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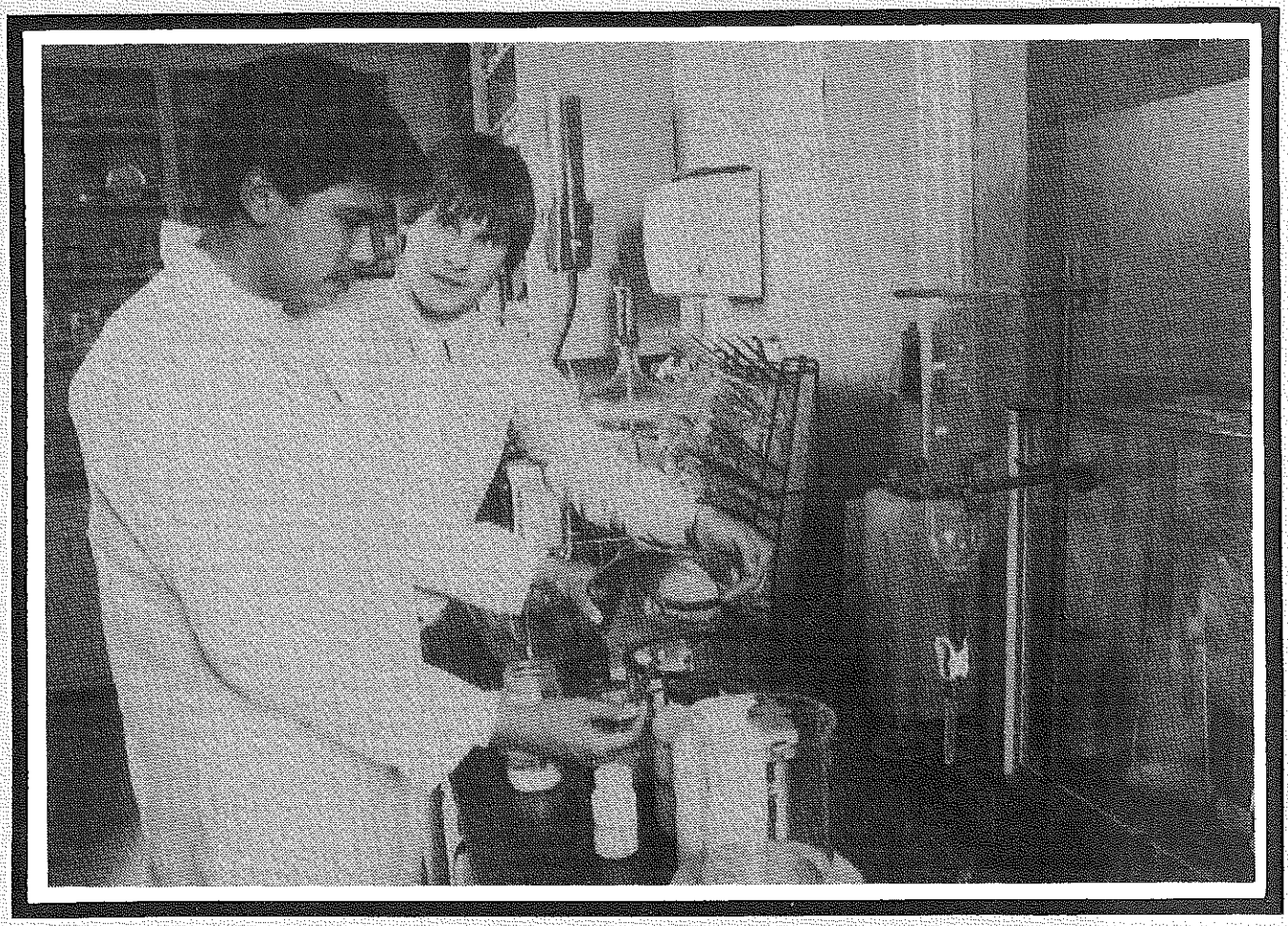

THEME: Contemporary Philosophical Issues

THE
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ARTICLE SUBMISSION

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

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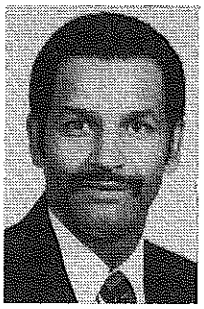
A Contemporary Philosophy for Agricultural Education



By Blannie E. Bowen, Editor

(Dr. Bowen is Rumberger Professor of Agriculture in the Department of Agricultural and Extension Education at Pennsylvania State University, University Park, Pennsylvania 16802.)

Agricultural educators frequently credit the Smith-Hughes Act of 1917 for much of today's philosophy about agricultural education. This line of reasoning suggests that subsequent vocational education legislation clarified agricultural education's mission while simultaneously playing major roles in defining the profession's philosophy. If this premise is accurate, then federal legislation, perhaps more so than any other factor, has been the major player in defining and molding agricultural education's philosophy.

Whether federal legislation (1) played such an important role or (2) should have this much impact should receive serious dialogue. Few can debate, however, that federal legislation severely restricted the profession's mission. Most agricultural educators dared to deviate from the role of preparing interested individuals for positions requiring less than a bachelor's degree, i.e. vocational-technical education in agriculture. To accomplish the vocational-technical mission, four groups of professionals play major roles. A brief examination of each group's chief function is appropriate.

Four Professional Groups

On the secondary level, vocational agriculture teachers have the lion's share of responsibility for delivering the desired instruction. Philosophically, this instruction should be delivered through classroom and laboratory instruction, adult instruction, supervised occupational experience (SOE) activities, and the FFA.

Another group of educators provide post secondary level instruction that may or may not lead to an associate's degree in some phase of technical agriculture. On the university level, the preparation of secondary teachers of agriculture has been the primary thrust of agricultural education departments. This mission is achieved by providing bachelor's, master's, and doctoral degree programs and a host of non-credit activities. The final piece of the puzzle includes supervisors who serve a variety of roles on the local, regional, and state levels.

Contemporary Influences

During the 1980s, two events brought significant changes to agricultural education. **Event #1.** A conservative Republican Administration headed by President Ronald Reagan came to power and immediately tried to implement its idealogy. This Administration said that the major impetus for education must come from the local level.

The Administration and its chief spokesperson, then Secretary of Education William Bennett, told Americans to look to their states, local authorities, and private sources for funds. Depending upon whether you believe the Democratic or Republican versions of the truth, funds for education may or may not have increased under the Reagan Administration. Whether funds increased or not, Americans were told that primary responsibility for education must have closer ties to the local and state levels.

Event #2. In 1983, the Reagan Administration was successful in making Americans aware of the mediocrity that had invaded our educational system. **A Nation at Risk** and subsequent reports said that quality had to rise. Increased graduation requirements and a host of reforms were instituted. In most states, agricultural education was severely affected. The results are now becoming obvious on several fronts.

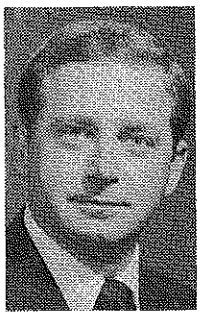
Agri-Science, extension education, international agriculture, computer technology, agricultural communications, biotechnology, FFA rather than Future Farmers of America, agri-marketing, agriculture in the classroom, and other ingenuous jargon have invaded agricultural education. What do these creative expressions really mean. Plenty! Agricultural education is in search of itself. And thanks to the Reagan Administration, the soul-searching is not overly driven by federal legislation. Most should find this change full of opportunity. We must now define what our profession is about; few outside influences are available to do it for us.

About This Issue

William Camp and other authors writing in this issue discuss topics that the profession must confront. Opportunity now abounds for the profession to chart a course according to the dictates of contemporary society. Vocational-technical education in agriculture will certainly be a part of the course, but not the only course.

This issue also represents my 36th and last as Editor. The tenure was short and enjoyable — thanks to cooperative professionals and family members. Diana Morawetz at Ohio State University, an individual who served as secretary for this Editor as well the Past Editor, deserves special commendation. M&D Printing and Sue Smith of Henry, IL are to also be commended for their exceptional efforts. Phil Zurbrick of the University of Arizona assumes the Editorship beginning with the January issue. Best wishes and thanks for your support — BEB.

Philosophical Issues: Take Time to Think



By William G. Camp, Theme Editor

(Dr. Camp is an Associate Professor of Agricultural Education at Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.)

Philosophy? An issue of the *Agricultural Education Magazine* on philosophy may sound boring and esoteric — but if you will take some time to read it, you may find the theme articles in this issue to be very meaningful. Take time to think.

As professional agricultural educators, we all have educational philosophies, whether we realize it or not. As we plan, solve problems, and make decisions in our offices and classrooms, we are guided by our values and beliefs about our students, ourselves, and our professions. In a very real sense, those beliefs and values make up our philosophies. No, I know that you don't stop and ask yourself, "What does my philosophy say about this problem?" Neither do I. Nevertheless, our beliefs and values do affect all of the professional decisions we make.

Theme Articles

In this issue, the authors are trying to get you to stop and think about what you believe regarding agricultural education — about your philosophy. Gary Moore's "Primer on Philosophy" provides a very interesting look at just what we mean when we say philosophy. I believe that you will find it quite informative. Don Herring summarizes ongoing research into the philosophical issues facing our profession. If you want to have a lively discussion with another agriculture teacher sometime, just pick out a couple of Dr. Herring's issues and ask your colleague what he or she thinks about them.

One of the more interesting issues that Dr. Herring points out is a very basic question that is being raised by many in our profession today. The question is whether the clientele of agricultural education should be strictly limited to those students who want to enter agricultural occupations, or whether agricultural education should be made available to all students who could profit by a general education in agriculture. We might call that avocational training. In the finest tradition of graduate students, Tom Bruening and Martin Frick agreed to disagree on that issue and prepared two opposing articles. Bruening argues in his article that we should limit our clientele to those preparing to become agricultural workers. In his article, Frick proposes that agricultural education should be for all students and should not be limited to preparation for an occupation. What do you think?

Mike Rush's article, "Why Vocational Agriculture?", provides a look at some of the philosophical issues that have been around since the beginning of this century, and which are still important to the profession. He then discusses the things that make agricultural education a uniquely valuable part of the educational system in America.

In his article, Glen Shinn provides a theoretical and philosophical basis for the experiential aspects of agricultural education. He asks two questions: What is experience? and Why is it so important in agricultural education?

Finally, out of the mouths of "babes" comes the truth. I asked a beginning teacher to tell us what she believes about agricultural education. Tonja Cupp shares her philosophy for you to ponder. She wrote this before the beginning of the school year, so it is not tempered with experience, but it certainly makes for interesting reading.

"The Philosophy"

In December 1976, the Agricultural Education Division of the American Vocational Association adopted an official statement of philosophy for the profession. It represents the results of long hours of deliberation and work on the part of many dedicated professionals. Read the "Key Concepts" of the statement and compare them to Don Herring's list of issues.

Not surprisingly, some of the things that were accepted in the philosophy statement are now issues for professional debate. For example, the issue of clientele, pointed out by Herring's article, and debated by Frick's and Bruening's articles, was answered as a key concept in the 1976 statement: "Vocational agricultural education begins by defining occupational objectives and . . . ends with individuals successfully entering entrepreneurship or jobs in agriculture." That it should become an issue again in 1988 is a powerful statement about the dynamic nature of agricultural education.

At the end of this article, the complete philosophy statement from that 1976 meeting is reprinted. It makes for interesting reading.

Conclusion

Take time to read the theme articles in this issue. You won't get a single usable teaching tip or classroom technique from them, but they will make you think. Sometimes we just need to stop for awhile and think about what we are doing and what we believe.

As we look to the future, as we plan for agricultural education in the 21st century, many things will affect the direction that we lead the profession. One very important consideration must be the things that we, as agricultural educators, value and believe about the profession — our philosophy.

The Philosophy of Vocational Agricultural Education

Adopted by the
Agricultural Education Division
American Vocational Association
December, 1976

Agriculture is a basic industry. The well-being of our society and the economy of the United States require a productive and efficient agriculture. The increasing scientific and technological nature of the total agricultural complex, the continuing and expanding demand for food and fiber, and the mounting pressure on the renewable natural resources in our environment dictate the need for specifically educated and highly skilled entrepreneurs and employees.

Vocational agricultural education is a program founded upon a sound philosophical base. This base embraces the importance of the relationship of knowledge taught to its effective use and application. With this base upon which to build, the program has relevance, stability, and a sense of direction.

The philosophy reflects the fundamental purposes of vocational agricultural education and its place in the social, economic, and educational environments. Specifically, the philosophy addresses two fundamental questions:

- *Why vocational agricultural education in lieu of or in conjunction with other educational concepts?*
- *What is the role of vocational agricultural education in meeting current and projected social, economic and individual needs?*

The vocational agricultural education program is a core-type curriculum aimed at preparing individuals for entrepreneurship or employment. In the philosophical foundation for vocational agricultural education, leadership emanates from the states of the nation. As a result, the vocational agricultural education delivery system possesses a set of standard characteristics to assist state educational agencies and local educational agencies in fulfilling their respective leadership roles in program development, implementation, and administration.

Vocational agricultural education is a service effort for the individual and the business and industry of agriculture. Constituency support is cultivated and nurtured at all program levels so vocational agricultural education will prosper and grow. Close relationships are developed and maintained with persons who need vocational agricultural education and agencies that employ those people to insure current and relevant program content and skill development.

Key Concepts

The philosophy of vocational agricultural education provides the general explanation for the program. This general rationale is the base from which the program is developed.

The development of a program of vocational agricultural education requires a series of standard concepts that provide stability and direction and which are compatible with the philosophical foundation. These concepts, which are listed below, serve as a unifying force which makes vocational agricultural education a singular program in the educational system of the nation.

- *Vocational agricultural education programs are developed and conducted as a part of educational systems and are in harmony with a total philosophy of education for the individual and the society.*
- *The changes within the agricultural sector of our technological society require that the major efforts of vocational agricultural education focus upon preparing individuals for work and for entrance into the work force or entrepreneurship.*
- *Vocational agricultural education programs relate to the productivity of people in terms of competencies in agricultural occupations, attitudes toward the occupations, and a willingness to produce efficiently.*
- *When vocational agricultural education programs are established, the opportunities within society and the needs of society will be considered as well as the interests and competencies of the individual.*
- *The quantity of vocational education, rather than being classified as a discipline within the educational system, is a unique and identifiable program which combines the skills and technical content of various disciplines with the practical requirements of the world of work to prepare a person to succeed technically and socially.*
- *The vocational agricultural education program is unique in its requirements for community resource utilization, facility and equipment needs for instruction, curriculum, instructor qualifications, and student goals.*
- *To assure quality, vocational agricultural education programs are responsive to the needs of the individual for job-entry skills and the compatible skills of communication, citizenship and leadership, decision-making, positive attitude towards learning, and personal and occupational responsibility.*
- *Vocational agricultural education programs possess a time commitment of sufficient length and intensity to provide instruction important to the successful entrance of the student into and advancement within the chosen occupation or entrepreneurship.*
- *Vocational agricultural education programs are developed and conducted with individuals representing business and industry in the occupational area in which the program is being offered serving in an advisory capacity.*

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Philosophical Issues: Take Time To Think

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- *Vocational agricultural education is a part of the career development continuum which includes:*
  - *Education for choice of an agricultural occupation through career motivation, career orientation, and career exploration.*
  - *Education for entrepreneurship or employment - vocational agricultural education.*
  - *Education for upgrading and retraining - vocational agricultural education.*
- *Vocational agricultural education begins by defining occupational objectives and providing preparation for a job in agriculture. It ends with individuals successfully entering entrepreneurship or jobs in agriculture. These individuals will have capacities to continue to learn and transfer personal and occupational skills to meet the changing job requirements of the agricultural sector in a technological society.*
- *Vocational agricultural education programs are available for youth at both the high school and post-high school levels, and for adults throught their working life.*
- *All instructional, supervisory, administrative, and teacher education personnel in vocational agricultural education at the state and local levels shall be competent, with expertise in the field for which they are responsible.*

THEME

Philosophical Issues: A Springboard For Program Improvement In Agricultural Education

By Don R. Herring

(Dr. Herring is a Professor in the Department of Agricultural Education at Texas A&M University, College Station, Texas 77843.)

The famous philosopher, Socrates, is credited with the saying, "Life Unexamined Is Not Worth Living." Do these ancient words have any relevance today to those of us in agricultural education concerned with shaping the future direction of the program? Could it be said that, "A Program Unexamined Is Not Worth Having?"

It has been said that the purpose of philosophy is to get us to think about what we are doing. To think philosophically is to reflect upon what we are doing and why we are doing it. We may not realize it, but behind every educational practice, whether it be in education in general or agricultural education in particular, there exists a philosophical foundation. There is indeed a relationship between philosophy (what is thought) and practice (what educational ideas are actually implemented). This relationship may go for years largely unnoticed, especially in times of societal stability. The acceptance of the underlaying ideas is largely unconscious and based mostly on tradition. Wingo (1974) believed that in times of stability, friction and debate on educational questions are minimal. The result is that the life of the educator is rather comfortable and secure — though perhaps sometimes on the dull side. However, in times of societal instability, the case is very different. As a society undergoes transition and disruption, conflict and uncertainty result, and people begin to question what we as educators are doing and why we are doing it. The current educational reform movement was born in such a setting.

But there are positive benefits to be accrued from such questioning and evaluation. It is out of disagreement and conflict that new ideas are born — and new and better educational practices are adopted. Such times, though, demand quality thinking, and philosophical thinking is hard work. Ozmon and Carver (1981) contended that philosophical thinking demands extensive study and the development of a critical attitude.

One way of helping us think critically is to develop relevant philosophical issues, and then to encourage and foster debate on the issues. An issue is something that can be debated — it has two sides. As we are forced to think through carefully what we believe and why we believe it, there will emerge new ideas as we see things from different perspectives.

The purpose of this article is to present some possible issues that can serve to stimulate thoughtful analysis and debate, hopefully resulting in improved programs of agricultural education.

Issues are presented in the following categories:

- Mission and Content of Agricultural Education
- Clientele to Be Served in Agricultural Education
- Delivery System for Agricultural Education
- SOEP in Agricultural Education
- The FFA
- Recruitment and Preparation of Teachers
- Agricultural Education Programs in Higher Education

The issues presented in each category are not intended to be all inclusive. They are intended to serve as catalysts; others can and should be added by the readers. Some of the issues were adapted from statements in a position paper prepared by Williams, Bishop, Fuller, and Herring (1985). The term "agricultural education" is used, unless otherwise indicated, in lieu of the more traditional term "vocational agriculture." The more generic term is used to accommodate those on both sides of some of the issues, particularly those dealing with the mission and content of the program and the clientele to be served.

Mission and Content

- Should the emphasis in agricultural education be on the development of broadly applicable, transferable skills and attributes, useful to all students in a wide range of occupations, or should the emphasis be on the development of competencies needed by students for entry and advancement in specific agricultural occupations?
- Should the focus of agricultural education be on the development of basic academic skills such as reading, writing, speaking, listening, computing, problem solving, critical thinking, and decision making or should the focus be on the acquisition of vocational skills and knowledge?
- Should the agricultural education program maintain its traditional components of classroom/laboratory instruction, leadership development, and supervised occupational experience programs?
- Should the major purpose of agricultural education be to provide opportunities for students to explore agricultural careers or should the major purpose be to prepare students to enter specific agricultural occupations?
- Should students who successfully complete certain courses in agricultural education receive academic credit in math and/or science?
- Should international or "global" agriculture be emphasized in agricultural education programs?
- Should the mission of agricultural education continue to include adult education in agriculture?
- Should agricultural education programs de-emphasize production agriculture and increase the emphasis on agricultural science and technology?
- Should the name of the program be changed from "vocational agriculture" to "agricultural science" to reflect its mission more accurately?

Clientele to be Served

- Should instruction in agriculture be limited to students who need, want, and can profit from knowledge and skills in agriculture in order to enter and advance in an agricultural occupation?
- Should the clientele served by agricultural education be broadened to include all students in the public schools who would receive general education about agriculture so that all students have a basic understanding of agriculture?
- Should prevocational instruction in agriculture be available to middle school students to enable them to explore career opportunities in agriculture?
- Should instruction in agriculture be available to students who wish to study agriculture as a science in order to be better prepared to study agriculture in college?
- Should instruction in agriculture be available to students who wish to study agriculture primarily for avocational purposes?
- Should instruction in agriculture be available for out-of-school youth and adults who need upgrading and retraining in agriculture?
- Should general instruction about agriculture be available for adults in our society who are not engaged in agriculture to help them appreciate the contributions of agriculture to our society and make them more knowledgeable consumers of agricultural products?
- Should greater efforts be made to recruit minority students into agricultural education?
- Should greater efforts be made to recruit "at risk" students into agricultural education?

The Delivery System For Agricultural Education

- Should agricultural education be maintained at the secondary level or should it be moved to the postsecondary level?
- Should agricultural education courses be year-long or should they be of semester length?
- Should agricultural education continue to be a part of vocational education?
- Should Vocational Education Divisions in State Departments of Education continue to administer agricultural education programs?
- Should agricultural literacy programs for all students in the public school be taught by certified agricultural education teachers?
- Should curriculum materials for agricultural literacy programs be developed by curriculum specialists in agricultural education?
- Should federal and state guidelines for administering agricultural education programs be broadened to accommodate programs designed to teach all students about agriculture (agricultural literacy)?
- Should agricultural education teachers serve as consultants to elementary and middle school teachers who are teaching about agriculture (agricultural literacy?)
- Should agricultural Extension agents be utilized to teach agricultural literacy programs in the public schools?
- Should there be greater articulation of the curriculum among secondary and post-secondary programs in agricultural education?

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Philosophical Issues: A Springboard For Program Improvement In Agricultural Education

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Supervised Occupational Experience Programs (SOEPs)

- Should supervised occupational experiences continue to be a requirement for students enrolled in agricultural education programs?
- Should alternative experience programs be designed as substitutes for traditional experience programs in agricultural education?
- Should exploratory experiences be permitted to satisfy the supervised occupational experience requirement in agricultural education programs?
- Should supervised agricultural experiences be evaluated on the basis of a uniformly agreed upon point system that would equate time invested or points earned with dollars in order to fit the degree and awards program in the FFA?
- Should the name of the experience component of the program be changed from Supervised Occupational Experience Program (SOEP) to Supervised Agricultural Experience Program (SAEP) to reflect the broadening nature of the program?

The FFA

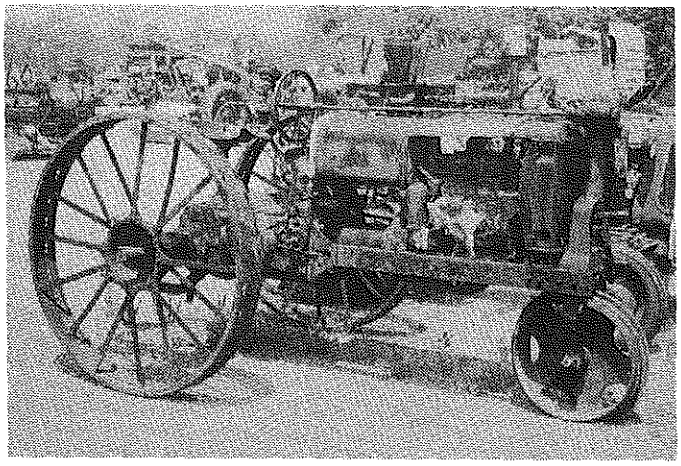
- Should students enrolled in agricultural education programs be required to be members of the FFA?
- Should the aims and purposes of the FFA be changed?
- Should new FFA contests be developed to reflect broadening programs of agricultural education?
- Should FFA contests be eliminated if they do not pertain to a sizeable percent of the work force actually employed in agricultural occupations related to the contests?
- Should the FFA organization be involved in sponsoring programs to update agricultural education teachers on emerging agricultural occupations and technologies.
- Should the name of the Future Farmers of America be changed?

Recruitment, Preparation, and Retention of Teachers

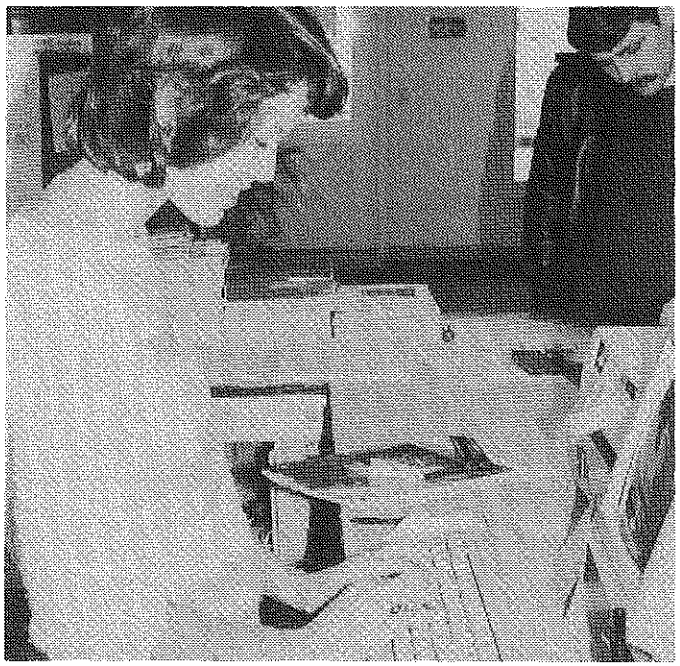
- Should students with non-traditional (non-agricultural) backgrounds be recruited to become agricultural education teachers?
- Should work experience in agriculture be required of agricultural education teachers?
- Should teacher education preparatory programs be extended to the post baccalaureate level?
- Should prospective teachers be required to pass a competency test in agriculture and in professional education before being certified?
- Should the length of student teaching be extended to a full semester or its equivalent?
- Should continuing education of agricultural education teachers be a requirement for maintaining the teaching certificate?
- Should agricultural education teachers be required to complete a master's degree?
- Should competency tests be required of teachers already certified and teaching?
- Should a merit pay system be used to reward teachers?

Agricultural Education Programs in Higher Education

- Should the role of departments of agricultural education extend beyond the preparation of teachers, such as preparing personnel for jobs in Cooperative Extension, human resource development, and non-formal education programs related to agriculture?
- Should programs of agricultural education and agricultural extension education be administered under the same department in the university?
- Should programs of agricultural education be administered through Colleges of Agriculture or should they be maintained through Colleges of Education?
- Should teacher educators in agricultural education be required to have a minimum of three years of agricultural teaching experience in the public school?
- Should agricultural educators in higher education be required to have periodic experiences in public school classrooms or other settings in which they prepare persons, e.g., Extension settings?
- Should departments of agricultural education become increasingly involved in international agricultural development?
- Should agricultural educators be encouraged to have short-term international experiences?
- Should departments of agricultural education become the center for service courses in human resource development in agriculture for colleges of agriculture?
- Should departments of agricultural education develop programmatic linkages with the training divisions of agricultural industries?



The situation may have changed drastically since this tractor was "state of the art technology," but, surprisingly, many of the philosophical issues of those years remain unresolved today. (Photo courtesy of Bill Camp, VPI & SU.)



In 1917, vocational agriculture was designed strictly for "boys" training to become "farmers." That is no longer the case, as evidenced by this young agribusinesswoman. (Photo courtesy of Bill Camp, VPI & SU.)

Conclusion

As stated earlier, it is hoped that these issues can serve to stimulate thoughtful analysis and debate in our profession. Perhaps they can be used to stimulate discussion in agricultural classes in the public school, in agricultural education courses in the university, at meetings of agricultural education teachers, at faculty meetings of university personnel, and in one-on-one conversations with students or colleagues. It is out of such dialogue that new ideas can emerge for improving our program. Ultimately, students will be the beneficiaries — and keeping this in mind will help us to keep the focus of our efforts where it should be.

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THEME

A Philosophy of Vocational Agriculture

BY TONJA H. CUPP

(Ms. Cupp is a Vocational Agriculture Teacher at Luray High School, Luray, Virginia 22835.)

As a vocational agriculture educator-to-be, I have formed a philosophy of this profession during my years of preparation at V.P.I. & S.U. I have generated theories which state the content of vocational agriculture based on four years of undergraduate and a year of graduate work. Before embarking on a specific career, I first realize the importance of producing a philosophy. This should be a basis for interest in choosing a particular field of endeavor.

Vocational agriculture encompasses many different areas. Included in the scope of vocational agriculture are the instructional program, supervised occupational experience programs, the Future Farmers of America organization, and continuing education. These areas play an important role in the program. Teachers must have a clear vision of the role that each plays so they can set priorities once they accept a position. Other elements of being a vocational agriculture teacher or educator in general include professionalism and our theories on teaching and learning. These comprise the scope of the program. An individual's philosophy should cover each aspect.

Basic Beliefs

I believe that the learner is an experiencing individual. If individuals have input into the curriculum, they will have additional motivation to explore its content. The curriculum should consist of social experiences which change as the environment changes. The purpose of education is to teach problem solving, but also to generate individuals who are self-actualizing and independent. As John Dewey stated in *Human Nature and Conduct:* "Confidence as an outgoing act is directness and courage in meeting the facts of life, trusting them to bring instruction and support to a developing self" (Murphy, 1978, p. 169). The classroom instructor should use the problem solving approach to teaching as the method of instruction for all content areas. The teacher should provide provocative situations concerning the area of study to gain student interest. Applying these thoughts to agricultural education allows for encouragement and growth of on-the-job training or the "learning by doing" philosophy. Students apply their problem-solving skills actualized in the classroom to their employment positions. Agricultural education should go beyond the specific job or skill training program. There are many other sectors, even in academic circles, where agricultural education may provide faculties for coping in the world of work, especially when the problem-solving approach is implemented during the teaching/learning process.

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A Philosophy of Vocational Agriculture

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The problem-solving approach to teaching will play an extremely significant role in the future. When this approach is applied, individuals will acquire critical thinking skills which are consequential, not only in the education-school environment, but also in the education-work environment. Individual learning techniques will become habits which will help persons prosper in an occupation where a multitude of skills and abilities are necessary for success. Dewey stated in *Reconstruction in Philosophy*, "Intelligence is not something possessed once and for all. It is in constant process of forming, and its retention requires constant alertness in observing consequences, and open-minded will to learn and courage in readjustment" (Murphy, 1987, p. 380).

Training students for a specific trade or occupation is only a part of the education provided by vocational agriculture. Agricultural education also provides students with opportunities for developing self-improvement, leadership, problem-solving, and decision-making abilities. The program prepares students for entering the work force after high school graduation as well as equipping students for entrance into post-secondary education whether into a community, two-year, or four-year college. Education is provided not only for specific job training, but for flexibility and adaptibility while employed. Vocational agriculture also provides students with experiences for character evolvement. The bottom line is that agricultural education programs strive to produce well-rounded individuals who are able to cope in a variety of occupations in our changing world.

Vocational agriculture should be available to everyone regardless of race, sex, ethnic background, or physical and mental handicaps. Students should be **required** to take a vocational education course (preferably agriculture). Agriculture has at least one course offering which prepares students for the "job hunting and acquiring" process. This is one small example of how every student would benefit. Other advantages include the development of leadership, cooperation, problem-solving abilities, group activities, and a competitive spirit by becoming involved in the Future Farmers of America. All of these characteristics emphasize attitudes needed by employees in every occupation, whether an individual is a welder or a corporate executive.

I feel that vocational agriculture needs to advance with the progress of the various occupations. This would mean incorporating updated technological concepts and also phasing out certain training areas while adding others to keep abreast of the changing situations in the work place. The key in this case is to be flexible and adaptable. Many instructors are not "moving with the times." They want the program to stay as it has in the past and avoid the technological advancements which have occurred.

Instructional Program

The instructional program should be based upon the needs of the community and the resources available. In order to discover the needs of the community, a vocational agriculture teacher could choose from various options which involve members of the community. One option would be to implement a local agricultural advisory council consisting of concerned citizens, parents, business executives, and even a student who would bring forth the needs of the community and give suggestions as to which curricula would best meet those needs. Another approach would be to survey the businesses in the commmunity to discover skills which they deem appropriate for employment in their particular company.

The instruction should emphasize vocational skills and knowledge of the course material. It should stress problem solving techniques to encourage independent thinking from students. Students should be exposed to the variety of career opportunities in the field of agriculture and provided with occasions to meet individuals in the industry. They should have ample chances to question these personnel and/or work with them as a section of the student's supervised occupational experience program.

Supervised Occupational Experience Programs

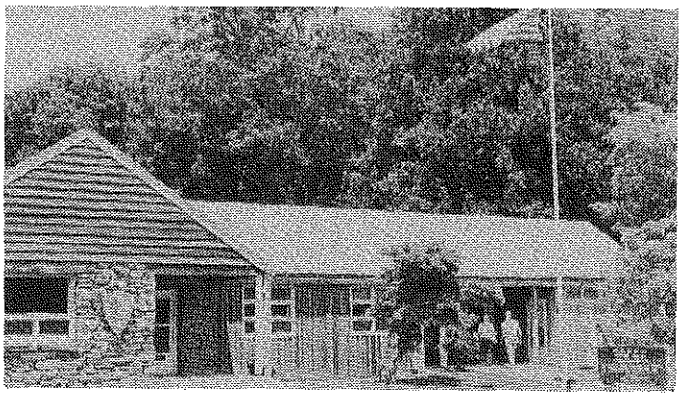
Supervised occupational experience programs contribute to students' experiences in vocational agriculture courses. This instruction is designed to create a wide variety of skill development which ranges from record keeping to responsibility. Every student should be required to have at least one project to keep records on throughout his or her vocational agriculture experience. Besides benefiting students in the development of independence and financial security, this integral part of the program becomes an aid to the vocational agriculture instructor.

While making visits to see students' SOEPs, the teacher is given the opportunity to meet and get to know parents and/or employers. This will be an asset when the instructor needs to speak with a parent about the efforts or behavior of a child. Since SOEPs are a section of the program, time should be allotted and incorporated into the curriculum for students to work on their program and record books periodically throughout the school year.

Future Farmers of America

The Future Farmers of America organization is also an integral division of the vocational agriculture program. It should be given equal instructional time along with supervised occupational experience programs. The FFA compliments the vocational agriculture instructional program. Participation enhances student leadership, citizenship, cooperation, and a number of other social skills, while the instructional program increases an individual's technical knowledge.

Participation in FFA activities allows members to compete in contests, travel to conventions, and meet new people who hold common interests. FFA membership provides an open door to many who are seeking careers in the agricultural industry. Vocational agriculture teachers do, however, need to be aware of time spent in the classroom "teaching FFA contests." This can damage the program by placing too much emphasis on competition. Winning is an extremely pleasant occurrence, however, the feeling of accomplishment should come from the knowledge that FFA members have gained something from their experiences. Competition can be a help or a hazard — the choice is up to the advisor.



FOREST SERVICE BUILDING

Occupational training in natural resources management and outdoor recreation careers was added to the vocational agriculture curriculum in the 1960s and 70s as a result of changes in the federal laws affecting vocational education. (Photo courtesy of Bill Camp, VPI & SU.)

Continuing Education

Continuing education programs usually consist of adult education short courses, and Young Farmer activities. These are important to the vocational agriculture program because of their influence on the surrounding community. The courses and meetings keep those attending up-to-date on topics of interest concerning the agricultural industry and help individuals gain skills such as welding or machinery repair. Vocational agriculture instructors need to realize the importance of continuing education and keep the topics interesting in order to keep members and other individuals involved.

Conclusion

Beliefs and attitudes often change after several years of experience. However, the development of a basic philosophy is one of the most important priorities a beginning vocational agriculture teacher can accomplish.

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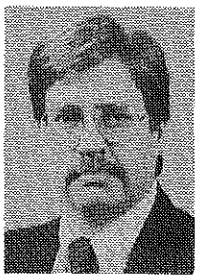
THEME

Point: Agriculture — More Than A Subject



By Tom Bruening

(Mr. Bruening is a Graduate Student in the Department of Agricultural Education at Iowa State University, Ames, Iowa 50011.)

Sitting down to witness another school year's commencement exercise, you look over the graduating seniors and pick out your students. You ask: What have they learned? How have the experiences they have received in vocational agriculture prepared them for their life ahead? What makes a vocational agriculture student unique? Nothing! Absolutely nothing — unless you are teaching skills and competencies they need to get and hold a job to become productive members of society. Caring and working closely with students to address their learning needs in their specific situation is and continues to be the difference between effective teachers of vocational agriculture and the others. Rheault (1985) stated, "Effective instructors are simply interested in providing the best educational opportunities possible for their students." The subject of agriculture then becomes the vehicle used to carry out the primary purpose of vocational agriculture - to facilitate the educational development of individuals interested in agriculture.

Another important purpose of vocational agriculture is to train present and prospective farmers and agricultural businesspersons. The objectives of vocational agriculture, redefined in 1955, remain the mainstay of the current program (Roberts, 1965:

1) make a beginning and advance in farming (agricultural business)
2) produce farm commodities efficiently
3) market farm products advantageously
4) conserve soil and natural resources
5) manage a farm business effectively
6) maintain a favorable environment
7) participate in rural leadership activities
8) develop scientific knowledge applicable to agricultural occupations
9) develop educational experience in farming or vocations using scientific principles.

In reviewing these objectives it is difficult to find fault with the content. If we consider (1) this list as the Bill of Rights of vocational agriculture and (2) the Vocational Education Act of 1963 that added seven occupational areas as amendments to the constitution, we have a foundation upon which this institution is built. To move or manipulate the foundation will have disastrous effects. However, if we tuck-point (resurface) and improve the image and work within this context, we can continue to develop programs and ultimately, people.

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Point: Agriculture — More Than A Subject

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The alternative is to start over and completely redefine the mission of vocational agriculture. In other words, broaden the scope of the program until it is undefinable. Surely we cannot be all things to all people. If we attempt to go down this road, we will be nothing to anyone! Ultimately we need focus in the program, not a shotgun approach!

Curriculum

The current philosophy that is prevalent with many curriculum designers is your basic soup to nuts approach to curriculum. You name the agricultural concept and we will design a curriculum to meet your needs. Almost anything is possible, Squid farming! "No Problem." The basis of designing curriculum materials has become top down management at its best. Pratt (1980) stated that, "The task of the curriculum designer is first to determine the learnings that will be of greatest value to the students, and then to ensure that these learnings are brought about under the direction of competent and enthusiastic teachers" (p. 45). Curricula are best determined by teachers working closely with their advisory councils to determine local needs. Once these needs are identified, curricula can be written to specifically focus on these instructional opportunities. Quality vocational programs emphasize reasoning and problem-solving skills. Individualized, competency-based curriculum materials should be used as a means of teaching skills for specific agricultural jobs (Iverson, 1982).

It sounds so simple. We know that it is not. Curriculum planning and development through program planning is arduous, challenging, time-consuming work. Vocational agriculture curricula should continue to focus on the program's present purposes and goals. If the clientele of agricultural education is expanded to serve those interested in learning about agriculture, the content of the curriculum will become very diluted. To resign this responsibility to someone else means loss of program control.

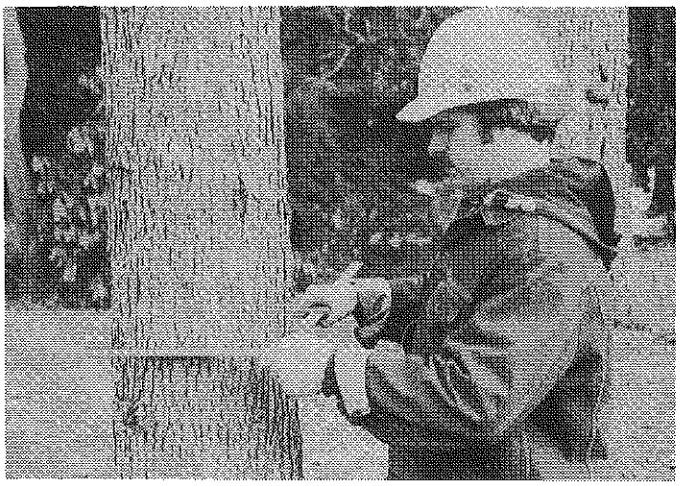
Clientele

The clientele for vocational agriculture is the student (youth/adult) interested in agricultural occupations. Twenty percent of the occupations in this country are directly related to agricultural enterprises. Currently, there are nearly three million farmers in the United States. The 450,000 students enrolled in vocational agriculture represent only a fraction of the potential for supplying the need for future positions in agricultural business and industry (Coulter et al., 1986). It is our challenge to make vocational agriculture instruction so dynamic and relevant to those occupations that vocational agriculture becomes a requirement for employment and further study.

Policy

Many people would like to reform agricultural education. To do so means change in federal legislation. In the October, 1987 issue of *The Agricultural Education Magazine*, J.R. Warmbrod stated, ". . . agricultural education in the public secondary schools is vocational agriculture, which is part of a federal-state-local system of vocational education driven by federal legislation . . . there is within that system no incentive, or perhaps more accurately, no possibility to broaden purposes and programs beyond vocational agriculture (p. 4).

"Vocational agriculture curricula should continue to focus on the program's present purposes and goals." The author also contends that to expand the audience and mission will dilute the curriculum.



Instruction in agricultural education now focuses on many areas including forestry and Natural Resources. (Photos courtesy of Bill Camp, VPI & SU.)

Broadening the purpose of vocational agriculture disregards a fundamental value of society: the development of responsible workers. As more specialization and stringent educational standards have crept into our educational system, young people have become increasingly isolated to fundamental responsibilities valued by our society and its workforce. Vocational agriculture is a logical medium to employ for the effective transition of responsible youth into adulthood.

The current policy related to student leadership activities administered through state and federal programs foster avocational agriculture. For example, students who seemingly have limited interest and future opportunity in production agriculture often attain the highest levels in those contest areas. So, what are we teaching students? Open competition can be great. However, through the current avocational system only the very best intellectual students have

the opportunity to succeed at this level. More student growth has been developed through cooperative activities then contests! The focus of the program should be at the local level with students growing from the participation not as a result of the participation.

Conclusion

Agricultural literacy for public school students is a noteworthy goal: unrealistic but noteworthy. Education is a bridge between childhood and adulthood. The incorporation of agricultural literacy courses into the high school curriculum will weaken the bridge by stretching its span too far. Emphasizing the individualized and experiential learning offered by vocational agriculture can strengthen and balance the bridge already supported by content-oriented courses. Change for change sake is not responsibile. Vocational agriculture exists because it meets students' education needs.

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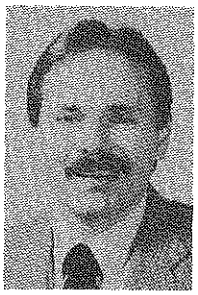
THEME

Counterpoint: Agriculture — More Than An Occupation



BY MARTIN J. FRICK

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Every morning, across this nation thousands of high school students and teachers ride through the most productive farmland in the world on their way to school. Just 30 years ago a much larger proportion of them would have personally experienced the work involved in producing a harvest from that land. The result of that experience would have provided them with a greater appreciation for their food and its origins. They would have comprehended the foundations upon which the industry of agriculture is built - production agriculture.

The rapid urbanization of the United States has meant that schools, in general, have fewer rural students. Students lack insight into current agriculture while being prepared to enter a society where agriculturally related jobs constitute 20% of the work force. The potential effect on society is serious. Tomorrow's leaders, coming from these schools, will know far less about the real significance of agriculture. Agriculture significantly affects many facts of our society: our standard of living; the dimensions of world food needs; international trade; and employment opportunities. Part of our society's success can be attributed to advancements in agriculture. These advancements have significantly altered the face of agriculture since the enactment of the Smith-Hughes Act in 1917.

Agricultural education has reacted to these changes by identifying the demands belonging to a changing clientele and industry. Still, the number of students in vocational agriculture is shrinking. At the same time, there are students who simply want to learn about agriculture for the sake of knowledge, but do not necessarily plan to enter the agricultural work force. Should our purpose be broader than educating students interested in an occupation in the agricultural industry? Should we accommodate students interested in agriculture from only a subject matter perspective? On what grounds can we state that agricultural education's purpose should be to serve a greater number of students with a variety of needs?

Mayer and Mayer (1974), writing for the American Academy of Arts and Sciences, contend that, "The failure of our secondary schools and liberal arts colleges to teach even rudimentary courses on agriculture means that an enormous majority, even among well-educated Americans, are totally ignorant of an area of knowledge basic to their daily style of life, to their family economics, and indeed to their survival" (p. 84). High school is the appropriate place to introduce and address agricultural issues and concerns into the education system. High school is the final opportunity educators have to deliver information to all students about societal concerns. The introduction of agricultural literacy courses into high school curricula can strengthen a student's awareness of agriculture's important position in our world.

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Counterpoint: Agriculture — More Than An Occupation

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Curriculum Change

A model curriculum for avocational agriculture would be difficult to develop and even more difficult to follow. The courses that could be included under the curriculum would vary greatly because of the broad nature of agriculture and the large number of contexts under which it would be taught. Still, there are certain aspects of agriculture so basic to its foundation that serious consideration should be given to their development as courses.

To begin with, the adaptation of current hands-on production courses would improve a student's comprehension of a sector of agriculture which supports much of the industry. A course that increases the awareness of agriculture's role in affecting the future sustenance of our massive food system should be considered. These concerns involve future decisions about environmental conservation, land ownership and use, government intervention, economics, technology, and safety for both the farmer and consumer. Hands-on experience is essential, for it will bridge the gap between what is taught and what is learned through experience. All courses should address the rationale for their existence to inform students, parents, and administrators. Debertin and Williamson, in the October, 1987 issue of *The Agricultural Education Magazine*, stated that, "A case can be made that it is equally important for high school students to have an understanding of how the U.S. food and fiber system works as it is for students to understand American history" (p 22).

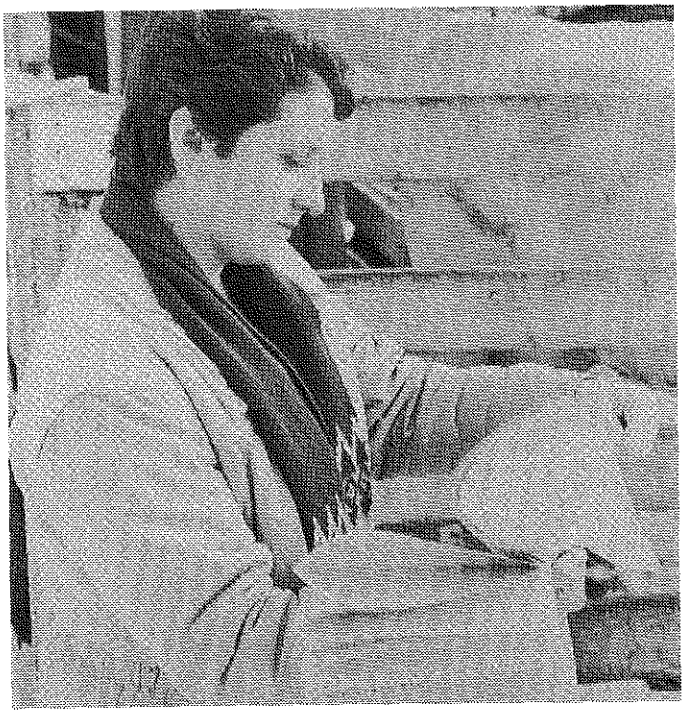
Policy

The virtues of avocational agricultural education have been suppressed because of the demand for vocational training in agriculture outlined in the Smith-Hughes legislation in 1917. Leading agricultural educators have voiced these virtues in the past but they fell on deaf ears. Phipps (1980), in his *Handbook on Agricultural Education*, stated, "Agricultural education is also needed and should be supplied for those interested in agriculture as an avocation." (p4). Thomas Jefferson believed that agriculture should be part of a liberal education. He believed it to be a science to be studied along with physics and chemistry. Students study other sciences with no intention of pursuing a vocation. Not everyone who takes earth science classes plans to enter an occupation involving earth science; you do not have to pursue a career as a zookeeper to study zoology or become a nurse to study anatomy. But, traditionally, if you do not state that you are pursuing a career in agriculture, there is no way to study agriculture (Little, 1987).

Conclusion

If agricultural education is to characterize the discipline it serves, then change is warranted. Program goals and objectives should be revised to reflect the broader purpose for which agricultural education should exist. We live in a world where change is so significant and swift that our educational audience and content are never certain or complete. Benjamin Bloom (1973), a famous behavioral psychologist, stated, "In our schools, we make structure and content of the curriculum constant and needs of learners variable." Agricultural education needs to consider dynamic changes to serve a larger purpose for society and the industry of agriculture.

Urbanization means that schools have fewer rural students with experiences in production agriculture. More students must be taught "about" agriculture.



The author contends that agricultural education must be broad enough to serve students who have career goals in agriculture as well as students who want to explore the subject. (Photos courtesy of Bill Camp, VPI & SU.)

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A Philosophy Primer For Agricultural Educators

In a recent cartoon strip of Hi and Lois, the teenage son, Chip, is sitting at the dining table doing his homework. He turns to his dad and asks, "Dad, who am I? What am I doing here? What is the meaning of life?" His dad's response was, "I'm afraid you'll never find the answer to those questions, son." Chip's response was, "Then why do I have to take philosophy?"

My early beliefs about philosophy were similar to those of Chip, the teenage son in the cartoon strip Hi and Lois. Why should a person study philosophy? To me, philosophy was a bunch of mumbo jumbo, a lot of B.S., bearded university professors in ancient ivy-covered buildings discussing deep abstract concepts, Argh!

Over the years, however, I have discovered that my views and the views of many people regarding philosophy were not accurate. Philosophy is not necessarily some mumbo jumbo or esoteric field of study. Not all areas of philosophy deal with totally abstract concepts. It is also not the exclusive domain of university professors. Philosophy can be interesting, practical, and exciting. There is value and potential benefit for agricultural educators from having a firm knowledge and grasp of philosophy.

What is Philosophy?

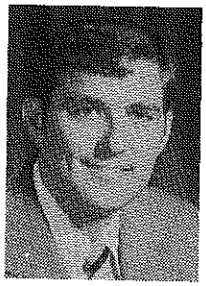
The word philosophy was developed by Socrates and comes from two Greek words that translate to "love of wisdom." A philosopher is a lover of wisdom, a searcher for the truth, or one who pursues knowledge.

The first truths sought or philosophical questions raised by people had to do with the meaning and purpose of existence. The Egyptians wondered if there was life in the hereafter. Thales, the first Greek philosopher, pondered about what the substance of life was (he concluded it was water). As we began to search for answers to questions about existence, the questions became more concrete. What causes toothaches? Why does it frost? Questions dealing with naturally occurring phenomena were classified as "natural philosophy." Natural philosophy has evolved into what we call science.

Simply put, the original definition of philosophy was the love of wisdom and philosophers were those who searched for meaning and truth for a variety of questions in a variety of settings. Since then, the definition of philosophy has been expanded to also mean (1) the general beliefs and attitudes of an individual or group and (2) the body of principles underlying a branch of learning or major discipline.

Areas of Study in Philosophy

There are three major areas of study in philosophy. Just as agriculture has areas of study such as agronomy and animal science, so does philosophy. Part of my earlier negative attitude toward philosophy was because I was not aware of the various areas of philosophy. My early belief that philosophy was concerned with only **one** type of problem, those that were only abstract, was as incorrect as those who believe agriculture is only farming.



By Gary E. Moore

(Dr. Moore is a Teacher Educator and Professor in the School of Vocational Education and Technology at Louisiana State University, Baton Rouge, Louisiana 70803.)

Metaphysics is concerned with theories of the nature of reality. Why does the earth exist? How did it come into being? Is mankind free? Is there a God? What is real? Some common terms used in metaphysics are theology, creationism, evolution, spirit, free will, atheism, relativism and absolutism. Metaphysics is the area many people think of when they hear the term philosophy.

Axiology is concerned with theories of value. Two major divisions of axiology are ethics (What is right and wrong? What is evil and good?) and aesthetics (What is beautiful and ugly?) Some common terms used that relate to axiology are pessimism, optimism, hedonism, egoism, and altruism.

Epistemology is concerned with theories of the nature of knowledge. How people learn? What knowledge is of utmost value? What are the different types of knowledge? Philosophical questions in the epistemological arena are constantly being raised in school reform reports, in education classes, and even within the agricultural education profession? Some of the agricultural education epistemological questions are: What is the educational value of the FFA? Is the problem-solving method of teaching the best approach? Why should students have an SOEP? Should the educational objectives of vocational agriculture change?

Schools of Thought in Philosophy?

Why is it that some educators believe the most important outcome of education is to produce students who excel in subjects such as history and literature while others believe the ability to work is the most important outcome of education? The answer may depend upon the philosophical school of thought to which the educator most closely adheres.

Idealism is a school of philosophy that values thinking (ideas) and places much emphasis on the cognitive domain. Idealism should not be confused with being idealistic; that

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A Philosophy Primer For Agricultural Educators

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is looking at the world through rose colored glasses and expecting the best or ideal situations. It would be more correct to label idealism as idea-ism.

Developing the mind is the goal of the idealist. Idealists favor studying facts and ideas about the past as a sound mental activity. They believe the curriculum should focus on the classics and basics. They don't place much value on the study of vocational subjects because the emphasis is typically "hands on." A summary of the views held by idealists and others toward various aspects of education is found in Figure 1.

A simple way to describe the various schools of philosophical thought is to examine how each school would view a simple object such as a chair. An idealist would view a chair as not being real. A chair can be dismantled or burned and would no longer exist. However, what is real is the concept of a chair that exists in the mind. If a thought or idea exists in the mind, it is real.

Realism is the second oldest school of philosophy. Realists believe your mind can imagine things that don't exist and it is possible to arrive at incorrect conclusions through mental reasoning. Therefore, realists reject idealism and believe what is real is what is actually experienced. By studying actual objects and naturally occurring phenomena, we learn the truth.

Realists favor the sciences. Realism didn't catch on until the 1600s. Then people like Bacon, Galileo, and Newton started conducting scientific investigations to arrive at answers to "natural philosophy" questions. Since certain truths and facts have been verified through the scientific process, realists favor teaching methods that are organized and logical (such as the lecture) to transmit this knowledge to learners.

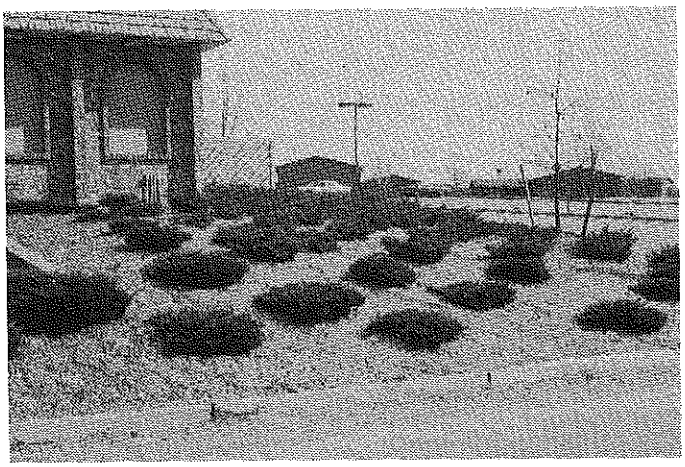
A realist would carefully study the materials in a chair and subject them to a variety of tests to learn as much as possible about the materials. A realist would also weigh and measure the chair and even analyze the finish.

Pragmatism is a philosophy that emerged during the latter part of the 1800s. Pragmatists do not believe in knowledge for the sake of knowledge or science for the sake of science. Ideas and facts are applied to real world problems and have value primarily because of their usefulness. Truth is what works in the real world. Pragmatists want to prepare people to live in the world as it exists. Problem-solving should be used to attack problems, including social problems.

Pragmatism is an American philosophy and was espoused by people like John Dewey, William James, Charles Peirce, and William Kilpatrick. A number of the early, influential leaders in agricultural education studied under these pragmatic philosophers.

A pragmatist would study the usefulness of the chair. Does it seat people adequately? How can a chair be used in the real world? If the chair isn't adequately serving its purpose, what should be done to make it more useful?

Agricultural mechanics instruction usually involves learning-by-doing instruction that is associated with agricultural education. Such instruction tends to fall into the pragmatic school of philosophy.



An idealist doesn't place much emphasis on vocational subjects because they typically require "hands-on" experiences. (Photo courtesy of Bill Camp, VPI & SU.)

Reconstructionism is a philosophy that believes in reform. Reconstructionists believe there are many problems in society and schools should be taking the leadership in correcting these ills. Some reconstructionists are viewed as radical because they want to drastically alter the way education now occurs. To a reconstructionist, education should not only look to the future, but also should be molding the future.

Reconstructionism is a philosophy that has grown since the early 1900s. Some people have classified John Dewey as a reconstructionist. A reconstructionist could be labeled a futuristic pragmatist.

A reconstructionist would dismantle the chair, redesign it, and then rebuild it. He or she would design it in an ergonomic fashion, have a keyboard and computer screen built into the armrest, and be linked via a telephone line and satellite uplink to the rest of the world.

Existentialism was popular during the 1960s and 1970s. Its emphasis is on the individual. Each individual determines what he or she needs to know and how to learn it. Relevance and "do your own thing" are key words in existentialism. The first step of education is to understand yourself.

Figure 1

EDUCATIONAL VIEWS OF CERTAIN SCHOOLS OF PHILOSOPHY

Philosophy	What is Truth?	Goal of Education	The Curriculum	The Method	The Teacher	The Learner
Idealism	Ideas	Conserve the Heritage	Past Ideas & Symbols (Music Literature, History, Art)	Discussion, Debate	Transmitter of Knowledge and Leader of Discussions	A Mind
Realism	Observable Facts	Transmit Settle d Knowledge	Physical World (Science, Math)	Lecture, Supervised Study	Lecturer & Demonstrator	A Sensing Mechanism
Pragmatism	What Works in the Real World	Prepare People to Live in the World	Things of the Current World (Social Studies, Geography, etc.)	Problem Solving	Project Director & Resource Person	An Experiencing Organism
Existentialism	Each Individual Decides	?	What the student Wants	No Set Method	Provocateur	An Individual
Reconstructionism	What Should be in the Future	To Make a Better World, Prepare for the Future	Cutting Edge Information Needed to Correct Current Societal Problems and Build a New Society	Futuristic Problem Solving	Social Change Agent	Social Change Agent

An existentialist might sit on top of a chair, paint flowers on it, turn it over and lay on it, use it for a bonfire, etc. Whatever the student wanted to do with the chair would be acceptable in existentialism.

Of What Value is Philosophy?

Philosophy helps provide clarification for what is or has been done. The early leaders in agricultural education were greatly influenced by the pragmatic movement. The problem solving method of teaching and farm projects arose out of pragmatism.

The "back to the basics" movement and the educational reform movements are being led primarily by idealists and realists. By realizing what idealists and realists believe in, it is easier to understand what these people want for education and why. This makes is easier for the pragmatic vocational educator to work with, instead of against, educational reformers. The recent trend in vocational agriculture to move toward agri-science is an example. An in-depth knowledge of philosophy helps us better understand what is happening in education, why it is happening, and the implications of these changes on vocational agriculture.

A knowledge of philosophy can also provide a framework for life and our actions. It can give order to what we do. It helps in the search for meaning and value.

Philosophy can be useful in solving problems. Taking specific philosophical stances when looking at educational problems may shed new light or insight on the problems and this may lead to solutions.

Philosophy is a good mental activity. Some people believe the "mental gymnastics" involved in the study of philosophy is helpful in developing the mind.

Conclusion

In a popular comic strip, Pogo exclaims, "We have met the enemy and he is us!" As a profession we need to get "up to speed" in philosophy. If we are to intelligently discuss the problems and solutions for preparing students for the 21st century, we must be able to converse with and share our ideas with other educational leaders. We need to thoroughly understand our philosophical heritage and the philosophical heritage of other educators. We must be able to communicate using the vocabulary of philosophy. We cannot afford to be our own worst enemy.

As a profession, we also need to reexamine our philosophy. We adopted a philosophy statement back in the 1970s. It is time to dust it off and see if it can provide the foundation to carry us into the 1990s.

Philosophy is not mumbo jumbo. It is the search for truth, meaning, and value. That is something in which all agricultural educators need to be involved.

About The Cover

As secondary agricultural education programs integrate more instruction in science, mathematics, and business, the traditional mission of preparing students to enter and advance in agricultural occupations requiring less than a B.S. degree will come under close scrutiny. Different instructional approaches will be needed to serve the needs of new yet diverse audiences. (Photo courtesy of the National FFA Center.)

The Nature and Value of Experience in Contemporary Programs

By Glen C. Shinn

(Dr. Shinn is Professor and Head, Department of Agricultural Education, Clemson University, Clemson, SC 29634.)

English is a complex language. A single word is often assigned multiple meanings. It is a difficult task to decode the word and assign the meaning within the context of its use. Experience is a complex word. Like many complex words, experience can be viewed in several contexts.

Employers respond when asked about experience: "I want to hire people with experience. Given the same education and training, I always choose the person with experience." As we decode the comment, we conclude the employer wants a person who has demonstrated abilities in real situations. Employers value experience.

Teachers often comment: "My students do not have experience. They do not seem to understand today's agriculture or how to identify problems." This reply infers that students do not have the same set of experiences as the teacher, or a set of experiences to match the expectations of the teacher. Teachers value experience.

Students value experience. They often counter, "I want to **do** it. Teachers spend too much time talking and I never have enough time to do it." We conclude that students want to be active players in the learning process. Is experience an important element for both learning and teaching? If it is, how can it be developed and used effectively?

The Nature of Experience

Mish (1987) describes experience as the ". . . direct observation of or participation in events" (p. 437). In another context, Dewey (1938) observed that what is learned in one situation ". . . becomes an instrument of understanding and dealing effectively with the situations which follow" (p. 44). The individual can be described as the sum of personal experiences.

Experience involves personal observations and interactions of the subject with the environment. "Every experience is a moving force. Its value can be judged only on the grounds of what it moves toward and into" (p. 38). Experience is a positive force when it moves the individual into improved ways of thinking and acting. In this context, experience is an essential element in education.

On the other hand, experience can be negative and contribute to non-education or mis-education. When an individual fails in the initial task, there may be a reluctance to try again. False conclusions may be drawn about a specific situation. These past experiences can have negative effects on attitudes and limit success.

As research discovers new facts, accepted theory is revised and approved practices change. Our past experiences can limit new understandings. It is important that experience be constantly re-evaluated based on new findings and modified when it no longer fits into current problem-solving equations. In a land surveying context, it is important that we constantly check back to the benchmark to determine if the elevation readings are correct.

Value of Experience to the Learner

Learning is an active growth process due to experience on the part of the learner and results in a permanent change in behavior. Experience provides the baseline for the interpretation of interactions which occur in the individual's environment. Thus, learning as the principal outcome of education, hinges directly on experience.

The commitment to learn is rooted in the attitudes of the learner. Attitudes develop in two stages as the individual first receives, then responds to new information based on past experience. Positive attitudes must be developed before new information is accepted and integrated into behavior. Valuing, as a third stage of attitude development, occurs when the individual makes a personal commitment to the worth of the behavior and begins self-activity. Perhaps the most important attitude that can be formed is the desire to learn.

Experience is also a key to knowing. Bruner (1961) describes initial learning as an enactive process; that is, the individual ties new knowledge to motor or sensory representation. This new knowledge should include only the basic schema and focus on direct relationships to the student. "Every theory . . . rests finally upon the notion that experience is truly experience only when objective conditions are subordinated to what goes on within the individuals having the experience" (Dewey, 1938, p. 41).

As the individual develops cognitive skills, learning may be accomplished through concrete imaging. The individual identifies relationships within the environment and makes decisions based on the immediate context of the subject matter. What is learned in one situation becomes a tool to deal with situations which follow. Dewey observed that problems occur when the subject matter is learned in isolation and

is so disconnected that it is not available for application in real situations.

It is only when the individual has a broad base of experience that abstract representations are effective in the learning process. At this stage, interrelationships between and among situations can be identified and inferential judgments about value or direction can be made. Dewey found there was ". . . an intimate and necessary relation between the processes of actual experience and education" (p. 20).

We must be aware of the possible hazards of experience when it is used to frame new understandings. Mark Twain (1897) warns to ". . . be careful to get out of an experience only the wisdom that is in it - and stop there; lest we be like the cat that sits down on a hot stove-lid. She will never sit down on a hot stove-lid again - and that is well; but also she will never sit down on a cold one anymore."

Using Experience in Teaching

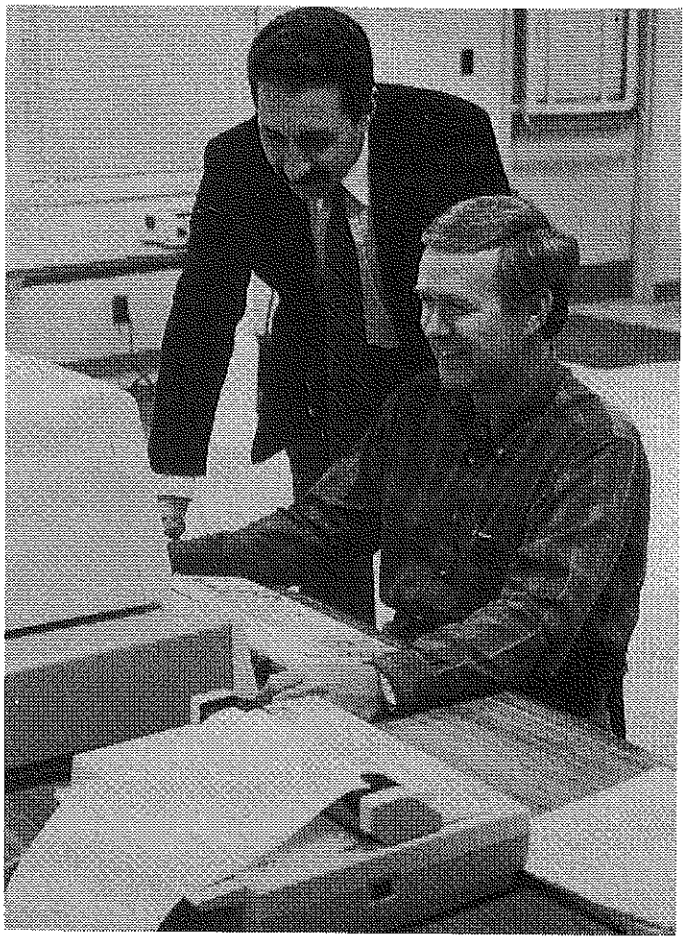
Contrary to some opinions, Dewey (1938) contends that ". . . young people in traditional schools do have experiences; and, secondly, that the trouble is not the absence of experiences, but their defective and wrong character — wrong and defective from the standpoint of connection with further experience." He concluded that ". . . everything depends upon the **quality** of the experience which is had" (p. 27).

If we accept Dewey's assumption, experience becomes an excellent teaching tool. Students do have experiences in agriculture, but they may not be the same as our experiences. Their experiences may have been shaped by television, news media, a Farm-Aid concert, or a field trip to the county fair. However, some experiences are mis-educative. These experiences distort the growth of further experience. Effective teachers must determine the experiences of the student and how they can be productively used. When education is based on experience, the teacher moves from a position of external authority to a role as a co-learner and the leader of group activities.

In order to use experience as an educational resource, the teacher must have a thorough knowledge of the local community. This includes the occupational, economic, physical, historical, and social environments. "A primary responsibility of educators is that they not only be aware of the general principle of the shaping of actual experience by environing conditions, but that they also recognize in the concrete what surroundings are conducive to having experiences that lead to growth" (Dewey, 1938, p. 40).

Every lesson should build on the experiences of the students. Prior experience, whether positive or negative, has a direct effect on the success of the teaching/learning process. Dewey stressed that teachers often have a ". . . problem of discovering the connection which actually exists **within** experience between the achievements of the past and the issues of the present" (p. 23). Experience is similar to a bridge which moves the individual from the past to the present and toward the future.

It is important to identify experiences which impact on the subject matter and generalize the experience to the lesson. The organized subject matter of the specialist should not provide the starting point for the lesson. Rather, the experiences of the individual must be connected to the learning goals and the desired behaviors. When this connection is made, a series of activities can be designed to develop and refine new behaviors.



Effective teachers continue to update their experiences through inservice activities. Maintaining teacher literacy in current technology will help bridge the difference between the student, teacher, and employer. (Photo by Glen Shinn.)

The teacher is charged with two organizational responsibilities: to identify a problem within the ability range of students which grows out of present experiences; and second, to arouse in the student an active search for new information and for the production of new ideas. The new facts and new ideas obtained become the ground for further experiences in which new problems are presented. The process is a continuous spiral (Dewey, 1938).

It is a mistake to suppose that the acquisition of skills automatically constitutes preparation for their effective use when the conditions are unlike those in which the skills were acquired. Dewey warns that it is also a mistake to assume that it is beneficial to study subject matter just because it may be useful at some time in the future.

Experience is a basic tool of problem-solving. The identification of the problem is dependent on experience. Unless the individual knows how a system can work, she/he is not likely to understand how the system should work. Problem-solving is an advanced cognitive skill which requires analysis, synthesis, evaluation, and experience.

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The Nature and Value of Experience In Contemporary Programs

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Problem-solving is a teaching approach which places significance on experiences in today's world. This approach places value on ideas as ideas and encourages creative thinking. The identification of the problem, development of a hypothesis, and the testing and re-testing of alternatives provides a working model for seeking "life-experience" solutions. Problem-solving requires analysis, a record of results, and a reflective review which is directly linked to conclusions and recommendations. These complex activities begin only when both the student and the teacher understand the real nature and value of experience.

Note: the author would like to recognize the valuable comments from Philip Buriak, Jacquelyn Deeds, Jasper Lee, Walter Taylor, and Lyle Westrom, his former colleagues at Mississippi State University.

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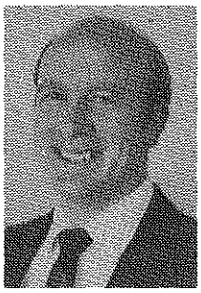
THEME

Why Vocational Agriculture?



BY MICHAEL RUSH

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The New Republic was a forum for leading thinkers of the day to comment on social issues. Oft times these leaders would sharply disagree. Such was the case in a series of articles in late 1914 and early 1915. The issue was vocational/industrial education and the role it should play in the educational system of the United States.

The primary antogonists were David Snedden (1915), former professor of educational administration at Columbia University and then Commissioner of Education for Massachusetts, and John Dewey (1915), the leading educational philosopher of his day. Interestingly enough, both men were critical of the traditional, elitist approach to education and both supported vocational education. Dewey, however, believed vocational education should be closely tied to general education — and play a general education role. Vocational education reflected his basic belief that, "There is an intimate and necessary relation between the processes of actual experience and education" (Dewey, 1938, p. 20). Dewey's focus was on the individual, on expanding opportunities, and on the use of education to reform the industrial complex.

Snedden, on the other hand, wanted an efficient system of training workers to support industry. He thought vocational education must be controlled by industry and kept away from general educators. He emphasized that vocational training should focus only on those skills and attitudes necessary for people to be successful in the specific occupations for which they were being trained. In 1917, the Smith-Hughes legislation incorporated David Snedden's philosophy into a law which initiated the Federal presence in Vocational Education.

It was not the end of the debate, however. Agricultural educators have never fully accepted strict separation between general and vocational education. While advocating close ties to the agricultural industry, and practical, industry-related education, agricultural teachers have also staunchly defended the position that their programs also contributed to the general education of the student as well.

The role of agricultural education in our public schools has once again come under public scrutiny. A suffering agricultural industry coupled with an emphasis on academic, abstract learning has caused some to question the role and value of agricultural education in our secondary schools; thus, we face the question: What makes vocational agriculture different from other educational programs and are these uniquenesses necessary? Put another way, "Why vocational agriculture?"

Agriculture's Uniqueness

All types of education, including vocational agriculture, share similar goals. The most prominent goal is the education of successful, productive people who are able to achieve their fullest potential in life. The differences, therefore, lie not in the general concern for a student's success, but in the specifics of how that success is to be promoted. These dif-

ferences of uniquenesses can be divided into subject matter, methodology, and goals.

The first and most obvious uniqueness of agricultural education is its focus on agriculture. At first glance this may be so obvious as to not even be worthy of discussion. It creates a difference, however, that is absolutely crucial for us to define. After all, biology and chemistry teach the basic soil, plant and animal concepts, and other classes such as English, math, speech, social science and government should provide the necessary communication, computational, political and sociological skills needed. Why bother with the agricultural focus at all?

The answer must be that vocational agricultural education is more than simply an in-depth biology class with a little welding and speech thrown in. It is an integrated program focused on the industry of agriculture. The hands-on activities incorporated into the curriculum are not just an alternate form of general education, but are designed and intended to provide skills students will use in an agriculturally related occupation.

Many of these instructional methods such as supervised occupational experience, intensive training in expensive, realisitic laboratories, and participation in technical skill contests are difficult to justify outside of providing occupational training. While general education benefits derived from the unique instructional methods are real, they are not sufficient to create a unique niche for vocational agricultural education in the nation's education system. The primary uniqueness and justification for the programs lie in their focus on the industry of agriculture.

The second uniqueness of vocational agriculture is in methodology. As already noted, many of the unique educational methods developed from the need for effective vocational training. Agricultural education has emphasized: (a) realistic learning experiences that have obvious applicability; (b) active, hands-on participation in the learning process; (c) continuous reinforcement of skills through qualitatively different experiences such as a judging contest, classroom discussion, and personal ownership of an animal; (d) attention to the psychomotor and affective domains of learning to complement the cognitive; and (e) a problem-oriented approach to knowledge that highlights the reasons for learning the information instead of just learning the information itself.

These methodologies, however, were not only effective in educating a person for an agricultural occupation; they also capitalized on some powerful principles of learning. Students who had previously struggled in the abstract learning environment of choice for the academic subjects, excelled in the concrete learning environment of vocational agriculture.

Students with low self-esteem developed confidence as they began to experience success because of the new and different opportunities provided. Students who have previously seen little relevance for the subject matter in academic classes became motivated to learn as they discovered the power information gave them to solve significant problems. Students also found that the knowledge learned through these alternate methodologies was easily transferred to solve other problems: problems that had nothing to do with agriculture.

In a study of vocational agriculture graduates, 92% gave the program high ratings even though 47% were not employed in agricultural occupations (Iverson, 1980). The experiential learning afforded through the agricultural programs was what Dewey wished for all education. As Dewey (1938) explained:

> *Almost everyone has had occasion to look back upon his school days and wonder what has become of the knowledge he was supposed to have amassed during his years of schooling, and why it is that the technical skills he acquired have to be learned over again in changed form in order to stand him in good stead. These questions cannot be disposed of by saying that the subjects were not actually learned, for they were learned at least sufficiently to enable a pupil to pass examinations in them. One trouble is that the subject-matter in question was learned in isolation; . . . it was segregated when it was acquired and hence is so disconnected from the rest of experience that it is not available under the actual conditions of life. It is contrary to the laws of experience that learning of this kind, no matter how thoroughly ingrained at the time, should give genuine preparation (pp. 47-48).*

The success of the teaching methodologies used in vocational agriculture has fueled the promotion of agricultural education as beneficial for students regardless of their vocational interests. The astute administrator, however, always gets to the question, "Why can't we simply incorporate these principles in other classes that have wider appeal and get rid of the vocational agriculture program?"

Many of the techniques and methodologies could, of course, be adapted to general education courses — many of them should. Total adoption, however, is impossible. These learning methodologies work largely because they occur in a specific context — the industry of agriculture. In the absence of such an industry, much of the realism, the concreteness, the variety of learning opportunities simply disappear. The alternate methodologies do constitute a unique part of agricultural education, but depend on the context of educating students for the industry of agriculture to give them substance. Agricultural educators must emphasize the value provided by unique methodologies, but must also emphasize the importance of the context in which those methodologies are applied.

A Final Uniqueness

The final uniqueness of vocational agriculture is its goal. General education strives to provide generic information taught in a generic context that will adequately serve the student in any possible future situation. Vocational agricultural education strives to provide specific information along with the concommitant psychomotor practice and affective support to serve the student in an agricultural occupation.

Agricultural education takes responsibility for students' success in the workforce, and forms a bridge between the classroom and the world of work. General education, if it addresses any transition at all, addresses the transition between the high school classroom and the college classroom. Without the occupational context, general education simply does not have the tools to address the transition into a working society. Agricultural education can address that

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Why Vocational Agriculture?

(Continued from page 21)

transition, and therefore, develop transferable skills that can even be applied to jobs outside of agriculture.

Conclusion

Vocational agricultural education is unique. It serves a valuable role in our secondary schools — a role that general education cannot fill. It does this by providing a variety of experience-based methodological tools that address all domains of learning. It applies these tools in the context of the industry and occupations of agriculture with the goal of providing a transition into agricultural careers.

The debate is not over. The dynamic nature of society, education, and agriculture guarantee that it never will be. Still, the philosophical and functional differences provided by agricultural education make it a valuable partner in the public education system as that system seeks to prepare students for the 21st century.

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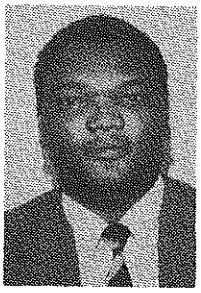
ARTICLE

How Professionals Perceive the Agriculture Teacher Education Program in Swaziland



By Barnabus Dlamini

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The agricultural teacher education program in Swaziland was started in 1975 and was envisioned to prepare teachers of agriculture for secondary schools. Graduates of the agriculture program were expected to assist rural development workers in the general task of raising the standard of living in the rural areas and also to enable them to contribute to other science-based studies in the schools.

The curriculum content of the teacher education program was devised so that approximately 75 percent of the time was allocated to technical agriculture (crop production, animal production and health, land use and mechanization, general agriculture, and agricultural economics) and 25 percent to professional agricultural education courses.

Teacher Preparation

The teachers have been trained at two levels, one group for junior secondary schools and the other for senior secondary schools. The agricultural teachers who were trained for junior secondary schools received a diploma at the end of their training, while those for senior secondary schools received a degree. The present diploma course in agricultural education has been preceded by an introductory course of 12 weeks. This pre-entry course was mainly of a remedial nature intended to bring all students to a common level of proficiency in the basic sciences: biology, chemistry, physics, English, and mathematics.

The diploma course has consisted of a number of compulsory courses taught over a period of two years within the College of Agriculture (Faculty of Agriculture). In addition to the courses, the satisfactory completion of 10 weeks of practice teaching was obligatory for the receipt of the diploma.

The degree program was of a three-year duration in the College of Agriculture preceded by either a diploma in agricultural education or at least a pass in the first year of the College of Science. The time allocation to the different courses of the Bachelor of Science degree was similar to the diploma program. Ten weeks of practice teaching and a research project were obligatory for the awarding of the degree.

Background and Setting

In recent years, education has experienced rapid technological changes. One example of such changes was the methods espoused in teacher preparation programs because of the increased attention to individualized instruction and competency-based teacher education (Denton, 1979). This example indicated that teacher education programs should keep improving to meet the needs of the people they serve. An effective teacher preparation pro-

gram should educate teachers to understand and be able to conduct the processes of teaching and learning effectively and perform their teaching jobs with high levels of ability and competency.

In Swaziland, the Ministry of Education indicated concern for the teaching ability of agriculture teachers in secondary schools (Roques, 1982). To improve the teacher education program, perceptions of what should be changed to bring about improvement must be ascertained from teacher educators, supervisors, and teachers.

Teacher educators have been assumed to be well qualified to know what is a good teacher education program, supervisors know teachers' needs based on their experiences in working with them, and teachers know best the local environment and their working conditions. A combination of views from these people should constitute a foundation upon which a good teacher education program could be developed. All these should be investigated to ensure that appropriate training in agriculture education is conducted to produce competent teachers of agriculture.

Therefore, to have a sound preservice training program for agriculture teachers in Swaziland, an assessment of the adequacy of the agriculture teacher education program in meeting the needs of secondary school teachers was imperative.

The Study

The purpose of the study was to describe professionals in agricultural education and determine their perceptions regarding the agriculture teacher education programs in Swaziland. The target population included 128 professionals in agricultural education consisting of 11 teacher educators, nine state supervisors (inspectors), and 108 teachers. The study was a census. Descriptive correlation research employing a questionnaire was used. Content validity of the instrument was established using a panel of experts.

Findings and conclusions were based on data from 116 professionals in agricultural education (90% response rate). The population was assumed to be a sample of Swaziland professionals in agricultural education at a point in time, thus, permitting the use of inferential statistics.

Findings revealed that the majority of professionals in agricultural education were (1) teachers in secondary schools, (2) males, (3) relatively young, (4) working in rural areas, and (5) holders of associate's degrees. Further, they had (1) low levels of experience in their work, (2) received their training in Swaziland, and (3) not studied agriculture while in secondary school.

Professionals in agricultural education perceived the agriculture teacher education programs to be credible in terms of admissions standards, qualifications of faculty, technical and professional courses taught, but doing less than adequately in the areas of student teaching, conduct of in-service courses for agriculture teachers, coordination and linkage with other institutions, general courses taught, and skill training.

Level of education slightly influenced the way professionals in agricultural education viewed the agriculture teacher education programs, whereas gender, work experience, age, type of profession, place of training, and place of work had no major influence.

Conclusions

The study indicated that awareness of the perceptions of professionals in agricultural education could reveal strengths and weaknesses of agriculture teacher education programs. The policies that guide activities in departments of agricultural education, courses taught, and skills acquired should enable the student teacher to perform the role of an agriculture teacher upon graduation. A combination of views from professionals in agricultural education constitute a foundation upon which a good teacher education program could be developed. The study also revealed characteristics of professionals in agricultural education and an agriculture teacher education program in a developing country, which could be a basis to identify problems for agricultural education programs in developing countries.

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1989 Themes

Issue and Theme	Theme Editor
JANUARY — Involving - Ag Mechanics —	Glen Miller, University of Arizona
FEBRUARY — Agriscience and Emerging Technologies —	Barbara Malpiedi, North Carolina State Univ.
MARCH — Coping with Competencies —	Daniel Brown, Ellsworth Community College
APRIL — International Development Education —	Robert Martin, Iowa State University
MAY — The Profession Reacts - National Study —	Stacy Gartin, West Virginia University
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SEPTEMBER — Focus on Teaching (Annual Issue) —	David E. Cox, University of Arizona
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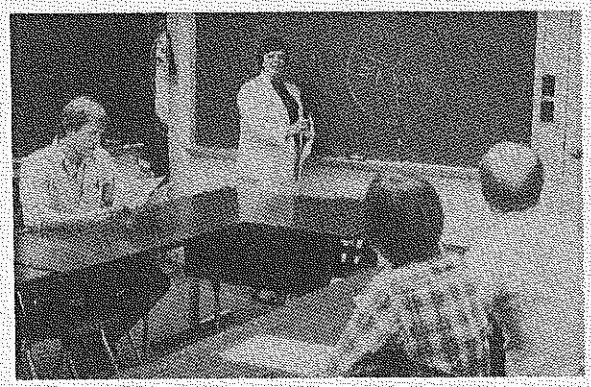
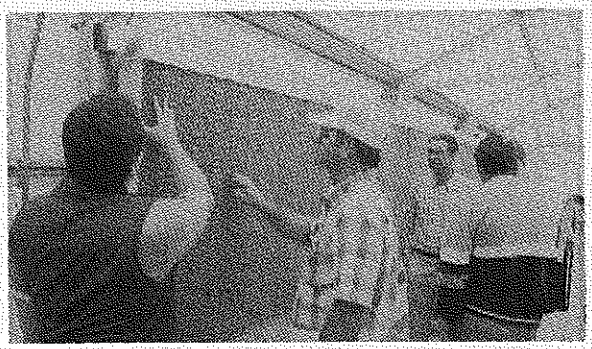
Contemporary Philosophies of Agricultural Education

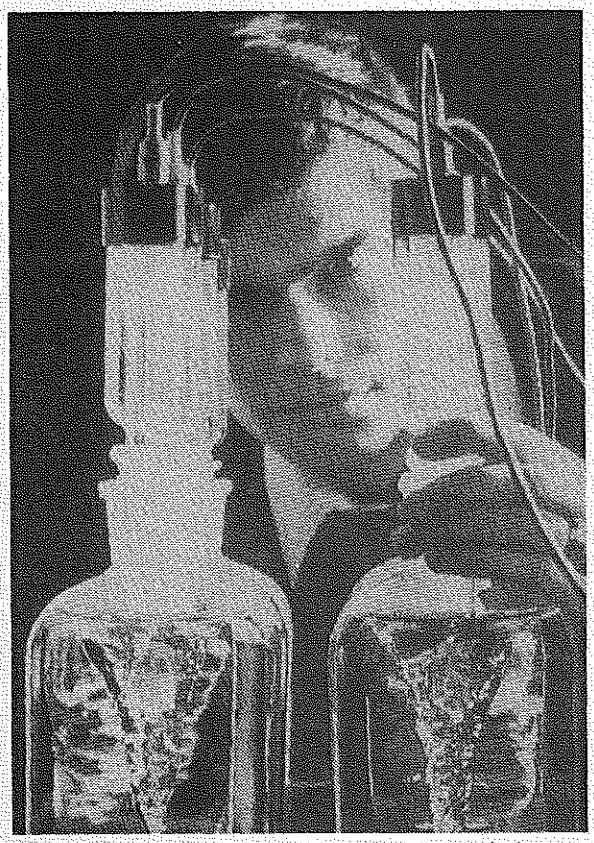
Problem solving is a teaching approach which requires experience. It can be successful only when both the student and teacher understand the value and nature of experience. (Photo courtesy of Glen Shinn, Clemson University.)



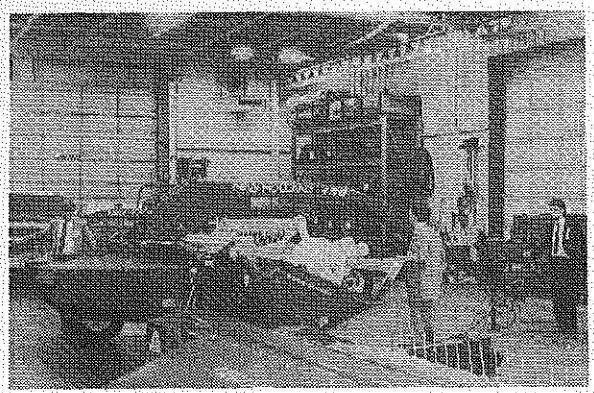
Classroom instruction, supervised occupational experience (SOE), and the FFA are the focus of secondary instruction in agriculture. New audiences, different subject matter, and less emphasis on vocational preparation will require rethinking traditional philosophies of agricultural education. (Photo courtesy of William Camp, VPI & SU.)



Employers and teachers value experience. By working together, employers can better understand the instructional program and teachers can gain new technical experience. (Photo courtesy of Glen Shinn, Clemson University.)



Laboratory instruction must acquire a more scientific basis as agricultural educators incorporate agriscience into their instructional programs. (Photo courtesy of the National FFA Center, Alexandria, VA.)



Agriscience and technology is a new wave of curriculum which uses demonstrated scientific principles and reconfigures them for new applications. Experience is an essential element in the new curriculum design. (Photo courtesy of Glen Shinn, Clemson University.)