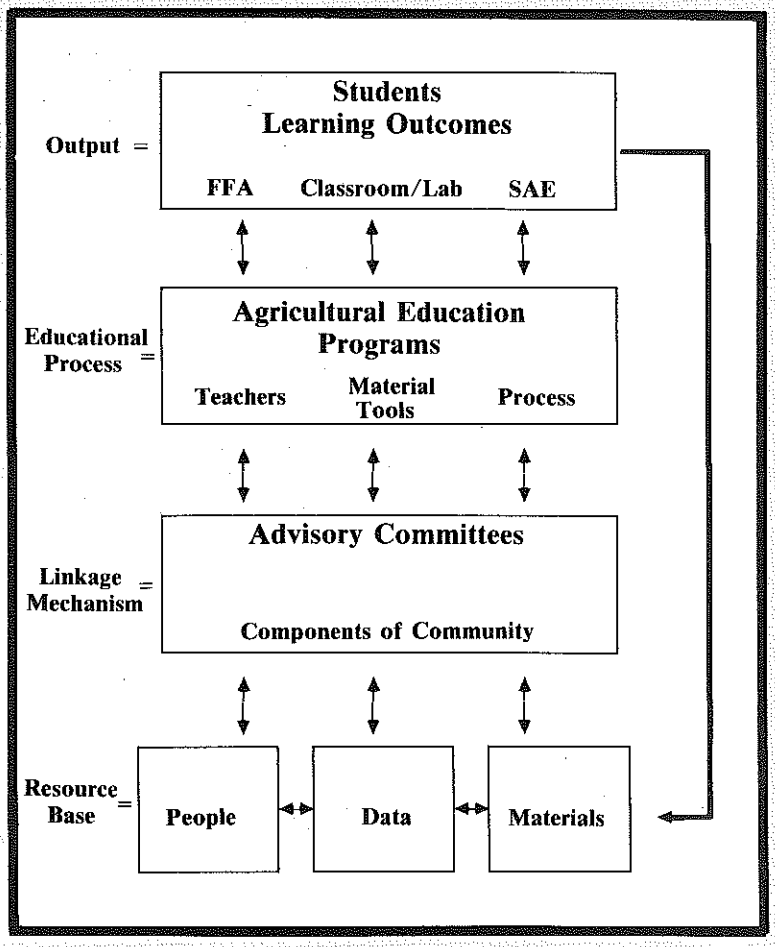
The
Agricultural Education
Magazine

June, 1992
Volume 64
Number 12



Advisory Councils

THE
AGRICULTURAL EDUCATION
MAGAZINE

June, 1992 Volume 64 Number 12

Table of Contents

	Page
EDITOR'S COMMENTS	
A Profession That Eats Its Young ..... *Ed Osborne*	3
THEME EDITOR'S COMMENTS	
Advisory Committees: Questions in Search of Answers ..... *Robert A. Martin*	4
THEME ARTICLES	
Advisory Committees and Community Resources ..... *Miley Gonzalez & Tom Dormody*	6
The Benefits of Advisory Committees ..... *Tom Paulsen*	8
Commitment and Involvement - The Keys to This Agriculture Program ..... *Paul Heasley*	9
Advisory Committees and Program Restructuring ..... *James Connors, Gwen Dado & Pete Siler*	11
Successful Programs Have Active Advisory Councils ..... *Julie Leier-Mueller*	13
Optimizing the Benefits of Advisory Councils ..... *Dewey Adams*	14
FEATURE COLUMN	
Computer-Assisted Instruction: The Classroom and CD-ROM Technology ..... *Barbara M. Kirby*	17
OTHER TOPICS	
Promoting Experiential Leadership Training for Preservice Students in Agricultural Teacher Education .... *Maynard J. Iverson & Frank B. Flanders*	18
Personal Computers — More Than Calculators and Word Processors ..... *N.L. McCaslin & Robert M. Torres*	22
STORIES IN PICTURES	24

ARTICLE SUBMISSION

Articles and photographs should be submitted to the Editor, Regional Editors, or Special Editors. Items to be considered for publication should be submitted at least 90 days prior to the date of issue intended for the article or photograph. All submissions will be acknowledged by the Editor. No items are returned unless accompanied by a written request. Articles should be typed, double-spaced, and include information about the author(s). Two copies of articles should be submitted. A recent photograph should accompany an article unless one is on file with the Editor. Articles in THE MAGAZINE may be reproduced without permission.

PUBLICATION INFORMATION

THE AGRICULTURAL EDUCATION MAGAZINE (ISSM 7324677) is the monthly professional journal of agricultural education. The journal is published by THE AGRICULTURAL EDUCATION MAGAZINE, INC., and is printed at M & D Printing Co., 616 Second Street, Henry, IL 61537.

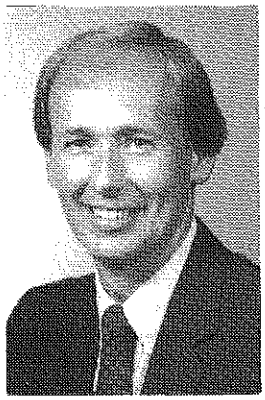
Second-class postage paid at Mechanicsville, VA 23111; additional entry at Henry, IL 61537.

POSTMASTERS: Send Form 3579 to Glenn A. Anderson, Business Manager, 2441 Suzanne Rd., Mechanicsville, Virginia 23111.

SUBSCRIPTIONS

Subscription prices for THE AGRICULTURAL EDUCATION MAGAZINE are $7 per year. Foreign subscriptions are $20 (U.S. Currency) per year for surface mail, and $40 (U.S. Currency) foreign airmail (except Canada). Student subscriptions in groups (one address) are $4 for eight issues. Single copies and back issues less than ten years old are available at $1 each ($2.00 for foreign mail). All back issues are available on microfilm from Xerox University Microfilms, 300 North Zeeb Road, Ann Arbor, MI 48106. In submitting subscriptions, designate new or renewal and address including ZIP code. Send all subscriptions and requests for hardcopy back issues to the Business Manager: Glenn A. Anderson, Business Manager, 1803 Rural Point Road, Mechanicsville, VA 23111. Publication No. 73246

A Profession That Eats Its Young



By Ed Osborne, Editor

Dr. Osborne is associate professor and program chair of agricultural education at the University of Illinois.

I just learned that one of our promising, young agriculture teachers in Illinois has resigned his teaching position to seek employment in agribusiness. As disappointed as I was, I can understand his reasons for deciding to leave teaching. The job had simply become too demanding. Spending three or four nights every week away from one's spouse, children, and friends makes for a high burnout, high teacher turnover scenario. Unfortunately, this bright, young teacher is in the majority, rather than the minority.

My personal observations and readings indicate that a high percentage of beginning agriculture teachers leave the teaching profession by the end of their third year of teaching for the same reason — the expectations and demands of the position are overwhelming. The stress, heavy workload, and constant pressure to be better has resulted in a profession that literally devours its young and forces them to look elsewhere for professional and personal satisfaction.

The problems and causes of this professional cannibalism are the result of years of effort to maintain and improve agriculture programs in the secondary schools of America. The need to be central to the school's curriculum, enrollment pressures, the fact that most programs involve only a single teacher, the need for community involvement and public relations, the expectation of strong FFA and SAE programs, the need to serve adults, the need to reach new audiences, agricultural literacy initiatives at the elementary level, laboratory management, the constant need to modify curriculum, lack of reliance on standard curricula and supporting texts, a high number of daily preparations in teaching, the diversity of the agricultural industry — all of these and other dimensions of being a successful high school agriculture teacher have brought us to this critical stage in the development of the profession.

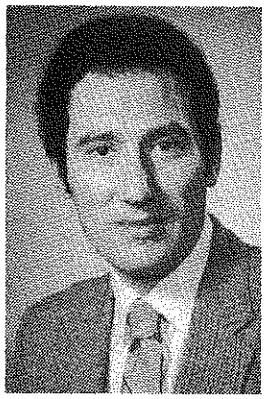
The confusing trends bring to light one clear revelation; we cannot continue on our present course of overloading the job expectations of secondary agriculture teachers without paying serious consequences. Prospective undergraduates in agricultural education may choose to steer clear of agricultural education even though they are genuinely interested in teaching. I am convinced that upon completion of student teaching a large percentage of students decide not to pursue a career in teaching primarily because of the heavy workload, although they are usually reluctant to cite this as a reason. Other reasons are often given, but I believe the demanding nature of the job is the underlying factor in many of these decisions not to teach.

As a result, we find ourselves unable to recruit the desired number of undergraduates into our teacher education programs, and we are unable to move a high percentage of our graduates into teaching positions. And I would contend that a high percentage of our very best teacher candidates choose not to teach in the public schools. The result is an understaffed, overworked profession whose individual members and the membership as a whole are constantly running on the edge, like a race car driver. As in car racing, some are certain to crash and burn.

A similar problem exists at the university level in agricultural education programs with three or fewer faculty members. Once again, these determined university professors have the mind set that they must provide a complete, comprehensive program containing all dimensions of agricultural education. It's the double-edged sword of always striving to be the best we can be and sometimes paying the personal and professional consequences of overextending ourselves.

The solutions to this broad problem are unclear, but a solution plan must be formulated and moved into action. One promising solution to the problem of high burnout and turnover among secondary teachers is the establishment of a mentor program in every state. Beginning teachers could be formally linked to their former cooperating teacher and/or another seasoned, outstanding teacher in their geographical area. The mentor's role would be that of constant supporter, informer, teacher, and friend. To make a mentorship program work, teachers will have to replace competition with cooperation among their fellow teachers — →

Advisory Committees: Questions in Search of Answers



By ROBERT A. MARTIN

Dr. Martin is associate professor of agricultural education at Iowa State University.

Show me an agricultural education program that has an active advisory committee and I'll show you an outstanding, educational, experience-based enterprise. We have all seen them. We know what they look like. There is no denying results. Agricultural education programs which rely heavily on community resources for people, data and things are programs which survive, grow and develop. These are programs which change, fill needs, and get results. These are programs in which education has meaning and students gain the sound educational and leadership development needed to pursue a career in agriculture.

If we believe what we see advisory committees doing, then it is critical to ask some key questions. What are the functions of advisory committees? What questions should advisory committees be addressing?

Functions

We often make the assumption that advisory committee members know intuitively what it is they are to do. The best advisory committees are often made up of people who have diverse backgrounds and significant experience. They also have been given a clear understanding by those wishing them to serve, of the functions they are being called upon to address. Only then will they have a clear purpose for sacrificing the time and energy for such a program. Only then will their input be of the greatest benefit to the school district.

Advisory committess have two basic functions. These functions are planning and evaluation. The planning function focuses on giving assistance in setting goals and objectives for the program. This function centers around identifying inputs, community resources, and programming strategies. The evaluation function focuses on the process of reflection. This function centers around assessing the extent to which goals and objectives have been met and analyzing the quality of the results with some determination being made on what to do about it.

Questions

Knowing the functions of the committee on which people are to serve will not insure success of any group. It will help, but what needs to be done next is to address specific questions, the answers to which will help the educational program take shape. The following list of questions→

A Profession . . .

(continued from page 3)

not an easy change in some states. Teacher education could take a more aggressive role in supporting the efforts of beginning agriculture teachers. While most states offer a graduate course for these teachers, these course activities often do not go far enough in providing on-site, continuous assistance and support.

Finally, and most importantly, the job description for high school agriculture teachers must be redefined. This task has been casually suggested from time to time, but no substantive progress has been made. It's time to make some difficult choices and formulate new strategies for accomplishing some of the current activities of secondary agriculture teachers. Individual teachers need to carve out their portion of the agricultural education pie and focus on it, rather than attempting to serve up the entire platter to their students and community. Agricultural educators should work with administrators to keep the number of daily teaching preparations to four or less.

Agriculture teachers must be more selective in their program components, more specialized, and less involved as leaders in other nonagricultural school activities. Teacher educators need to make certain that their graduates have mastered the basics of successful teaching. The job of the secondary agriculture teacher has turned into a race horse running wild. It's time to take a hard look at the job of the high school agriculture teacher and identify ways to ease the burden while ensuring success. ■

is by no means complete. There may be others that should be added. After reading the other articles in this issue, readers may have other questions and concerns they would have advisory committees address.

However, the following questions may help agricultural educators get started on the way to better use of advisory committees.

1. Are the educational programs in agriculture specific and selective?
   a. Are there well-defined objectives - to meet the purpose of the school and needs of students and match educational and occupational opportunities?
   b. Is education and training directly related to real experience?
   c. Is competency developed in selected agricultural knowledge and skills areas?
   d. Do students have opportunities to develop and expand educational and occupational objectives?
2. Are educational and job opportunties available to graduates?
   Is there a need for the program?
   What specific need is being met by the program?
   Is the program flexible?
   Is there easy entry, easy exit?
3. Does the program develop all the skills and abilities needed?

Cultural diversity & awareness	Global perspectives
Technical knowledge & skills	Communication skills
Manipulative skills	Human relations skills
Work habits	Leadership skills

4. Does the program have effective educational and/or employment
   placement records and follow-up services?
   What are the graduates doing?
   Are graduates pursuing further education?
   Who is employing the graduates?
   What records are being kept of graduates?
   Is this information available to students? Parents? Community leaders?
   Is the program changing to meet changing industry needs? Personal needs? Trends?
5. Is Agricultural Education available to all those who need and desire it?
   What public relations is being done?
   Is there a strategic plan for reporting accountability data and other information?
   What efforts are being made to recruit students from junior and senior high schools, young adults, and older adults, as well as special needs students?
6. Are the courses sequenced?
   Does one course build on another?
   Is there a systematic approach to education in agriculture?
   Is there a long-range plan?
   Is there a curriculum guide in use?
   Are there definite units?
   Do the units apply to the real world?
   Are learners involved in the learning process (active vs. passive)?
   How often is the curriculum guide updated?
7. Is hands-on experience the basis for learning?
   Is instruction realistic?
   Do supervised experience programs provide a foundation for instruction?
   Is a record kept of all experience programs?
8. Are facilities and equipment available in the school/community?
   Are resources available in the community if not in school?
   Are they being utilized?
   Is safety being emphasized?
9. How is student learning evaluated?
   What are the standards for performance?
   What is the grading system?
   Are competencies listed?
   Is there a record of achievement for each student?
10. Do time and length of classes fit needs of students?
    What is achieved in the class time allocated?
    How is a typical class presentation organized?
    How is class time used?
11. Is the instructor competent and experienced?
    Are provisions made for updating skills and knowledge?
    Does the instructor attend professional meetings?
    Is the instructor active in professional groups?
12. Do school counselors at all levels have access to the latest information on educational and career opportunities in agriculture?
    Do counselors attend advisory committee meetings?
    Do counselors help in placement and follow-up?
    Are there periodic studies of graduates of the program?
13. Are students involved in student activities and organizations related to instruction?
    Is FFA membership promoted to all students of agriculture?
    Is FFA used in the instructional program?
    Are FFA opportunities explained fully to all students?
    Are community resources used to assist in FFA activities?
    Is there an FFA Alumni organization in the district?
14. Are adequate instructional materials and learning resources available?
    Is there an inventory of materials and equipment?
    Is there a planned replacement procedure?
    How are appropriate materials and equipment selected?

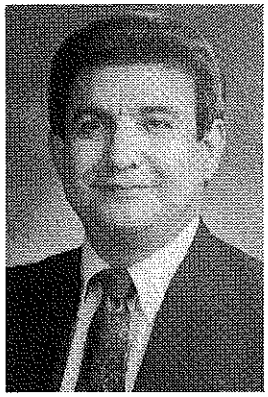
Summary

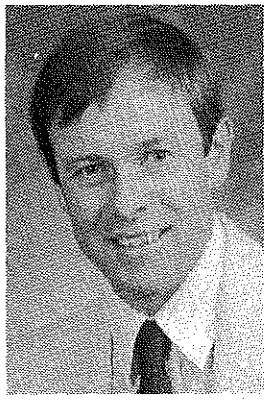
Educators have specific training to enable them to assess student interests, abilities, and needs and to prepare appropriate quality agriculture programs and courses. Few educators, however, have the knowledge to determine whether the programs and courses are realistic in light of actual or anticipated opportunities for education or gainful employment. One of the most important aspects of the agriculture program is the utilization of an active advisory committee. A functional advisory committee can be great asset in helping the teacher set program goals and objectives, identify needs, job opportunities, occupational trends and new technology and skills as well as evaluate process and product (Martin, 1985). There is no doubt that advisory committees are known by the questions they ask and the answers they in turn develop. This issue of *The Magazine* challenges every agricultural educator to ask the right questions about advisory committees and see to it that these committees provide the assistance needed in agricultural education. ■

References

Martin, R.A. (1985). **Enhancing the Quality of Vocational Agriculture Education Through Advisory Committee Action.** Central States Seminar in Agricultural Education. Chicago, IL.

Advisory Councils and Community Resources





By MILEY GONZALEZ and TOM DORMODY

Dr. Gonzalez (top) is professor and head and Dr. Dormody is assistant professor of agricultural and extension education at New Mexico State University.

One effect of living in this dynamic age of the 1990s, with its global dimensions, critical economic conditions, restructuring of programs and institutions, and shifts in program priorities, is the need to maximize the use of community resources for agricultural education in secondary schools. Agriculture teachers already dealing with these issues daily — out there on the firing line — understand the demands. Policy making and advisory bodies in their local schools and communities must be linked to the issues of agriculture and human resource development.

To accomplish these linkages in an ever-changing world requires new approaches and new paradigms. If agriculture programs are to grow and prosper in this new era, new collaborative efforts or partnerships need to be established in the community. Some of these new partnerships can be formalized through membership on an advisory council. Yet, the traditional, historical, and administrative reasons for establishing and using local advisory councils are not always conducive to making needed changes. Even with dynamic new members, strict adherence to outdated procedures can stifle or impede activities that are mutually beneficial to educational programs and community groups and agencies.

Agriculture teachers must sometimes feel they are under siege to be responsive to all demands — increased enrollments, semester courses, entrepreneurship, leadership development, science in agriculture, and environmental education. The list goes on and on. Of course, teachers are expected to address all these demands in the shadow of shrinking or limited resources.

If agriculture programs are to grow and prosper in this new era, new collaborative efforts or partnerships need to be established in the community.

It's worth revisiting the advisory council concept to help meet these demands. An effective advisory council will help acquire or find access to new resources, however limited, that exist in the community.

Unique Challenges

The seven overarching goals for agricultural education, recently established by the strategic planning group, show where program priorities are (Staff, 1992). Considering each goal and attempting to take local action to refocus program emphasis makes tapping into the local resource base more imperative. In other words, Goal 6, "to provide leadership and cultivate strong partnerships in the total educational system," is a key to achieving the other six goals.

Perhaps the time is right to develop a local strategic plan to address future program needs. The advisory council may be just the right group to help create the plan. The advisory council can help define what is needed for the program and can tap a variety of community resources. Teachers don't have to do it all alone. In fact, teachers shouldn't do it all alone. Expanding ownership in a local program to the advisory council and to students, parents, and others will pay big dividends. A community-based agriculture program is a strong program in the new world order.

Perhaps the time is right to develop a local strategic plan to address future program needs.

Student Enrollment and Diversity

Many components of the educational system put a priority on reaching diverse student populations. Use the agencies and organizations already established, such as Extension, Department of Human Services, agricultural businesses, and others to help recruit nontraditional students into agricultural education. Part of our problem in not being able to bring [nontraditional] students into our programs is merely one of not telling our story or not creating an image that tells these students we want and need their participation. Place a person from these agencies on the advisory council. They will represent the educational program in the →

community and will establish the dialog needed to attract nontraditional or minority students.

Entrepreneurship Education

What is happening in the area of business or entrepreneurship education? Does the advisory group have this kind of representation? Business people can be excellent sources of support to our programs by providing links to the world of business and work. Supervised Agricultural Experience (SAE) Programs and other agribusiness placement programs can be guided by local entrepreneurs and business people. Rapid technological changes make equipment and other components of the educational system obsolete overnight. A successful company must adopt and quickly adapt to new technology to survive in today's global business climate. When the business community is part of an educational partnership, educators will have access to these cutting-edge technologies.

Part of our problem in not being able to bring [nontraditional] students into our programs is merely one of not telling our story or not creating an image that tells these students we want and need their participation.

Science Education

Agriculture teachers often go outside the school to find advisory committee members. However, the statistics about how poorly American students do in science and math compared to students in other countries (last out of 17 in a recent survey) indicate agricultural education can help resolve part of the problem by establishing new partnerships with other teachers in the school system (Gorman, 1991). However, in a recent national survey, only 10 from a sample of 243 agriculture teachers had a science teacher on their advisory council. Many more (68) of the agriculture teachers informally sought program advice from science teachers (Dormody, 1991). Formalizing these linkages by asking a science teacher to serve on the advisory committee can accelerate science updating in agriculture classes. Formal program linkages to the science department can also foster sharing of scarce physical resources and help integrate agriculture into science (agricultural literacy). Make the greenhouse and other agricultural laboratory facilities available for science teachers to teach applied science, and have the science teachers validate agricultural science courses for science credit.

Are there places in the community where agriculture students or graduates can apply their scientific knowledge? These opportunities exist even in small communities. Make a list of businesses or industries with these opportunities, and consider including a representative on the advisory council.

Human Resource Development

Other authors in this issue will address committee makeup and other important concepts related to advisory councils. We want to conclude by looking generally at building partnerships with our other community resources (local government agencies, chamber of commerce, business, extension, and others) as agricultural education continues to focus on human recourse development.

As you read *Newsweek, Business Week,* the local paper, or catch the news on radio or television, you get the impression the United States as a whole is not doing well in training and educating human resources for an uncertain future. As a nation, we view the money spent on education and training merely as a *cost* and not as an investment. Japan and other nations, on the other hand, routinely make long-term investments in people. Their goals include a well-trained and highly-educated work force. Our goals should be the same.

In this new era, where agricultural education is redefining, revitalizing, and revolutionizing, we cannot afford to go about business as usual. We have an important role in America's education. We must get other components of our schools and communities involved in the business of education — especially agricultural education. These components have a vested interest in helping to change education to meet the needs of a new intellectual capital era. Involve them in your program through the advisory council. Remember, no one can or should try to do it all.

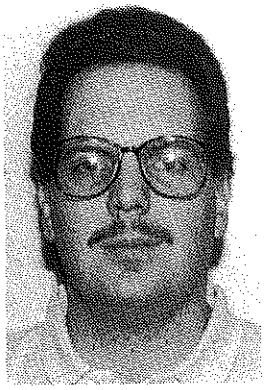
References

Dormody, T.J. (1991). Resource sharing between secondary school teachers of agriculture and science departments: A national study. **Proceedings of the Tenth Annual Western Regional Agricultural Education Research Meeting, 10,** 213-224.

Gorman, J.T. (1991, December). Facing facts and forging agendas: Competition and education. **Vital Speeches, 57(4),** 124-126.

Staff. (1992, Winter). Mission statement for agricultural education. **National FFA Foundation News,** p. 12. ■

The Benefits of Advisory Committees



By TOM PAULSEN
Mr. Paulsen is an agriculture teacher at Lynnville-Sully High School, Sully, IA.

The proper use of advisory committees can be very beneficial to all agriculture programs. First of all, an advisory committee provides the public with some assurance that the interests of the community are visible in the educational program. Advisory committees should be used to provide the school board with information regarding the needs of the students in the program compared to the needs of the employers who will be hiring those graduates. By utilizing community persons in this advisory capacity, the community begins to feel more a part of the program. Students then become the primary beneficiary of this group's work as they see more relevancy in course work.

Moreover, one should not forget the important benefits received by the agriculture instructor. The teacher will gain first-hand knowledge from the industry as to what new technologies are emerging within the various fields of agriculture. Numerous times advisory committee members have served as cooperative training locations for job placement or offered their business as a field trip site. This on-site instruction provides an excellent and ongoing resource for the agriculture instructor within the various areas represented on the advisory committee. But don't forget that advisory committee members have a network of professional contacts as well. A teacher should never be afraid to ask members to identify others within their network who could help serve as a resource for the instructional program.

The Lynnville-Sully Agricultural Education Advisory Committee has been very active the past five years in directing and making recommendations for a very progressive agriculture program. Lynnville-Sully High School is located in Sully, a small rural community of approximately 800, nestled in the rolling farmland of South Central Iowa.

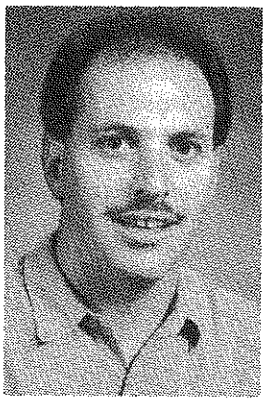
The widespread community support for the agriculture program, as well as its success, is greatly due to the support and work of the L-S Agricultural Education Advisory Committee. This committee consists of nine individuals from the district who serve three-year terms. One-third of the committee will end its term each year, and three new members are brought on board each year. The membership of the committee includes four women and five men having a variety of backgrounds. Diversity is extremely important to advisory committees. This diversity has given the group insight as it relates to the ever-changing industry of agriculture and profession of agricultural education.

The Agricultural Education Advisory Committee at Lynnville-Sully is part of an overall high school vocational council, which includes home economics, experience-based career education, and industrial technology. The chairman and one elected member from each committee, in addition to each program's instructor, comprise the overall Vocational Steering Committee. This organization gives the opportunity for all members of the council to remain informed of all educational activities and creates an excellent support structure for all vocational programs.

The L-S Agricultural Education Advisory Committee has been used extensively in determining program goals that will help prepare students for the world of work. They have also been visionary as to future trends in agriculture. One of the first recommendations for the program when I came to Lynnville-Sully five years ago was to add a new course to the existing agriculture curriculum entitled Introduction to Technology. There was a definite need for a course for nontraditional students to learn technology. The course targeted students who did not take upper level science or physics courses.

The advisory committee's recommendation to the administration was to attempt to secure state matching funds for such a project. Through the advisory committee's insight, the school board approved the project, the grant was written, and it later was accepted by the State Department of Education for $20,000. A second funding project that was backed wholeheartedly by the advisory committee was the funding of a Horticulture Modernization project of $18,000 (50/50 split with the Iowa Department of Education), which included the purchase and construction of a greenhouse (15' x 25'), new curriculum, equipment, and computer software. Once again, the advisory council's recommendation caused our school board to take →

Commitment and Involvement — The Keys to This Agriculture Program



By PAUL L. HEASLEY

Mr. Heasley is an agriculture teacher at Danville Area High School, Danville, PA.

Over the past twelve years the Danville Area School District has enjoyed the dedication and commitment of a number of individuals who make up the Danville Agricultural Advisory Committee. Without their help and guidance to the program, teachers, administrators and the school board, the agriculture program would have closed long ago. The Danville community agriculture program now is growing at about 25 percent a year and has increased enrollment in the last five years by 250 percent. The increased growth made possible the addition of a second teacher to the department. There are several factors that are attributed to this growth, but none are more evident than the involvement and participation within the school system and community by the advisory committee.

Prior to the use of a well organized advisory committee, the Danville School District agriculture program went through the hiring and release of four different teachers and near closing of the program. The program stayed together because of a group of interested people and their desire to have a viable educational program in agriculture. This group of people formed our advisory committee. They drafted a self-governing constitution and became and ex-officio committee of the school board. The operation of this advisory committee and its success over the past seven years helped earn it a citation from the Pennsylvania Department of Education's Bureau of Vocational Education for outstanding service to Danville Area High School.

Committee Composition

The Danville Agricultural Advisory Committee includes persons involved in various agricultural careers and represents both genders. This group has a diverse background in and about agriculture and represents the variety of agricultural industries found in the Danville area. →

The Benefits of Advisory . . .

(continued from page 8)

action in the improvement of the local agriculture department.

Most recently, the Agricultural Education Advistory Committee was involved in a very important task vital to the agriculture program and the students within the program. This task was to assess the community and instructional needs for the agriculture program and to recommend one of six instructional strands to be taught for the implementation of the new Iowa Vocational Education Standards. This process included evaluating the appropriateness of state-mandated minimum competencies in the areas of Agricultural Business, Service and Supply; Agricultural Mechanics; Agricultural Production; Agricultural Products and Processing; Horticulture; and Natural Resources.

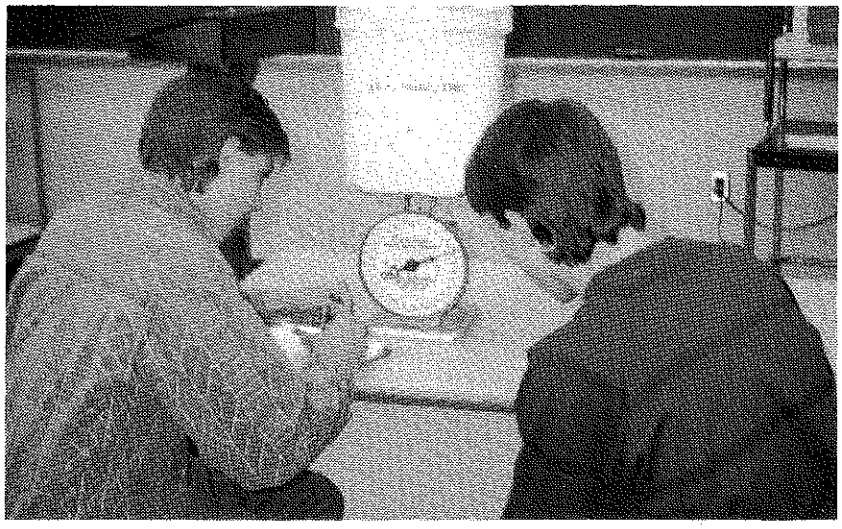
In Iowa, each agriculture department was required to specify the strand to be offered within its program. The advisory committee was instrumental in determining the needs of the community and the strand to offer and develop. After this determination, the advisory committee will assist the agriculture instruction in maintaining an up-to-date program area that will not only benefit the students within the program, but the community's businesspersons as well.

In summary, it is clear that advisory committees are much more than window dressing on vocational education programs. Benefits accrue to students in the form of new programs of instruction presented in interesting formats; benefits accrue to the teacher in the form of updated materials and equipment, enthusiasm for the program, and students who want to learn; and benefits accrue to the community-at-large in the form of better educated students, businesses and industries in tune with the school's efforts, and the knowledge that local resources are not only being used, but being used wisely in the promotion of a broader-based educational program. These benefits are too good to pass up and should not be left to chance. ■

The membership includes: farmers, agricultural service personnel, agricultural suppliers, and a veterinarian. These professional backgrounds help the committee to stay abreast with technological changes, while reflecting those components of agriculture that are important to the local community. The committee values the traditional agricultural sciences and encourages curriculum changes to meet the needs and interests of both the students and local agricultural employers.

Improvement Processes

The advisory committee has been actively involved with several processes that directly affected the program. These processes have enabled the agriculture program to continually upgrade the curriculum and define the components that drive the program, such as facilities, budget, personnel, activities, and occupational experience.



Students are weighing Tilapia fish to calculate weight gain and feed conversion. Bi-weekly weights are tallied and recorded.

The first of these processes included the school district's building program. The involvement of the committee was a critical step early in the planning stage. The advisory committee worked cooperatively with the school board and school administration to see that the facilities would meet the requirements of the program.

The second process used by the district was to replicate an "exemplary" agriculture program to improve the standards and requirements for students. Advisory committee members were involved in reviewing these standards and putting them in place in the Danville program to meet the needs of the community.

The third process that the school district undertook was a task force planning year for the agriculture program. The advisory committee attended task force meetings to suggest improvements for the total program. This process included making suggestions for the curriculum, budget, facilities, and further involvement by the program in community affairs and activities.

Lettuce plants growing via hydroponics are observed. Plant growth and quality are checked and adjustments to the hydroponic solution are made with regard to fertilizer and pH.

After each of these processes, growth in enrollment could be seen as students and parents felt the program was a viable educational endeavor within the school system. Also, the advisory committee's involvement assured the administration and school board that the program was valued by the community in meeting its needs.

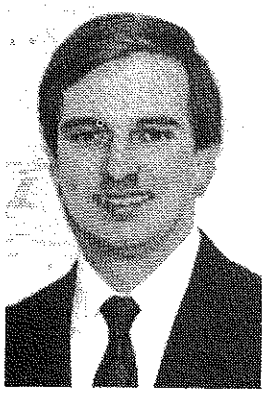
Committee Activities

There are several activities that the advisory committee undertakes annually. These activities can be grouped into three categories: organizational structure, leadership role, and information processing.

The organizational structure has kept the committee dynamic. New committee members are nominated by the existing committee and are approved by the school board for a three-year term. Officers are elected, minutes and agendas are developed and written, and a program of activities is completed by the committee. There is an annual reorganization meeting to introduce new members and review plans. An up-to-date constitution and bylaws provides the committee with the necessary structure and a process to implement desired outcomes. →

continued on page 21

Advisory Committees and Program Restructuring



By JAMES CONNORS, GWEN DADO, and PETE SILER

Mr. Connors (top) is a doctoral candidate and Ms. Dado is a regional specialist in agricultural education at Michigan State University. Mr. Siler is the agriculture teacher at Lowell High School, Lowell, MI.

Advisory committees have been a part of agricultural education for some time. In 1940, H.M. Hamlin, teacher educator from the University of Illinois, recognized the importance of advisory committees when he wrote, "Teachers of agriculture need groups of laymen to assist them in making their more difficult decisions, in planning their programs and policies, and in interpreting their work to the public" (Hamlin, 1940). As Hamlin stated, advisory committees have traditionally helped with program planning, coordination, and evaluation. Phipps and Osborne (1988) reported that advisory committees are valuable for understanding and supporting both the program and teachers, and for providing advice that represents community needs.

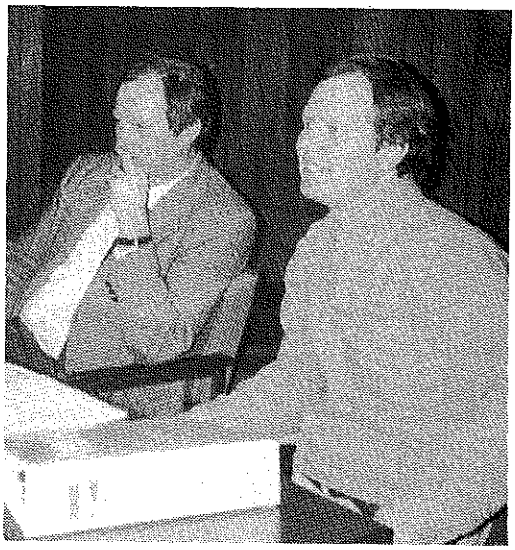
The advisory committee also serves as an important link between the agriscience and natural resources program and the community. Whaley and Sutphin (1987) reported that California advisory committees have influence in the school and community which could be used to improve and support the agriculture program. However, an advisory committee should not act as a pressure group within the school system or the community (Phipps & Osborne, 1988). The advisory committee should act as a link between parents, business owners, concerned citizens, and the agriscience and natural resources program. Hoyt (1991) wrote that,

> *Positive relationships between the private sector and educators can best be developed by taking advantage of the unique skills and knowledge that each has to offer. People from the private sector have knowledge regarding the nature of the emerging workplace and the kinds of competencies and skills that are required for success. An advisory committee that includes interested citizens can be the best resource for determining the kinds of skills that students must possess for future careers in agriscience and natural resources.*

Advisory Committees in Michigan

While the importance of advisory committees is well known, many agriculture teachers in Michigan have not effectively used them in recent years. However, as Michigan agriculture programs have expanded their focus from production agriculture to a more broad-based, agriscience and natural resources emphasis, advisory committees are being used more productively.

Agriculture programs throughout Michigan have reflected a renewed interest in advisory committees due to recent emphasis on program restructuring. Over the past two years, roughly 98% of the agriculture programs in Michigan initiated the restructuring process to become agriscience and natural resources programs. This restructuring combines the expertise of community members, educators (agriscience, science, general education), administrators, guidance counselors, and state staff. These individuals review ten major programmatic components: community, population, philosophy, secondary instructional program, student services, instructional staff, facilities/equipment, advisory council/community involvement, finance and school personnel. →



Advisory committee members openly discuss pertinent issues concerning programmatic restructuring and the adoption of the Michigan Agriscience and Natural Resources Curriculum.

During this restructuring process, the advisory committee establishes a program review committee. At least one advisory committee member serves on the review committee. The program review committee is primarily responsible for reviewing the status of the agriculture program, recommending changes, and creating a programmatic vision for the future. The recommended changes are included in an action plan that is submitted to the advisory committee, local board of education, and to the Michigan Department of Education-Career and Technical Education Service. After the action plan is approved by the local board of education, it is the advisory committee's responsibility to assist the agriscience teacher and other school officials to implement approved changes to the agriscience and natural resources program.

Local Use of Advisory Committees

The Lowell High School agriculture program began in 1974. The program was originally established under the direction of a program adivsory committee. But as enrollments increased and the program flourished in the 1980s, the advisory committee ceased to function. When the Michigan Department of Education introduced program restructuring, the Lowell agriculture program initiated the review process. A review committee was formed in November 1990 and included the following people: the agriscience educator, vocational program coordinator, a staff support person, a business or industry representative, current and former students, parents, a board of education member, and a regional agricultural education specialist from Michigan State University.

One of the most significant recommendations of the review committee was to form a new advisory committee for the agriscience program. The "Standards For Excellence" of Michigan Agriscience and Natural Resources programs, which is the name given to the review process, defines an advisory council as an: "organized group of people who serve as a vital communication link between home, school, community, industry, and business" (State Administrative Board, 1990). Using this definition, the review committee determined that the former advisory committee had become inactive and needed to be reestablished. Under the leadership of a local veterinarian, the review committee developed a proposed constitution and bylaws for the new advisory committee. The committee's purpose will be to assist in program development, equipment procurement, and to provide direction as Lowell Schools build new school facilities and strive to meet the needs of agriscience and natural resources students. The establishment of the new advisory committee is the top priority of the restructuring process. The review committee felt so strongly about the need for this advisory committee that the committee plans to oversee its establishment.

Curriculum development activities and program restructuring initiatives only achieve limited success without the support and input from an effective advisory committee.

The Lowell agriscience and natural resources program is not unique. Other programs in Michigan report similar experiences with advisory committees. The initiation of the program restructuring process has re-awakened the need for strong, active advisory committees. Advisory committees are now being formed or resurrected in both existing and new agriscience and natural resources programs. These advisory committees are helping agriscience and natural resources teachers in Michigan meet the needs of students and prepare them for the changing careers in agriscience.

Future Use of Advisory Committees

Curriculum development activities and program restructuring initiatives only achieve limited success without the support and input from an effective advisory committee. Agriscience and natural resources teachers should organize effective advisory committees for their programs. Advisory committees should not exist only on paper, rather, they should be viewed as a vital community resource that can provide current information, assistance, and support as agriculture programs prepare students for careers in the agriscience and natural resources industry.

References

Hamlin, H.M. (1940). The modern use of the advisory council. **The Agriculture Education Magazine, 12** (12), pp. 224-225.

Hoyt, K. (1991). Education reform and relationships between the private sector and education: a call for integration. **Phi Delta Kappan. 72**(6), pp. 450.

Phipps, L.J. & Osborne, E.W. (1988). **Handbook on agricultural education in public schools.** Danville, IL: The Interstate Publishers, Inc.

State Administrative Board (1990). Curriculum Overview (000). **Michigan Agriscience and Natural Resources Curriculum.** East Lansing, MI: Michigan State University, Michigan Center for Career and Technical Education.

Whaley, D.C. & Sutphin, H.D. (1987). The status and influence of agricultural advisory committees in California. **The Journal of the American Association of Teacher Educators in Agriculture, 28**(3), p. 37-42.

Successful Programs Have Active Advisory Councils

By JULIE LEIER-MUELLER

Ms. Mueller is a former agriculture teacher at Wall High School, Wall, SD.

You've heard the cliche "Behind every successful man there is a good woman." That may or may not be the case. I do believe though that behind every successful agriculture program there is a strong advisory council.

One of the proudest moments I had as an agriculture instructor was watching the president of the Wall Agricultural Advisory Council as he accepted the Outstanding Vocational Advisory Council award at the State Commerce and Industry Banquet in Pierre, South Dakota last February. As Bill Blair, a former state officer of the South Dakota FFA Association, accepted this award, he represented a group of people we often fail to acknowledge . . . our local advisory committees.

This was not the first advisory council I had worked with, but this was the first time that I had not thrown away the application form to nominate an entire council for such an honor. We often forget to thank these people who form the backbone of our program.

Bill Blair, president of the Wall Agricultural Advisory Committee, managed the Hubbard Elevator in Wall, South Dakota. Kathy Cordes, secretary, ranched with her husband northeast of Wall. Other members of the council included Brett Blasius, agriculture lender employed by First Western Bank of Wall; Dan Dartt, rancher; Dick Kjerstad of Kjerstad Livestock & Kjerstad Farm Partnership; and Mary Williams, ranch wife and substitute teacher. Here was a support system that during my time in Wall never let me down.

The Wall Agricultural Advisory Committee was selected as the 1991 Outstanding Vocational Advisory Council in South Dakota.

You may ask "What can an advisory board do for my program?" This is what this group of people did for the Wall agriculture program. They reviewed the competency profiles with me, and as a group we decided what areas of agriculture were to be taught. A futuristic group, they suggested more emphasis be put on the areas of agricultural marketing, agribusiness, and recordkeeping. When the membership participated in the Chicago Board of Trade's marketing contest, Blair, Blasius and a representative from Kjerstad Livestock became guest teachers and taught marketing from the elevator manager, banker, and livestock feeder's perspectives.

As a committee they helped decide how Carl Perkins vocational monies were to be spent. Suggested lists of teaching materials and equipment were developed, and each member of the council ranked the items mentioned. Not only did this help me as an instructor to complete the application, but their input served as a strong influence when approaching the school board and administration.

The advisory council members served as judges for the local proficiency award applications. This effort was no easy task, as they decided that all students were to be rewarded for their efforts and each and every application was ranked gold, silver or bronze. With Kathy Cordes volunteering many hours they then canvassed the community for award sponsors. Each of these people sponsored awards to be presented at the annual parent-member banquet.

Dan Dartt and Dick Kjerstad both hired agricultural students, allowing these students the opportunity to have worthwhile SAE projects. Cordes, Dartt, and Williams all served as an FFA officer during my tenure at Wall. Mary Williams was a →

Optimizing the Benefits of Advisory Councils

By DEWEY ADAMS
Dr. Adams is professor of agricultural education at Ohio State University, Columbus, OH.

Active involvement of the community in education is a time-honored practice among teachers. This practice has been especially prevalent among secondary agriculture teachers and is considered by many to be the most promising way to keep the program in tune with community needs. Agriculture programs are truly community-based and derive their character, content and contribution from the local community they serve. A foremost challenge to the teacher is the planning and promoting of strategies which enhance community involvement.

Perhaps the leading strategy among agriculture teachers for community involvement is the advisory council. Such citizen councils have been in operation for many years, but in recent years with the requirement for advisory councils written into federal law pertaining to vocational programs, all local programs have some type of council in operation to meet funding requirements. Not all councils, however, are effective and contribute to the improvement of teaching and learning. It is suspected that a great number of councils are "paper councils" only and are in place simply to meet the requirement of the law.

The purpose of this article is to suggest five approaches for optimizing the benefits of advisory councils. Little attention will be directed to the rationale for such committees, the manner of selecting members, or the specific procedures for operation. These aspects of council organization and functioning are important but are not the primary focus of this article. Any reference to these activities will be incidental to ideas for increasing the contributions which an effective council makes to the agriculture program. The article will be concluded with a list of precautions for advisory council operation.

The Philosophy of the Teacher

Someone has suggested "as the principal goes, so goes the school." This notion can be said about the agriculture teacher and the advisory council. The first and perhaps the most important ingredient for the successful operation of an advisory council is the philosophy of the teacher with respect to citizen involvement. If the teacher believes firmly in the benefits of an active council, is committed to the meaningful involvement of citizens in the agriculture program, and is convinced of the value of such an advisory group to the success of the educational program, there is little likelihood that outcomes will be other than successful. On the other →

Successful Programs Have . . .

continued from page 13

competent substitute in the agriculture program when I was chaperoning FFA members to different events. And Bill Blair and Dan Dartt volunteered time as drivers and chaperons on more than one occasion.

As an instructor it is your obligation to offer some guidelines to this group of people. But even more importantly, you should listen. Many times these people have been in the community for a number of years. They know what works and they know what changes are necessary. They are and should be an important, integral part of all agriculture programs. ■

About The Cover

Successful agricultural education programs greatly depend upon the resource-rich communities in which they function. Advisory committees provide the linkage mechanism necessary to conduct educational programs that meet the requirements of the educational process. This process includes learners, teachers, and resources working together to produce viable outcomes having the potential to enhance the learner, the community, and society. (Designed and contributed by Robert A. Martin)

hand, if the teacher believes the organization and operation of the council is too complicated, will require too much time, will lead to untenable recommendations, or will interfere with the teacher's freedom, there is little likelihood that benefits will come from council work. Were it not for the legal requirements for a council, such teachers would be well advised to work without a citizen council.

The Attributes of Council Members

More important than how one selects council members are the attributes of the members who are selected. Just any good citizen who speaks and lives well is not guaranteed to be an effective council member. Similar to the commitment of the teacher to citizen involvement is commitment of the council member to the program and to serving the school. Other equally important attributes of council members include:

1. They are intelligent, able and insightful.
2. They are public-spirited and concerned with community growth.
3. They are responsible, open-minded, ethical, and cooperative.
4. They represent the community they serve in terms of age, experience, gender and career.
5. They bring expertise, insight, and interest in the trade or program area.

There are other attributes, but these are the ones of primary concern to the teacher.

The first and perhaps the most important ingredient for the successful operation of an advisory council is the philosophy of the teacher with respect to citizen involvement.

The Activities of the Council

Council members may be of highest quality but deal so much with trivial matters as to negate any significent contributions the council might make. It is crucial that topics for consideration by the council be of high priority in the agriculture program. Matters of high priority include what is to be taught, how it can best be taught, what resources and facilities are needed, how these can be secured, what work experiences are important, what program standards should be maintained, how students can be placed, and how work in the community can be improved. When council members are convinced that they are studying and advising on high priority activities, they will tend to double their efforts to be effective council participants. If they feel the matters which they discuss are of little impact, they tend to lose interest, decrease their involvement, and eventually drop out of council activity.

It is crucial that topics for consideration by the council be of high priority in the agriculture program.

The Process of Council Operation

It is critical that the process of council operation be planned, consistent, regular, continuous and recognized. It is difficult to select one concept which includes all of these aspects of operation. Perhaps the most meaningful concept is completeness of council operation. Completeness begins with orientation and induction for new council members and extends to recognition of council members for their service. It is extremely important for new council members to have an extensive orientation and preparation for their work. The teacher or a school staff member might best handle this reponsibility. More than one meeting is usually needed for this activity. When orientation and induction are complete, the new council member knows what is to be done and feels comfortable with participation as a member of the council.

Equally fulfilling the requirement of completeness of council operation is the periodic recognition of council members for their service. Letters, certificates, banquets, plaques — these and many other similar symbols of recognition for outstanding service might be considered by the teacher. Between orientation, induction, and recognition are a host of approaches for promoting completeness of council operation. Some of these are:

1. Regular, consistent meetings throughout the school year. Meetings at least quarterly are recommended.
2. Planned agendas, written and shared with all members prior to each meeting. Make telephone calls to urge attendance.
3. Meetings which begin and end on time with full and open discussion promoted throughout the meeting. Shorter agendas with high priority items are superior to longer ones with low priority concerns.
4. Summaries of accomplishments of each meeting and minutes sent at an early date to each member.

5. Reports by letter and in person with respect to action taken on recommendations and concerns of the council.

The Assessment of Council Achievement

Most educators believe that advisory councils make good sense and pay off in effective teaching, student achievement, and community economic and social development. Just how much councils benefit the program can be determined only by assessing the achievement of a specific council. Such as assessment is the fifth and final approcah suggested in this article to optimize the benefits of the agricultural advisory council. Informal evaluation of council activity actually began at the time the council was first organized.

Council members and professionals working with the council began at that time the process of thinking about how successful the council would be. This kind of informal evaluation continues and is important to improved operation of the council. Perhaps about once each year the teacher and council members might devote a meeting to revieewing council operations, including recommendations as a way of replanning and refocusing council activity. Were there to be no other evaluation, this process would be well worth the effort and time involved.

Another more formal strategy for council evaluation is recommended. About once every three years an outside assessment group, perhaps as many as three consultants, might be selected to review the organization, operation, and functioning of the advisory council. The evaluation team's objectives, activities, and written reports could be established cooperatively by the team, the teacher, and council leaders. Important processes would be interviews with relevant persons, review of published council documents, and examination of programs of instruction. Some contacts with business and industrial leaders could be useful. A publication including commendations and recommendations for improved council operation might be one planning document growing out of the evaluation.

Some Precautions For Council Operation

It seems important to focus upon those positive actions which can be taken to enhance the work of advisory councils and thus to increase the benefits which effective councils can give to the agriculture program. This has been the approach taken in this article. Yet it seems prudent to share some precautions which have emerged from a long history of experience with citizen advisory committees. Heeding these precautions might promote positive council relationships and reduce the chances of negative conflict between the teacher and citizen council member. These precautions are stated in terms of teacher behavior in working with councils.

1. Consult with the appropriate advisory committee before initiating a new program.
2. Promulgate recommendations of the council only after these have been considered and supported by the council.
3. Avoid calling upon council members to take on management functions in the program.
4. Keep council members informed and up-to-date with respect to the agriculture program.
5. Avoid becoming involved in labor-management disputes and controversies.
6. Never ignore a council member's concerns and recommendations.
7. Provide the administrative support needed by council members.
8. Keep the council operating as a group and not as individuals.
9. Avoid getting council members involved in disputes between professionals and policy makers.
10. Be mindful of time constraints of advisory council members.

References

Adams, Dewey A. **Adult Vocational and Technical Education.** Columbus, OH: Eric Clearinghouse on Vocational and Technical Education, 1972.

Adams, Dewey A. **Principles of Vocational Education.** Columbus: The Ohio State University, January 1990. (Unpublished monograph)

Adams, Dewey A. (ed.) **"Advisory Committees," Methods and Materials in Adult and Continuing Education.** Los Angeles: Klevens Publishing Company, December 1982. (Book Chapter with Samual D. Morgan)

Cochran, Leslie H., et al. **Advisory Committees in Action.** Boston: Allyn and Bacon, Inc., 1980.

Finch, Curtis R. and McGough, Robert L. **Administering and Supervising Occupational Education.** Prospect Heights, IL: Waveland Press, Inc., 1991.

Hamlin, Herbert, M. **Citizen Participation in Local Policy Making for Public Education.** Urbana, IL: University of Illinois, 1960.

King, Sam W. **Organization and Effective Use of Advisory Committees.** Washington, DC: United States Office of HEW, 1973.

Miller, Melvin D. **Principles and a Philosophy for Vocational Education.** Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University, 1985. ■

The Classroom and CD-ROM Technology

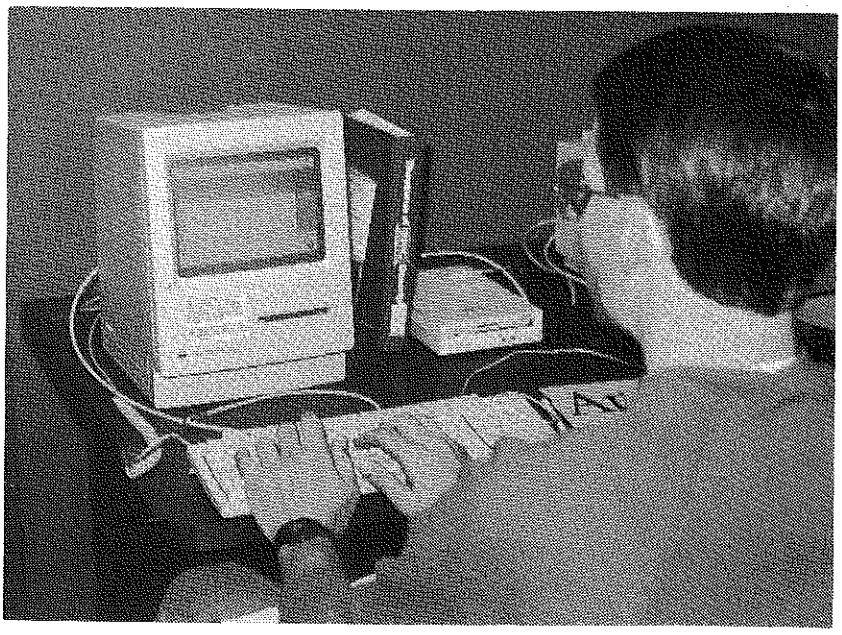
By BARBARA M. KIRBY

Dr. Kirby is associate professor of agricultural education at North Carolina State University.

Multimedia is the use of sound, still images, animation, motion video, text and graphics in a single computer application. In order to bring multimedia technology to the classroom, teachers are finding that they need more than the ordinary computer. The typical entry-level multimedia platform is an extension of the basic computer hardware configuration. It includes a computer system that supports text, graphic, voice and music sound, and images of at least 256 colors. A mouse is useful to move through the multimedia layout. A disk drive may be used as the storage device, but one probably will want to add a CD-ROM Drive and/or network server. As one's budget grows, so does the hardware platform. Videodisc players, voice synthesizers, and hard drives exceeding the 20 MB minimum capacity begin to appear as standard equipment. The CD-ROM player presents new opportunities for us in accessing and storing information useful in our teaching and for our students.

Exploring CD-ROM

A CD-ROM disk,which stands for Compact Disk-Read Only Memory, also known as a laser optical disk or simply optical disk, looks like the CMD or the compact music disks we plug into our CD players. Lasers are used to record and play back CMDs and are used to read CD-ROM disks. The greatest use for CD-ROM disks to date has been in storing large data bases, such as ERIC or encyclopedias. Information will last the life of the disk — somewhere between 10 and 50 years — compared to 80 hours for the standard 5¼" floppy. A 5¼" disk holds 360K characters of data where as CD-ROM holds nearly 600 MB on one relatively inexpensive, compact, 4.72-inch platter. That is approximately 300,000 pages of text. Libraries have jumped onto this technology. Why pay on-line search costs when all the information from the data base is stored in a disk?

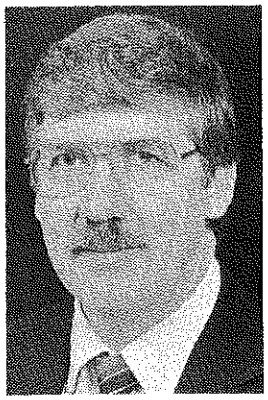


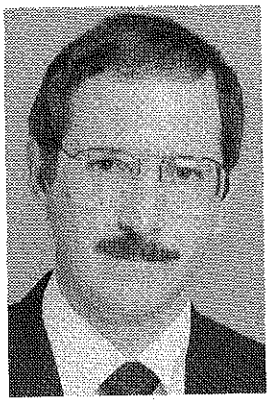
Using CD-ROM technology to access agricultural literature for a research program.

Several types of applications have relevance in the classroom. The market offers a few multimedia titles of interest to agricultural educators. The subject matter crosses over basic academic areas and includes several personal development lessons for students. Some of these include: TIP-AAIDS; Understanding Ourselves: AIDS, Drugs and Substance Abuse; Teenage Sexuality; Bio Sci II and Bio Sci II Folders; Mammals: A Multimedia Encyclopedia; Insects: Little Giants of the Earth; About Cows; Educorp CD-ROM software (public domain and shareware software); and Compton's Multimedia Encyclopedia. Students experiencing multimedia technology view motion pictures, read supporting information, listen to recorded music or text, and interface with the computer by selecting options from the various menu boards appearing during the program. Prices for the programs range from $40.00 to $900.00. Choices and Decisions: Taking Charge of Your Life, developed by Lucas Arts Learning for Visa USA is being sold to Visa member banks which will donate them to the schools. A resource guide, including student handouts and transparencies, is included. The National Consumers League and the United States Office of Consumer Affairs hope that this financial decision making simulation will assist students in future financial planning. While the program is most appropriate for business and marketing educators, all educators could find it useful in teaching responsible use of credit.

Students who write agricultural →

Promoting Experiential Leadership Training for Preservice Students in Agricultural Teacher Education





By MAYNARD J. IVERSON and FRANK B. FLANDERS
Dr. Iverson is professor and head and Dr. Flanders is special instructor in agricultural education at the University of Georgia.

Experiential education in leadership development is a recognized success story in secondary agriculture programs and the FFA (Committee on Agricultural Education, National Research Council, 1988). However, it has not been used consistently in developing strong FFA advisors. Phipps and Osborne (1988) stated:

> *FFA advisors play a key role in the success of the organization. The role is a difficult one. Knowing how much direction to provide is a continuing challenge in advising the FFA chapter . . . personal and professional feelings toward the FFA can develop only as a result of direct involvement in the FFA, either as a former member or chapter advisor. In nearly all cases where advisors adopt a laissez-faire attitude toward the FFA chapter, they have not experienced the organization in enough depth or breadth to appreciate what it can do for students and the agricultural program. (p. 390)*

Leadership development is a vital part of agricultural teacher education. Yet many of the leadership/advising skills are often secured accidently, incidentally, or so late in the individual's teaching career that many opportunities have been lost. There is often inadequate time in the traditional teacher preparation courses to deal with the myriad leadership skills needed by teachers of agriculture. An active collegiate FFA or other leadership organization associated with the program is not enough in itself to insure acquisition of requisite skills. This is due to three factors:

1. A high percentage of teacher education majors are transfer students, which results in a limited time to develop advising skills. About 80% of Ag Ed majors at The University of Georgia fit this category.
2. An increasing number of Ag Ed majors have limited or specialized backgrounds in agriculture, and many have little or no experience in the FFA. At UGA, a growing percentage of enrollees did not attend a high school in which an agriculture program was offered. Among those who had agriculture in high school, many were not heavily involved in the FFA.
3. Ag Ed majors are becoming more of a nontraditional group. One-half of UGA majors are over 25 years of age, enrolled at the graduate level, and married with children. These students tend to view the Collegiate FFA as an undergraduate activity. They have many other responsibilities, which often limit their participation in the Collegiate FFA. →

CD-ROM Technology . . .

continued from page 17

research papers may be more familiar with CD-ROM technology than most of their teachers. Many libraries now access ERIC via a CD-ROM disk, rather than an on-line network. Students find the system easier to use than the traditional on-line systems and the searches are less expensive. The searches are performed in a matter of seconds as compared to weeks or months of searching printed material.

New technology has a price. Most classroom teachers will not be investing $4,000 to receive a master disk. However, purchasing a copy for $6.00 or even $100.00 from an instructioinal materials catalog is affordable. Eventually, this will become a cheap means of electronic publishing, costing the consumer about six cents for a 300 page product. The total cost of operating multimedia technology approximates $5,000.00 for the total work station, including the computer and the $1,200 CDE drive. *PC Magazine's* Editor's Choice reviewed and favored the following players: Sony CDU-7205 - not the fastest drive but easy to install and has low price; Texel DM-5021 - has a better price but lacks a few of Sony's features; NEC CDR-73 - represents high performance but is 40% higher in cost over the Sony; and CD-Porta-Drive Model T3201 - an innovative design and represents exceptional portability. ■

The need for a special emphasis in leadership development became clear at the University of Georgia. During bi-weekly staff meetings, the faculty considered numerous ways to deal with the problem. An idea evolved to utilize a "leadership seminar" course to provide structured, in-depth, experiential leadership training as a required part of the curriculum. Specific purposes of the seminar were to:

a. encourage participation and provide opportunity for participation in leadership activities;

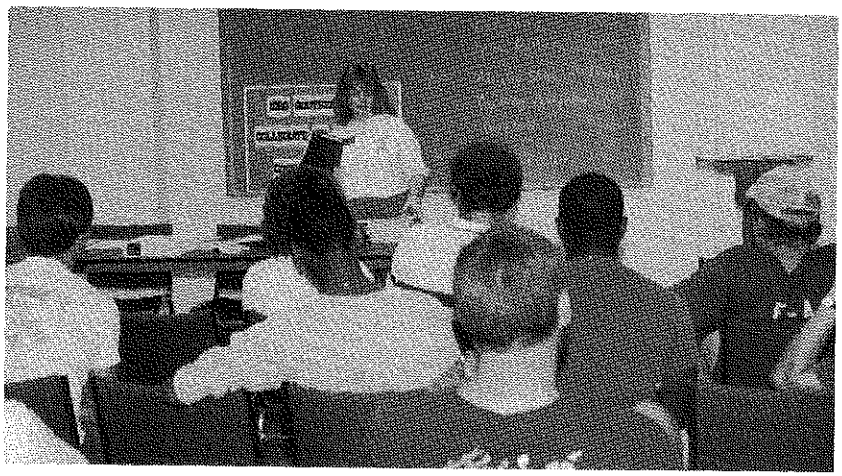
b. promote collegiality;

c. promote communications among the students, faculty, and staff; and

d. provide instruction in specialized areas of agricultural education.

How It Works

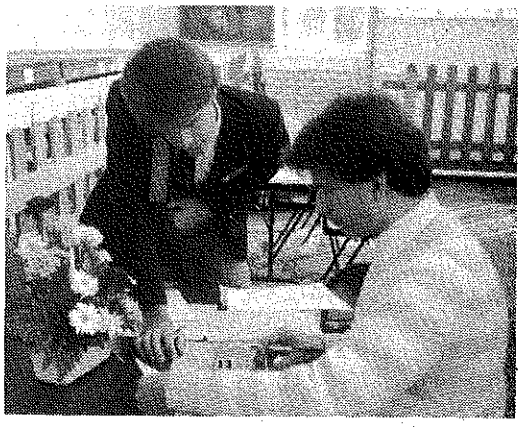
A minimum of five quarter hours of the seminar in agricultural education was made a required part of the curriculum for both undergraduate and graduate students. The course is taken in increments of one credit-hour per quarter. A maximum of 10 quarter hours is allowed.



UGA Ag Ed students helped organize and conduct the first Southeastern Collegiate Agricultural Education conference in 1988. Pictured is Ann Gibson conducting a leadership workshop on developing a Collegiate FFA Program of Activities.

Credit is awarded on the basis of attendance at weekly seminars and 30 points of documented leadership activity. A point is considered to be approximately one clock hour of "quality contact time" in an activity. Leadership activities that qualify are only generally defined by the faculty to allow maximum flexibility in meeting individual needs. A check sheet has been developed which lists approximate point values and suggested activities (see Figure 1).

Students are especially encouraged, though not required, to participate in the Collegiate FFA. The UGA Collegiate FFA, like its counterpart in the high school agriculture program, is considered an integral part of the agricultural education curriculum. All enrollees automatically become collegiate FFA members.



Assistance with national contests gives UGA Collegiate FFA members a chance to work cooperatively with collegiate members from across the country. Here, UGA member Bill Mills (left) confers with another official on the scoring of a floral design in the National Floriculture Contest.

Other suggested activities include recruitment, district/state and national FFA activities, Young Farmer Association activities, membership in campus/community organizations, and attendance/participation in leadership training seminars offered by the faculty. The faculty has worked closely with the State Department of Education staff to provide opportunities for student involvement in a wide range of Ag Ed activities, including teacher meetings, contests, professional organizations, and FFA camp activities.

Records of accomplishment — the official documentation of results — are the responsibility of the students. Reports are due at the end of each quarter. Points earned and dates of accomplishment are recorded by students on the form. Extra points can be carried over to subsequent quarters. Students have found it surprisingly easy to accumulate 30 points during a quarter. The course is set up on a "pass-fail" (S or U) system; however in special circumstances, where students are unable to earn enough points to receive credit, an "incomplete" grade may be taken. If this occurs, the student has up to one year to complete additional activities in order to clear the incomplete.

After faculty review for grade assignment, the form is placed in the student's file. There, it becomes a source of information for the faculty advisor and a valuable resource for later recommendation to potential employers. The →

completed forms become a means for certification of leadership ability.

Although the faculty developed the basic plan, advanced students in the major unanimously approved the idea. Their input was used to "fine tune" the proposal. Although students who were seniors when the program was initiated were exempted from the five hour requirement, most of them chose to complete three or more credit hours of leadership credit.

Results

Much interest in the leadership program has been expressed by agricultural education students. A majority of students have signed up for EAG 400 credit each quarter. Students are taking a greater part in Collegiate FFA, campus clubs, and district/state and national FFA events than in the past. In addition, special sessions have been held on such varied subjects as parliamentary procedure, dressing for success, CPR training, resume writing, public speaking, planning for effective meetings, planning FFA activities, and floral arrangements. Furthermore, increased contact with enrollees in the weekly class session and the special seminars that are offered on an occasional basis have built collegiality, allowed students to be kept better informed, and enabled students and faculty to react quickly to opportunities for scholarships, honors, and involvement in other activities on campus.

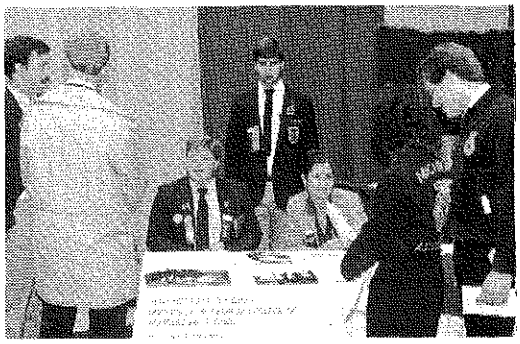
LEADERSHIP TRAINING RECORD SYSTEM IN AGRICULTURAL EDUCATION AT THE UNIVERSITY OF GEORGIA

ACTIVITY	POINT VALUE	POINTS EARNED	DATES ACCOMPLISHED
1. COLLEGIATE FFA PARTICIPATION:			
Committee Chairman	5		
Fund Raising	Var.		
Ag. Hill Council	5		
Attend Banquet	3		
Retreat	5		
Recreation	Var.		
Other (Specify)_____	( )		
2. RECRUITMENT:			
Recruitment Presentation	5		
Department Organized Activity	5		
College Wide Recruitment	5		
Article for Publication	5		
Other (Specify)_____	( )		
3. FFA ACTIVITIES:			
National Convention	10		
State Convention	5		
National Contest	5		
State Contest	3		
District Contest	3		
Area Contest	3		
State Rally	3		
District Rally	3		
Chapter Banquet	2		
Chapter Meeting	2		
Chapter Contest	3		
Other (Specify)_____	( )		
4. YOUNG FARMER ORGANIZATION:			
District Rally	3		
State Rally	3		
District Tour	3		
State Tour	3		
Other (Specify)_____	( )		
5. PARTICIPATION IN OTHER AG ORGANIZATIONS (SPECIFY):			
_____	( )		
_____	( )		
6. CLASS ATTENDANCE IN EAG 400/600	2 ea.		
	TOTAL:		

I pledge on my honor that this is an accurate representation of my leadership activities.

Signed:_____ Date:_____

Figure 1. Leadership training record system in Agricultural Education at The University of Georgia.



All seniors in Ag Ed are encouraged to attend the National FFA Convention. There the students assist with the Career Show recruitment booth, participate in the National Collegiate Ag Ed Conference, and take part in numerous other convention activities.

The seminar also keeps the faculty and staff involved with students on a regular basis. Activities such as group advising have helped reduce faculty time spent on the basics of the advisement/registration process, allowing more time for assisting with individual problems. Better prepared graduates have been the result. The district and state supervisory staffs have praised the increased level of involvement and the high quality assistance provided by the students at major FFA events. Although it is too early to quantify, the overall quality of advising and general involvement in the FFA program appear to have improved among first-year teachers of agriculture who graduated from the UGA program. A significant result is the greater involvement on the part of beginning teachers in their professional teacher organizations. Last year every beginning teacher who graduated from the University of Georgia joined the state and national agriculture teacher associations.

Little financial cost has been involved in setting up the leadership seminar. Resources required have been primarily in terms of time for faculty to develop and implement the record system and →

conduct the weekly sessions, for students to participate and to complete the activity forms, and for staff members to file the results. Placing record keeping responsibility on the students has greatly reduced faculty time involved.

Future Plans

All aspects of the program are reviewed quarterly. Plans call for continuing and improving the leadership program in the future. The weekly class sessions are held on Friday at noon so as to avoid conflicts with other classes; this policy will continue. Due to numerous conflicts, out-of-class seminars have been discontinued, but emphasis is placed in class sessions on the following topics: fall quarter - computer literacy; winter quarter - parliamentary procedure; spring quarter - program of activity development.

A needs assessment is conducted each fall to refine the topics. Students, faculty, and staff like the concepts involved in the leadership seminar and recommend that others try it.

References

Committee on Agricultural Education, National Research Council. (1988). **Understanding agriculture: New direction for the future.** Washington, D.C.: National Academy Press.

Phipps, L. & Osborne, E. (1988). **Handbook on agricultural education in public schools.** Danville, IL: The Interstate Publishers, Inc. ■

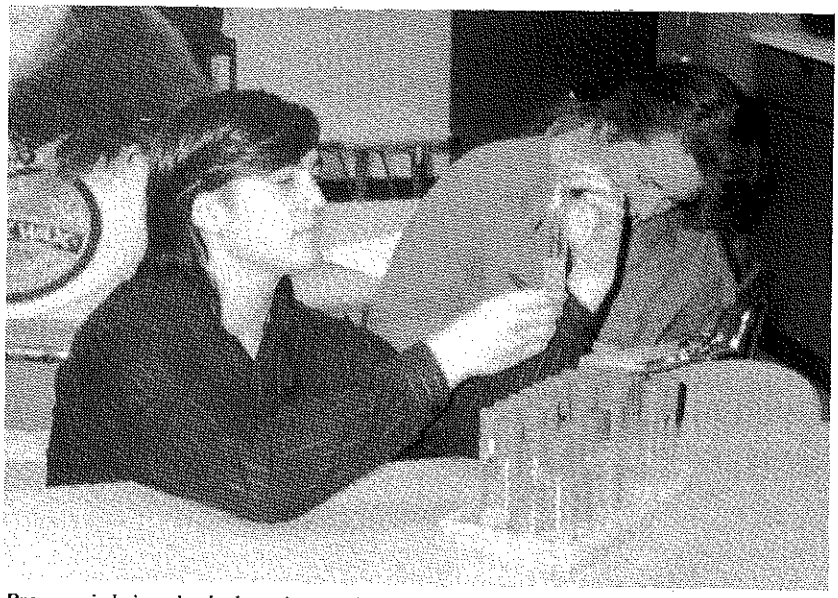
Upcoming Issues:

JULY: Collaborative Relationships
AUGUST: Advising FFA Chapters
SEPTEMBER: Focus on Teaching
OCTOBER: Teaching the Science of Agriculture
plus Feature Columns and other articles

Commitment and Involvement -

continued from page 10

The committee's leadership activities are the cornerstone of the organization and provide direction to the program for the teachers and the school system. The committee sends minutes, agendas and reports to the school administration and the board. The committee gives an annual report to the school board in July of each year. Other leadership roles include participation in the above-mentioned improvement processes, as well as promoting community activities to the agriculture program, evaluating curriclum, recruiting and placing students, providing positive public relations, and developing partnerships between the program and local industries.

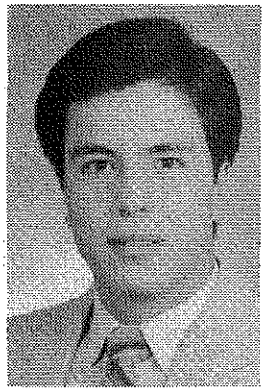


Progress is being checked on tissue cultured corn plants. Plant growth and culturing procedures can be seen. Students select plants that were not contaminated during the tissue culture process.

Conclusion

The agricultural advisory committee has been and continues to be the greatest asset to the agriculture program at Danville High School because of each member's commitment and involvement. The foresight that the founding members had when they re-established the advisory committee has enabled them to function and perform as an effective group in our school system. This foresight has allowed them to support and lend assistance to the Danville agriculture program as it focuses on new directions in agricultural education. ■

Personal Computers — More Than Calculators and Word Processors!



By N.L. McCaslin and Robert M. Torres

Dr. McCaslin is associate professor of agricultural education and Mr. Torres is a graduate student at Ohio State University, Columbus, OH.

The use of educational technologies such as computers and telecommunications offer great potential for improving the delivery of high quality instructional programs. This is in line with the National Research Council's (1988) recommendation that teachers seek out and share high-quality computer software and instructional materials.

Computer uses in instructional programs are primarily limited to using existing software with applications oriented toward production agriculture enterprises. Computers and telecommunication technologies can also help individuals access information from other locations. For example, the AgriData Network, some universities, and private businesses such as CompuServe provide agricultural information and/or computer-mediated communication services. This technology provides individuals with the opportunity to communicate with other people across the nation and around the world. These opportunities include three exciting educational possibilities: (1) electronic mail, (2) electronic bulletin boards, and (3) computer conferencing.

Electronic Mail

Electronic mail (e-mail) allows individuals to send messages to selected individuals via a computer. It is becoming increasingly popular around the country since first introduced by private businesses in the mid-70s. In our time-conscious society, e-mail has provided a new option in communicating with others.

Memos, letters and even telephone calls often require much time in communication. E-mail is faster than the postal service, cheaper than long distance calls, and easier to manage. You can even think of e-mail as a personal answering machine. Electronic mail can be sent from your computer whenever you wish, and it remains in the recipient's "answering machine" until it is read. Receiving individuals can then decide — at their convenience — what to do with the message. They may choose to reply to the message, forward the message to another person, make a hard copy, save the message in the computer, or discard it.

The e-mail message contains the body of the communication, address, date and time, status (new message, file copy, etc.), message description (an acknowledgement, an answer, or forwarded message) and name of the sender.

Sending e-mail messages requires three pieces of equipment: a personal computer (almost any kind), a telephone or dedicated telephone line, and a modem. A modem translates text and data into audio signals that are sent back and forth over telephone lines. Communication software such as PROCOMM (for IBM computers or compatible machines) or RED RYDER for Macintosh computers is also required. Once you have the equipment and software, the sign-on process usually requires subscribing to a system (some are free) and using a password to protect confidentiality.

E-mail can benefit agriculture teachers in a number of ways. Some of these possibilities are listed below:

- Distributing FFA chapter newsletters to other chapters.
- Informing teachers about legislative developments in agriculture and education.
- Notifying students of upcoming FFA contests/events.
- Informing teachers of district/state meeting dates.
- Distributing meeting agendas to students and teachers.
- Decreasing the amount of time teachers lose by playing "telephone ping-pong."
- Increasing responsiveness to urgent requests from the state department, teacher educators and other teachers.
- Providing opportunities for beginning teachers to communicate with their mentor(s).

Electronic Bulletin Boards

Electronic bulletin boards offer yet another means of communication. They are exactly what they sound like — →

a place you either post or read notices. It is much like the cork boards found in many offices and classrooms. Electronic bulletin boards are popular forums for presenting information on issues and inviting any interested individual to respond. These bulletin boards can be either "open" or "closed." On open boards everyone who uses the system can read what you have posted. Closed boards are available only to selected individuals or subscribers. It requires the same basic equipment as required for e-mail.

Electronic bulletin boards offer new opportunities for agricultural educators. These opportunities relate to both the learning and teaching processes and include:

- Sharing strategies for handling discipline problems.
- Identifying strategies for recruiting non-traditional students.
- Presenting ideas for SAEs, FFA fund raising events, and BOAC activities.
- Posting job opportunities for graduating seniors.
- Providing rules, forms, and deadlines for FFA contests.
- Posting program course outlines to strengthen articulation efforts with other educational programs.
- Obtaining information about weather and market prices.
- Sharing lesson plans, computer software reviews, textbook reviews, and commercial curriculum reviews.
- Identifying sources of exemplary curriculum materials on agricultural topics.
- Providing teachers with tips on teaching and learning.

Computer Conferencing

Computer conferencing is simply an extension of e-mail. Yet, unlike E-mail, the messages do not have to be viewed in the same order as they were received. Computer conferencing allows individuals to select the messages they wish to answer and the order of their response. In computer conferencing, the communication need not occur simultaneously. Messages can be stored until they can be accessed by the recipients. Thus, you can communicate at times and places that are most convenient to your schedule. As such, it offers great potential in delivering instructional programs. The equipment required for computer conferencing is the same as that needed for e-mail and bulletin boards. Anyone designated to take part in a computer conference can receive, read, write, and send information. These individuals may have never met and can reside anyplace in the world. Groups of individuals can function in interactive environments without ever having to leave their home or school. In essence, computer technology creates "face-to-face discussion."

Computer conferencing offers agriculture teachers a number of opportunities for improving their programs. These include:

- Planning and coordinating teacher meetings and FFA events.
- Providing a student forum for debate on agricultural issues.
- Involving students from other districts in class discussions to obtain broader and more diverse views.
- Providing teachers with specialized expertise in areas such as hydroponics and plasma arc cutting.
- Including people from foreign countries in class discussions to increase students' knowledge of international agriculture.
- Extending discussions beyond the regular class period.
- Conducting discussion on regional and national issues such issues as the Strategic Plan for Agricultural Education.
- Enhancing the use of group problem solving activities through dialogue and discussion.

Summary

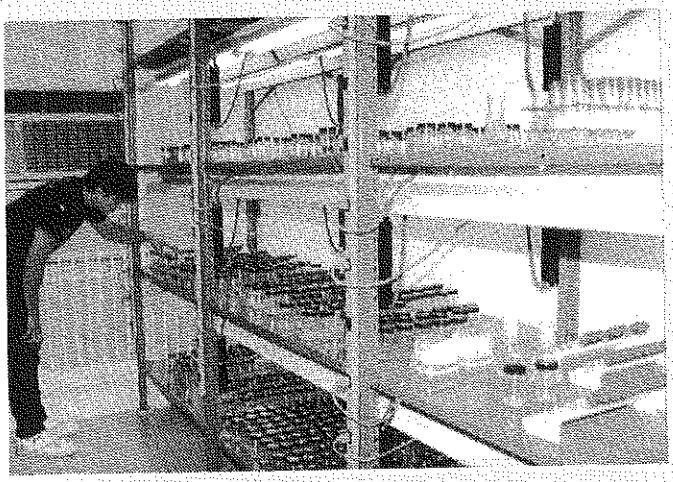
We need to think about personal computers as an integral part of our instructional programs. Although there are added costs, they can be covered through funds obtained in a variety of ways. Some of these ways include obtaining funds from regular budgets, special requests to boards of education, educational foundations, grants from computer firms, fund raising activities of the FFA Alumni or local chapters.

Besides word processing, spreadsheets, and data bases, personal computers can be used for other instructional and communication techniques. The use of e-mail, electronic bulletin boards, and computer conferencing are three exciting and innovative examples. The possibilities are unlimited and the time is right to begin thinking about how these techniques can help improve the quality of agricultural education programs.

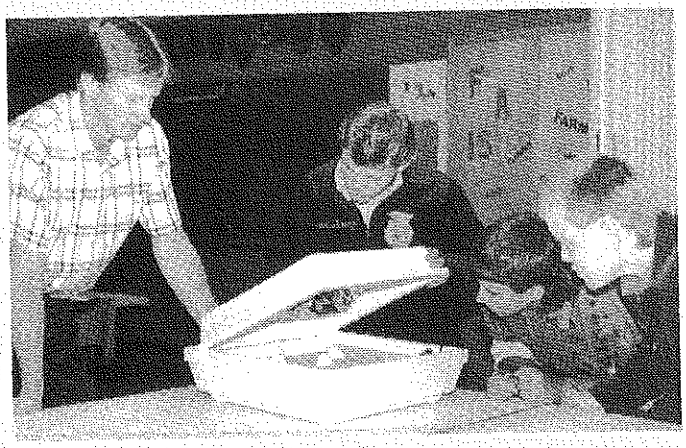
References

National Research Council (1988). UNDERSTANDING AGRICULTURE: New Directions for Education. Washington, D.C. Author. ■

STORIES IN PICTURES
Agriscience Laboratory Activities

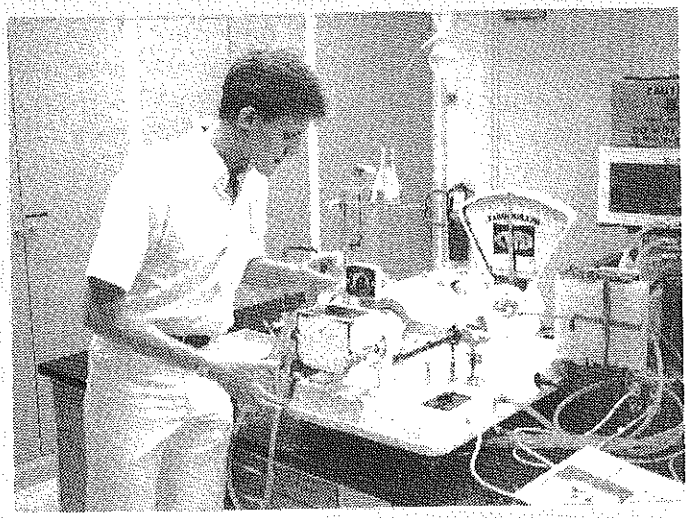


Tissue culture labs provide excellent hands-on experience for agriscience students. (Photo courtesy of Beth Wilson, Jordon H.S., Durham, NC)



Students observe a chick embryo research project as part of their agriscience studies. (Photo courtesy of Jay Bohnenblust, Clay Center, KS)

Small scale hydroponic projects in the school greenhouse teach agriscience students new production techniques. (Photo courtesy of Beth Wilson, Jordon H.S., Durham, NC)



Students' analytical skills are developed and practiced in the agriscience laboratory. (Photo courtesy of Susan Forte, Gulf Breeze, FL)