

The Agricultural
EDUCATION
M A G A Z I N E

*November
December
2006
Volume 79
Issue 3*



REFLECTIONS AND THE FUTURE

Reflections and the Future

By Jamie Cano

Reflections

As I sit down to write this final editorial which will end my term as Editor of *The Agricultural Education Magazine*, I must stop and reflect on what I have learned over the past three years, not only about myself, but also about the profession of Agricultural Education. In addition, I also keep thinking of many “what if” type of scenarios which would lead us forward, or backwards, into the next decade.

I recall vividly working on my first issue of *The Agricultural Education Magazine* during December 2003 and January 2004, thinking that I was never going to get the first issue of *The Magazine* completed. I recall working feverishly over Christmas break on *The Magazine*. Then came January 2004, and there was one day/night that I spent over 24 hours in my office to finish the task before me.

You see, the task before me was bigger than I had anticipated! Back in 2003, I thought my biggest headache was going to be in finding six Theme Editors per year. I was under the impression that I would collect some manuscripts from the Theme Editor, and then send those selected manuscripts to “someone” who was going to assemble the magazine. Wrong!! That “someone” was supposed to be me. Here I was, editing a magazine and I knew nothing about editing! Talk about a wake-up call!!

I recall that the first thing I had to learn was “how to buy PageMager” so that I could construct the magazine. The program “InDesign” was not on the market yet, so I resorted to what

the previous editor, Dr. Robert Martin had used. Next step, after ordering the software program, was to learn how to use the program! Learning how to use PageMaker was, and still is, a lesson in-itself! I have to thank Ms. Terri Osterman, an Office Associate in my department for having had previous experience using PageMaker. Even today, as I constructed this last issue of my term, I had to call on Terri to help me with some technicalities on PageMaker. Thank you Terri.

During graduate school, and certainly upon the start of my term as Editor, I had learned about many of Agricultural Education’s most influential individuals who had “walked the talk” long before I came around. I wanted to hear from them and their thoughts. So here we are, my last issue of *The Magazine* and who else but Dr. J. Robert Warmbrod to lead the charge! For those of us who were in the profession during the 1970s, 1980s and 1990s, there was no single individual who had greater impact on Agricultural Education than Dr. Warmbrod. Thus, after discussing my suggestion with Dr. Warmbrod, he readily agreed to take on the task (even though he is retired) of securing a fine and well respected set of authors for the current issue. Thank you Dr. Warmbrod.

It is my desire that everyone will read what these distinguished authors have written. Pay particular attention to what they foresee as the future of Agricultural Education. No one, from the secondary school teachers to the university faculty, from the youth organization to the adult organizations, can escape some lessons from these renowned authors. If Agricultural Education is going to reflect on lessons learned to chart the future, the current

issue of *The Magazine* is a great place to start.

The Future

Where to from here? How can anyone “predict” what the future will bring? There are many “futurists” who give great speeches on what the future holds if we keep on the current track. I am not now, nor will I ever claim, to be a “futurist.” I am someone however, who is not afraid to think “outside the box” relative to Agricultural Education.

So where are we headed as a “profession?” Dr. L. H. Newcomb, in early September 2006, addressed a group of “new” Agricultural Education professionals at the Omega Conference in Indianapolis. Dr. Newcomb was forthright in his quest to “wake-up” the Agricultural Education neophytes, and some “more experienced” agricultural educators in the room. The bottom line, as delivered by Dr. Newcomb, was that if we continue to do business the way we have done in the past, there is a very limited future waiting for all of us in Agricultural Education.



Jamie Cano is an Associate Professor at The Ohio State University and is Editor of The Agricultural Education Magazine.

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Subscriptions

Subscription price for *The Agricultural Education Magazine* is \$10.00 per year. Foreign subscriptions are \$20.00 (U.S. currency) per year for surface mail, and \$40 (U.S. currency) foreign airmail (except Canada). Orders must be for one year or longer. We can accept up to a three year subscription. Refunds are not available. Please allow 4 - 6 weeks delivery of first magazine. Claims for missing issues cannot be honored after three months from date of publication, six months for foreign subscriptions. Single copies and back issues less than 10 years old are available at \$5 each (\$10.00 foreign mail). All back issues are available on microfilm from UMI University Microfilms, 300 North Zeeb Road, Ann Arbor, MI 48106. UMI University Microfilms telephone number is (313) 761-4700. In submitting a subscription, designate new or renewal and provide mailing address including ZIP code. Send all subscriptions and requests for hard copy back issues to the Business Manager: James H. Smith, Texas Tech University, Box 42131, Lubbock, TX, 79409, Phone (806) 742-2816, FAX: (806) 742-2880. E-mail: james.h.smith@ttu.edu.

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Articles and photographs should be submitted to the editor or theme editors. Items to be considered for publication should be submitted at least 90 days prior to the date of the 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). One hard copy and one electronic copy of the article should be submitted. A recent, hardcopy photograph should accompany the article unless one is on file with the editor. Articles in the magazine may be reproduced without permission but should be acknowledged.

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Publication Information

The Agricultural Education Magazine (ISSN 07324677) is the bi-monthly professional journal of agricultural education. The journal is published by the Agricultural Education Magazine, Inc. and is printed at M&D Printing, 515 University Avenue, Henry, IL 61537.

Periodicals postage paid at Ames, IA 50010 and additional offices.

POSTMASTERS: Send address changes for *The Agricultural Education Magazine* to the attention of James H. Smith, Texas Tech University, Box 42131, Lubbock, TX, 79409, Phone (806) 742-2816, FAX: (806) 742-2880.

Evolution of Policy for Public School Agricultural Education

By J. Robert Warmbrod

National, state, and local policies determine the purposes and characteristics of instruction in and about agriculture in public schools. What does reflection on my experience and study suggest about the evolution of policy regarding agricultural education in public schools?

My experience in agricultural education began when I enrolled in ninth-grade vocational agriculture. The course met one period each day, the same as the English, algebra, and general science courses I was taking. Classroom instruction, which required no homework, consisted primarily of reading textbooks or an occasional experiment station or extension bulletin, writing answers to questions in notebooks, followed by teacher-led recitation. Features of vocational agriculture that distinguished it from other courses were a few weeks in wood shop, membership in the Future Farmers of America that consisted primarily of instruction and practice in parliamentary procedure including participation in contests, and keeping records for projects on the home farm. The vocational agriculture teacher arrived just before the school day began and departed promptly after teaching four vocational agriculture courses. The only time students saw the teacher, other than during class or shop, was when participating in FFA contests away from school. Some of my classmates, all male, lived in town and demonstrated little interest in agriculture. My high school vocational agriculture experience ended after three years, because of a scheduling conflict between vocational agriculture IV and

solid geometry-trigonometry. What national, state, or local policies about agricultural education do my high school experiences reflect?

The Smith-Hughes Era

My next experience in agricultural education was when I enrolled in the first course in agricultural education during my junior year at the University of Tennessee. From that and subsequent undergraduate courses I soon learned the hallmarks of secondary school vocational agriculture were problem-based classroom and laboratory instruction, on-farm supervision and instruction of students' farming programs, a curriculum tailor-made for the local community, and an active chapter of the Future Farmers of America that provided a laboratory for

The purpose, curriculum, and clientele of vocational agriculture were decreed by national policy stated in the Smith-Hughes Act.

members to learn to “practice brotherhood, honor rural opportunities and responsibilities, and develop qualities of leadership and citizenship.” One of my undergraduate professors adamantly argued that a viable local program must include an active citizens’ advisory council as well as instruction for out-of-school youth and adults engaged in farming. The conventional wisdom seemed to be that vocational agricultural instruction in secondary schools was initiated by and reflected national policy promulgated in the Smith-Hughes Act, enacted by the U.S. Congress and signed into law by President Woodrow Wilson in 1917. The Act established a federally-subsidized system of vocational education mandating that public school instruction in agriculture was for persons who have entered upon or are preparing to enter upon the work of the farm. Schools offering agricultural instruction were required to provide supervised practice on a farm. The message was clear. The purpose, curriculum, and clientele of vocational agriculture were decreed by national policy stated in the Smith-Hughes Act.

Graduate study and research at the University of Tennessee and the University of Illinois revealed, however, that courses in agriculture were taught in public elementary and secondary schools several decades prior to 1917. Beginning in the 1890s and continuing during the early 1900s, several states had enacted legislation that encouraged or required systematic instruction in agriculture in public elementary or secondary schools. Prior to 1917, more than two-thirds of the 48 states had appropriated special funds subsidizing instruction in agriculture in state, regional, or county agricultural high schools or comprehensive high schools. The U.S.

Bureau of Education reported in 1915-16 that three-fourths of the more than 2,000 high schools in the U.S. offering agricultural instruction taught courses primarily for informational or cultural purposes; only one-fourth of the schools reported the major purpose of agricultural instruction was vocational. Forty percent of the students enrolled in agriculture courses were female.

Most states, following the Smith-Hughes model, appropriated funds earmarked for vocational instruction in agriculture that carried the restrictions and requirements of the national legislation. Evidence that national policy led to the establishment of a national-state system of vocational education for farming is attested to by the Federal Board for Vocational Education's pronouncement in 1922 that agriculture as an informational or cultural course had almost disappeared from the curriculum. The percentage of females studying agriculture declined substantially; by 1940 the U.S. Office of Education only reported enrollment of male students in vocational agriculture. An example of the pervasiveness of national-state policy is the school superintendent's response to my question about salary when I was employed in 1957 as a high school teacher; his response was, "I'll have to check with the State Director of Vocational Education." In 1946, the George-Barden Act specifically mandated supervision by vocational agriculture teachers of the activities of the Future Farmers of America.

Revision of National-State Policy

During the 1950s, criticism of public school vocational education in general and vocational agriculture specifically led to the establishment in the early 1960s by the Kennedy administration of a national commission on education for the world of work. The result was the National Vocational Edu-

In addition to production agriculture, the curriculum was broadened to include specializations such as agribusiness, horticulture and landscape, natural resources and forestry, mechanics, and food science.

cation Act of 1963. The Act, continuing the dominance of national policy for vocational education administered by state departments of education, broadened the purpose and curriculum of vocational agriculture to include instruction pertaining to any occupation involving knowledge and skill in agricultural subjects with the stipulation that the required supervised practice was not limited solely to a farm. In addition to production agriculture, the curriculum was broadened to include specializations such as agribusiness, horticulture and landscape, natural resources and forestry, mechanics, and food science. The broadening of the curricu-

lum, the movement during the 1960s and 1970s of females entering previously male-dominated occupations, and the decision in 1969 by the National FFA Association to admit females to membership contributed to an increase in females enrolling in vocational agriculture. The predominance of national legislation as the primary source of policy for public school education in agriculture is convincingly demonstrated when, much to the chagrin of some agricultural educators, the Vocational Education Amendments of 1968 did not specifically mention vocational agriculture. The persons disappointed by this omission contended that vocational agriculture's survival depended on its protection by a specific provision in national legislation.

Proposal for Revision and Reform

The agricultural education profession gets credit as a major player in initiating the most recent examination and resulting recommendations for change in national, state, and local policies for agricultural education. Partly in response to the National Commission on Excellence in Education's 1983 call for reform in the high school curriculum (*A Nation At Risk: The Imperative for Educational Reform*), the newly organized National Council for Vocational and Technical Education in Agriculture (now the National Council for Agricultural Education) petitioned the U.S. Secretaries of Agriculture and Education to fund a national study of agricultural education in the public schools. In 1985 the National Research Council of the National Academy of Sciences appointed the Committee on Agricultural Education in Secondary Schools charged to assess agricultural instruction in secondary schools and offer recommendations regarding goals for instruction, subject matter to be stressed in the curriculum, and policy changes needed at the local, state, and national levels to fa-

cilitate a new and revised agricultural education program. The Committee's report published in 1988, *Understanding Agriculture: New Directions for Education*, presented two major, overarching recommendations. First, that public school agricultural education must become more than vocational agriculture including the establishment of systematic agricultural literacy instruction in kindergarten through twelfth grade; and second, that major reforms be made within vocational agriculture regarding purposes of instruction, curriculum content, clientele served, supervised experience, and the FFA. For the first time since 1917, national legislation was not proposed or enacted that mandated policy changes for agricultural education in the public schools.

The Response?

What has been the response of the agricultural education profession, the states, and local school districts to the Committee on Agricultural Education in Secondary School's call for policy and program change? *The National Strategic Plan and Action Agenda for Agricultural Education: Reinventing Agricultural Education for the Year 2020* issued in 2000 by the National Council for Agricultural Education envisions all students having access to lifelong instruction in and

being literate in agriculture, food, fiber and natural resources systems. The achievement of these goals requires not only their adoption by states and local school districts but the development and implementation of policies that produce educational programs in and about agriculture that are vastly different in purpose and substance from the vocational agriculture programs most prevalent during the 65-70 years after Smith-Hughes. So what is the status of agricultural education in public elementary, middle, and secondary schools in the U.S. in 2006 – almost 20 years after the most recent national call for revision and reform? Reading the National Council for Agricultural Education's *Status Report on School-based Agricultural Education* issued early this year, the answer to the question appears to be, "We don't know."

The Future

Since the last decades of the 1800s there has been agricultural instruction in U.S. public schools. During the first 25-30 years of this more than 100-year period, the purposes and characteristics of public school agricultural education were determined by local and state policies. The next 70 years – beginning with the Smith-Hughes Act and subsequent national vocational education legislation – national policy, administered unerringly

through state departments of education, was foremost in determining the purposes and characteristics of public school vocational instruction in agriculture. During the past 15 years the pendulum has begun to shift to states and local school districts as the primary actors in policy development and implementation for reform and revision in agricultural education.

I began this article with a description of the agricultural education program I experienced as a high school student. The extent to which the agricultural instruction I experienced in the 1940s reflected accurately the then current policy about purpose, curriculum, and clientele of vocational education in agriculture illustrates the challenge faced today. What public school agricultural education is today or will be in the future is, in the final analysis, what the local school's policy demands, encourages, or tolerates as instruction in and about agriculture that is implemented by teachers in elementary, middle, and secondary schools.



J. Robert Warmbrod is Distinguished University Professor Emeritus, The Ohio State University. A former faculty member at the University of Illinois, he retired in 1995 after 28 years at Ohio State. During 1968 - 1970 he was Editor of The Agricultural Education Magazine.

NEXT ISSUE

THE WORLD IS FLATTENING - WHERE WILL AGRICULTURAL EDUCATION FIT?

This issue will set the pace for the coming year. It is an opportunity to encourage our profession to look around and acknowledge the changes technology and improved communication ability has brought in the past 5 - 10 years. Another thought is how do we prepare our students to enter a world where marketing and production can be out-sourced around the globe? How can students retain the status of being world leaders in agriculture in this new environment?

THEME EDITORS: JACK ELLIOT, WILLIAM "BUDDY" DIEMLER, & JASON LARISON

Reflections and the Future of Agricultural Education

By Harold R. Crawford

As retirees get together, you often hear the statement, "Agricultural Education isn't what it used to be." I concur, but that doesn't mean it is wrong. In fact more often it is better than it used to be. We must go through a transition from what it used to be by recognizing there will be change. Change is inevitable. In *Leading Transition*, William Bridges states, "Change is nothing new to leaders, or their constituents. We understand by now that organizations cannot be just endlessly managed, replicating yesterday's practices to achieve success. Business conditions change and yesterday's assumptions and practices no longer work. There must be innovation, and innovation means change." Some of us have been around long enough to witness change in our profession and at the same time observe the pattern of transition over a period of time.

Reflections

The most expedient way to witness change in agricultural education is to visit with practicing teachers at their annual conference. I served as an administrator in the College of Agriculture for a few years, so for several years I have made it a practice to participate in the agricultural teachers' conference. It is here that I have had the opportunity to see, hear and learn of the changes going on at all levels of the profession. Inferences can also be drawn for what, how and who is being taught by the teachers and conclusions made about teacher education and state supervision.

Gender

The most obvious observation that I have made has been the rapid increase in the number of female teachers and the role of women in the profession. I have seen women in leadership roles, elected officers of the association, and named recipients of many different awards. In 2006, five of the six star district teacher award recipients in Iowa were women. This change has not required program adjustment, but an acceptance and the involvement of women within the profession. At some time the profession should honor those first women who stepped forward to earn their agricultural teacher degree and be recognized as the first to teach agriculture at the secondary school level.

Single Teacher Programs

In Iowa, there has been a decrease in the number of secondary

schools and teachers with agriculture programs. We have reverted to mostly single teacher departments after a growth in multiple teacher departments. However, most of these programs are serving more students than ever before.

Extended Contracts

Most teachers are no longer on twelve-month contracts but have extended arrangements for employment. This impacts curriculum, in-service education, salaries, FFA chapter activities, and supervised agricultural experience programs. This is a major change.

Relationships/Collaboration

At the annual conference we also see the relationships that have been established between cooperating teachers and student teachers as well as with teacher educators and state department personnel. In the early 1950s we

March - April 2007

Theme: *The La Joie de Faire of Teaching - Why We Do What We Do*

What makes an ag teacher an ag teacher? Why do people choose this profession and why do they stay with it? What are fifteen reasons why I am an agricultural education teacher?

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Articles Due to Theme Editor: January 15, 2007

Articles Due to Editor: February 1, 2007

had multiple students per cooperating teacher center and student teaching was offered each semester. In recent years the numbers have declined, so usually one student teacher is assigned to a cooperating teacher. Student teaching, one of the oldest experience programs in all of higher education, has led the way for other programs to offer similar experience programs. Most teachers will say that their student teaching experience was the best part of their undergraduate education and they generated a close relationship with their cooperating teacher which lasts forever. If we only knew how much practicing teachers like to visit with their cooperating teacher, their favorite teacher educator or the state supervisor about their program, we would all take time and listen to a greater extent.

Technology

The teachers conference is also a good place to observe how teachers use technology. Laptop computers, cell phones, and i-Pods are abundant. We learn of the teachers using GIS and GPS software programs for instruction. Presentations with technology and appropriate software seem to be a major change. Previously we used overhead projectors with transparencies. Now it is PowerPoint presentations and posters for conferences. Curriculum changes have been made due to the available technology and expertise of young faculty. Younger teachers have grown up with technology and are well acquainted with its use.

The conference is no longer planned and managed by state supervisory personnel. It is the teachers' program and is supported by supervisory and teacher education personnel. Attendance at the conference is no longer required. As a result, some teachers do not attend as they would do when they were employed for 12

The United States Department of Agriculture is now providing grants for teachers to apply for curriculum enhancement, technology, partnership programs, and experience program development.

months. The conference is one place where teachers are updated on new and evolving changes being made in the agricultural industry.

Supervised Experience Programs

Much emphasis has been placed upon the student supervised experience program. We have evolved from student supervised farming programs to student supervised occupational experience programs to Supervised Agricultural Experience programs (SAE). In Iowa, the Governor's Council on Agricultural Education has given SAE a new title — "Career Experience in

Agriculture." Of any area that I think needs improvement, this is it. Since there are fewer students whose home is on a farm, we can expect fewer supervised farming programs. This has been the most important component of the total program but less attention has been paid to it over the years. New teaching and research models need to be designed with emphasis toward utilizing this unique experience-based program to increase student learning.

Program Finance

Much has changed in recent years regarding the availability of finances for program management and development. Vocational education resources used to be provided through state departments of public instruction. In the mid-seventies, Iowa schools received approximately \$20,000 per year, now it is next to nothing from Perkins allocations. Program support is limited to monies allocated through administrators at the secondary school level and universities for teacher education. The United States Department of Agriculture is now providing grants for teachers to apply for curriculum enhancement, technology, partnership programs, and experience program development. Obtaining grants is now a source for program enhancement. However, grants are competitive and restrictive so there is limited freedom for expenditures.

The Future

The foundation for agricultural education should be based on the preparation of undergraduates for their chosen career in agriculture whether it be teaching, extension, agri-business or agricultural communications. Heavy emphasis should be on the secondary school teacher preparation program. What are their needs? Examples include strengthening of academic advising, cooperating teacher oversight,

technology utilization, program planning, methods of instruction, internships or learning experience programs, and classroom organization and management. With the computer and Internet availability, we should now consider emphasizing to a greater extent problem solving and decision making instruction. To return to problem solving will mean a good inservice education program for teachers. Special attention will need to be given to cooperating teachers so that they can demonstrate and supervise the student teachers in this form of teaching.

An area of study that was and still is weak is the economics of agriculture, namely marketing and management. Increased emphasis should be provided through the use of computer education to strengthen these two areas of study.

We have come a long way in the

education of students using technology, experience programs, class work and learning by doing. Now we need to move more to the human side of education, namely providing for intercultural education and interaction. This is happening in today's education through study abroad programs and student exchanges, but the question is what is being done to further this dimension of learning? With transportation so easy and the Internet so available, students have opportunities to study abroad, participate in travel courses, and learn about other cultures. Several teachers in Iowa have had exchange programs through special grants for their students usually through the FFA that introduces them to students from varied backgrounds and different languages. This approach challenges students and keeps them learning well into the future.



After teaching agriculture in Iowa high schools for 15 years, Harold R. Crawford joined the faculty of the Agricultural Education Department at Iowa State University in 1965. He was Professor and Head of the Department from 1971 to 1983. Since 1983 he has held administrative positions in the College of Agriculture at Iowa State.



Perspectives on the Past and the Future!

By Paul Day, Charles Keel, &
Les Olsen

Paul Day, Minnesota

Significant changes in the governance and curriculum of vocational education occurred through amendments to the Smith-Hughes Act by Vocational Education Acts in 1963 and 1968. One reason there was little enthusiasm for change in some states was management from the top down, discouraging change. Creativity was looked upon negatively. By the beginning of the 1970s, agricultural educators, state departments of education, and school administrators were confused. A leadership void existed. There were no clearly defined goals or purposes. The well developed philosophy of vocational agriculture was ignored in many states. The amendment to the National Future Farmers of America constitution granting membership to females was long overdue and fulfilled a goal to achieve equality in the choice of careers. That change precipitated changes in the curriculum.

Leadership by federal and regional program specialists from whom the profession had sought direction was replaced by state staff members and officers of national associations of teachers, state supervisors, and teacher educators. A number of visionary leaders in agricultural education formed alliances with agriculture, business, and industry to develop alternatives to replace or update previous governance and curriculum requirements.

The National FFA Alumni Association was chartered in 1987. Alumni have benefited agricultural education by serving as volunteers to assist advi-

sors with fund raising, strengthening programs in local chapters, and sharing emerging technology. The name Future Farmers of America was changed to FFA. While upsetting to many alumni, it was beneficial for both the FFA and the FFA Foundation. Increased financial support for curriculum development was made possible by the National FFA Foundation.

Other changes I have seen since the end of Smith-Hughes include the universal adoption of computer assisted learning and the continued commitment to the long held philosophy of agricultural education.

Charles Keels, North Carolina

When I taught vocational agriculture, I had about 80 students each year, none were girls; none were nonwhite. All were FFA members; all were required to have a supervised farming program, improvement projects, and supplementary farm jobs and to keep extensive records. My teaching experiences were vastly different from what today's teachers encounter.

School consolidations changed the environment. Communities were redefined and reconfigured. One-teacher programs become multiple-teacher departments requiring adjustment and reorganization of the curriculum, facilities, and FFA activities.

Racial integration required teachers, administrators, students, and parents to alter their attitudes, thinking, and practices. Admission of girls into agriculture courses brought challenges. Teachers, almost all men, were required to adjust their attitudes and practices as they learned to work with a

gender-integrated group of students, both in classroom and FFA activities.

As late as the early 1960s, teachers were responsible for planning their own courses of study. States began to design and develop standardized courses for a variety of agricultural specializations that required additional and different facilities and resources.

An important factor in the implementation of a changed curriculum is the competence of teachers. Pre-service and in-service education of teachers has changed greatly to prepare them to use the resources and technology available to be effective directors of learning. The increase in the female teaching population has had a significant impact on the image of the program and the rapid increase in females enrolled. This has resulted in a positive perception of the program by students, parents, and administrators. As the curriculum has expanded and diversified, so have FFA activities as an integral part of the curriculum.

Les Olsen, Kansas

Without a doubt the most significant changes that occurred during my tenure in state supervision were influenced by the report, *A Nation At Risk*, released in April 1983. In 1981 the U. S. Secretary of Education created the National Commission on Excellence in Education and directed it to present a report on the quality of education in America. The report stressed that "we must demand the best effort and performance from all students, whether they are gifted or less able, affluent or disadvantaged, whether destined for college, the farm or industry." The Commission recommended that

schools, colleges, and universities adopt more rigorous and measurable standards, higher expectations for academic performance and student conduct, and that colleges and universities raise their requirements for admission. The report created a flurry of challenges to the role and value of vocational agriculture, as it then was called, by leaders of public education across the Nation. Vocational agriculture was caught without a plan. Studies and legislative activities were initiated in several states leading to recommendations for major changes.

Two national activities greatly assisted vocational agriculture to find its role and purpose in public education. The first was the formation in 1984 of the National Council for Vocational and Technical Education in Agriculture. The Council facilitated the historic signing of an agreement between the U. S. Secretaries of Agriculture and Education for a national study of agricultural education in secondary schools to be conducted by the National Academy of Sciences. That study provided a blue print for nationwide changes in agricultural education.

The Future

Paul Day

A future challenge is the continual addition of courses required for high school graduation.

Charles Keels

The most important single ingredient in any successful educational program is the teacher. Efforts must be made to recruit, prepare, and retain an adequate supply of capable, competent, and caring teachers.

Emphasis should be placed on teaching principles and how to learn.

The concept of supervised learning experiences should be enhanced and expanded. Up-to-date, attractive, and appropriate facilities, tools, equipment and technology are vital both for attracting students and for providing learning experiences and developing skills.

For the FFA to truly be an integral part of agricultural education, every student must be an active member. Increased efforts must be made to secure and maintain understanding and support for the program from school administrators, parents, policy makers, and the public.

Les Olsen

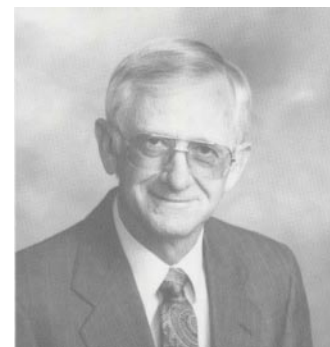
I offer these suggestions for successful agricultural education programs in the future. Be highly committed with passion to serve. Don't be too quick to judge or terminate a student; and seize the opportunity to make a first impression.



Following 16 years as a teacher of agriculture in Minnesota, Paul M. Day was employed in 1970 by the Minnesota Department of Education as State Supervisor and Program Specialist in Agriculture/Agribusiness Education and Advisor of the Minnesota Association FFA. Mr. Day retired in 1994. He was Vice President for Agricultural Education of the American Vocational Association during 1979-1981.



Charles Keels taught agriculture in North Carolina from 1956 to 1961. Since 1962 he has held the positions of Assistant State Supervisor, State FFA Executive Secretary, and State Supervisor and FFA Advisor in the North Carolina Department of Public Instruction. Mr. Keels retired in 1995.



Les Olsen's career as State Supervisor and Kansas FFA Advisor in the Kansas State Department of Education began in 1972 after 13 years as a teacher of agriculture. Mr. Olsen retired in 2000.

Footnote

This article reports the responses of three former State Supervisors to the following questions: (1) What are the most significant changes in public school education in agriculture during your career? and (2) What characteristics and/or principles provide a foundation for the future?

The Changing View

By A. H. Krebs

What the agricultural industry was, is now, and will become shapes all of our thoughts about agricultural education. As the agricultural industry changes, agricultural education programs at both public schools and higher education levels change to prepare youth for careers in agricultural occupations.

In the past, public school agricultural education focused on preparing youth for careers in production agriculture – farming. That this also helped prepare youth for other agricultural occupations was a bonus. With fewer youths growing up in a farming environment, and fewer still choosing farming as a life time career, agricultural education began to focus more on non-farm agricultural occupations. Programs must now not only help prepare youth for farming and other agricultural occupations, but they must also be attractive to youth who do not plan for careers in the agricultural industry.

Public School Agricultural Education

The four-year Vocational Agriculture I, II, III, and IV program so familiar to many is not designed for the future of public school agricultural education programs. The design needs to conform more closely to the way courses in other subjects are listed and offered. This would indicate that the agricultural course program should be made up of stand-alone courses which do not serve as prerequisites to each other. While it would be good to have as a beginning course one on agricultural occupations with emphasis on

home-owner agriculture and agricultural mechanics, even this course should be available at any point in a student's high school program. The other course offerings could each focus on a specific area with content relating to the agricultural industry of the area in which the school is located. Course titles should reflect specific content. Some courses of this kind may already be in place in some schools, given the creativity of the many fine teachers of agriculture. Useful titles could be: Science in Agriculture, Business Management in Agriculture, Agricultural Mechanics, Crop Production, Livestock Production, Fruit Production, Vegetable Production, Greenhouse Operation, Landscaping, Agriculture and the Environment, World Agriculture, and Specialty Crops. Courses such as the management and production courses could be combined into a single course if that seemed desirable. A course in Consumer Agriculture might be attractive.

In addition to preparation for entry positions in agricultural occupations, these courses could serve well as introductory courses for college majors or technical school study. A restructured program of such courses would better meet the needs of students who plan to pursue a specialty in a large agricultural operation where the individual devotes full time to a single aspect of the operation such as machinery operation and maintenance or livestock operation. The student planning to return to a general farm would select the courses having the greatest application. Having a supervised experience program as a part of each course would make the instruction more meaningful in an occupational preparation sense.

Agricultural Education for All

Agricultural education has rightly focused on preparation for farming and other agricultural occupations. As the percentage of the population engaged in farming and other agricultural occupations decreases, agricultural education should include courses to provide an educational experience about agriculture for the student population in general. There is no field of knowledge which has a greater impact on the daily life or every person than the field of agriculture. Courses such as Science in Agriculture, Agriculture and the Environment, and Agriculture as a World Industry could be offered also in schools having no production agriculture programs. Courses need to be designed and opportunities found for offering them.

Teacher Education

Agricultural education programs for teaching methodology have been only a small portion of the college program of a student. This portion of the college preparation for teaching would remain about the same, adjusting to and leading the changes needed in public school programs. For the student preparing to teach, special attention will be needed in selecting supporting content courses as new courses become part of the public school agricultural education curriculum.

In addition to dealing with changes in the agricultural industry, agricultural educators must deal with changes in societal expectations regarding education beyond the high school level. With university, community college, and technical school attendance becoming the expected routes to follow, attention must be

given to how the programs at each kind of institution relate to the offerings at the other institutions.

The FFA

The FFA has long been an excellent vehicle for personal development. Many former students owe their later success to their FFA experiences. Membership should be automatic from the time a student is enrolled in a course in agriculture. It should also be possible for a student to continue membership even if only one agriculture course is taken. The FFA should continue its fine contribution to connecting agricultural education to leaders in the business world, both agricultural and non-agricultural, and to representatives in government. The FFA should also continue to be a strong supporting ambassador for agricultural education programs in the public schools.

Programs for Adults

Workers in nearly every occupation need to have opportunities to discuss concerns and developments with others in the same occupation. Public school districts are logical areas in which to organize adult education programs. Of value in the field of agriculture could be meetings on governmental actions, world agriculture impacts, market factors, and problems with diseases and insects. Even meetings with no specific agenda could be of value for discussing problems facing individual operators.

Concerns for the Future

The competition for resources is alive and well in the academic world. When many administrators were reared in an agricultural environment, their support for agricultural education was accepted as a given. But, just because maintaining the food supply for

the nation and for export is a major essential industry, there is no guarantee that agricultural education programs will be seen by decision makers as necessary at any educational level. All education decision makers need to be kept informed of the nature of and the need for agricultural education programs.

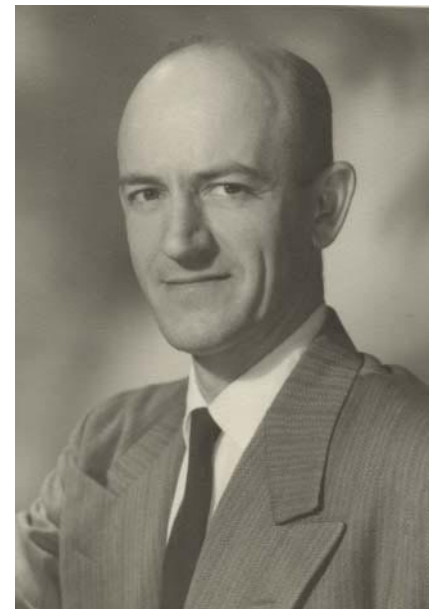
In the public school arena, the information process can be strengthened through the use of local advisory committees to help keep programs connected to the communities, to workers in the agricultural industry, and to agricultural organizations. In the university arena, the agricultural education staff needs to participate to the extent possible in the process of selecting persons for positions which have influence on funding agricultural education programs. It would be wise to keep open lines of communication with persons elected to state government bodies responsible for funding educational programs. Responsibility in this area should be shared by all agricultural educators. The FFA can be a valuable ally in this effort.

It must also be kept in mind that public school agricultural programs are only as good as the quality of teaching. It should not be easier simply to eliminate a program than to find a good teacher to continue it. Agriculture teachers should identify students in their classes whom they believe would be good teachers and encourage them to prepare for teaching.

Professional Communications

It is good to see an issue of *The Agricultural Education Magazine* devoted to reflections on the past and future of agricultural education programs. A means of communicating with other workers in the same field is vital to maintaining the strength of any group

or organization and should be treasured and supported. As teachers of agriculture make their own adjustments to the changing agricultural and education scene, reports of such changes published in the *Magazine* would be of great value. Much of the needed wisdom and vision about the future of agricultural education will come from the efforts of teachers in the field learning from both failure and success in efforts to improve programs and keep them relevant to the times.



From 1950 to 1969, A. H. Krebs was a Professor of Agricultural Education at the University of Illinois, University of Maryland, and Virginia Polytechnic Institute and State University. During the last 12 years of his profession career at Virginia Tech he was a University administrator, retiring in 1981 as Vice President for Administration. Dr. Krebs was Editor of The Agricultural Education Magazine from 1957 to 1961.

Change and Continuity

By Jasper S. Lee

It was the summer of 1963. I had just completed college preparation to be an agriculture teacher. I had landed a good teaching position at a high school that met my criteria—being close to my hometown and not too far from the wonderful young woman who had my attention. I never had it so good, or so I thought. The good days were at hand.

I soon learned that I was not on a protective island in agricultural education. The Vocational Education Act of 1963 was passed by Congress. I later realized that this was the most consequential act shaping secondary agricultural education of any legislation since the Smith-Hughes Act of 1917. It expanded the role of vocational agriculture, as it was known, to include much more than preparation for boys and men to enter and advance in farming. It was a time of change and continuity, and the exciting opportunities that were opened further confirmed that the good days were at hand.

A Young Professional

What was a young vo-ag teacher to do? I had excellent in-school and adult students, supportive school administrators, and community involvement. By participating in inservice for vo-ag teachers, the opportunities began to take new meaning. I saw ways I could grow in my profession and make contributions beyond the local high school level. With encouragement from peers and mentors as well as a wonderful opportunity, I was off to graduate school at a university in another region of the country.

I had mixed feelings about this decision. I gave up the security of a teaching position for the uncertainty of graduate school. I had gained new security, however. The young woman whose home wasn't too far from the location of my first teaching position was now my wife. She was encouraging and supportive in the new ventures. Also an educator, she and I grew our careers together. She had wonderful writing skills and was readily available to critique my work and suggest improvements. I was probably the greatest challenge she ever faced as a teacher!

Graduate school expanded my horizons. I had professors who challenged me and taught me about change. I wrote many papers on a wide range of subjects. I had fellow graduate students who also challenged and inspired me. As completion neared, I had an opportunity to return to my home state

in agricultural education. My major responsibility was instructional materials development.

An Advancing Career

Shortly after entering the instructional materials position, the department head of agricultural education and a couple of state supervisory staff members held a meeting with selected vo-ag teachers to identify needs and set priorities. The teachers in the group were supposedly those with the most wisdom and professional insight. Their continued discussion of the emerging aquatic crop known as “catfish” caused major challenges to arise in my mind. Catfish farming! I remembered that as a child my grandfather caught catfish from a local river that made some mighty fine eating. How to write about the culture of this aquatic species was totally new to me!

Developing instructional materials on catfish farming was a huge undertaking, as there was little written on the topic in the late 1960s. Investigations focused on emerging cultural practices. Even the best producers and scientists in aquaculture were novices who needed to know more. I learned with and from the best around. Soon, the materials were ready for teachers, and dissemination began. Interest in the materials developed far and wide. The materials were expanded into a textbook.

Practicing the Profession

Recognition came. Opportunities in teacher education were good. I changed universities and positions, then later returned to my home university. I aspired to learn more and move forward in the profession. I got involved.

Investigations
focused
on
emerging
cultural
practices.

I made professional contacts. I tried to gather good people around me and sought to learn from them. I grew to practice the profession of agricultural education with full commitment. I did not view my work as bound by the day or hour but by what needed to be done. Fortunately, my profession provided opportunities for me to step forward and hopefully make a difference in writing, editing, researching, and leading the way in unique areas. I tried to become a scholar in the profession with connections to grassroots practices in local communities across the nation.

Much of my career was in agricultural teacher education. I was fortunate to have outstanding opportunities along the way. As I think back, I gained far more from the faculty members around me than I contributed to them. University support was quite strong and provided a quality growth environment through much of my career. Nothing encourages good teacher educators more than a supportive dean!

My greatest pride is in the success of my former students and younger faculty whom I have mentored. My former students are in important positions around the world. I gain joy in seeing them advance. When I ask myself, however, if I contributed in their advancement, as much as I would like to do so, I cannot claim credit for their successes. They were energetic and capable. They worked hard and earned the status they have achieved in life. In many cases, they contributed more to me than I did to them!

Today, many individuals know me through my writing. Though I had edited and authored materials since graduate school days, it was 1993 when I made a major professional change. As a consultant, I have investigated, planned, and prepared textbooks and ancillary materials with the notion of

I left a secure and tenured position in a university to pursue something I viewed as an important need and service to my profession: research and development in agricultural education through the private sector.

having positive impacts on teaching and learning across the nation. This was not something I did on my own. I tapped the talents of many others in the profession in the process and secured enthusiastic support from a publisher committed to agricultural education.

Professional Reflection

As I reflect on the current programs and practices in agricultural education, I see change and continuity. I

see agricultural education as a product of the environment in which it was nurtured. This environment has certainly been molded by the political arenas of our nation, states, and local school districts. How our profession (teachers, supervisors, and teacher educators) has responded is interesting to reflect upon.

Among the first questions is the commitment that exists to agricultural education throughout the nation. Overall, agricultural educators at all levels have responded creatively to demonstrate accountability and create demand for agricultural education. I will use findings of the National Study of Agricultural Education to support my observations. (Lee, Jasper S. *Report of the National Study of Agricultural Education in the United States*. Danville, IL: Center for Agricultural and Environmental Research and Training, Inc., 2005.)

Since 1994, enrollment in secondary agricultural education has increased 40 percent to nearly 1.1 million students. At the same time, the number of teachers is virtually unchanged at about 10,700. This means that teachers are working harder and teaching more students. Unfortunately, I have found that funding has not kept pace. Per student funds budgeted to secondary agricultural education have decreased 20 percent since 1994. When inflation is considered, the decrease approaches 50 percent! In 2004, the budgeted funds for instructional materials for secondary students in agriculture classes was \$37.18 per student. Agricultural educators have worked diligently to expand programs, attract students, and comply with political initiatives. Why hasn't funding kept pace? My first response is to look at the political arena—a rather confused jungle of rhetoric without substantive support for education nor insight into education processes.

Making adjustments and coping with environmental changes have allowed agricultural education to continue.

Another question in my mind relates to the curriculum and instructional materials leadership in the states. When I entered the profession, nearly every state had at least one individual with full-time responsibility in curriculum and instructional materials development. A number of states had materials offices with multiple staff members. Today, only a few of these are left, and some of these are being moved from a leadership-service role to that of a being a profit center. I suspect that part of the loss may be due to changing practices

and decreased funding. The emergence of for-profit curriculum and instructional materials sources is helping fill the void. These are less institutionalized and more flexible in meeting changing demands, particularly the use of computer technology in planning and delivering instruction, along with systems of accountability and testing. In addition, commercial publishers are increasingly producing highly appealing student- and teacher-friendly textbooks and ancillary materials.

I wonder where program planning and curriculum development are headed? Our traditions are being shattered. The use of local community input is rapidly declining in planning local programs. The use of advisory groups has also declined, though not to the same extent. State guides and standards are increasingly used, particularly those that profess connections to academic standards and end-of-course testing.

The emerging practice in local program development and management is to use computer-based materials that have been prepared by the nation's foremost authorities on the subject. These often focus on national and state standards without a great deal of relevance to local agricultural industry. I commend the approach as one that helps teachers demonstrate accountability for trying to support educational goals that have been imposed upon them. Having a local agricultural education program that reflects local situations may be increasingly a challenge, however. Gaining proper balance between knowledge and skill instruction, supervised experience, and student organization involvement will also become increasingly a challenge.

In the late 1980s, course content at the secondary school level began to shift toward a science-based approach. This was a good move. Proper balance

of science and agriculture greatly enhanced student achievement. However, I wonder if there are instances where it may have been carried too far. Have we included so much science in some situations that we have taken out the agriculture? I am confident that this science-based approach has resulted in increased student appeal and enrollment, but I wonder if we have compromised our agricultural education integrity in the process.

Where To From Here?

Much has happened in agricultural education as my career has unfolded. Making adjustments and coping with environmental changes have allowed agricultural education to continue. No doubt it is stronger and, most likely, more important to students today than in 1963 when I began my career. I am proud of the accomplishments of my profession. My profession has made needed adjustments. It will continue to change and adapt.



Jasper S. Lee taught agriculture in Mississippi from 1963 to 1966. He has been a faculty member in Agricultural Education at Virginia Tech (1973-1975) and Mississippi State University (1968-1973; 1976-1993), where he served as Department Head. Now a Consultant, Dr. Lee was Editor of The Agricultural Education Magazine from January 1980 to December 1982.

Some Reflections - Some Suggestions

By Floyd G. McCormick

Some Reflections

Becoming a vocational agriculture teacher in Colorado many years ago was not my first choice; but it certainly turned out to be my best choice. Throughout my 34 years as an agricultural educator at the high school and university levels, three philosophical thoughts about teaching and learning were and still are ingrained in my memory. I vigorously employed these tenets in my teaching: What was I attempting to achieve with my teaching? How could I best accomplish what I was trying to achieve? What principles of leaning would help me do it most effectively?

Educational Outcomes

As a teacher I aggressively championed the idea that for students (secondary and university) to be successful, productive, socially mature, and spiritually happy, they needed to learn how to (1) think, (2) reason logically, and (3) make decisions intelligently. If mastered, their acquired education would make a significant difference in their lives. These three behaviors would contribute to the wealth of the individual and the prosperity of this Nation. It would make their education function in their lives. Needless to say, I reminded my students constantly of the real value of their education.

Delivery System

Some of the happiest, most satisfying and productive days of my professional life were as a vocational agriculture teacher. I can still envision the

vocational agriculture program at Berthoud High School and how proud I was of the achievements of my students and the accomplishments of my teaching.

There was a strong FFA chapter with maximum student participation to motivate and involve them in developing leadership and human relations competencies (knowledge, skills, and attitudes). Competency development in agricultural mechanics was a viable and implied component of the overall instruction program. Supervised occupational experience was a unique and significant feature for each and every student. These experiences were occupationally oriented stressing the application of approved practices based upon agricultural science principles and leadership competencies studied in the classroom and laboratory. These planned experiences were also used to identify, in part, curriculum content taught in the classroom. Competency-based instruction stressed the application of agricultural science principles and leadership abilities associated with the agricultural mechanics, supervised occupational experience, and leadership development content of the curriculum.

These four components were coupled with and reinforced by strong and enthusiastic parental involvement and support, especially for the FFA and supervised occupational experience segments of the total program. A viable community-based approach which contributed to the agricultural needs of the community completed this delivery system. The net result was a total and balanced delivery system which served the needs of youth and adults who wanted and could benefit from such

instruction in this rural school district.

Principles of Learning

How do people learn? What influences how people involve themselves in the teaching-learning process? The teaching-learning process is nothing more than a series of actions and interactions between the teacher and the learner designed to change the behavior of people, hopefully in a positive way.

There are numerous theories on how people learn best. The fundamental truths I utilized every time I planned and delivered (and evaluated) an educational experience or incident were that students learn more and better when: (1) there is interest, (2) needs are being satisfied, (3) thinking is stimulated, (4) students participate actively, (5) two or more senses are used, and (6) a positive climate of success is maintained.

Just think of the many teaching activities and strategies a teacher could utilize to apply these principles as they influence how people learn. Of more consequence, visualize how the desired educational outcomes, the delivery system employed, and the principles of learning supplement and compliment each other. It is so simple it is almost scary; but, simplicity is usually the sign of a good idea.

Beliefs About Program Change

The instructional mission of agricultural education programs in this country has changed from one to a multifaceted mission over the years. In recent times, instruction in agriculture has been modified and broadened to

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encompass a larger percentage of the public school population. How have these changes impacted the sought educational outcomes, the delivery system, and the principles of learning? I believe that:

- ◆ The sought educational outcomes are still valid teaching and learning goals to strive for today as they were yesterday and will be tomorrow.

- ◆ The delivery system has withstood the test of time. In some circles, it has been hailed as a model for all of education.

- ◆ The principles of learning outlined are still effective to bring about desirable changes in student behavior.

The only really significant changes in agricultural education in the last 88 years have been changes in (1) instructional content, (2) terminology used, and (3) clientele served. Why? Developing in students the ability to think, to reason, and to make decisions are always in vogue and educationally sound. Changing terminology only does little or nothing to affect change in a program's mission. Real change comes only when sought educational out-

comes, new mission statements, different delivery systems, and more effective methodology are fundamentally changed. A larger percentage of public school students afforded the opportunity to develop an understanding of and an appreciation for career opportunities in agriculture is essential and desirable in today's society.

One's philosophy of agricultural education does not need to change with changes in program mission if that philosophy is fundamentally sound and educationally effective in the first place. It only needs to adapt or adjust to new instructional content, vocabulary, and new people to be served. The desired results remain the same. In reality, the more things change, the more they stay constant.

Some Suggestions

For almost 90 years agricultural education programs in public schools and universities have had an illustrious past – serving thousands of America's youth and adults by providing instruction necessary and essential for them to become actively engaged in agriculture and to become more knowledgeable about agriculture. I have no way of knowing if agricultural education programs will be around in the next century; but I believe they will have a much better chance to survive if the profession at all levels:

- ◆ Has in operation a *Program Mission Statement* which specifies the task to be achieved, how best to achieve it, and teaching strategies to be employed. The mission statement should be publicized and marketed vigorously at the local, state, and national levels.

- ◆ Maintains a clear and time proven *Program Identity* which professes what agricultural education does best. The desired image and vision for

all facets of agricultural education programs should be projected vigorously.

- ◆ Adheres to *Program Integrity* which delivers what agricultural education professes to deliver and then does the job the profession says it will do.

- ◆ Stresses high *Standards of Performance* for all programs at all levels. Unsuccessful and ineffective programs do not garner much support.

- ◆ Develops and utilizes a *Plan of Action* for delivering instructional endeavors designed to achieve the above suggestions.

Effective education in agriculture is the result of effective programs and dedicated teachers. Education should relate to life and life to education. Good education does make a positive difference in the lives and well-being of people. It should be the best it can possibly be!



A former high school teacher of agriculture in Colorado, Floyd G. McCormick was Professor and Head of the Department of Agricultural Education at the University of Arizona for 23 years. Dr. McCormick retired in 1990.

An Interview with Cayce Scarborough

By Gary Moore

What were the most significant changes in public school education in agriculture during your career?

The most significant event that occurred during my career was that we were too slow to change the focus of vocational agriculture in response to the socio-cultural changes in society. The federal leaders in vocational agriculture were strong believers in *Federal Bulletin 1*. This document stated the objective of agricultural education was to prepare students for farming. The federal leadership emphasized that “becoming established in farming” was the reason we had vocational agriculture. I believe the federal leadership focused on this goal too long.

During the early days of vocational agriculture a major socio-cultural change was occurring in rural America. Small communities were rapidly disappearing. The depression had an impact on local communities. Money was in short supply. Small farmers sold out to larger farmers and left the communities. The churches died out because members either moved away or died. Many schools were closed or consolidated. There were no opportunities to “become established in farming.” Since it was not possible to become established in farming, the federal leadership should have looked at other goals for vocational agriculture.

H. M. Byram’s 1959 book on guidance in agricultural education included information on off-farm occupations, but it was largely ignored. A diagram titled “The Vocational Life of Vo-Ag Students” was developed in a graduate course I taught at North Caro-

lina State. The diagram showed a variety of off-farm career choices, including agriculture teacher. Yet the federal leadership did not recognize anything other than “establishment in farming” as a viable goal for vocational agriculture. *We should have changed sooner!*

There were some positive changes. The structure of the curriculum, but not the content, changed.

Since it was not possible to become established in farming, the federal leadership should have looked at other goals.

When I attended high school in 1924-1928, I took Field Crops my freshman year, Animal Husbandry the next year, and Horticulture the third year; Farm Management was taught the fourth year. When I started teaching agriculture, the curriculum structure was changed to Ag I, II, III, and IV. Another change was a decline in the use of home improvement projects. All students can have home improvement as a project. This should have been emphasized more.

Even though I was a district supervisor during part of my professional career, I did have some concerns about “the supervisor.” I think supervision could have been improved. Some of the supervisors needed more education and some needed more professionalism.

What were the most significant changes in teacher education in agricultural education?

The work of H. M. Hamlin, my major professor at the University of Illinois, had a major impact on teacher education. He was a strong advocate of studying the local community to determine what to teach and in involving the community in the agricultural education program through the use of advisory committees. At North Carolina State we got Selz Mayo, head of Rural Sociology, to teach a course on Community Study. Then students studied the community where they would student teach. This had a major impact on students understanding the community and helped them determine what should be taught. It made them better teachers.

As a former Editor of The Agricul-

tural Education Magazine, what challenges did you encounter? What major purposes should The Magazine achieve?

My biggest challenge was to make the *Magazine* more interesting. Some of the research-based articles were boring. I continued the pro and con articles my predecessor, Ralph Woodin, had started. I also tried to get more articles from agriculture teachers, but it is hard getting agriculture teachers to write.

The challenge for the *Magazine* is to get readers to feel better about the profession of agricultural education. Whether one is a teacher or supervisor, they should feel inspired when reading the *Magazine*. The *Magazine* should also encourage members of the profession to develop leadership. Some teachers have switched jobs because they don't feel good about what they do. They don't feel empowered. The *Magazine* should help remedy this.

Footnote

Dr. C. Cayce Scarborough, 94 years of age, was interviewed in Raleigh, North Carolina, on July 6, 2006 by Gary Moore. Dr. Moore is Professor of Agricultural Education at North Carolina State University.



The challenge for the *Magazine* is to get readers to feel better about the profession of agricultural education.

C. Cayce Scarborough's professional career began in 1935 as a high school teacher of agriculture. A former district supervisor and FFA Executive Secretary in Alabama, he was Professor of Agricultural Education at North Carolina State University (1950-1973) and Auburn University (1947-1949; 1973-1979). Dr. Scarborough is a former Editor (1965-1967) of The Agricultural Education Magazine.

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Musings From the Sheepfold

By Edgar Persons

Observations of Change

Having returned to a community where 50 years ago I first taught vocational agriculture, I have a lot of opportunities to observe change. The thriving town is now but a shell of its former self, with most of the retail establishments and many of the professional services no longer functioning. Most of the people who were engaged in farming, the 1950s definition of agriculture, have died or retired, leaving the farm business to a son or daughter or sold to a neighbor or stranger. Farm land once operated by owner operators has been either sold or leased to one of the mega-farms that are beginning to define production agriculture in this community. Farms are different, but so are the farmers. They are a different breed – better educated, willing to take risks and hire others to do specialized jobs they once would have considered doing themselves. For some their job is to be a manager, often hiring others to do the physical labor.

The job of a farm management instructor has also changed. They need to focus on what farmers do – manage. While the instructors need to be well grounded in the technical aspects of production agriculture in order to understand the businesses with which they are working, it is unlikely that they are the primary source of technical information for the farmers they serve. It is unlikely that the farmer who farms in excess of 10,000 acres would rely on a teacher of agriculture for technical advice, when he/she has in his/her employ several persons who specialize in the various facets of growing and marketing beans and corn. This sce-

It is noteworthy that the profession of agricultural education, once almost exclusively devoted to education in and about agriculture, is now much more broadly defined.

nario suggests that persons being educated to be teachers of agriculture in a production agriculture setting, and especially those who are planning to work as instructors of adults, may benefit from an education with some focus on the managerial aspects of production agriculture. While having a solid background in technical agriculture will be essential, the key focus of the job for those teaching adults may well be in management.

An Evolving Profession

It is noteworthy that the profession of agricultural education, once almost exclusively devoted to education in and about agriculture, is now much more broadly defined. Incorporated in the definition of agricultural education, or at least close paralleling it in intent, are agricultural communications and

leadership. The marriage of agricultural education, communication, and leadership is evident in the newly devised national agenda for research in agricultural education and communication.

In the earlier days of research in and about agriculture, there was no national plan or agenda for research. To find out what the research agenda of the profession was, one had to review the published research after the fact and categorize each piece to determine collectively what the “agenda” appeared to be. While a group interested in adult education in agriculture developed an agenda, the evidence that the agenda has had a major effect on the guidance of research in adult education is rather slim. Individual researchers have focused on particular problems or questions, and some institutions have demonstrated a narrowed research focus, but a national thrust has not been evident. Will a national research agenda for agricultural education and communications make the research any better or more vigorous? Probably not. It may, however, help to focus attention on what has been collectively defined as “significant problems.” If there is an educational solution to a well defined and identified problem, a critical mass of research should at least start to define workable solutions. The research will have to be aimed at problem solution rather than just further problem definition.

There may be part of the agenda where additional research will yield little additional information. The law of diminishing marginal return will suggest that some issues on the agenda should no longer be studied. Perhaps what will be needed is an agreement among the profession that if an item is to be added to the agenda, then an item already

there must be dropped. As the agenda is reviewed and revised, as it should be very frequently, additions and deletions can keep the agenda fresh and relevant.

Changing School Environment

Just as the definition of agriculture in the 1950s was rooted in farming, the programs in school were focused on production agriculture. With the major decline in the number of active farmers, the decline in the size of farm families, and the proliferation of careers outside of production agriculture, a production agriculture focus was no longer prudent. It probably wasn't prudent in the 1950s, but the profession was not insightful enough to make major changes in focus until changing demographics, consolidation of school programs, and the decline in production agriculture oriented students forced the issue.

If we have been paying attention to the world around us, we have learned some important lessons from the past. Circumstances and environments for educational programs change. Tomorrow will be different from today. The profession is also expected to change. This is not to suggest that we throw out everything old, since some old principles, concepts, and programs are still relevant. Our job is to sort them out making sure we are not shortchanging youth and adults by focusing on principles, concepts, and programs that do not advance the mission of agricultural education. But we do it with caution! Nor should we be too impatient. Desirable change often takes time. Transitions from what we are doing to what we should be doing may be slower than we predicted.

Foundations

The question of what should constitute the foundation for agricultural

education is complex. Dr. A.M. Field, an early pioneer in agricultural education, speaking on the mission for agricultural education said, "Take the boy from where he is to where he ought to be." Today the reference to boy is politically incorrect, but in the context and time of his pronouncement, it was a logical statement. He gave no recipe for accomplishing the task, only the instruction. Several decades later farm management leaders adopted a similar philosophy for farm management instruction: "Assist the farm family in reaching its business and personal goals." No recipe, just an instruction. There is, however, a subtle shift in focus between these two lofty goals. Field's statement implies that there is some place in life one ought to be. The farm management statement focuses on goals, or where one wants to be, or a self directed destiny.

For both youth and adults there are some implied recipes in those instructions with a variety of possible ingredients. If we are to continue to refer to programs in agricultural education or agricultural science, then it seems logical that agriculture, broadly defined, should be the backbone of the program. It should be the foundation upon which the program rests. If that isn't true, then we shouldn't call them programs of Agricultural Education.

It is hard to imagine a program at any level that does not stress the importance of communication. That doesn't mean there has to be a course with a communication title, but rather that the importance and techniques of effective communication be incorporated by reference and example in the agricultural education or agricultural science curriculum. A fundamental goal for all programs should be to develop effective communicators.

Also important is the ability to lead. Leadership is more than holding

a meeting using parliamentary procedure correctly. It is knowing how to get groups to organize, identify mission and goals, plan, and implement action. Sometimes leadership means being an effective follower. Not all can lead, but most can follow. To promote leadership also means to inform how to be an effective follower. Without followers, there is no leadership.

Epilogue

This article is just what its title implies – musings. It is not based on recitations of research; it is not grounded in educational principles; nor is it based on educational theory. It is simply musing prompted by the nuzzling of a curious lamb, the dominant quiet of a lazy summer evening, the cackle of an egotistic pheasant cock, and the calm assurance of an old family dog as we grow old together and recall that things aren't the way they used to be, and in fact never were.



Edgar Persons' professional career began as a teacher of vocational agriculture in Minnesota. From 1964 to his retirement in 1996, he was Professor of Agricultural Education at the University of Minnesota. He was Head of Agricultural Education at the University of Minnesota from 1989 to 1996.

Can You Perform?

By Warren Reed

You can read, read, and read some more and not experience anything! As National FFA President Travis Jett said in the February 2006 issue of *FFA New Horizons*, “I have found I can only read about a topic so much before I need to try it.” He is talking about *experience*, expressed in the second phrase of the FFA Motto, “Doing To Learn.”

When you artificially inseminate a cow, you are experiencing something. When you run vertical and overhead welds, you are experiencing something. When you castrate a pig, you are experiencing something. When you dig up a corn plant to examine for root worm damage, or cut across an ear to remove the husks and watch the silks drop off which tells you the degree of pollination, or determine the plant population, you have experienced a number of things.

Understanding and Performing

I am not against reading, but remember we are responsible for vocational education in addition to academic education. Students need to be able to perform, not just understand. Understanding is important. Understanding is a part of education and can partially come from reading, lectures, note taking, or watching videos. But students need to be able to *perform*. The name of the game in vocational education is performance, and the bottom line is how well students can perform! Experience is required to get performance. Reading, videos, lectures and note taking, by themselves, will not get the job done. Experience may be the weakest link in some, if not all, programs. Supervised agricultural experiences are

the heart of effective programs because they encourage and measure student performance.

When teaching arc welding, by reading, lecture, note taking, and videos students are taught to understand the principles of arc welding. Students learn about amperage settings, electrode angle, arc length, speed of travel, and electrode selection. But this is not vocational education. There is a key word in the previous sentence. That word is “about.” A lot of education today is about something. In vocational education, in addition to knowing about something students must be able to perform. Can you perform? How well can you perform?

In welding classes I taught, students were required to run straight beads, weaving beads, butt, fillet, lap, corner, and edge welds and I encouraged them to do vertical up and down, horizontal, and overhead welds. They were told that each weld would be graded and the passing grade was 90. When students questioned why my grading standard was higher than the school’s passing grade of 70, I asked if they had appendicitis and had to have surgery if they would be happy for the surgeon to be graded 70 on their surgery. They began to realize that 90-plus grades in the grade book really wouldn’t hurt that much.

Show and Tell

Look for the low or underachieving student whose weld was graded 90 or higher. Bring in that student’s weld and describe to the class what made it such a good weld. You have now accomplished three things: reinforced your teaching of the skill and knowledge required to make a good weld; gained considerable respect for this

student who might go home and tell the parents and now a family that probably hasn’t heard much good from the school has a new outlook; and demonstrated to students an added value of self worth.

P.S.

Do I practice what I preach? Most of the years since graduating from high school I have farmed enough to fill out a 1040F tax report. I am one of the smallest farmers in the county. I do all the work except I hire the combining done. This way I am involved in doing many of the same things I teach. It keeps me humble, and even more important, up-to-date and practical; and, it contributes to my understanding.



Warren Reed retired in 1982 after a 31-year career teaching Production Agriculture at Crestview High School, Van Wert County, Ohio. Since retirement as a high school teacher, he has been employed by the Vantage Career Center, Van Wert, Ohio, as an Adult Education Agriculture Consultant teaching farmers enrolled in Farm Financial Management courses. Mr. Reed is a former President of the Ohio Vocational Agriculture Teachers Association.

Maintaining Core Values - Keeping Programs Up-to-Date

By Bob R. Stewart

How should lessons from the past drive our profession today?

Strong local programs of agricultural education share many common characteristics that distinguish and sustain them even though the environment, local support, and the student base changes. The characteristics that distinguish strong programs are managed by competent teachers who maintain a balanced program that is current and meets the needs of the students and the community. This most often occurs when:

- ◆ local schools maintain a balanced program that consists of classroom and laboratory instruction, supervised experience, and leadership and personal development,
- ◆ school administrators and the community are kept informed about the activities and successes of students in agriculture and the FFA,
- ◆ teachers have access to and participate in professional development activities,
- ◆ teachers keep the curriculum and teaching materials current,
- ◆ teachers utilize the latest appropriate technology,
- ◆ programs maintain state of the art equipment and facilities,
- ◆ universities prepare and place

sufficient numbers of well qualified teachers,

- ◆ teachers support a strong state professional organization, and
- ◆ the state maintains a strong state level leadership in agricultural and career and technical education.

What ought to be the foundation of agricultural education?

Strong programs thrive when they reflect the core values which are the foundation of agricultural educa-

Strong programs thrive when they reflect the core values which are the foundation of agricultural education.

tion and are often illustrated as the three legs of a stool: problem-based instruction; supervised experience; and leadership and development.

The literature in agricultural education has discussed these core values since the inception of the program and the founding of the FFA. There have been changes in implementation and focus, but just as automobiles and tractors have changed, so have our programs. However, the basic elements remain constant.

Problem-Based Instruction

Problem-based instruction in the classroom and laboratory that involves the application of learning should be the basis for a strong instructional program in agricultural education. Using problem-based instruction was discussed as early as 1929 by Lancelot in *Handbook of Teaching Skills*. The concepts of problem-based instruction are captured in the chapter on "Learning as Problem Solving" in *Methods of Teaching Agriculture* first published in 1986 by Newcomb, McCracken, and Warmbrod. The authors credit the work of John Dewey, known as Dewey's Steps in Reflective Thinking, as the process that should be used in teaching agriculture. The six steps are: (1) Interest approach; (2) Group objectives; (3) Questions to be answered; (4) Problem solution; (5) Testing solutions through application; and (6) Evaluation of solutions.

For instruction to be most effective, current materials and resources must be used. Just as the white board replaced the chalk board, PowerPoint has replaced the overhead projector. Students use computers as often as

written materials for sources of information. Such instruction in the classroom and laboratory, with the opportunity for application, provides the basis for a good supervised experience program.

Supervised Experience in Agriculture

Supervised experience has also been a constant since the inception of programs in agriculture. However, as agriculture and our communities have changed, so have the supervised experiences of the students. The supervised farming program has changed to include supervised experience in all areas of agriculture. Currently the National FFA Proficiency Awards program recognizes supervised experience in 51 areas that include both placement and entrepreneurship activities. Phipps, in the 1980 edition of *Handbook on Agricultural Education in Public Schools*, defines supervised occupational experience programs in agriculture to consist of all the practical agriculture activities of educational value conducted by students outside class or on school-released time for which systemic instruction and supervision are provided by their teachers, parents, employers, or others. Binkley and Hammonds in their 1970 book, *Experience Programs for Learning Vocations in Agriculture*, stated that every student in agriculture should have a good experience program that is well supervised.

Leadership and Personal Development

Prior to the founding of the FFA in 1928, teachers recognized the value of developing leadership skills in students of agriculture. Their efforts in instruction lead to the organization of the Future Farmers of America as a national organization for students study-

ing agriculture. Early activities included speaking and the development of social skills. This aspect of the program was highlighted in the preface to Stewart's book, *Leadership for Agricultural Industry*, which stated: "There is nothing new about the need for leadership and personal development activities in agriculture. In fact, the FFA was developed in response to this need and is based on the concept of fostering leadership, citizenship, and personal growth." Lee and others in *Developing Leadership and Communication Skills* stressed that "Success in our careers as citizens requires us to have leadership and communication skills. These include important personal skills dealing with how to get along and solve problems in our lives." The FFA provides students in agricultural education the opportunity to develop and practice leadership and communications skills that are important to personal development and career success.

Summary

Many changes in agricultural education have been gradual over several years. However, key events during the past 50 years have accelerated change. The Vocational Education Act of 1963 broadened the concept of vocational agriculture to include agribusiness and expanded options for supervised experience programs. About this same time the FFA voted to admit girls to membership and the number of girls enrolled in programs of agriculture began to increase. This was followed by major efforts to update and change curriculum materials and books during the later part of the 1970s and the 1980s. During this time the FFA was evaluating and expanding competitive events and proficiency award areas to recognize the changing instructional programs in agricultural education. I believe the changes in agricultural education can

be recognized as one of the most successful efforts in American education to meet the changing needs of students and local communities. Strong programs of agricultural education continue to maintain an appropriate balance among problem-based classroom and laboratory instruction, supervised experience programs, and utilizing the FFA for leadership and personal development. Good teachers that manage balanced and up to date programs of agriculture that meet the needs of the students and community remain the key to the continued success of agricultural education.



Bob R. Stewart is Professor Emeritus, Agricultural Education, University of Missouri-Columbia. He studied agriculture in high school, was a State FFA Officer, and was a high school teacher of agriculture. He has been a faculty member and administrator at the University of Missouri since 1968, retiring in 2002.

The Agricultural Education Magazine Editors: 1929 - 2009

Agricultural Education: This is the first issue of a publication intended for those interested in public school programs for the improvement of agriculture and country life. (Volume 1, Number 1, January 1929)

H. M. Hamlin, Iowa State College

January 1929 – March 1930

Sherman Dickinson, University of Missouri

April 1930 – March 1932

Carsie Hammonds, University of Kentucky

April 1932 – March 1935

Roy A. Olney, West Virginia University

April 1935 – June 1937

The Agricultural Education Magazine: It seems that "The Agricultural Education Magazine" is a more appropriate name than "Agricultural Education" . . . the new name designates a periodical rather than a course or department of education. (Volume 10, Number 1, July 1937)

Roy A. Olney, West Virginia University

July 1937 – March 1939

H. M. Byram, Michigan State College

April 1939 – March 1942

O. C. Aderhold, University of Georgia

April 1942 – March 1944

W. F. Stewart, Ohio State University

April 1944 – June 1946

G. F. Ekstrom, University of Missouri

July 1946 – June 1949

W. Howard Martin, University of Connecticut

July 1949 – June 1952

W. A. Smith, Cornell University

July 1952 – June 1957

A. H. Krebs, University of Illinois

July 1957 – June 1961

T. W. Gandy, Auburn University

July 1961 – June 1962

Ralph J. Woodin, Ohio State University

July 1962 – June 1965

Cayce Scarborough, N. C. State University

July 1965 – December 1967

J. Robert Warmbrod, Ohio State University

January 1968 – December 1970

Harry Kitts, University of Minnesota

January 1971 – August 1971

Milo Peterson & Ed Persons, Univ. of Minnesota

September 1971 – December 1971

Roy Dillon, University of Nebraska

January 1972 – December 1973

Martin B. McMillion, Virginia Tech

January 1974 – December 1976

James P. Key, Oklahoma State University

January 1977 – December 1979

Jasper S. Lee, Mississippi State University

January 1980 – December 1982

Larry Miller, Ohio State University

January 1983 – December 1985

Blannie E. Bowen, Ohio State University

January 1986 – August 1988

Blannie E. Bowen, Penn State University

September 1988 – December 1988

Phillip Zurbrick, University of Arizona

January 1989 – December 1991

Edward W. Osborne, University of Illinois

January 1992 – December 1994

Lou E. Riesenber, University of Idaho

January 1995 – Nov/Dec 1997

Gary E. Moore, N. C. State University

Jan/Feb 1998 – Nov/Dec 2000

Robert A. Martin, Iowa State University

Jan/Feb 2001 – Nov/Dec 2003

Jamie Cano, Ohio State University

Jan/Feb 2004 – Nov/Dec 2006

Billye Foster, Editor Elect, University of Arizona

Jan/Feb 2007 - Nov/Dec 2009

The Agricultural Education Magazine - 2007 Themes

By Billye Foster

The focus of The Magazine is to be “hands-on,” practical approach journal. Articles should share specific steps one can take to make teaching and learning in and about agriculture more efficient, enjoyable, and effective. The best articles for The Magazine are ones that have a clear point and share practices that can be used in the “real world” of teaching agriculture.

January - February 2007

”The World is Flattening—Where Will Agricultural Education Fit?”

This issue that will set the pace for the coming year. It is an opportunity to encourage our profession to look around and acknowledge the changes technology and improved communication ability has brought in the past 5-10 years. Another thought is how do we prepare our students to enter a world where marketing and production can be out-sourced around the globe? How can students retain the status of being world leaders in agriculture in this new environment?

Theme Editors: Jack Elliot, Professor and Department of Agricultural Education Chair, the University of Arizona; William “Buddy” Diemler, Utah State Office of Education, Specialist, Agricultural Education; and, Jason Larison, Agricultural Education Teacher, Holton High School, Kansas

March - April 2007

”The La Joie de Faire of Teaching—Why We Do What We Do”

What makes an ag teacher an ag teacher? Why do people choose this profession and why do they stay with it? What are fifteen reasons why I am an agricultural education teacher?

Theme Editor: Kyle McGregor, Assistant Professor, Department of Agricultural Services and Development, Tarleton State University

May - June 2007

”Research is to Practitioners as Logic is to _____”

How does research affect the day to day operations of high school agricultural education teachers? What is relevant research? How can research shape the future of agricultural education?

Theme Editor: Gary Moore, Director of Graduate Programs, Department of Agricultural and Extension Education, North Carolina State University

July - August 2007

”See Me—See You—Well, Not Always...Dealing with Differences.”

I see this as the diversity issue for the year. Questions to ponder include: What do you do to make your classroom a diversity empowering location? How do you prepare your students to interact with the myriad of humankind they will encounter? How do you deal with student handicaps? Is diversity something you weave into every facet of your program—or just something

you do to keep the administration happy?

Theme Editor: Penny Haase-Wittler, Professor of Agriculture/Teacher Education, Southern Arkansas University

September - October 2007

”Eenie, Meanie, Minie, Moe...Pick the Curriculum That Best Fits Joe!”

With the plethora of curricula available today, how does a teacher know what to use? How do you match curriculum to a program? Should teachers only use curriculum produced in their home states? How does the curriculum you choose affect the teacher you become?

Theme Editors: Sarah Osborne-Welty, Agricultural Education Teacher, Walkersville High School, Maryland; Jim Knight, Professor, Agricultural Education, the University of Arizona

November - December 2007

”If Reality is an Illusion, Where Does Agricultural Education Fit?” Words of Wisdom

I see this as the issue that taps the wisdom/philosophies of those that have gone before...you know the retired and semi-retired. What changes have they witnessed during their professional lives? What predictions do they have for the future? What advice would they give newbies? I guess this would be one of those issues where the only articles are those that you have invited—sort of an “elite” crowd.

Theme Editor: Brenda Seevers, New Mexico State University

