPI & SU includes teaching introductory courses, methods classes and supervising student teachers in the Agricultural Education Program. He also coordinates and assists in the development of agricultural education curriculum materials.

The new book review editor's duties began in August.

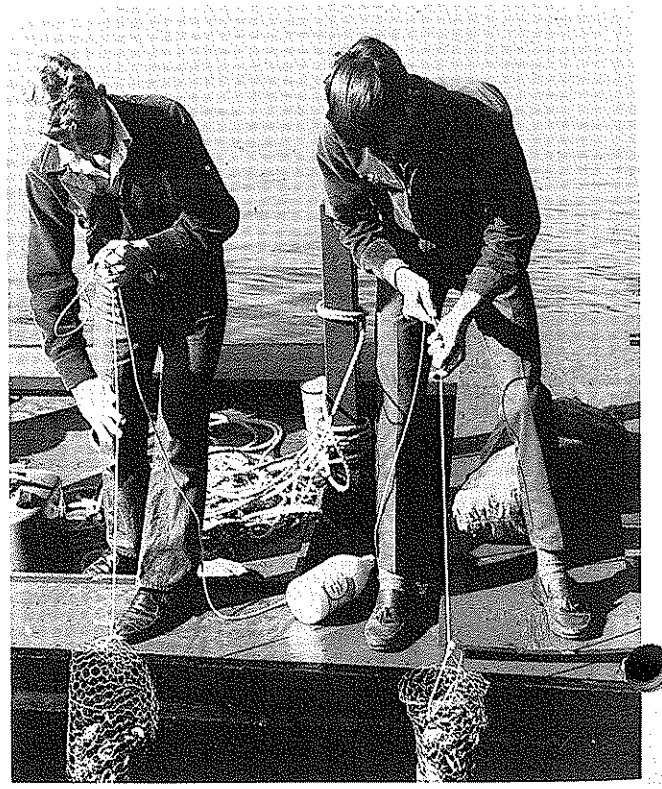
STORIES IN PICTURES

by Jasper S. Lee



ARIZONA ALPHA TAU ALPHA CHARTER — George Ekstrom, National Alpha Tau Alpha Historian and former Chairman of Agricultural Education at the University of Missouri, inspects the Charter of the Phi Chapter at the University of Arizona. Members of the Chapter assist Dr. Ekstrom, who is compiling a history of Alpha Tau Alpha. (photo from C. O. Jacobs, University of Arizona)

FOUNDERS OF FFA — The Agricultural Education Society at Virginia Polytechnic Institute and State University has prepared a framed display to mark the 50th Convention of the Future Farmers of Virginia (FFV). The four men pictured were instrumental in founding the FFV in 1926 and later, the FFA. The persons shown are (top, left to right) Walter S. Newman, and Edmund C. Magill and (bottom, left to right) Harry W. Sanders and Henry C. Groseclose. (photo from Ken Hawkins, Virginia)



OYSTER FARMING — Students at Carrabelle, Florida are shown as they study oyster production in their agribusiness and natural resources education class. (photo from F. D. McCormick, Florida)