From the Editor...

Many educational leaders of today have publicly expressed a view that vocational education is an effective means of solving the needs and demands of our complex society. More funds are being made available at all levels -- federal, state and local. More time and personnel is being devoted to expanding vocational training. My concern for vocational education in agriculture does not relate to the abolition of jobs or the assignment of duties on a broader or less specific field of vocational education. I am not overly concerned about changes in terminology or names -- it may be just another exercise in semantics. My concern is the change that is taking place in "vocational" education. For the past half century, we in vocational agriculture have proudly referred to our "hands on" activities. We have closely related our classroom teaching with on-farm experiences. Our FFA motto includes "Learning by Doing." From what I have observed and heard recently, I consider the change it attitude is away from these essential principles of application. I am concerned that such action tends to de-emphasize vocational training. Vocational agriculture has made a large, identifiable contribution to farming and to other segments of agriculture in every community, state and nation. We cannot afford to let the program that has been successful it should not be changed. Despite this success, there is opportunity for advancement. I believe that in our efforts to strengthen the program we should abandon none of the keystones of the structure the super be trained work experience program -- whether it is on the farm or in an industry or business community. The Vocational Education Act, and its amendments, provides for placement for experience. It must be an educational experience. The student should not have a production enterprise and continue to follow the same management practices applied by his dad or grandfather. The primary purpose of this experience program is to correlate the activities with the classroom teaching. Thus, one of the main essentials is the joint planning by the student, his parents and the teacher. Production goals should be established, a list of activities developed and a schedule made of the time these activities should be completed. The teacher must make the necessary on-farm visits to provide the guidance and instruction needed to conduct the program. If the student is placed in a cooperating business, the student, the employer and the teacher should develop a list of experiences the student is to receive and a calendar of events indicating the sequence and approximate amount of time to be devoted to each activity. Again, the teacher must make periodic visits to observe the student and discuss his training with the employer. Teachers should not take credit for a student who develops a beef enterprise because it is the major enterprise on the home farm. Nor should the teacher take credit for a training program if the student accords this employment on his own initiative. A part of the educational process is deliberately planning and directing the activities of the learner. It is a series of experiences to train an individual for a given employment. Three things can be identified: (1) the student will know more about that particular job and he will have learned accepted, recommended procedures, (2) the student will be identified as having specific skills and abilities that will appeal to a potential employer and probably result in the student seeking employment in agriculture and (3) the student will have acquired these skills, knowledge and attitudes in less time and with less discouragement and wasted effort than if he proceeded on a "trial and error" basis. The function of the teacher of agriculture is recognized in vocational educational! We cannot let unorganized training and non-directed learning to assume control of our vocational agriculture program. Our schools, and our teachers, are prepared to carry out our objectives to prepare competent workers at a reasonable cost if we do not surrender our obligation.
Every agricultural student should have, as a part of his vocational preparation, an appropriate work experience program. There should be a close relationship between the work experience program and the vocational instruction provided in school. The instruction received in school and the work experience should be planned and supervised by the school and by industry so that each contributes to the student’s total education and to his vocational success. The instruction in school should be relevant to the student’s vocational aspirations, needs, and capabilities; and it should be taught well enough to function in practice.

Experience in selecting, planning, and carrying out a good work experience program, with the help and cooperation of the landlord or employer and with the coordination and supervision of the teacher of agriculture, is an essential part of vocational agriculture.

Work experience programs do not represent a new concept in vocational agriculture. However, this does not imply that all vocational agriculture has accepted this concept and has done a good job in implementing it. The basic value of good work experience programs need not be understood, but it is necessary that each student accepts this idea and that the teacher of agriculture makes the necessary arrangements to see that it is implemented.

In recent years, when the major emphasis in the teaching of agriculture was on the farm and non-farm occupations and industries have been expanding and taking on new dimensions for many years, the need for well-rounded farm programs for each student has become increasingly evident. The problem is to ensure that these students have a firm grasp of the concepts of farm operations and that they have a basic understanding of how to operate a farm business.

Vocational agriculture is now concerned with the responsibility of preparing people for employment in the total agricultural industry. The ability to work in a farm industry has been expanded and the need for knowledge of the new dimensions has increased. In order to prepare students for employment in these occupations, appropriate work experience programs are essential. Work experience programs are equally as important for students in non-farm occupations as for those in agricultural occupations. The benefits and experiences gained through work experience programs are valuable to students in all areas of vocational education.

Off-farm agricultural occupations represent a new area of educational opportunities. The opportunity to live in a rural environment is an important aspect of the American way of life. The experience of living and working in rural communities provides a valuable basis for the development of skills necessary for success in rural communities. Experience in rural life is essential for success in the agricultural and non-agricultural jobs that are available.

Learning is the reason for teaching. Learning is a process that must be the process by which one obtains new skills and knowledge. The change in the way people think of themselves is the change in the way they think of others, which are sought through vocational education. The change in the way people think of themselves is the change in the way they think of others, which are sought through vocational education.

There may be practice of the poor or incorrect or practice without understanding or practice without awareness of the theory involved. Thus, it is vital in program planning that the teacher understand the teaching-learning process and he makes sure that appropriate arrangements are made in setting up the work experience program to assure effective implementation of the process for the benefit of the student.

The teacher should have students plan and carry out supervised work experience programs primarily to enable them to acquire whatever learning they need for success in their vocational pursuits. The higher the level of aspiration of a student, the more he will be expected to practice. The standard formula for evaluating work experience programs should be accepted. Practice is essential to learning and to retention of the learning. Abilities once developed need to be kept alive if they are not to be lost, no matter how thorough the initial learning.

If the teacher has clearly defined teaching objectives, he should have his students plan the areas in which each of his students needs to secure practice or experience. The teacher should have each student participate or practice in all areas in which he hopes to secure learning. If the student is to learn to think in a vocation, he must think in that vocation. If he is to learn to plan a vocational activity, he must do the planning. This is the concept of practice. If he is to learn to practice such behavior. If he is to learn the management aspects of a vocation, he must have experience in management. If he needs to acquire a particular attitude, he must practice that attitude. If he is to be engaged in activities that will make possible the desired learning in this area. The desired learning should be practiced while the student is being taught. This means that there is a need for planning and supervision of the student’s work experience programs. Supervision provides opportunities for the teacher and others who help him to direct the activities of the students so as to produce the maximum amount of desired learning. Through good supervision the teacher should be able to improve the quality of the learning and the maximum amount of learning necessary for the students.

Goals are great determiners of what students will do in learning a vocation and in following it. There should be adequate goals and objectives by which to test the quality and effectiveness of the work experience program and the process of work experience programs.

The results from supervised experience should be considered in evaluating the success of the experience program. Teaching should be judged by evaluating the evidences of learning, some of which should exist in the results of the supervised work experience program and others that exist in the subsequent self-directed activities of the students.

Thus, supervised work experience programs for agricultural education should be carefully planned, and they should be oriented toward the cooperative vocational education concept. For them to be successful, they must be carefully planned; involving the student in setting the objectives and the plan and the evaluation of the student’s progress and the utilization of all appropriate elements necessary to sustain a sound work experience program for the benefit of the agricultural students.
TEN MYTHS ABOUT DIRECTED WORK-EXPERIENCE
Harold R. Cashman, Charles W. Hill, and John K. Miller
Teacher Education, Cornell University

No aspect of the Agricultural Education program is more misunderstood than the directed work-experience program. Nearly all of the myths that have been propagated about the directed work-experience program are, one or another, factors that have been exaggerated by the press, or overemphasized by the educators who are interested in the program.

SUMMARY

After observing the 18 try-out teachers in the implementation of the directed work-experience program in their schools, we have convinced ourselves that the directed work-experience program is a very valuable tool for motivating students. We have also concluded that the directed work-experience program is a very valuable tool for motivating students.

1. Ten Myths about Directed Work-Experience

1. More students sustain project graduation than in agriculture.
2. More students engage in directed work-experience programs than in agriculture.
3. Students who engage in directed work-experience programs are more likely to engage in other programs that are related to their vocational course in agriculture.
4. Experience and skills in related activities are most useful in the directed work-experience program.
5. More experienced students are more likely to participate in the directed work-experience program.
6. More experienced students are more likely to participate in the directed work-experience program.
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3. Facts about Directed Work-Experience

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4. Myth X—Extensive record keeping and paper work is a component of directed work-experience programs.

5. Myth XI—The teacher should either assign the students to jobs or turn them loose to find their own jobs.

6. Myth XII—Written training agreements are an essential aspect of directed work-experience programs.

7. Myth XIII—Arbitrarily established "minimum hours" requirements are meaningless.

8. Myth XIV—Employers and students are reluctant to participate in directed work-experience programs.

9. Myth XV—Written contracts are not a feature of directed work-experience programs.

10. Myth XVI—Written contracts are not a feature of directed work-experience programs.

11. Myth XVII—Written contracts are not a feature of directed work-experience programs.

12. Myth XVIII—Written contracts are not a feature of directed work-experience programs.

13. Myth XIX—Written contracts are not a feature of directed work-experience programs.

14. Myth XX—Written contracts are not a feature of directed work-experience programs.

15. Myth XXI—Written contracts are not a feature of directed work-experience programs.

16. Myth XXII—Written contracts are not a feature of directed work-experience programs.
AN IMAGE OF AGRICULTURAL EXPERIENCE IN VOCATIONAL EDUCATION

BILLY J. VICE is an instructor in the Department of Agricultural Education, University of Kentucky, Lexington, Ky.

Agriculture continues to be synonymous with farming for many people. If one examines the lack of change in curricular pattern, occupational experiences for students, content, and objective of agriculture programs, perhaps even agricultural education itself continues to perpetuate this view. In the past, farming may have been the production of food and fiber with land as a factor of production. Many people still say that the first two years of the total vocational agriculture should deal with production agriculture, yet expect students training for off-farm occupations in agriculture to take the same curricula as in the past in addition to a larger share of off-farm program as parents and seniors. Apparently, some people in the profession do not conceptualize the meaning of farming occupations as a specialized program. All we need to do is ask a successful full-time commercial farmer to edit himself of this misconception.

Programs or Content Classification

Major agricultural programs range from prospective agriculturalists in secondary programs to aged adults, from commercial farmers to part-time suburban users, and from persons gainfully employed to poverty families. The category of persons to be served with educational programs requires many different curricular concepts even in production agriculture, and the range of off-farm occupations in agriculture is unlimited if we had competent teachers. Classifying a curriculum without regard to persons and occupations does not differentiate disciplines of vocational education. Curriculum development and articulation between curricula become confused when subject matter is artificially categorized and given priority over needs and interests of students.

Students prepare programs for the hundreds of agricultural vocations beyond our resources, but surely farming occupations must be considered specialized programs in our curricula. Presently occupations related to on-farm production in agricultural products all specify the same subject content in the three areas of (1) animal science, (2) plant science, and (3) agricultural business management, such as coded in the publication issued jointly by the U.S. Office of Education and Department of Labor titled, Vocational Education and Occupations. Do all farming occupations, such as a producer of cash-crops or a producer of specialized horticultural crops, need to have animal science as part of the curriculum? On the other hand, much of what is called agricultural business management applies to off-farm agricultural businesses as well as farm business management.

Guidelines for Program Development

Allowing multiple choices for high school students as suggested in the Report of the National Advisory Council means delayed for vocational education in agriculture. Specialized programs are desperately needed at all levels and as change and new needs emerge. However, specialization that would an individual to make decisions before he is ready may limit his future career. Excluding the unwieldy slowness of change, a few basic guidelines seem applicable to program development in vocational agriculture.

First, vocational educators in agriculture should place emphasis on competencies that can be acquired by students at different ages of career development. If people are already employed in an occupation, these competencies can be very explicit and highly specialized. However, during early career development, such as students in the freshman year in the secondary program without a definite career goal, a more general program should be planned. Perhaps knowledge, skills, and other behavioral modifications desirable for students planning for off-farm agricultural occupations could become the foundation for more specialized programs. Many of our clients groups continue to be from rural areas. Studies have shown that rural youth need to establish an occupational and educational alternatives. If this fact can be assumed, it implies one area where vocational education of students other than the on-farm—off-farm dichotomy. There are other areas where a material standard of agriculture pertinent to both groups in which we will conduct studies to find out what they may be.

Second, students, interests, and probable uses that can be made of learning in agriculture education by all students will guide the curriculum development to guide program development. A community in agriculture is relevant to an extension model. The community to be served with its needs to help us educate the students. However, the concept of a community at different stages of farm occupations can be defined off-farm. As it is sound to decide if education is needed on many farms today, we should examine on-farm and off-farm areas of our ideas about communities. The major occupations and the mobility of our clientele force us to be more concerned with individuals than agricultural boundaries. People in agriculture today are not farmable like the land which formed a basis for our concept of a static community. Some people believe the right and efficiency of programs the students really need. Individuals within the same community can be more heterogenous needs than ever in the past, so let us focus more on the students, as well as the community.

Third, agricultural occupational experience is a means to help people learn. Quality as well as quantity of experiences related to ultimate use of the resultant learnings by students is never a static process. New experiences necessary to attain desirable objectives should always be a criterion to evaluate the quality of the learning for a person. Providing desirable learning experiences in successful situations is the job of the educational system. Since the teacher assumes this responsibility, he must help students to see the role of agricultural experiences in businesses, on a farm, at home, in agricultural agencies, at school, or in a combination of situations that is best for each student. Let us hold to the fundamental principle of having hands-on relating theory to practice, but expand it to all of agriculture and to all students of agricultural education. If a farming program has an unreal standard is the "tail wagging the dog," have we let the principle become an end in itself. The experience helps us learn, but direct experience is not the only way to learn.

Fourth, experience must be conceptualized as much more than practice. Practice is often based on quantity of experience and what is the usual result of doing things. Experience must involve what ought to be as well as what has been learned; in other words, the same practice should be evaluated for more repetition. Classroom instruction, on-the-job situations, and their re-occurrences must be considered in planning the quantity and quality of participation. Timing both the theory and the direct experience begins to be planned outside the classroom to related instruction inside the classroom.

Fifth, experiences should be planned to attain objectives rather than experience being ends in themselves. Performance practice can contribute to these goals, but experience: experiences need to be given top priority today. A recent State survey of educators and employers by the Kentucky Department of Education ranked the top five major needs of students as follows: (1) learning skills, (2) vocational knowledge and skills, (3) human relations, (4) new approaches to learning, and (5) citizenship. Within the major need for vocational education, the second most important item was more opportunities for students that provide for "understanding a wide variety of careers so that they will be better prepared to make wise choices." The first need listed in the learning skills was students with more skill in "thinking logically and critically in solving problems. Skills to "read, apply, relate, and use" information were ranked higher than "memorizing and retaining information." To Kentucky Advisory Council for Vocational Education, and Manpower Development and Training, employers look for people with desirable attitudes, work habits, and personal skills.

The scope and quality of experience must start with goals for educational occupational of our clients. The ideal experiences are based on needs. Regardless of the purpose of occupational education, the experiences should be designed to provide the experiences of education depends on the student's previous background, his personal goals, his individual needs. Levels of experience such as observation, participation, and ultimately full responsibility must be considered in developing a pattern most desirable for educating students. One key question must be answered: is occupational education a developmental process or an apprenticeship approach, for supporting the learning of said new point of view, or a combination of these? The answer to this fundamental question will help determine if we will truly make agricultural education what we want the term agriculture to mean to others outside our profession.
The development of "old farm" agricultural education in response to changing demands of the rural employment community is fostering the acceptance of cooperative vocational education — a "big city cousin" to the "vo-ag" program model. Adapting "co-op" to the needs of the agricultural education student and to the employment community in which he will carve out a career, presents challenges to the vocational agriculture teacher. Review and Synthesis of Research on Cooperative Vocational Education provides suggestions to meet the challenges and avoid potential pitfalls in adapting the cooperative education model to vocational agriculture.

Harold R. Wallace is Professor of Business and Distributive Education, Utah State University, Logan. This article summarizes key concepts for teacher-coordinators found in The Review and Synthesis of Research on Cooperative Vocational Education, authored by Dr. Wallace, copies of which are available for $2.50 from The Center for Research and Technical Education, 1500 Kenny Road, Columbus, Ohio 43210.

Developing Training Sponsors

Vocational agriculture teachers were able to avoid the dilemma described above because the training sponsor was usually a parent who willingly accepted the teaching role and assumed that supervised experience in raising livestock or growing a crop was essentially an educational activity for the student. In adopting the cooperative method, the goal should be to ensure that each employer accepts the role of training sponsor, viewing the student as a trainee to whom he has a commitment and not merely as a farm hand worker. This commitment is essential for the development of cooperative vocational education programs.

Educational Significance

Perhaps the most serious potential defect of cooperative vocational education is highlighted in a study by Cushman about concerns and expectations of participants in a cooperative program for vocational agriculture students. The employer views the student essentially as a part-time worker and expects productivity and effective work performance. The student and parent expect the activity to have educational significance and they expect the student to receive specific training, academic credit, varied and interesting assignments, helpful supervision, and experience that would lead to further training.

C. R. Jagger Vocational Agriculture Instructor DeKalb, Texas

In a changing world we are constantly trying to solve some of our needs and problems. This is true in the educational system throughout our country. With this in mind, the DeKalb High School Vocational Agriculture Department in cooperation with the Division of Agricultural Education of the Texas Education Agency set up a pilot program in Pre-Employment Laboratory Training in Meat Processing.

It was a natural because we had a killing floor, processing room, walk-in cooler for refrigeration, and a school farm to raise and sell some hogs of our own livestock to be processed. For the past 15 years the DeKalb Vocational Agriculture students have been killing and processing hogs in the production agriculture classes. This was part of the curriculum in Vocational Agriculture I, II, and III. It also served as a money-making activity for chapter funds. Improvement of the school farm.

The meat processing course at DeKalb High School contains the fundamentals of killing and processing pork, beef, lamb, and poultry, as well as management and sanitation of the killing floor, processing room, and equipment. It is not planned to go into stockolding of meat cutters or merchantable cuts of meat. We feel this type of course and training, which is conducted two hours each day, will give our students some knowledge of how we kill some of our local meat markets, locker plants, or packing houses, or continue their education in the field of meat processing and advance to management or supervision in the meat industry. Several of the students employed in meat markets on weekends and holidays, others have been contacted about jobs as a butcher's helper when they graduate from high school.
Job Interest Program

Charles L. Clark
Vocational Agriculture Instructor
Walla Walla, Washington

Twenty-five Vocational Education students at Walla Walla High School entered a work experience program in the spring semester 1970 whereby each student worked at a job related to what he was taught in the classroom. Because schools cannot teach everything there is to know about every job, labor and industry are playing a big part in helping to educate our students for the work world.

This program started three years ago in this Washington community of twenty-five thousand people. Many hours were spent in advance by the instructor talking to business men in the community. Every firm visited was in favor of the program. Training stations were selected with care so the student would have an opportunity to learn the skills relating to his work interest.

Only three students were chosen to participate in the program the first year. They were placed in three different welding shops. This was the type of work for which they had trained in the ag shop. This work seemed to be their primary interest for a life occupation. The boys furnished their own transportation and they had proper insurance. The students worked during school time. They received no pay, but they did receive credit and a grade. The boys worked for about one hour per day for five days a week the entire second semester.

The second year six boys were selected from one of the agricultural classes and placed on jobs pertaining to their field of interest in the world of work. These boys were of average to above average in intelligence. Four of these boys were placed in welding shops, one in an electrical shop and one at a veterinary clinic. The four boys who were placed in welding shops were good welders. The boy placed at the clinic had little training in veterinarian work, but both he and the student placed in the electrical shop were interested in these two fields of work.

During this past year a class of twenty-five students was organized for off-farm related agricultural occupations. The class consisted of mostly seniors who had not taken any vocational agricultural classes. It was apparent to some preliminary training would be necessary. During the first semester the class was taught arc and acetylene welding, small engine overhaul, an introduction to horticulture, and several weeks on how to get a job, how to keep a job, and a listing and discussion of safety rules to follow while working in industry.

During the first six weeks of school each student was asked to list the three fields of work which he would like for a life occupation. Starting the second semester the students were placed on a job which was either their first or second choice. Five of the class members received full time summer jobs at their cooperating businesses at the close of the spring semester.

Our administrators look at this program as being great and our business men involved in this program have passed the training and the students are very highly. Parents believe that it is much cheaper for the student to find out his interest early rather than after he has attended college for a year or two and then decide he does not want a college education.

The off-farm agricultural occupation program will be continued. The class will be called agriculture-humanism the first semester. There will be much pre-employment information taught during the semester and key people in the area who do much hiring will be used as resource people. The skills mentioned previously will be taught as well.

During the second semester the course will be call agriculture-business employment. At this time the students will be placed on jobs of their interest for training or further training. If the student decides that this is not the work he likes then he will be placed in another job relating to his interest. Someday the students may be working two to four hours per day and going to school one, two or three hours during the evening.

COMING ISSUES
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Placement and Follow-up of Students
Environmental Science Education
Education for the Disadvantaged
Professional Improvement for Teachers
Articulation of Agriculture into the Total School Program
National, State, and Local Leadership
Maintaining Programs of High Standards
Instructional Materials
Broadening the Offering in Vo-Ag
Support by Industry and Organizations
Multiple Teacher Departments

News and Views of NVATA

The Charles Pfizer Company awards $500 checks to the advisors of the Stu-Dairy, Livestock and Poultry Farmers. Winners this year were—

D. C. Fleming, High School, Evergreen, Alabama 36061 — Livestock Farming
Kenneth Poul and Robert Cone, Community School, Salem, Illinois 62881 — Dairy Farming
Mr. Poul and Mr. Cone were both advisors to the Stu-Dairy Farmer and they will split the $500 award. Mr. David Ringler, Pfizer Public Relations Manager, presented the checks and trophies to the recent NVATA Convention in New Orleans, Louisiana.

NVATA was represented at the National FFA Convention by President Millard Gundlach, Past President William Smith, Treasurer Bob Sternell, Vice President Francis Murphy and Howard Teal and Executive Secretary James Wall.

President Gundlach received the Honorary American Farmer Degree and served on the Star Farmer of America Judging Committee. He also attended meetings of the National FFA Board of Directors and the Board of Trustees of the FFA Foundation.

Treasurer Sternell was in charge of the NVATA Booth at the Chicago World's Fair. Thousands of FFA members, teachers of Vocational Agriculture and guests visited the booth. A large, lighted map was used to indicate the location for new and replacement teachers in each of the states.

Mr. Teal met with the National Judging Contest Committee and reported a most interesting and profitable session. This was the first time teachers were represented as official members of the committee. Other teachers present were: Jack Humphrey of Wyoming, Grover Miebe of Iowa and Ezel Gardner of Alabama.

Jim and Georgia Wall were in charge of the "Student Teacher Cafe and Meeting" and the "Recusse" for members and friends of NVATA. Over 200 attended the affair for students and nearly 500 attended the reception.

A summary has been made of information taken from registration cards turned in at the NVATA Reception. The results follow—

Number of states represented—41, Largest delegations— Illinois 79, Iowa 44, Minnesota 41, Missouri 20, Ohio 20 and Nebraska 20.

President Gundlach was in charge of the National Convention of NVATA—148. Have not attended National Convention of NVATA—245.
LATIN AMERICAN CONFERENCE ON AGRICULTURAL EDUCATION

Dr. Ray Agon served many years as Chairman of the Department of Agricultural Education at Kansas State University. This year he assumed a new position as Coordinator of Occupational Education at the same institution. He has served as consultant in several countries on several occasions. He is chairman of Phi Delta Kappa Commission on International Education. He was a regional editor for Agricultural Education Magazine but accepted a new assignment as International Editor. This is the first article on international programs on Agricultural Education.

Visita a escolas de vocacional agricultura en order to analyze their programs and facilities for instruction of agriculture and to discuss the effect of such provisions with respect to the individual countries represented was a part of the conference.

Guidelines in Agricultural Education

The group recommended that governments that solid relations be required in each country between the services of production agriculture, rural education, and vocational agricultural education in order that the educational programs in agriculture might meet the needs of the country in agricultural preparedness.

The group, as a whole, did not desire to discuss the feasibility of Future Farmer organizations for their countries, but Colombia is in the process of planning its third national convention and at least two other countries had small Future Farmer organizations. The group felt that it was a difficult program and one which required a well-prepared and experienced teacher to handle effectively.

Objectives of Agricultural Education

The group recommended that the program of Agricultural Education be for the promotion of a national social and economic development of the rural community, the social mobility, and for a higher level of rural life. The group recommended that the students in Agricultural Education be taught to observe, to analyze, to make decisions, to lead, and to learn.

The Structure of Agricultural Education

The group believed that there should be a close relationship with the social structure in the socio-economic development movement within the country, informing them to the primary level, giving them not only technical agriculture, but also values which permit them to participate in rural development.

The group recommended that Agricultural Education at least at the university level be established in the primary level, in the basic level, cycle secondary level, in the technical secondary level, and in adult programs throughout the education system. It was recommended that the primary level give emphasis to orientation, rural development, and the preparation of rural areas during the first years and vocational orientation towards agriculture during the latter years.

It was recommended that the secondary level programs promote the maximum social and educational opportunities available to them in agriculture and finally in adult education and the opportunities and abilities toward agriculture, a thorough preparation for work in this field. At the last meeting, the group recommended that the secondary level programs include knowledge requirements for further study at the university level if the students choose such an opportunity.

The post-secondary level programs were believed by the group to be one of the most important phases and should be at least two years in length. The adult program was believed to be very important and should be designed to prepare the adults both as farmers for employment or re-employment in the shortest possible time.

Relationship between Agricultural Education and Rural Development

The programs of Agricultural Education designed to be the fundamental source for the rural education and rural development information for the institutions interested in and in need of the same. The result of the personal prepared in the area as teachers of agriculture. The institutions of rural development have had the function of providing the facilities of the agricultural and socio-economic development of the rural areas cannot be separated from the factors of human resources, human resources, finance, and program of work. But to this point the participants felt that the programs for the country had lacked coordination with the programs of Agricultural Education partly due to (a) technical preparation of teachers and (b) lack of technical preparation for rural development. Another recommendation was that teachers in rural education should be well prepared pedagogically and have experience in the functions of teaching, research, extension, and leadership development.

The Pedagogical Needs of Teachers

The group expressed a need for research in each country in the pedagogy of teaching agriculture, especially in relation to making the student, individual differences of the student, effective programs for training of teachers, and the effective design of buildings, laboratories, and laboratories, and effective and interest in agricultural education. The group set forth objectives concerning this area, including an emphasis on the opportunities available for research, the possibilities and abilities toward agriculture, a thorough preparation for work in this field, and the development of the individual teacher.

There is the need for the establishment of one national and official agency to coordinate the programs of agricultural education and rural development within the country, to provide intensive and practical courses according to the necessities of each region for rural development in coordination with the centers of agricultural education.

Resolutions to UNESCO

The group made an appeal to UNESCO for the establishment of a Latin American agricultural pedagogical institute which would perform the following objectives: (a) form international agreements, (b) perfect agricultural teachers through in-service programs, (c) conduct research in agricultural education, (d) prepare texts and other instructional aids, (e) create a bibliography and materials and (f) provide libraries and other instructional aids for agricultural institutes in Latin America. It is believed that the UNESCO should be established an executive secretary to work full-time with a staff to carry out the work in Latin America and that the UNESCO should coordinate the action of international organizations in this project. Such a secretariat would be the best way to improve the situation for agricultural education in Latin America.

The Preparatory for Teachers

The fitness of teachers of agriculture depends upon (a) vocational experience, (b) scientific and technical preparation, (c) pedagogical preparation, (d) an attitude toward rural development, and therefore toward the preparation of teachers of agriculture. Teachers preparing such teachers should consider these items. The group thought that an area of pedagogy should be created for the teaching of agriculture at the post-secondary level which would include (a) techniques of instruction, (b) techniques of community analysis, and (c) knowledge of sociological and educational aspects of agriculture.

Resolutions to the Governments

Among the resolutions the group made to their own governments included the need for the governments to provide agricultural schools with the necessary material, financial aid, and other support which would enable them to provide adequate educational programs to meet the necessities of agricultural development.
Agricultural education has traveled a rocky road since its inception. Those who have labored in the vineyard over the years striving to provide improved educational opportunity for the man on the land have constantly had to justify their commitment to full-service agricultural education. This article is one of a series intended to pay tribute to some small way to the pioneers who blazed the trail in the beginning.

If history has any practical value, it is to serve as benchmarks for future advancement. True, situations change. The legal rubric takes on varying dimension and definition. But the philosophy, principles and basic objectives remain constant. In these terms, they seem more important than ever before to draw on the heritage and philosophical accounts of those who dedicated themselves to the service of education for people engaged in agricultural pursuits. Certainly one cannot select any one individual as the progenitor of present programs of agricultural education. The entire process was one of mutual consensus. This should make for having standards for those presently in positions of responsibility in teaching, teacher education, and supervision in agricultural education.

Dr. Rolland M. Stewart must certainly be accorded a place of honor as one who led the vision, leadership and patience to make his mark. In so doing he helped hundreds of his colleagues and students set their sights toward goals he knew could not be reached in his lifetime. Rolland Stewart was a product of the era, before the Smith-Hughes Act. His college training at Cee College and the University of Iowa was in English and Greek. Before coming to Cornell University as a professor of rural education in 1918, he taught in rural ungraded schools, served as a professor of English and Education and took a turn as president of a small college in Iowa. From 1918 until his retirement some thirty years later, he was a national leader in agricultural education.

When he came to Cornell he realized his background of study in agriculture was inadequate to chart the course he proposed to the profession. To remedy this deficiency R. M. Stewart audited every course in agriculture taught at Cornell. Let it be remembered that this was in the early 1900's and college courses in agriculture had a more down-to-earth application than is now the case. Dr. Stewart was fortunate to have as one of his Cornell colleagues one of the early leaders in the field of farm business management, Professor George Warren. As an interesting sidelight it might be noted that the first inventory of the dairy herd at Cornell identified not only the number of milk cows, but also the number of "dairy-tipped," about nine percent as the author recalls.

This early attention to the details of farm business operation was not lost on Dr. Stewart.

Certainly Dr. R. M. Stewart was no Alice in Wonderland as he set about to build a curriculum in agricultural education at Cornell. He set his sights in the direction of turning out teachers and teacher educators in agriculture who would and could make a contribution to improved educational opportunity in agriculture. He did not expect instant success, but rather he realized that the educational process had a relatively long gestation period. This was, and is, especially true as far as agriculture education at the secondary level is concerned.

In a classic publication in the field of vocational education in agriculture, "Wildcat Agricultural Education," published in 1938, Dr. Stewart contributed an essay on teacher education. This could well be required reading for anyone in the field today. In this brief discussion he highlights six propositions which are the essence of his ideas for the future. These six propositions are:

1. Teacher education must be designed to meet the challenge and problems of voc
The problem of communicating agriculture to a non-agriculture public is not new. George Washington spent much time boosting the importance of an agrarian society. There are records from European classes decrying the plight of the farmers. Decrees from Rome charged that merchants should not go outside the gates of the city to take unfair advantage of the shepherds by buying at lower prices than at the market. Yet, the farmer wonders how a 5% minority group can really be the villain in all these matters of economic and ecological concerns. So, how far do we have on one hand, a lack of public confidence in many of the products of agriculture; suspicion of its processes; and with it, the assumed poor image, misunderstanding, indifference, and lack of appreciation.

If, viewed from another perspective, and especially from foreign shores, American agriculture is successful, thriving and something to be copied anywhere in the world. To many foreigners, the success of American agriculture and the benefits it has shared with the rest of the world is often regarded as the model of the rest of the world, should be viewed with suspicion, misunderstanding and indifference. So, a hand of the farmer to this is reflected in the fact that the one single recommendation that came out of every workshop at Governor LeVander’s conference on agriculture, suggested greater effort to help develop consumer understanding, awareness and appreciation of agriculture. The plea is understandable.

Form folks, working on the short end of the economic stack, sees some how, resigned to the fact that agriculture has had poor public relations for the rest of the economy. Yet, they get really upset that consumers do not seem to relate the quantity, variety, and high quality of food producers provide at a lesser cost in relationship to an hour’s pay than at any time in history. Consumer indifference, even more than economics, gets under the skin of a lot of our farm folks and also those who are aware of the phenomen- onal accomplishments of agriculture. Yet, consumers have difficulty adjust- ing to our plea for appreciation. Perhaps consumers react like some of the young folks when we, as adults, tell the kids how good they’ve got it. The fact is that there aren’t many home- makers that remember a famine; there aren’t many food buyers who ever went to the supermarket when the shelves weren’t stocked; there aren’t many of them who have to drive much more than six blocks to find at least one place to eat; and many of them are in a constant battle with their doctor about their “eating habits,” which often makes “food abundance” an adversary, rather than a friend for appreciation.

Paul Johnson, former Editor of the Prairie Farmer, says, “Maybe we’re doing things the wrong way. Maybe we’re not telling people, educationally, about the things that we do in agriculture. Maybe we’re not reaching out and making contact with people. The public has been told that the farm folks who are not only farmers but also have jobs in the cities, producing tomatoes, produce, farmers, cancer—cure additives, and poisoning our environment.

Agriculture’s view is on the sky and if they ever have a time, they’re going to tell you what we can do. The answer is very simple. There is no such thing as a con- sumer with a concern about agriculture’s image, to do work to . . . NOW, is the time. We need to communicate agriculture as a forerunner of conservation, of recycling, of reclamation of land. Here was the popular subject of the day. We need to tell the public, loud and clear that our farmers and conserva- tion minded people in agriculture and vocational agriculture, have a story to tell.

Robert W. Carlson on Minnesota State Commissioner of Agriculture made these remarks to the members of the Minnesota Vocational Agriculture Instructors Association at their 1971 Summer Conference.

Book Review

FUNDAMENTALS OF SERVICE—John Deere and Company, Moline, Ill. Grades 9–12. This book—throughout its text—clearly presents the concepts, basics, and specific implements and much use are studied, additional manuals are available directed toward the exact service maintenance and operation of that machine. Thus, service men are taught the basic principles which cover, for example, all electrical systems and then for each tractor cover the specific systems and orient the student on the very things that only people search for when they go to the country.

These, obviously, are over simplified solutions to a complex relationship, but they only indicate the direction. Yet, I know of no better place to start than through educating children primarily among those in vocational agri- culture, who know better than any others how to teach, and tell . . . in communicating agriculture to the non-agricultural public. Let’s get to them now, positively and, before they become more doubting, suspicious, or unwilling to give us a chance to carry this message of a good citizen who you who are in agricultural edu- cation. Yes, you have an opportunity to present public admiration and gratitude for your contribution to our quality of life — for the moment, and the long-range future as well.
INSTRUCTION IN FARM POWER AND MACHINERY

As agriculture becomes more mechanized, there is a growing need for trained young men to enter the mechanical field of agriculture. Vocational agriculture programs have been lagging behind in offering training for these ever-present job opportunities.

The National Vocational Education Act of 1963 provided money for vocational training programs as desired by the various states. Pre-employment laboratory training in farm power and machinery was one of the new programs offered in vocational agriculture in Texas. In the fall of 1966 four high school units were initiated in Texas; in 1969 the state had 33 units.

Cooper Rural High School, located eight miles south of Lubbock, Texas, is in one of the most productive irrigated row-crop farming areas in the United States. The survey of the community and surrounding areas revealed a definite need for young men to work in the farm power and machinery service industry. Realizing the need for a redirection of the present agriculture program, administrators of Cooper Rural High School initiated a program in farm power and machinery. Started in the fall of 1969 with nine enrolled, the program now has twelve junior and senior students who have an interest in the field. The course is taught for two hours each day with two credits given upon completion of the course. This course is offered in addition to the regular four-year production agriculture program. Each student in the pre-employment laboratory course is encouraged to participate in all Future Farmers of America activities and other extra-curricular agriculture events.

The primary objective of the course is to assist students in developing skills and knowledge needed to gain employment in the farm power and machinery industry. The course includes the following units:

1. Job opportunities in farm machinery.
2. Shop safety.
3. Use of shop equipment.
4. Theory of two-cycle and four-cycle engines.
5. Study of transmissions, differentials, and electrical systems.
6. Cooling systems.
7. Fuel systems.
8. Valve principles.
10. Preparation and application of farm equipment paint.

13. Maintenance and repair of farm equipment.

In addition to the classroom instruction, each student practices the skills under laboratory supervision. The school provides a well-equipped shop with all basic hand tools, testing equipment, special tools, and power tools to completely repair and overhaul farm tractors, irrigation engines, and other farm engines as well as to repair and maintain farm machinery. The students work in groups of three in the shop; each group working on a single engine. Students perform the actual work when overhauling an engine; each unit is painted after repairs are completed.

Farm equipment dealers and local farmers have been responsive to the program by furnishing the engines and farm equipment which are required in the shop. The owners of the engine and equipment repaired pay the cost of the replacement parts with no charge for labor. A complete cut-away tractor has been provided by a tractor manufacturer for use in shop training.

As a result of the program, local farmers have been able to get engines and equipment repaired at reduced costs. By preparing students for a specific occupation, the pre-employment laboratory program has strengthened the total vocational agriculture program in the school system. A promising future awaits trained young men who desire employment in the farm power and machinery industry.

Modern equipment is used for demonstrations in Pre-Employment Laboratory Training in Farm Power and Machinery.
Assistantships and Fellowships in Agricultural Education, 1971-72

Edwin L. Lowe
Associate Professor of Vocational Education
University of Arkansas
Fayetteville

The findings from the most recent survey of assistantships and fellowships in agricultural education available for the school year 1971-72 indicate a small drop in total number from last year. However, there is still an average of about 4 opportunities for assistance from each of the reporting schools.

Information is recorded for each institution in the following order: Name of university; number of assistantships (number available); number of months available during year; beginning months of employment; amount of time expected; monthly remuneration; graduate level; and the 1971 deadline for application. Those interested should make specific inquiry concerning tuition and fees since this information was not secured for all institutions.

University of Arizona
Research assistant (2); 12 mos.; July-November; $825; apply by May 1.

Arkansas State University
Research assistant (2); 9 mos.; September; $1,300; P.O. Box 354; apply by April 1.

University of California
Research assistant (2); 12 mos.; June or September; $1,300; P.O. Box 354; apply by May 1.

University of Colorado
Research assistant (2); 12 mos.; July; $1,300; P.O. Box 354; apply by May 1.

University of Florida
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Georgia
Research assistant (2); 12 mos.; June or September; $1,300; P.O. Box 354; apply by May 1.

University of Hawaii
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Illinois
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Iowa
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Kentucky
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Maryland
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Missouri
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of North Carolina at Chapel Hill
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Notre Dame
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Oklahoma
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Oregon
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Pennsylvania
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Rochester
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Southern California
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Texas at Austin
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.

University of Wisconsin
Research assistant (2); 12 mos.; September; $1,300; P.O. Box 354; apply by May 1.
NEWS TO ME

A NEW SPECIAL EDITOR

A new feature in Agricultural Education Magazine will be the presentation of reviews of research. Dr. J. David McCracken is Information Specialist, ERIC Clearinghouse on Vocational and Technical Education, The Center for Vocational and Technical Education and Assistant Professor of Agricultural Education, The Ohio State University. In his position, Dave has responsibility for research reviews and other information analysis products published by VT-ERIC Clearinghouse. The article by Harold Wallace in this issue is the first selected for inclusion in Agricultural Education Magazine. Others will be published in future issues.

Representatives from 12 states, including 6 Governors, participated in regional activities for vocational agriculture students and FFA members at the Eastern States Exposition, September 18-25. Five thousand observed a ceremony honoring the Regional State Star Farmers and Agribusinessmen which was coordinated by Jesse A. Taft, Program Officer, USOE, Boston.

PACE Production Inc., 4447 North Victoria St., New Brighton, Minnesota, 55112 has developed a series of super 8 mm. color film loops. Each loop presents a single concept. Cost $22.00 each or $200.00 for the horticulture series of 10 and $160.00 for the animal science series of 8.

WORK EXPERIENCE ABROAD (WEA), an International Exchange Program of the Future Farmers of America, enables participants to study and observe agricultural methods and gain insight into the history, culture, traditions and way of life of other people by living and working as a member of a farm family abroad. A participant must have completed his junior year in high school, and be no more than 21 years old at the time of submitting his application, have satisfactorily completed a minimum of two years of vocational agriculture, and have practical experience in farming, ranching, horticulture or other specialized field of agriculture. The program begins in early June and extends either 3 or 6 months. Students receive board and room plus a small stipend while with the host family. Basic costs to the individual are approximately $500 for South America, $650 for Europe and $1100 for Oceania. For additional information write to: National FFA Center, P.O. Box 15160, Alexandria, Va. 22309.

Changes from the traditional pattern of in-service training may be on the horizon. Rather than reduce the hours in the work week, one proposal has been made that employees be retained on the 40-hour schedule and devote one day to on-the-job study and training at employer expense.

The Third Report of the National Advisory Council on Vocational Education, published July 10, 1970, recommends four basic steps be taken to fulfill our goal for better education. They are:

1. Recognize that employment is an integral part of education.
   a. Every secondary school should be an employment agency.
   b. Part-time employment should be a part of the curriculum.
   c. The further education of drop-out.

2. Give priority to programs for disadvantaged without separating the disadvantaged from the mainstream of education.

3. Encourage parents and students to participate in the development of vocational programs.

4. Establish residential schools for those who need them most.

A movie entitled “The Inheritance” has been produced by The Ford Motor Company, in cooperation with the National FFA Foundation. It tells a story which the 1970 National FFA officers conveyed during their year of travel to all parts of the U.S. Write your State FFA Advisor or Executive Secretary regarding booking.

Approximately $1.4 billion was spent for vocational education in 1969 compared to $605 million in 1965. Student enrollment has been increasing faster than the funding, despite the doubling of funds, with state and local governments appropriating most of the money. Enrollment increased nearly 50% between 1965 and 1969 with post-school vocational education enrollment showing the largest increase — nearly 20%.