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ARTICLE SUBMISSION

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

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EDITOR'S PAGE

The New Decade

JASPER S. LEE, EDITOR

(The Editor also serves as Professor and Head, Department of Agricultural and Extension Education, Mississippi State University.)



The decade of the 80's has arrived! New challenges are facing vocational education in agriculture/agribusiness, while at the same time many of the challenges of former years remain. How will this multiplicity of challenges be resolved? How will our profession cope with the forces which impact on it?

The forces which impact on vocational education in agriculture/agribusiness may be placed in two major categories: internal and external. The internal forces are those within our profession. They evolve from the leadership (or lack of it) which all of us in the profession exert. And this includes teachers, supervisors, teacher educators, and others in the vocational education family. The quality of local secondary and postsecondary programs is one of the benchmark internal forces by which our profession is judged by those outside of it. It behooves each of us to exert our every effort to see that we have quality programs at the local level. This will be best realized through excellence in teacher education, supervision, and local programming.

The external forces include all aspects of the environment in which the profession functions. Trends in agricultural industry, government policies, citizen values, and the education profession in general are examples of these forces. Vocational education in agriculture/agribusiness must be responsive to these external forces. Further, our profession must assume a leadership stance which will allow it to participate in the shaping of these trends. Our profession must seek and remain in the mainstream of the community of agricultural industry.

Dialogue within our profession will facilitate the processes involved in assuming a strong leadership stance. It will allow all members of the profession the opportunity to

participate in molding our destiny. THE AGRICULTURAL EDUCATION MAGAZINE can and should be a significant forum for this molding process. It will be able to assume this role when all members of our profession get involved as authors and readers (hopefully, as both).

The new decade brings a new Editor for the MAGAZINE. During this Editor's term of three years, it is his hope that the MAGAZINE will be a viable vehicle for advancement of the profession. Historically, the MAGAZINE has been edited by a cadre of talented agricultural educators. The recent past editor, James P. Key, is very worthy of high commendation for his dedicated service to our profession. The excellence of previous editors certainly presents a challenge for the new Editor!

The editorial policies and mission of the MAGAZINE will remain essentially the same as in the past. However, certain changes in editorial procedure will be made. Each issue will have a Theme Editor, whose responsibility it will be to see that the theme is appropriately treated. Non-theme articles will be used as space and article quality will allow. Regular features will include "teaching tips" and "postsecondary" sections. The book reviews will be continued, much as in previous years.

The Editor welcomes suggestions on the MAGAZINE. Our ability to cope with the challenges of the 80's depends upon our leadership and commitment to the profession. With the help of the profession, it is hoped that the MAGAZINE will assume a relevant stance in determining our destiny.

NEW EDITORIAL STAFF

Regional Editors

Four new Regional Editors have been named for THE AGRICULTURAL EDUCATION MAGAZINE. Their terms are concurrent with that of the Editor, expiring December 31, 1982.

The new Regional Editor for the North Atlantic Region is William G. Smith of Rutgers University. Smith is Chairman of the Department of Education in Cook College. He is widely known because of his past leadership in the National Vocational Agriculture Teachers' Association. He has recently served as a consultant to the National FFA Board of Directors.

The new Regional Editor for the Southern Region is Larry Jewell of North Carolina State University. A native of Virginia, Jewell has taught vocational agriculture in Virginia and is currently serving as Coordinator of the Agri-

cultural Education Program at NCSU. He holds degrees from Virginia Polytechnic Institute and State University and the University of Missouri.

Larry Case is the new Regional Editor for the Central Region. Case is currently serving as Director of Agricultural Education for the State of Missouri. He is a former teacher of vocational agriculture and administrator in Missouri. He has been serving as Director of Agricultural Education for approximately two years.

Rosco C. Vaughn is the new Regional Editor for the Pacific Region. He is currently State Supervisor for Vocational Agricultural Education in New Mexico. Vaughn is a former teacher of vocational agriculture, and has served in his present position about four years. He has served as an

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The New Decade: Preparing For The 1980's

The past 60 years have been good for agricultural education. Enrollments have grown, programs have expanded, and people have become more and more aware of the importance of educational opportunities in agriculture. But where do we go from here? What is going to happen to agricultural education in the 1980's? No individual can accurately answer such questions, but I think that authors of articles in this issue have done an excellent job in providing us with an insight into the upcoming decade.

Each author has a definite and unique interest in the future of agricultural education. Each has been in his present position for four years or less, and each has demonstrated outstanding leadership in a particular area of agricultural education. The authors include a young vocational agriculture teacher who was recently elected as an NVATA national officer, a young state supervisor who has served as a national officer of NASAE, a recently appointed department head of teacher education who just completed a term as vice-president of AVA, a relatively new National FFA Executive-Secretary, and a brand new Program Specialist for Agriculture in the U.S. Office of Education. They have joined together in offering specialized views on the future of agricultural education. I think it is most appropriate that each of these individuals will provide considerable direction to the agricultural education movement in the next ten years.

In addition to projections for the future, each author of-

New Editorial Staff

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officer in the National Association of Supervisors of Agricultural Education (NASAE).

Special Editors

Three Special Editors have been named to the staff of the MAGAZINE. These are Book Review Editor, Teaching Tips Editor, and Postsecondary Editor.

The new Book Review Editor for THE AGRICULTURAL EDUCATION MAGAZINE is Richard M. Hylton. A native of Virginia, he taught vocational agriculture for four years in that state. He is currently a vocational program assistant and graduate student in the Department of Agricultural and Extension Education at Mississippi State University.

Rick Foster has been appointed to serve as Teaching Tips Editor, a special feature to appear in each issue of the MAGAZINE. He is currently a member of the faculty in the Department of Agricultural Education at the University of

BY PAUL R. VAUGHN, THEME EDITOR

Editor's Note: Dr. Vaughn is currently Assistant Professor in the Department of Agricultural and Extension Education at New Mexico State University.



fers suggestions on what we should be doing to prepare for the upcoming decade. I would only add one suggestion to theirs — as you prepare to enter the 1980's, take time to sit down and map out a few personal plans for your own agricultural education program during the upcoming decade. Look at what you can do in terms of community relations, program planning, or goal attainment, and strive to improve and strengthen your program over this period of time. Keep in mind that one of our major goals for the end of this new decade is to ensure that we have another decade to look forward to. Such a goal will not be possible without astute planning and organization on the part of each and every one of us. *Your individual contribution will do more toward making the next ten years a successful decade than will any contribution by a state or national leader.* Keep up the good work, and I hope that you are still with us when we begin to prepare for the 1990's.

Idaho. He holds the doctorate from Iowa State University.

Donald M. Claycomb will continue to serve as Special Editor for Postsecondary education. Claycomb is currently a member of the Agricultural Education faculty at the University of Missouri, and was previously at Kansas State University.

The Cover

President James E. Carter is shown speaking to FFA officers during their visit to the White House. On the left is Kelly Grant, past National FFA Secretary, while Mark Sanborn, past National FFA President, is on the right. President Carter is a former FFA officer in the Plains, Georgia, Chapter, who often discusses the benefits he received from FFA membership. (Photo courtesy of the National FFA Center, Alexandria, Virginia.)

Facing A Decade Of Change

BY BYRON F. RAWLS

Editor's Note: Byron Rawls is Program Specialist for Agriculture, Agribusiness, and Natural Resources in the Bureau of Occupational and Adult Education, U.S. Office of Education, Washington, D.C. He is also the National Advisor of the Future Farmers of America.



We are now entering a decade in the agricultural education experience that, to say the least, will be very interesting and challenging. The years ahead will be interesting in that we will experience the surfacing of new priorities, new methods, new philosophies, new publics, and new opportunities. These same years will be a time in which the very purposes of our profession will be challenged by a society that is different from that in which we have grown up. Just as society has changed in the past, some dramatic changes will become prominent enough within the coming decade to cause us to restructure many facets of our profession in order to maintain a delivery system that is meaningful and relevant.

What are the expected factors that will provide this pressure for change? What can the profession do to prepare for this impact and continue to provide services to those who need and can use our services? These are questions that have no definite answers at this time. Probably, by the end of the decade, we can look back and indicate precisely what should have been done.

However, unfortunately, we cannot wait until 1990 to deal with these questions. We must now attempt to determine what society will be like in 1990 and we must make necessary adjustments in the agricultural education profession that will respond to the needs of society at that time. The way we face the next few years, and attempt to keep up with the world around us, could very well affect the future of the profession.

Bases For Changes

Some of the factors which will bring about change are beginning to surface. There are many which could be related, but seven are listed in this article.

First, there will be a very obvious change in the age groups with whom we will work. Our population is growing older. We will see a basic change in the age ratios. There will be fewer youngsters and more adults, with many more senior citizens. Statistics indicate that in 1978 the median age was 29. This figure should reach or pass 30 by 1981. The projection is that, by 1990, we will have, in our population, more people over 55 years of age than we have in the so-called school-aged group.

Secondly, more women are steadily entering the work force and will need adequate preparation for their chosen pursuits. Within the past decade enrollment of females in agriculture and agribusiness programs has increased to approximately 17.2%. Indications are that this trend will continue and the numbers needing training will grow steadily in the next decade.

Third, the pressure to document the need for programs will increase. We will need to justify the existence of programs before funding will be available. In the past, we were able to say, without much fear of contradiction, that our completers were obtaining employment. We were

right. However, we must find a way to tie down the need for the programs during the planning stages in order to gain approval for them. Required evaluation of programs in terms of how well completers are doing in the market place will surface the need for and quality of the program.

Fourth, changes in the way teachers see their responsibility and opportunities. We have been operating on the assumption that the teacher is willing to possibly work 18 hours a day while the other teachers in a school were only working 6 - 8 hours and being paid for responsibility or duties performed beyond the regular school day. Some of the research conducted in this area indicates that this is a major cause of teachers leaving the profession for other jobs. Much more information is needed in order to adjust attitudes of the entire profession concerning preparation and retention of teachers who will provide quality instruction at all levels of programs.

Fifth, accurate matching of required competencies, including personal development, with the duties to be performed will have implications for initial preparation for an occupation and for keeping current in employment through programs designed for this purpose. Linking the curriculum directly to the occupation could mean that employability of completers is better and that the need for the program can be more clearly defined.

Sixth, technology will continue to change. The base for technological development is much broader than a decade ago. We are surely going to see astounding developments within the agricultural complex in the next decade. One can only guess what the parade of agricultural technology will be, but we must be responsive in our program planning and implementation to keep up and, if possible, stay ahead of developments.

Seventh, the shift in population can bring pressure for program change. Some areas of the country are experiencing population growth while others are losing. Arizona experienced a 25% increase in five years, while the Northeast had less than the normal amount of growth. Washington, D.C., New York and Rhode Island have shown a population decline.

This change not only occurs on a regional basis, there is also local change in population. We are still experiencing

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Facing A Decade Of Change

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movement from the city to the suburbs. In addition, the suburbs are growing larger and there seems to be a growing migration from the cities and suburbs to semi-rural areas near small cities of up to 50,000. As these shifts take place, the need for programs will be changed.

Agricultural educators must be aware of and responsive to these and many other pressure points if we are to survive as a viable element in the educational community.

Preparing For Changes

The second question, "What can the profession do to prepare for this impact and continue to provide services to those who need and can use our services?", must be answered. The time for investigation of the ways and means of answering this challenging question is now. A decade that witnessed unprecedented change and growth has ended. Much of this change and growth came as no surprise. In 1968, a series of seminars was begun with the first held in St. Louis, Missouri, to adjust our approach to what would be a decade of adjustment. These seminars were very helpful in enabling us to appropriately respond to the pressures of the 70's.

We are now getting ready to begin another series of seminars which should make our response to the challenge of the 80's even more appropriate than for the past decade. For one thing, it is hoped that participation will be broader and that many local teachers will be involved.

The first of these will be held August 5 - 7, 1980, in Kansas City, Missouri, at the Continental Hotel. Plans are underway and those who would like to participate should make plans now. Discussions during the seminar will include discussion of the role of the vocational agriculture teacher, diversity of programs, a futuristic look at the next decade, philosophy of teachers, identification of competencies, where does vocational agriculture fit into the total educational system, alternative approaches, manpower needs and employment opportunities, and many other pertinent topics. This discussion will be initiated by interesting and challenging speakers and will be held in round table and small group sessions.

During the two-day seminar, we should identify the issues facing agricultural education, define strategies for dealing with these issues, and develop ways of implementing the strategies. Participants should be challenged to renew their efforts to strengthen the profession at all levels and in all areas of responsibility.

Then, periodically, over the next decade, regional and national seminars will be held to relate to issues and problems faced in dealing with the pressures for change. In these seminars, there should also be broad participation from various groups, including administrators, teachers, supervisors, teacher educators, representatives of governmental agencies, business and industry, and others.

Agricultural educators have always been faced with change. Today, is no different. In fact, one could safely say that we are faced with more important changes than ever before: We must be aware of them and respond in an appropriate manner.

Yes, the decade of the 80's will be interesting, exciting and very challenging. My faith in the profession prompts me to conclude that the entire profession will grow stronger and thrive if we will just share the excitement and challenges in a united way.

THEME

Agricultural Education In The 1980's

By J. ROBERT WARMBROD

Editor's Note: Dr. Warmbrod is Professor and Chairman of the Department of Agricultural Education at The Ohio State University. He has recently completed a term as Vice President of the American Vocational Association and is a past Editor of THE AGRICULTURAL EDUCATION MAGAZINE.



Forecasting, even at its best, is approximate. Projections for the future that are most likely to be trustworthy pay more than a passing glance both to the present and the recent past. As we plan for public school education in agriculture for the next decade, we need to remind ourselves that changes in agricultural education in the 1980's will be gradual transitions from the late 1970's rather than sudden modifications in policy, programs, or clientele served.

Agricultural Education in the 1970's

As we think about the next decade, let us review some of the changes that have occurred since 1970 in federal- and state-funded vocational agriculture programs in the United States.¹

From 1970-71 to 1977-78 —

- Total enrollment in vocational agriculture increased 19 per cent — from 845,100 to 1,006,500 persons enrolled.

- Enrollment in secondary school vocational agriculture programs increased 27 per cent — from 562,100 to 715,300. During this eight-year period, total enrollment in public secondary schools increased only 1.4 per cent. In 1970-71, 3 per cent of all students in public secondary schools were enrolled in vocational agriculture; in 1977-78, 3.8 per cent of all public secondary school students were enrolled in vocational agriculture.

- Enrollment in post-secondary agricultural education programs increased 102 per cent — from 28,400 to 57,500.

- Enrollment in adult vocational agriculture programs decreased 8 per cent — from 254,500 to 233,700.

- The percentage of the total enrollment in vocational agriculture that is female increased by 398 per cent. In 1970-71, 4% of the total enrollment was female; in 1977-78, 17% of the total enrollment was female.

- Enrollment in vocational agriculture continued to shift toward secondary and post-secondary school programs and away from adult education programs. In 1970-71, 67 per cent of the total enrollment in vocational agriculture was high school students; in 1977-78, 71 per cent of the enrollment was high school students. Post-secondary students comprised slightly over 3 per cent of total enrollment in 1970-71 and almost 6 per cent in 1977-78. The percentage of total enrollment that was adults decreased from 30 per cent to 23 per cent.

- Enrollment in secondary school production agriculture programs remained stable — 339,500 students in 1970-71; 341,400 students in 1977-78. Enrollment in nonfarm specialties increased by 68 per cent — from 222,600 to 373,900 students. In 1970-71, 40 per cent of all secondary school vocational agriculture students were enrolled in nonfarm programs; in 1977-78, 52 per cent of all secondary school vocational agriculture students were enrolled in nonfarm programs.

- The number of high school teachers of agriculture increased 21 per cent — from 10,500 to 12,700. The annual potential supply of new teachers who are university graduates certified to teach vocational agriculture increased 2 per cent — from 1,700 in 1970-71 to 1,740 in 1977-78. The annual actual supply of new teachers (university graduates certified to teach who entered teaching as their first employment) increased 22 per cent — from 870 in 1970-71 to 1,060 in 1977-78. During the eight-year period 65 per cent of the annual demand for new teachers was met by university graduates certified to teach who entered teaching as their first employment.

This description of trends concerning federal- and state-funded agricultural education programs in the 1970's highlights several points that have direct implications for the 1980's. First, it is evident that agricultural education is overwhelmingly oriented toward secondary school programs. Therefore, it is likely that changes that occur or do not occur in high school vocational agriculture programs will determine to a great extent what public school education in agriculture will be in the 1980's. A major factor that must be considered then is projections concerning the number of students who will be enrolled in secondary schools in the future. Second, growth in enrollment during the 1970's has come primarily from two groups — women and persons whose major interests are the nonfarm sectors of agriculture. To what extent are these groups sources for future increases in enrollment? And third, the shortage of university graduates certified to teach who actually enter teaching continues, while at the same time, the number of high school teachers of agriculture increases steadily. From what sources are teachers recruited to meet the demand not met by university graduates who are certified to teach? What are their qualifications for teaching?

Enrollment in the 1980's

If the secondary school vocational agriculture program drives the total federal- and state-funded agricultural program in the United States, then projections for the future

must take into consideration what is known about the number of students who will be attending public secondary schools in the 1980's. Estimates from the National Center for Educational Statistics indicate that the total number of public secondary school students in 1986-87 will be 18 per cent less than the number attending public secondary schools in 1977-78. What does this decrease in the number of public secondary school students portend for agricultural education in the 1980's? Enrollment projections for secondary school vocational agriculture programs will be made for three circumstances.

Continued Growth in High School Vocational Agriculture Programs. If enrollment in high school vocational agriculture continues to grow in the 1980's at a rate comparable to the 1970-78 period — a 27 per cent increase, some 908,000 high school students will be enrolled in vocational agriculture in 1986-87. If that is the case, 5.9 per cent of all public secondary school students would be enrolled in vocational agriculture. That high a percentage of all secondary school students enrolled in vocational agriculture has not been achieved at any time during the past 25 years. To achieve this level of enrollment in 1986-87, 155 public secondary school students will need to be recruited for vocational agriculture for each 100 students who were enrolled in vocational agriculture in 1977-78.

Stable Enrollment in High School Vocational Agriculture Programs. If enrollment in high school vocational agriculture in the 1980's remains at the level achieved in the late 1970's — some 715,300 students, 4.7 per cent of all public secondary school students will have to be enrolled in vocational agriculture in 1986-87 compared to 3.8 per cent of all public secondary school students who were enrolled in vocational agriculture in 1977-78. This level of enrollment will require that 124 public secondary school students be recruited for vocational agriculture for each 100 secondary school students who were actually enrolled in vocational agriculture in 1977-78.

Percentage of Secondary School Students Enrolled in High School Vocational Agriculture Remains Stable. If the percentage of all public secondary school students enrolled in vocational agriculture in 1986-87 remains at the level achieved in 1977-78 — 3.8 per cent, enrollment in high school vocational agriculture in 1986-87 will be some 133,000 students less than enrollment in 1977-78 — an 18 per cent decline in enrollment. This projected enrollment — 581,900 students — is slightly higher than the actual enrollment in 1970-71. If the students per teacher ratio experienced in 1977-78 — 56 to 1 — were to remain stable also, there would be a projected need for 10,325 high school teachers in 1986-87 — 2,375 less (19 per cent) than the number of high school vocational agriculture teachers in 1977-78. If the number of high school teachers were to remain at the number employed in 1977-78 — 12,700 — the student-teacher ratio in 1986-87 would be 46 to 1 in comparison to a ratio of 56 to 1 in 1977-78.

Concerns for the 1980's

These scenarios bring focus to issues that must be dealt with as we plan for the future in agricultural education.

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The projection based on the growth rate of the 1970's continuing throughout the 1980's is overly optimistic and, in effect, unrealistic. The ballpark estimate for enrollment in high school vocational agriculture in the 1980's is realistically some place between the projection for stable enrollment — some 715,000 students — and the projection for stable proportions of public secondary school students enrolling in vocational agriculture — some 582,000 students. In fact it is very likely that there will be some decrease in enrollment in high school vocational agriculture programs in the 1980's. It is possible that a downward trend has already begun since 1977-78 enrollment was 5,000 students less than the previous year's enrollment. With that exception, the number of high school students enrolled in vocational agriculture each year since 1960 has exceeded enrollment during the previous year.

I propose that the following concerns warrant our attention as we plan for the 1980's.

Nature of Programs. Traditionally policy for public school education in agriculture has been determined by national legislation for vocational education. Consequently, agricultural education in the public schools is, for all practical purposes, federal- and state-funded vocational and technical education in agriculture. The prospects are slim that considerations other than national legislation for vocational education will provide a basis for policy and programs in the 1980's. If that is the case, we face two major tasks. The first is that of developing and conducting programs that impact upon the priorities identified in current national legislation. The second task is that of participating constructively in the formulation of new and revised national legislation.

Current national legislation indicates rather clearly that Congress views vocational education, including vocational agriculture, as having an impact on major social problems; for example, youth unemployment, programs for the disadvantaged and handicapped, and the problems of race and sex equity. If we embrace national legislation as the major source of policy, to what extent are agricultural education programs responding to these mandates? How can agricultural education contribute most effectively to revisions and extensions of national legislation that will be enacted early in the 1980's? What should be the role of public school education in agriculture in the 1980's? Is that role broader than vocational education in agriculture?

Clientele. High school students are the dominant clientele currently served through agricultural education programs in the public schools. Is this high degree of emphasis on high school students likely to continue? Should it continue? One can assert with almost surety that, if agricultural education is to maintain its vitality in the 1980's, much more attention and resources must be given to adult education. What adults and out-of-school youths should receive instruction in agriculture? What programs best serve their present and future needs? What qualifications must teachers possess who teach adults? The answers to these and other questions could well determine the future of agricultural education in the 1980's.

Source and Competence of Teachers.² Data on the supply and demand of teachers indicate a substantial and continuing shortage of teachers of agriculture. Is there a shortage? In spite of the annual shortages of university graduates certified to teach who actually enter teaching, the number of teachers continues to increase steadily. One could take the position that the teacher shortage may be more myth than reality. Since the teaching positions are being filled, some important questions are appropriate. What are the sources and preparation for teaching of those persons entering teaching each year to fill positions not taken by university graduates who are certified to teach? How competent are these teachers? How can their continuing professional and technical competence best be measured? Are university graduates certified to teach as highly competent technically and professionally as they should be?

Evaluation — Program Quality. Current national legislation mandates both evaluation processes and criteria for vocational education. Are these procedures and criteria adequate for vocational agriculture? To what extent are appropriate data and information being collected to provide valid and reliable assessments of agricultural education programs? How are evaluative data and information used to improve program quality? Systematic evaluation of both the process and outcomes of agricultural education programs will demand high priority in the 1980's.

The Task Ahead

Those of us in the profession must deal with these issues individually and collectively through out professional organizations if public school education in agriculture is to continue to prosper. The concerns listed grow directly from changes that are fairly certain in public education. It is essential, however, that we also consider the impact of anticipated changes in the industry of agriculture on these and other issues in agricultural education. We would be shortsighted to ignore that dimension as we plan for the next decade.

Each concern facing agricultural education impacts on all of us — teachers, teacher educators, and supervisory personnel. Our prospects for a bright future are best if we cooperatively deal with the challenges we face.

¹Data pertaining to federal- and state-funded vocational agriculture programs are reported by the Division of Vocational and Technical Education of the U.S. Office of Education. Enrollment data and projected enrollment for public secondary education are reported by the National Center for Educational Statistics. Data pertaining to the supply and demand of high school teachers of agriculture were compiled from the annual surveys of the "Supply and Demand for Teachers of Vocational Agriculture in the United States" conducted by the Professional Personnel Recruitment Committee, Agricultural Education Division, American Vocational Association.

²This concern is discussed in more detail in the author's presentation "What Is the Commitment of Higher Education to Agricultural Education in the Secondary Schools?" presented to the Deans and Directors of Resident Instruction in Agriculture at the University of Vermont, July 1979.

THEME

Our Future Depends On Us



By Rosco C. VAUGHN

Editor's Note: Rosco Vaughn is State Supervisor of Agricultural Education in New Mexico. Among other professional responsibilities, he is currently Regional Editor for THE AGRICULTURAL EDUCATION MAGAZINE.

Challenge To State Leadership

During the 1980's, state leadership will be challenged and tested as it has never been before. It will be held increasingly accountable for our efforts by skeptical legislators, parents, and the general public. Successful leaders will work to inspire team concepts between teachers, teacher trainers, students, legislators, parents, the agricultural industry, and the general public. Changes and expansion of agricultural education and FFA activities will be necessary to meet the challenges of the 1980's. Successful leaders will look toward 100% membership and participation in the Future Farmers of America organization. The dynamically changing agricultural industry will place a high priority on obtaining the leadership necessary to represent and speak out for agriculture. The FFA should provide most of these leaders.

The strengthening of supervised occupational experience (SOE) programs will take place under effective leadership. The vocational agricultural education program will remain only as meaningful as the hands-on experiences provided by high quality SOE programs. Every student conducting a practical SOE program should provide the basis for all other agricultural educational activities.

As farms become larger and the agricultural industry becomes more specialized, differences in agricultural education programs in the states will become more pronounced. The philosophy of programs adapted to the local community will become more prevalent at the state level. State legislation and state legislative activity will determine to a greater extent the direction taken by individual state programs. A team approach will be critical if agricultural education is to adapt to increasing state influences. Strong state and national leadership will be the keys to insuring that common state and national goals are established and followed.

Those early educators who laid the foundation for vocational agriculture and the FFA provided a sound base and sense of direction that is still meaningful today. However, with the growing world population, the increasing awareness of the importance of agriculture, and the changing agricultural scene, the opportunities ahead are many.

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Our Future Depends On Us

(Continued from Page 9)

Probably the most important single ingredient in the past success of the agricultural education program has been outstanding people highly committed to improving young people and to improving agriculture. Our future success will depend to a large extent on our ability as a profession to continue to attract people who are dedicated to their profession and who are willing to work together for the common good of American agriculture and American people.

Our challenges today require careful analysis and positive thinking. We are involved in the "people business" and if we can recruit the best of "our business," provide them with a sound base and sense of direction, agricultural education will continue to grow and expand in the coming decade.

1980 Themes For The Agricultural Education Magazine

| | |
|---|-----------|
| Funding the Local Program | February |
| Making Vo-Ag Relevant to the Needs of Agricultural Industry | March |
| Basic Competency Programs | April |
| Experiential Programs | May |
| Summer Programs | June |
| Technology in Agricultural Industry | July |
| Using Realia in Instruction | August |
| Safety Education | September |
| Programs in Animal Agriculture | October |
| Programs for Exceptional Students | November |
| Facilities | December |

NOTE: Authors should submit two copies of proposed articles. Theme articles should be submitted 2½ months prior to the date of the theme issue.

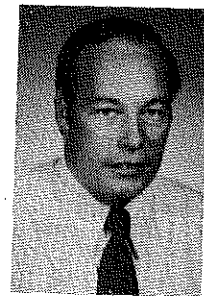
THEME

Agricultural Education In The 80's: The New Decade — The Same Purpose

Vocational education in agriculture has evolved through six decades since its creation in 1917. Each decade has been characterized by distinct challenges to the local teacher. In the beginning, teachers were charged to prepare boys for farming. The 30's were times of economic depression during which survival was the main objective. The war effort occupied the 40's and vocational agriculture helped meet the nations' needs for food and trained manpower. The 50's were a much needed quiet time and vocational agriculture struggled to achieve its potential. During the 60's, federal legislation broadened the base of vocational education, expanded the clientele, and altered program directions.

At the onset of the 70's, when I began teaching, futurists in our profession were apprehensive about what this decade would hold for vocational agricultural education. Ballooning enrollments, targeted social legislation, the "businessizing" of agriculture, the urbanization of America, a demand for higher quality and more efficient education, more leisure time, a growing need for competent employees in agriculture, equal rights for all, unemployment, and inflation have each had a tremendous impact on our programs and our teachers.

Through all of this, vocational agriculture has survived and today, just as in 1917, the basic purpose of our programs continues to be specialized training for employment in agriculture. Whether the program is in the city or country; in small or large schools; in production agriculture, agricultural mechanics, renewable resources, sales and service, or horticulture; the common thread of specialized training for agricultural occupations is the enduring princi-



BY TOM JONES

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ple binding our programs and our teachers together. The 70's, perhaps more than any other decade, have seen the coming and passing of many "fads" and "new" initiatives in education. Two of the grand fallacies in vocational education have been that 1) anything new is better, and 2) quantity equals quality. Vocational agriculture has participated, to some extent, in the perpetuation of these two falsehoods. However, the programs which have survived are those of high quality, conducted according to program standards of excellence, which meet the needs of their students and communities by training people for work in agriculture. The new decade, I believe, will not end much differently.

A local teachers' ability to conduct quality programs will be affected by some of the same issues as past decades have seen. In addition, issues which are unique may also appear. What will affect the nature, longevity, and quality of vocational agriculture programs during the next ten years might be contained in the following four questions which we, as teachers, should ask ourselves: (1) Who will

we serve?, (2) How will we serve?, (3) How well will we serve?, and (4) How will we be led?

Who Will We Serve?

Simply stated, our programs will serve the agricultural industry and those who need training for employment in it. If we fail to do that, we will cease to be needed. I am not sure that farmers, ranchers, and agribusinesses recognize the local vocational agriculture program as a source of qualified employees. Vocational agriculture to many people means the FFA. This is not bad, for the attitudes and leadership skills developed through the FFA organization are an essential part of employability. However, if vocational agriculture is to continue as a viable educational program, we must do more than ride the laurels of a vocational youth organization.

In order to provide trained employees for agriculture we must keep informed of industry needs. Neither business nor our students will benefit from training in non-valid or non-economical occupations. Let us strive in the 80's to strengthen cooperative relationships with employers in agribusiness by establishing our credibility as a training program capable of providing skilled, knowledgeable, and responsible employees.

Let us also strive to rekindle in our students the desire and ability to become entrepreneurs. We cannot eliminate the goal of establishment from employment. Somewhere in this decade, we have limited the future of many of our students to working for someone else. Yes, it is hard to become established in business today, especially farming, but it is not impossible. Training for ownership encompasses the same competencies as training for employment with increased emphasis on business management knowledge and skills.

Teachers will continue to be challenged to keep abreast of technical changes in agriculture. It is likely that our students will be different and fewer in number. According to research by the National Education Association, annual declines in school-age children 5-17 years will continue until 1985 and then are expected to begin a period of small increases each year until the year 2000. With fewer secondary students we will need to adjust our programs to provide training for adults. Young farmer education will gain in both popularity and availability. We may find ourselves competing with other vocational areas for students and we will need to improve our recruitment practices. Career exploration at the junior high school level will take on increased significance, while renewed emphasis will be placed on career preparation in our high schools.

How Will We Serve?

Effective teachers in the 80's will be those who can plan and execute efficient programs. Inflation and the "proposition 13 mentality" will require us to eliminate the "chaff" from education. I wouldn't speculate on what we might cut or de-emphasize in vocational agriculture. I do know what we must cling to as the basic ingredient of the program — specialized training for employment in agriculture. This should be coupled with the proven belief that students learn best when they experience first hand what it is like to work in their chosen occupation through supervised occupational experience programs.

The ability of teachers to continue providing sound oc-

cupational experiences to students will be tested in the decade ahead more than ever before. Four-year programs and year-round instruction through supervised occupational experiences are unique to agricultural education. Without them our programs run the risk of being absorbed into the mainstream of general education. As more of our students come to us from non-farm backgrounds, the need for "learn by doing" instruction will increase. Hands on, practical experiences in production agriculture still forms a foundation for virtually all occupations in agriculture. Every school provides laboratories for its science and shop skills courses. With a changing student population, vocational agriculture laboratories will increase in numbers and use.

How Well Will We Serve?

The 80's may well be known as the "decade of accountability" in all programs, projects, and agencies supported by tax dollars. Vocational education in agriculture has a solid track record of doing what it was intended to do. Accountability will bring to those programs which are accountable a renewed emphasis and support. In vocational agriculture we are fortunate to have developed standards for quality programs which can be used to plan, evaluate, and improve our programs.

Not only agricultural education, but all of vocational education, must demonstrate to the public, business, industry, state, and federal governments that we can provide reliable, qualified employees. The billions of dollars being poured into CETA-type training could be more effective if utilized in support and improvement of existing educational programs, such as vocational agriculture, where in addition to technical skills students learn how to keep a job and be productive.

We must demonstrate how vocational agriculture does meet the aims of general education in teaching the basic skills of reading, writing, and computing. The application of those skills to real-life situations will continue to be the most effective way of teaching and learning. As we strive to train students for agricultural occupations, the use of competency-based instruction will grow. It reflects the training needs of employees as determined by their employers and serves as an accountable means of preparing students to enter the job market.

How Will We Be Led?

Leadership in the 80's at the local, state, and national levels needs to come from vocational educators who have vision, courage, and dedication. Vocational educators, and especially vocational agriculture teachers, must assume more of the responsibility for program leadership at all levels. We need good teachers in the classroom but we also need good vocational educators in positions of program leadership, ranging from local directors, to state staffs, teacher education, and professional organizations. As federal legislation becomes directed more to short-range social and economic programs, we will look to state legislatures for support in developing and improving existing programs. No one is in a better position to determine the course vocational agriculture will take in the years ahead than the local vocational agriculture teacher. This is an opportunity and a responsibility we must willingly assume.

A NEW DECADE

A new decade is here! New challenges and increasing awareness of the importance of a solid agricultural base and the wise allocation of valuable natural resources have arrived with it.

All agricultural educators are aware of the importance of agriculture and the management of America's natural resources, but do we adequately relate that to the cultivating of America's finest resources, our youth?

Difficult Decisions Ahead

Difficult decisions await those fresh young faces that surround vocational agriculture classroom tables. We must combine that classroom training with practical experience and leadership activities that assure a well rounded student outlook, geared to proper evaluation of a burgeoning amount of information that becomes more global in its causes and effects each day.

Byron Rawls, National FFA Advisor, thinks that through the operations of a complete vocational agriculture program, including a strong student organization component, we have the vehicle which will help ensure the strength of America's agriculture sector in the 80's and beyond.

President Carter, speaking to the State Presidents during their Washington Conference this past July, challenged FFA members to develop their leadership potential and work to build the confidence needed in America. Through leadership development activities, including the important skill development events, such as parliamentary procedure, public speaking, and serving as an officer, we will continue to help build confidence in young people who will be skilled and positive leaders of the new decade.

What Members of the FFA Staff Think

Leadership programs in the 80's will continue to challenge FFA members to put forth their best efforts. We will search for avenues to serve all students with this important part of the program. State and national leadership experiences will continue to expand, but the real input of leadership training will still be carried out at the local level, says Tony Hoyt, Program Specialist - Leadership, at the National FFA Center.

The success of the students who participate in FFA depends directly on the quality of the vocational agriculture program that is offered. Much of the recognition students gain through FFA is a direct result of well established and maintained supervised occupational experience (SOE) programs. If we continue to provide students a means of applying what is learned in the vocational agriculture classroom through SOE programs, FFA activities will continue to be relevant in the 80's.

More realistic and meaningful ways need to be developed to provide all students, regardless of where they live or the type of agricultural program they are pursuing,

By C. COLEMAN HARRIS

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with appropriate SOE programs, says Bob Seefeldt, Program Specialist - Awards, at the National FFA Center. Increasing the diversity of award programs and the improvement of training in record keeping are two areas in need of increased attention. Greater responsibility will also need to be placed on the local advisor to only use those FFA programs which can complement or supplement the instructional program being offered.

Contests are also a means of further developing skills important to students preparing for agricultural careers. During the 80's contest programs will be closely scrutinized to assure their validity as developmental tools for instruction through vocational agriculture. New areas for emphasis will also be explored as instructional programs change to meet student, community, and agricultural needs.

I think there will be a desire on the part of agricultural educators to relate the skill contests even more closely to the instructional program. As agriculture becomes more complex, competition will serve as an incentive for members to learn the added skills needed in farm management or agribusiness, says Ted Amick, Program Specialist - Contests, of the National FFA Center.

Throughout the 80's, informing the public about vo-ag/FFA will be a complex affair needing to reach many audiences.

The NATIONAL FUTURE FARMER, recently having moved from a printer in Lawrence, Kansas, to Dayton Press in Ohio, will continue to serve as a vital link to the member and his/her parents. Having the full-color magazine mailed to the home pulls the home scene and parents into the education process. The National Future Farmer Magazine promotes a vision of life "beyond graduation" and encourages consideration of future alternatives.

Wilson Carnes, Editor of the NATIONAL FUTURE FARMER, says, increasingly it will take more education to deal with modern agriculture technology. The NATIONAL FUTURE FARMER will have to do a better job of targeting in on the technical information needed to serve a readership that becomes more and more aware. Hopefully, we will continue to emphasize the human values and relationships in instruction and in the magazine.

The excellent local level publicity for vo-ag/FFA effected

by FFA chapters and advisors in past years serves as a firm foundation for additional efforts of a state-wide and nation-wide level.

A fresh and aggressive outlook must be taken to let the good work of vo-ag/FFA be seen by the right people — and get FFA's share of the total agriculture and youth information pie. Nationwide exposure of vo-ag/FFA as a system that works will be a greater priority in the 80's, says Elliott Nowels, Director of Information, at the National FFA Center.

After a very goal-oriented early evolution, the National FFA Foundation will likely enter a new decade with a slightly-changed outlook. No set dollar goal for the 1980's will be made, other than an adequate supply of finances to further the purposes of the FFA. Sponsorships will not only provide incentives for individuals, but the 80's will bring new approaches to funding activities and programs of FFA, including much of the cost of the National Hall of Achievement, which is to be located at the FFA Center.

It is important to realize that the fund-raising follows the identification of FFA's new program thrusts, says Bernie Staller, Executive Director, FFA Foundation Sponsoring Committee. Business and industry will continue to be very interested in funding viable programs. We will need to place additional emphasis on our accountability in the implementation of those programs. Sponsors will want to know how their money has helped. FFA members, advisors and staff will need to relay their appreciation effectively.

The FFA Alumni, a group which emerged in the 70's will be vital to the FFA in the 80's. Due to increased pressure on the tax dollar for education, support groups to speak out for quality vocational education in agriculture will be more important in the 80's. With inflation, energy challenges, and increased demands to reduce the tax burden, it just may be the public education groups that hold their own come out on top in 1990.

The Alumni Association will continue to unify adults at the local, state and national levels, relates Robert Cox, Executive Director, National FFA Alumni. I think on the national level that the FFA Alumni will provide a yet stronger voice in the area of governmental affairs. We'll also provide direct support to FFA members whenever and wherever possible.

The Supply Service will continue to supply the FFA member, chapter, and state associations with official merchandise at competitive prices.

This year we were forced to raise the price of the important blue jacket by \$1.00 and in inflationary times, these things must happen. We will continue to make the sale of the less necessary items pick up some of the tab so the more integral items can stay at a lower cost. We are owned and

operated by FFA, to serve the FFA, says Harry Andrews, Manager, FFA Supply Service.

The world agriculture situation will become a breakfast table discussion item for many FFA members in the 80's. Their agriculture future on the farm and in agribusiness will be consistently flavored with trade relationships with overseas farmers and consumers.

WEA (Work Experience Abroad) has proved to be quite effective as an international experience for FFA members. Other programs, like the cooperative effort with AID (Agency of International Development) on setting up a viable FFP program in Panama will likely see FFA become more of a worldwide concept, says Lennie Gamage, Manager of International Programs of the National FFA Center.

Overall, the 80's will be a most exciting time to be alive. As we plan programs, publish materials and operate programs, it is important that all agricultural educators cooperate to best serve the individual student.

Challenge in the 80's

A big challenge in the coming decade will be that of meeting the needs of a great diversity in agriculture and providing a national system that takes into consideration a diversity of regional and state needs. Increased efforts will be needed to gather information from the field, evaluate it, and come up with programs that work for the vast majority. This means more research and involvement of more teachers, students, teacher educators, and state staff as well as people in agricultural industry in the decision-making process.

This past year, the National FFA organization was successful in gaining the inputs of a large number of implementors of vo-ag/FFA activities nationwide. These efforts will continue and become yet more important.

The philosophy of FFA activities for every student and chapter, but not all activities for every student or chapter, will become increasingly important as teachers manager large, diverse programs.

Increasing FFA membership in each chapter will also be high priority in the 80's, and as student population decreases the challenge could become greater.

Teacher preparation will continue to be a high priority issue. It will be a matter of direct involvement by all agricultural educators. We must have enough well trained teachers who will be effective FFA advisors if the 80's are to see the program move forward.

These issues and others as yet unseen will be important in the new decade. With sound decision-making and proper implementation, vo-ag/FFA's "Preparing For Progress" will continue.

Make Evaluation Part Of Your Instructional Program

Evaluation of student achievement is an important part of instruction. At the secondary level, as much as 10 to 15 per cent of classroom time is devoted to student evaluation and yet, at times, this area seems to receive the least emphasis in the instruction program. Unfortunately, a large portion of classroom teachers treat evaluation as only a necessary duty designed to "grade" their students and bring their courses to an orderly close.

Evaluation is and should be more than just a terminal assessment of a student's achievement. When used to its fullest potential, student evaluation techniques can become the guiding force in the classroom, showing students the appropriate paths to follow in accomplishing the course objectives and program's goals in an interesting and meaningful manner. Some specific aspects of evaluation are discussed in this article.

Proper evaluation techniques can serve as guidelines for students, allowing them to recognize the points or objectives the instructor feels are important in the course. On the other hand, teachers should be concerned with providing evaluation of those goals and objectives that are of most importance rather than wasting valuable class time and student time on evaluation of insignificant or meaningless items.

Use A Variety of Evaluation Strategies

Student evaluation must be a continuous part of teaching rather than just limiting such activities to times of student stress or just a few days before final marks are due. Numerous evaluation techniques and activities throughout the school year enable students to better demonstrate their true abilities and understandings. If variety is indeed the spice of life, using a variety of evaluation procedures can and will spice up your instructional program. All evaluation techniques have

strengths and weaknesses. Therefore, the best evaluation systems make use of a variety of evaluation methods at a time when a specific technique is most appropriate. Direct observation, objective tests, interviews, performance tests, self-evaluation, demonstrations, and reports are only a few methods that can be used to evaluate students.

Evaluations (pre-tests) can be used as diagnostic tools to identify areas of weakness students may possess upon entry into a specific area of study. Teaching methods and instructional materials may then be altered or included to meet the needs and interests of students.

An effective evaluation program should have a motivational influence on students. Creative evaluation techniques lead to creative performance on the part of the students. Dull, routine evaluations will prompt the same type of activity from pupils. Evaluation procedures can and should be morale builders. Well conducted evaluation allows students to feel a sense of achievement and enhances their self-image. It is the responsibility of the teacher to be sure evaluation has a positive effect on student morale and guard against actions that might have a disruptive effect on morale.

The maintaining of public relations for a particular school program can be affected by how teachers evaluate their pupils. Every evaluation program should be fair to all students; be honest; have adequate reporting procedures to administrators and parents; be consistent from semester to semester; and be in language that is easily understandable to students, parents, and other school personnel.

Self-evaluations by the student, the class, and the teacher are all important in a comprehensive evaluation plan. Students need such activity to continually update their own personal inventory of attitudes and abilities in order to set, revise, and/or accomplish

BY RICK FOSTER,

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goals. Teachers need self-evaluation for continued program revision as well as personal improvement in teaching techniques.

Evaluation is essential for keeping records of the accomplishments and performances of students in all areas of study, personal goals and objectives, health, adjustment problems, etc. Data gathering and record keeping are essential for acceptance in postsecondary education and as insights into the desirability of a student to be employed in an occupation. Records are a fact of life and proper evaluation of students can contribute to a well kept comprehensive set of data.

When Evaluation Is Of No Use

Evaluation which does not lead to some kind of action is of no use. Improvement of instruction and learning should be the primary goal of evaluation. Through a comprehensive student evaluation program, an instructor can identify areas where the program can be improved and the needs and interests of students more effectively met.

As educators, we cannot afford to neglect any part of the instructional program, especially one as important as student evaluation. Several "do's and don'ts" for preparing, administering, and scoring tests are listed here.

Do's and Don'ts of Student Evaluation

Test Preparation

DO:

1. Be sure tests are neat, attractive and logically arranged.
2. Be grammatically correct.
3. Make tests easy to read.
4. Make tests easy to score.
5. Place a title on test papers.
6. Number pages.
7. Provide written and oral directions in a precise and clear manner.
8. Evaluate only important areas of concern.
9. Provide point values for each section or question.
10. Provide guidelines for time allocations when appropriate.
11. Use terminology that encourages rather than confuses the student.
12. Place easier items at the beginning of the test.
13. Prepare tests in a written, duplicated form.
14. Proofread the master copy.
15. Tell students how you plan to evaluate.
16. Take the test yourself before administering it to students.

DON'T

1. Use trick or ambiguous questions.
2. Use tests as a punitive action.
3. Use negative statements in test items.
4. Test over insignificant or meaningless materials.
5. Arrange similar test questions in a haphazard or inconsistent manner.

Test Administration

DO:

1. Become thoroughly familiar with the test and its directions.
2. Prepare a test key before administering the test.
3. Make note of any corrections or clarifications that should be announced.
4. Establish favorable physical conditions for testing:
 - a. lighting
 - b. ventilation
 - c. space
 - d. heating/cooling
 - e. seating arrangement
 - f. distracting noise
 - g. eliminate classroom traffic
5. Provide adequate information about the test well in advance of administering it.
6. Encourage positive attitudes about tests.
7. Establish control of the classroom before beginning the test period.
8. Supply students will all necessary materials needed for the test.
9. Read test directions aloud.
10. Maintain consistent testing procedures for all students.
11. Walk about the room and observe students and their progress periodically throughout the testing period.
12. Answer legitimate questions concerning the test.
13. Maintain a quiet working atmosphere during the test.

14. Handle cheating or copying problems quickly and firmly, but quietly.
15. Collect test materials and check for completeness.
16. Provide additional activity to occupy the time of students who finish early.

DON'T

1. Leave test materials or keys on your desk, in unlocked drawers, or open cabinet shelves prior to testing.
2. Allow students to take a test under adverse physical conditions.
3. Allow unnecessary traffic or visitation during evaluation.
4. Administer tests without at least three days prior warning and explanation of testing procedures.
5. Use test time to read magazines or remain seated at your desk.
6. Permit students to direct questions to you from across the room or bring questions to your desk.
7. Give information that indicates the answer to any question or problem.
8. Allow students to collect papers or bring them to your desk individually.

Test Scoring

DO:

1. Score each test directly from a pre-made key.
2. Be fair, honest and objective.
3. Be open and understanding of students' interpretation of test items.
4. Prepare an item analysis on items of questionable validity.
5. Allow students to correct test items that employ alternate response, multiple choice or matching when appropriate.
6. Correct essay questions, completion and recall questions yourself.
7. Score essay questions all at one time.
8. Allow students to re-check their tests.
9. Return tests as soon as possible after examination.
10. Use a review of the test as a learning technique.
11. Use a clear and understandable method of grading.
12. Make encouraging comments on students' test papers.
13. Be conscious of personal fatigue while grading.
14. Be conscious of student attitudes and stress situations evident during testing that may affect individual achievement.
15. Keep an accurate record of examination scores.
16. Report scores to administrators and parents in a clear, concise and objective manner.
17. Follow-up test grading with a student-teacher conference when appropriate.

DON'T:

1. Allow personal reactions to students to interfere with grade determination.
2. Criticize student performance in front of the class.
3. Grade papers in a subjective manner — relying on personal recall for appropriate answers.
4. Rely on scores obtained by student-corrected tests to be accurate.

How The Minnesota Farm Business Analysis Program Works

Adult education in agriculture is active and viable in Minnesota. As one of the oldest adult agricultural education programs in the United States, the Minnesota program has served as a model for similar programs in other states. Ideally, a program of instruction for adult farmers will include three major areas: 1) farm business management, 2) mechanized agriculture, and 3) enterprise instruction. The farm business management area forms the basic foundation for all adult farmer instruction. It includes specific courses comprised of definite units that are taught in an organized sequence, complemented with individual-on-farm instruction. Farm business analysis is a part of the farm business management area.

Another part of the farm business management area is the farm family's farm and home record. The beginning instructional units in farm business management dwell on the importance of a complete and accurate farm and home record. Nothing is left out of this record. All money spent is accounted for, including personal spending. All production data from crops and livestock must be included. It must be this way for the computerized analysis of this record to be accurate, meaningful, and useful.

In 1978, 4,550 Minnesota farm families received a computerized farm record analysis while participating in a farm business management course. At this point three questions could be asked: Why did all these farm families get a detailed business analysis? What can the analysis do for them? How did they use this analysis? The answers to these questions are many and varied. They will depend largely on the farmer, the type of farm operation, and the stage of development of the farm operation. The easiest way to explain what the analysis is and why it is important to farmers is to describe some of the more important sections of the analysis.

Analysis Information

The typical farm business analysis program will contain 15 to 20, or more, tables in a computer printout, with the actual number depending on the type of farm operation. The larger the number of enterprises the farmer has, the more tables will be prepared. While the information given is inter-related, it can be divided into four general categories: 1) the whole farm financial and management information, 2) the operator's share only, 3) individual crop enterprise, and 4) livestock enterprise analyses. The concept of whole farm versus operator's share only is introduced to provide additional information to those farmers who do not own their entire operation. Many own a smaller farm and lease additional farmland or livestock and machinery. Some may operate totally in partnership with an absentee land owner. It is a definite advantage for farmers to be able to view the financial and production aspects of the entire operation (whole farm) and then to be able to look at and compare their own financial position. Information on the profitability and feasibility of future rental or partnership operations is provided.

The first part of the farm business analysis is concerned with the value of inventories and the size of the farm business. It deals with work units in both crops and livestock and allows a farmer a look at the balance of his work load between the two. It will provide a measure of the labor efficiency on his farm.

An enterprise statement is included with the analysis, and serves several purposes. It provides the farmer a look at the sales of the farm plus the value of inventory increases or decreases from each livestock enterprise. Return over feed cost from livestock is shown and can be compared to a similarly calculated return from crops to show the relative importance of each to the farm

By DUANE LEMMON

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business. In another section of the statement, one can look at the expense plus the value of net decreases or appreciation required to maintain a certain type of equipment, such as tractor and crop machinery or livestock equipment.

An operator's net worth statement is given showing the beginning and end of year values of all assets, liabilities and net worth. It is important to watch the year to year change in net worth whether plus or minus. The operator's net worth statement also offers the following ratios that are important to the farm operator and to farm credit institutions:

- 1) total farm expenses to total farm receipts,
- 2) total assets to total liabilities or net capital ratio,
- 3) non-real estate assets to non-real estate liabilities or working ratio,
- 4) real estate assets to real estate liabilities or fixed ratio,
- 5) net worth to total liabilities,
- 6) cash operating expenses to total farm sales, excluding capital assets sold, and,
- 7) total farm receipts to average farm capital or turn-over rate. It is advisable to watch the movement of these various ratios, particularly the relative positions of 3 and 4.

Information showing operator's cash receipts and cash expenses, together with the household and personal expense, gives a farm operator a complete cash flow picture for the year. It serves as a permanent record and is extremely useful when planning budgets for a future year. Figures from these tables are utilized in the automatic check on cash reliability. The closeness, with which all available cash is

accounted, gives an immediate look at the accuracy of the record.

Efficiency Information

Specific feed back is given to various measures of farm organization and efficiency. Some of the more important are:

1. Labor earnings — A measure of financial return for the operator's labor and management. The value of inventory increases or decreases are considered in this calculation.

2. Crop yield index — A measure of the crop yield level for all crops produced is expressed as a percentage of the average.

3. Percent of tillable crops in potentially high return crops — A measure of the organization of the cropping program.

4. Gross return per acre — The best single measure of how well the crops contribute to the farm income.

5. Return per \$100 worth of feed fed to productive livestock — Measures the general level of efficiency for all livestock.

6. Total work units — A measure of size of business and an indication of the total work load.

7. Work units per worker — A measure of labor efficiency.

8. Power, machinery, equipment and building expenses per work unit — A measure of expense control.

9. Farm capital investment per worker — An indication of the relative use of labor and capital.

A crop enterprise analysis presents information pertaining to the costs, returns, and yields of specific crops. Costs of seed, fertilizer, chemicals and other direct costs are presented. Costs, such as power and machinery ownership and operation costs, are divided between crops and livestock and allocated on a demand basis. Calculations are made to determine total costs and returns per acre and per unit of production and for yields necessary to break even. A farm operator can have analysis print-outs completed for as many as 24 individual crops. This allows him the opportunity to compare various crops, different fields of the same crop, dryland versus irrigated land, owned versus rented land, different treatments, more than one variety, and more than one cropping method.

Livestock analysis, likewise, provides information on the costs, returns, and productive efficiency of the enterprise under consideration. All of the important management factors necessary to make intelligent management decisions are included in the various livestock analysis report. Detailed analyses are available for 32 different types of livestock enterprises.

Instructors working with farmers using the record analysis view farm business management as a "goal oriented" program. Families are encouraged to set forth goals for themselves and for their farm operations. The completed year-end analysis becomes a "benchmark" from which a farm family can measure progress achieved toward a pre-determined farm plan or family goal.

A Decision-Making Tool

The computerized analysis has also become a "tool" for the farm operator to use in the decision-making process. The farm family can readily study its current financial status and productive capabilities. Armed with this information, and enlisting the assistance of the adult agricultural instructor, they will plan the re-organization and expansion of the farm operation. The analyses of succeeding years will show the pro-

gress made as a result of the planned re-organization. When these results are studied it is quite likely that additional changes will be necessary. Undoubtedly, as family resources change, as family goals change, and as changes in economic conditions occur, it will be necessary to vary the plans. The process can repeat itself many times over the life-time of a family farm operation.

The Minnesota Farm Business Analysis program has evolved from a cumbersome, hand calculated program to its current streamlined, computerized status over a period of several years. This evolution has progressed, largely, because of the efforts and leadership of Edgar Persons, a Professor of Agricultural Education at the University of Minnesota. The electronic data processing is accomplished by Specialized Data Systems located in Madison, Wisconsin. Recently, an advanced monthly-mail-in record program has been developed that will provide a monthly analysis very similar to the present annual analysis. This new program will automatically close with the current annual analysis at year's end. It is not only an advanced record keeping system, but also an advanced "educational tool" for the modern farmer-businessman.

BOOK REVIEW

AGRICULTURE IN OUR LIVES by Alfred Krebs, The Interstate Printers and Publishers, Inc., Danville, Illinois, 1978, Fourth Edition, 773 pp. \$12.50.

The content of "Agriculture in Our Lives" provides an introduction to 25 topical areas of agriculture. The book's chapters cover general areas such as "Agricultural Occupations" and "Life in Rural America" as well as Technical Agricultural topics including "Diseases of Farm Crops" and "Feeding Livestock." The content of each chapter is presented in question and answer format. A list of suggested learning activities is included at the end of each chapter. The reading level is appropriate for both junior high and high school students. These characteristics support the accomplishment of the text's stated purposes which are 1) to serve as a basic text for an introduction to agriculture course and 2) as a general reference for vocational agriculture courses.

This, the Fourth edition, accomplishes a needed updating of the 1973 version, by including information from the 1974 census of agriculture and 1976 USDA charts and graphs. Users of the previous editions will be pleased to know that the content is similar to the previous text.

Dr. Krebs' experience as a teacher of agriculture is evident in the organization of the text's content and his choice of relevant chapter topics. With a farm background he understands rural concerns and has presented the materials in a very useful format.

In the past decade, the popular image of agriculture has changed. Today it is positive to be down on the farm. Just as previous editions have dealt a blow for reality in viewing agriculture, this text is useful in portraying agriculture as is. In this vein, "Agriculture in Our Lives" serves as an excellent supplemental text for social science classes which treat agriculture.

James Legacy
Southern Illinois University

Counseling The Counselors

Many factors affect the degree of success that can be achieved by a given vocational agriculture program. One of the most important of these factors is the level of communication and cooperation between the vocational agriculture teacher and other school personnel. It is generally accepted that one individual who is critically important to the success of any such program is the high school counselor. Counselors have traditionally been criticized by teachers for a myriad of evil doings: poor students, overcrowded classes, bad schedules, and general lack of program support. Admittedly, justification for such criticism varies from school to school, but the fact remains that counselors are important members of the school faculty, and teachers must seek ways to improve communications with them. In particular, the vocational agriculture teacher should move to create an assertive program of "counseling the counselors" in relation to his/her program. The purpose of this article is to present a few tested and proven teacher strategies that you can use for improving communications with the counseling staff.

The PCPPR Strategy

The first strategy might best be described by a slogan: Positive Communication Produces Positive Results (PCPPR). Simply stated, this strategy implies that if positive outcomes are desired in terms of the counselor's relationship to the vocational agriculture program, then the agriculture teacher should initiate a positive communication program. Most people, counselors included, respond to positive actions, and when those actions are blended with an open communications strategy, the teacher can expect positive outcomes.

The positive communications strategy might take numerous forms; however, it must start with an opening of the channels of communication and the teacher of agriculture should take the initiative. A logical first step would be to communicate with the counselor on a one-to-one basis. Initial items of

discussion might include a review of the goals and general objectives of the vocational agriculture program, a discussion of the FFA as an intra-curricular activity, the chapter program of activities, explanations of course offerings, a description of the supervised occupational experience program, and young farmer and adult education thrusts.

This communication effort is not only important, it may be critical in developing a positive relationship with the guidance personnel. It is natural to assume that everyone on the school faculty, particularly the counselor, is familiar with the vocational agriculture program; however, this may not be valid, and is certainly not a safe assumption. School counselors are generally very busy people with myriad responsibilities and concerns. Although being familiar with all the school offerings is an inherent responsibility of the counselor, realistically he/she may not have adequate time or energy to develop that familiarity and to remain up-to-date on all the school programs. Thus, it is up to the teacher to take the initiative and help the counselor become better informed about the vocational agriculture program. Of equal importance, the teacher must remember to maintain an on-going effort at positive communication with the counselor, on a one-to-one basis.

Intra-School Public Relations

The second strategy is to develop an aggressive intra-school public relations program. Vocational agriculture teachers are continually bombarded with the necessity for a strong public relations effort for the agriculture program and FFA chapter. Less emphasis has been placed on public relations efforts within the school and aimed at the student body, faculty, and administration. If the agriculture teacher or students prepare a bulletin board or some sort of display, it might well be placed in a heavy traffic area where it can be seen by larger numbers of students and faculty members. If the



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guidance office has a bulletin board, ask the counselor for permission to display items pertaining to the vocational agriculture program or the FFA chapter. If intercom announcements include such items as school sports or contests, they should also include FFA contest results. Everyone hears the announcements, including the counselor. Make an extra effort to get pictures and articles in the school newspaper, not just the community newspapers.

Counselor Involvement

A third strategy in "counseling the counselors" is to get them involved in the operation of the agriculture program. There are many things that a teacher does as part of the vocational agriculture program that can involve the counselors. For example, it could be that the agriculture program has an outstanding student award. It would follow that a counselor could be involved with the selection of the outstanding student. The same example could apply to scholarship and leadership award winners. Also, the agriculture instructor may take field trips and make visitations during the year. It is very easy to include the counselor in some of these trips. This out-of-school situation would provide a good opportunity to communicate with the counselor outside the school building and a chance for the counselor to interact and become more familiar with some of the students and projects in the pro-

gram. This type of involvement helps develop the counselor's awareness of the program and encourages the counselor to become personally and professionally committed to the program.

Counselors in Follow-Up

A fourth strategy would be to involve the counselor in developing a program to follow-up former vocational agriculture students. Follow-up programs are developing in many states and as the teacher of agriculture implements such programs, involving the counselor can be an important step. The counselor may be able to help in tracking your students once they complete or leave the program, or perhaps assist in interpreting the results of your follow-up efforts. This activity can do several things. It can directly involve

the counselor in the follow up of students. It can provide the counselor with data to use in counseling future students who may be prospects for enrollment in the program. It will help the counselor to become more aware of the career opportunities in agriculture.

Summarizing the Strategies

In summary, the prerequisites for developing a successful vocational agriculture program include "counseling the counselors." Several strategies for accomplishing this counseling include:

- (1) developing a positive communication effort,
- (2) developing an aggressive intra-school public relations,
- (3) involving the counselor in pro-

gram activities, and

(4) utilizing the expertise and assistance of the counselor in student follow-up.

There are two key points in this whole process. First, assume the counselor will be interested in the success of the vocational agriculture program, if provided with an adequate knowledge of base about it. Second, assume that it is up to you — the teacher of vocational agriculture — to provide the information and opportunities for involvement that the counselor needs to develop that knowledge base.

Remember, the opportunity is there and in years to come your success, and that of your program, will depend on the plans you make to meet the challenge.

Women In Agriculture: The New Growth In Programs

By O.E. THOMPSON AND
L.Z. McCANDLESS

Editor's Note: Dr. Thompson is Professor of Applied Behavioral Sciences and Mr. McCandless is a Research Associate at the University of California, Davis.

Animal science and ornamental horticulture have been fields of study for women, but now agricultural economics, resource sciences, and business aspects of agriculture are emerging areas of female enrollment.

The influx of trained females into the traditionally male agricultural labor market has many implications for employers in agricultural businesses, in farming operations, and in agricultural institutions.

During the past five years, the rapid increase of female enrollments in agriculture has changed the proportion of women from about one-fifth to one-third of all agricultural students. Looking at the five levels of public education in California (secondary through graduate level), there have been more women new students than men at every level of education except the community college level, and there the margin is less than 200 enrollments. In the secondary schools, the number of new women students is twice as large as the number of new men students. At the state colleges new women students outnumber new men students by about 225 enrollments. At the undergraduate and graduate levels at the University of

California, new women students were twice that of new men students.

In part, the increasing enrollments of females in agriculture is an outgrowth of the 1968 Supreme Court ruling which impacted upon integration of the FFA organization. Admission of females into this previously male-only organization precipitated an influx of females in the secondary schools. This started a "snowball effect" throughout the educational system, which is now evident at the graduate level of agricultural programs. This may be among the most dramatic impacts which any mandate for program integration has had upon an educational system.

Ag Programs Have Grown Faster

Agricultural programs are growing faster than educational institutions as a

(Continued on Page 20)

Women In Agriculture: The New Growth In Programs

(Continued from Page 19)

whole. At all institutional levels, the average increase for the total of males and females in agriculture exceeded the overall rate of growth in the institution, and the average increase in female agriculture enrollments exceeded that of males. In the secondary schools, the average yearly increase of females exceeded 25% while the comparable increase for males was slightly less than 4% annually. Female enrollments in community colleges increased nearly 38% annually, whereas male enrollments increased less than 10% annually. In the state college system, the same trend existed — female enrollments were increasing nearly four times as fast as male enrollments, 44% and 9%, respectively.

The configuration of programs is, of course, also changing. Traditionally, majors of ornamental horticulture, production agriculture, and animal science have been popular for females in institutions of all levels. This is still true, and female enrollments in these majors are growing. Yet, emerging areas of interest are also being noted. Increased areas of interest in agricultural economics and the business side of agriculture is observed.

A snap-shot look at program enrollments for one year, 1977, shows an interesting picture. In this year, at the secondary level, female enrollments in production agriculture surpassed those of ornamental horticulture. At the community college level, women enrollees were the largest in ornamental horticulture, with animal science and agricultural production having the second largest number followed by agricultural economics and resource science. However, at the 4-year college levels, particularly strong women's enrollment patterns are seen in agricultural economics and the sciences.

Impact on Education and Employers

The implications of the changing sex composition of agricultural programs will and, to a certain extent, has affected two groups of people — educators and employers. Although the operation of a farm/ranch or an agricultural

business has been traditionally performed by males, with females now comprising one-third of those studying agriculture in California schools, this will be changing.

For the first time, qualified women will be available for almost any type of agricultural job. Teachers of vocational agriculture must be prepared to assist in this transition. Since they are involved in the preparation of females as agriculturists, it is incumbent upon them to help ready female students for their futures in this traditionally male-dominated environment.

During the transition period, females must be conditioned to deal with the inevitable discrimination, obvious or subtle, intentional or accidental. Concurrently, agricultural teachers must aid employers to incorporate women into their labor force, including helping employers to identify obvious as well as unintentional forms of discrimination inherent in any changes as drama-

tic as this will be. Brochures, presentations, and other means must be prepared to assist employers in recognizing their biases.

Teachers of vocational agriculture have obviously been very successful in interesting females to enroll in vocational programs. Have teachers been equally successful in helping place graduates in jobs in agriculture? Authors think not. Recent studies by employees in agriculture found that females employed. The few that were found tended to be in the traditional female clerical jobs in agricultural businesses and enterprises. If the teaching agriculture assumes placement as of his/her teaching responsibility, much more must be done. Our study suggests that teachers must work closely with employers to help them incorporate females into their labor force. Far too many farm operators and business managers still view agriculture as a "males only" domain.

Is There Really A Teacher Shortage?

"The most pressing problem in our state is the shortage of teachers." "What can we the state staff in vocational agriculture do about the shortage of teachers?" These comments and many others are common these days as schools scramble to find vocational agriculture teachers to complete their teaching staffs. This so-called shortage of agriculture teachers is not an isolated concern, but rather one that reaches from coast to coast affecting nearly every state in the union. Likewise, it is not a "flash-in-the-pan" phenomenon that is here today and gone tomorrow. We have experienced a "shortage" of teachers in vocational agriculture for years.

What Research Has Shown

Attempts to overcome the continuing problem of a lack of qualified teachers have been many faceted. Research efforts have been used in an attempt to determine: (1) the factors that influence a person to become a teacher, (2) the reason why a teacher leaves the profession, (3) the benefits

By PHILLIP R. ZURBRICK

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and rewards of teaching, and (4) the future need for teachers in particular programs. Various and assorted award/recognition programs have been developed and employed to encourage teachers and others to recruit students into the profession. Emergency training programs for preparing persons lacking the professional and/or technical background have been developed by teacher preparation programs and state departments of education. Teacher certification requirements have been reduced or, in some cases, essentially eliminated. Costly and elaborate recruitment schemes have been proposed and implemented to attract teachers to particular state and students to teaching education programs. Costly new teacher education programs have been established at institutions not previously providing such programs to train more teachers.

The question needs to be asked if these efforts have been effective and what possible future effects all of these various efforts might have on vocational agriculture. In general, one could say that all of the efforts have been rather ineffective in that we still have the so-called "teacher shortage". Warmbrod (1979) reported that there will be approximately 12,900 people teaching vocational agriculture in the secondary schools in the United States in 1979-80. He also reports that about 665 of these people did not teach in 1978-79. About 90% of the positions listed by new teachers were created by persons leaving the profession. Thus, a small portion of the demand is created by new or additional positions.

On the supply side of the ledger, teacher education programs in agriculture have graduated some 1,800 persons in 1979, who are qualified and certifiable to teach vocational agriculture. So, the actual supply of certifiable teachers with Bachelor's degrees provides about 108% of the demand. Is there a shortage of qualified teachers? The "shortage" of teachers is not really an actual shortage. The problem is one of providing the kind of economic environment which will attract those qualified teachers to enter the teaching profession.

In other words, the problem is one of "availability" and not "numbers" of vocational agriculture teachers in this country. This reminds me of a situation I experienced as a small boy hunting along the Snake River in Oregon when the river was literally filled bank to bank with potatoes. I could not understand why the potatoes were being dumped into the river and asked my father why no one wanted potatoes. He attempted to explain that there were people who wanted the potatoes, but the price was so low that the producers could not afford to market them. This analogy certainly is descriptive of the supply-demand picture of vocational agriculture teachers today. The number of certifiable teachers is sufficient. The attraction, due to low pay and poor working conditions, is the culprit.

There is ample evidence which supports this conclusion. A recently conducted follow-up study of agricultural

education graduates from the University of Arizona is a good example. Graduates in the class of 1967 who are not currently teaching reported a mean annual salary in excess of \$42,000, while the highest teacher salary in the state is only \$29,000 and that with over 20 years of experience. Further, every one of the graduates whose current salary was included in the non-teaching mean for the class of 1967 had taught vocational agriculture for one or more years. This was not an unusual circumstance, but rather the rule. Another example from the same study showed that the non-teaching graduates in the class of 1970 had a mean annual income for 1978-79 of nearly \$30,000 and those teaching had less than \$19,000.

Individual examples can also be cited which further illustrate the problem. One teacher who left the profession this past year reported an annual salary of \$13,000. This was after having taught six years all in the same school and having conducted a strong vocational agriculture program. This compared with the average salary for beginning teachers with no experience of \$12,495 for the same year. This teacher would be teaching today if the salary had been adequate.

There Is No Shortage

We don't have a shortage of vocational agriculture teachers in this country, but rather a problem of availability. Some might say, "So what's the difference, we still have schools that need teachers?" The difference is significant in terms of the solution to the problem. Just as we could not overcome the problem of hunger by producing more potatoes, we cannot overcome the availability of vocational agriculture teachers by graduating more students. With lower salaries and poorer working conditions, we can expect a smaller percentage of graduates will enter the profession even with increased enrollment in our teacher education programs. The problem will continue to increase in severity under present economic conditions if all we do is increase numbers in the training program.

Continuing to recruit more and more for less and less is soon going to result in training teachers for an uneconomical profession. What needs to be done is to apply our efforts so as to increase

the availability of teachers. Specifically, teachers, state supervisors and teacher educators need to make school administrators, school boards and the general public aware of the inadequacy of current salaries and working conditions. A first step for all agricultural educators is to stop referring to the situation as a shortage which implies unavailability so that appropriate actions can be taken to make the adequate supply of vocational agriculture teachers available to schools. Additionally, research directed towards identifying ways of reducing the loads of teachers should be undertaken.

It has been suggested by some that pressure to participate and succeed in the many FFA contests and activities is contributing to the unavailability of teachers. If this is the case, reducing or limiting contests and activities might need to be considered. Providing resources sufficient to fund summer contracts, equip deteriorating shop facilities, and provide instructional supplies would go a long way towards improving teacher salaries, working conditions and increasing the availability of teachers.

References

- Warmbrod, J. Robert. "What is the Commitment of High Education in the Secondary Schools?" Presentation during the 1979 Summer Conference for Deans and Directors of Resident Instruction in Agriculture, University of Vermont, Burlington, July 26, 1979.
- Zurbrick, Phillip R. "A Department Follow-up Study." Department of Agricultural Education, University of Arizona, Tucson. Manuscript in preparation.

The Challenge Of Establishing A School Farm

"Learning by doing" situations in many of the skill areas in production agriculture are relatively easy to find. Feeding, breeding, fertilizing, and harvesting experiences are plentiful on most home or farm placement SOE situations. One important area not so readily available in vo-ag programs is realistic decision-making.

The vocational director at Addison County Vocational Center in Middlebury, Vermont, visualized a management and operation practice farm. It was to be financed with a revolving fund, similar to those used to buy land and materials for building trades students with a house construction project which was eventually sold. The farm idea became a reality at Addison County Vocational Center in October, 1978, when the local school board approved the concept and underwrote a \$40,000 budget to stock and equip a 190-acre farm rented from Middlebury College.

The Farm Production and Management class in vocational agriculture was given the management for the farm responsibility. The twenty juniors and seniors were organized so the individual decisions could be translated into common group action. They purchased a herd of 43 Holstein cows with an extra \$5,000 loaned by the local FFA Chapter. This allowed the class to secure better quality animals than the original \$24,000 budget permitted. Other major decisions were made after thorough study on \$16,000 worth of used equipment, a milk market, a feed supplier, and on the hiring of a resident operator. A state exemplary program grant allowed the operator, a former artificial breeder, to be hired by the Center to provide selected instructional services on the farm.

Student managers make farm improvements, handle the milk checks, write the checks to pay bills, plan cropping and feeding programs, do chores on the operator's days off and vacations, and work individually with the farm operator to keep up-to-date. By knowing what is happening, students have a better basis for further decision-making.

Culled cows have been replaced with several colored breed animals as a basis for comparisons, a small dairy-beef project has been started with bull calves. The herd average increased from 14,700 to 16,700 pounds per cow. Over 7,000 bales of hay and 300 tons for corn silage are grown for winter feed. The agricultural mechanics classes have repaired much of the equipment, while the vocational horticulture classes have planted and cared for flowerbeds, shrubs, and a large farm vegetable garden.

The summer program gave one manager-trainee with very little farm experience the opportunity to learn enough so that he has plans to launch a similar farm operation on his own when he graduates next spring. Another young student has been hired by the managers for chores, while another manager-trainee has assumed new responsibilities this fall.

The opportunity for students to solve realistic farm operation and management problems with all the hassles has been effectively created by

BOOK REVIEW

DAIRY CATTLE FEEDING AND MANAGEMENT by William M. Etgen and Paul M. Reaves. New York, John Wiley and Sons, 1978, Sixth Edition, 625 pp., \$19.95.

The most recent innovations in dairy science are combined with traditional methods to give a clear representation of modern dairy practice. The production and marketing of both milk and dairy cattle are covered in sufficient detail to not only allow for a novice to understand dairying but also to give the dairy herd manager a ready reference for specific problems.

The chapters on nutrition, breeding, milk production and collection, and health have been enlarged upon. Each chapter contains a list of references at the end as further sources of information.

Both authors are affiliated with Virginia Polytechnic Institute & State

By JOHN F. ADAMS

Editor's Note: John Adams is instructor of vocational agriculture at Addison County Vocational Center in Middlebury, Vermont.

this project. The conditions of a convenient rental farm, a cooperative school board, available financial resources, enthusiastic student managers, and committed leadership are not impossible to find in other settings.

This operation differs from so other "school farms" in that the management control is actually vested in students with only minimal power needed by instructors. The financial and educational success of the venture may seem at odds but a parallel advance seems most likely.

The objective is not to produce more Star State Farmers but more important an upgrading of the level of abilities of many students who otherwise could not have had these kinds of experiences. The outlook is to move training farm workers and managers into positions on their own or area farms.

University. Paul Reaves is Professor Emeritus of Dairy Science. He has won many awards and honors among which are the First Faculty Achievement Award at VPI's College of Agriculture, and the American Teaching Award for Dairy Production. Dr. William Etgen is a Professor of Dairy Science at VPI&SU. He has received the Wine and Gamma Sigma Delta awards for teaching excellence.

The textbook is written primarily for students in dairy cattle management but can also be used in feeding courses. Commercial dairymen, herdsman, and dairy managers could make use of the detail covered, and the college student who wants an all-around good reference for future use would do well to have **DAIRY CATTLE FEEDING AND MANAGEMENT**, 6th Ed. on his bookshelf.

Stephen Roush
VPI&SU
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FFA MEMBERSHIP REPORTED

National FFA membership for the year ending in June, 1979, totaled 494,394 in 8,200 local chapters. This represents a decrease of some 12,000 members from the previous year, yet membership is still greater than it was a few years ago.

The State having the largest FFA membership was Texas, with over 59 thousand members. Alabama and Ohio followed with 26,777 and 22,412 members, respectively.

Decreases in membership were fairly widespread among the states, and tended to be small. California had the largest decrease, with a drop of slightly over 2,200 members. Several states reflected gains in membership over the previous year. Those with the largest gains included Arkansas, Kansas, Louisiana, New York, North Dakota, and West Virginia.

Future Farmers of America Membership by States

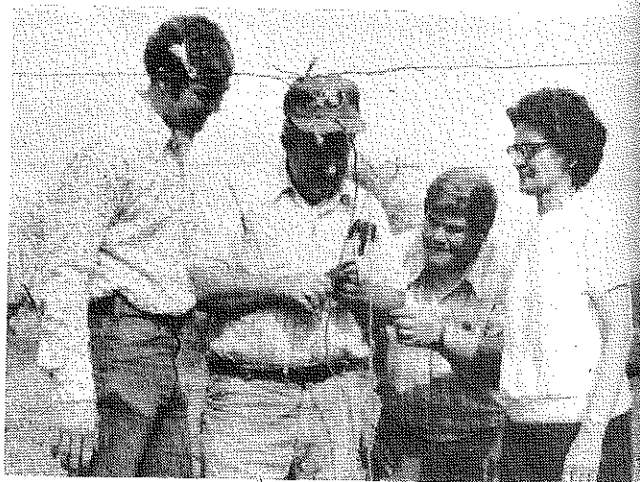
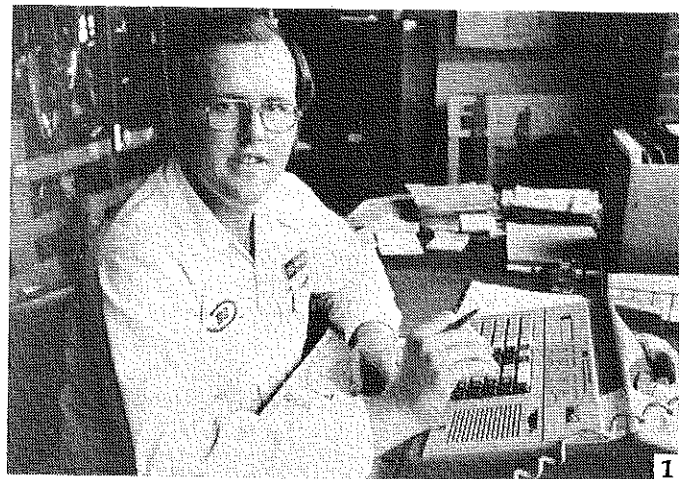
June 1979

| State Association | FFA Membership | Number of Chapters |
|-------------------|----------------|--------------------|
| Alabama | 26,777 | 379 |
| Alaska | 149 | 6 |
| Arizona | 3,559 | 56 |
| Arkansas | 15,961 | 249 |
| California | 17,251 | 314 |
| Colorado | 3,596 | 83 |
| Connecticut | 1,762 | 18 |
| Delaware | 858 | 19 |
| Florida | 14,216 | 269 |
| Georgia | 16,552 | 186 |
| Hawaii | 532 | 18 |
| Idaho | 4,183 | 74 |
| Illinois | 17,449 | 389 |
| Indiana | 11,118 | 216 |
| Iowa | 13,782 | 258 |
| Kansas | 7,345 | 161 |
| Kentucky | 15,049 | 151 |
| Louisiana | 14,769 | 240 |
| Maine | 447 | 11 |
| Maryland | 3,634 | 56 |
| Massachusetts | 1,235 | 18 |
| Michigan | 9,344 | 152 |
| Minnesota | 16,055 | 279 |
| Mississippi | 11,546 | 201 |
| Missouri | 16,329 | 237 |
| Montana | 2,125 | 72 |
| Nebraska | 6,582 | 140 |
| Nevada | 632 | 20 |
| New Hampshire | 690 | 13 |
| New Jersey | 1,584 | 34 |
| New Mexico | 3,671 | 67 |
| New York | 7,227 | 186 |
| North Carolina | 19,079 | 266 |
| North Dakota | 6,071 | 86 |
| Ohio | 22,412 | 387 |
| Oklahoma | 18,756 | 364 |
| Oregon | 3,931 | 106 |
| Pennsylvania | 12,953 | 205 |
| Puerto Rico | 834 | 28 |
| Rhode Island | 236 | 8 |
| South Carolina | 5,585 | 125 |
| South Dakota | 3,337 | 72 |
| Tennessee | 15,142 | 220 |
| Texas | 59,637 | 920 |
| Utah | 3,586 | 50 |
| Vermont | 892 | 24 |
| Virginia | 19,308 | 211 |
| *Virgin Islands | 100 | 1 |
| Washington | 9,034 | 167 |
| West Virginia | 4,513 | 71 |
| Wisconsin | 21,367 | 278 |
| Wyoming | 1,612 | 39 |
| TOTALS | 494,394 | 8,200 |

*Affiliated Chapter

Stories In Pictures: The New Decade

THE NEW DECADE will see changes occur in vocational agriculture/agribusiness. These changes will involve increased demand for technical competence, more female enrollment, and new approaches to adult education. The photographs in "Stories in Pictures" illustrate some of the anticipated changes.



Photograph Descriptions:

1. Agribusiness will require employees who are competent in many aspects of day-to-day business operation. Voc ag programs will need to adjust their curricula accordingly. (Photo courtesy National FFA Center)

2. Equal opportunity for everyone will continue to be an issue in the 80's. Many people will be entering non-traditional roles. Females have all ready proven their abilities in vocational agriculture/agribusiness and the FFA. (Photo courtesy National FFA Center)

3. Food production will be more important than ever in the 80's. Will there be enough food? Who will produce it? Certainly vocational agriculture/agribusiness and the FFA will assume important roles. (Photo courtesy National FFA Center)

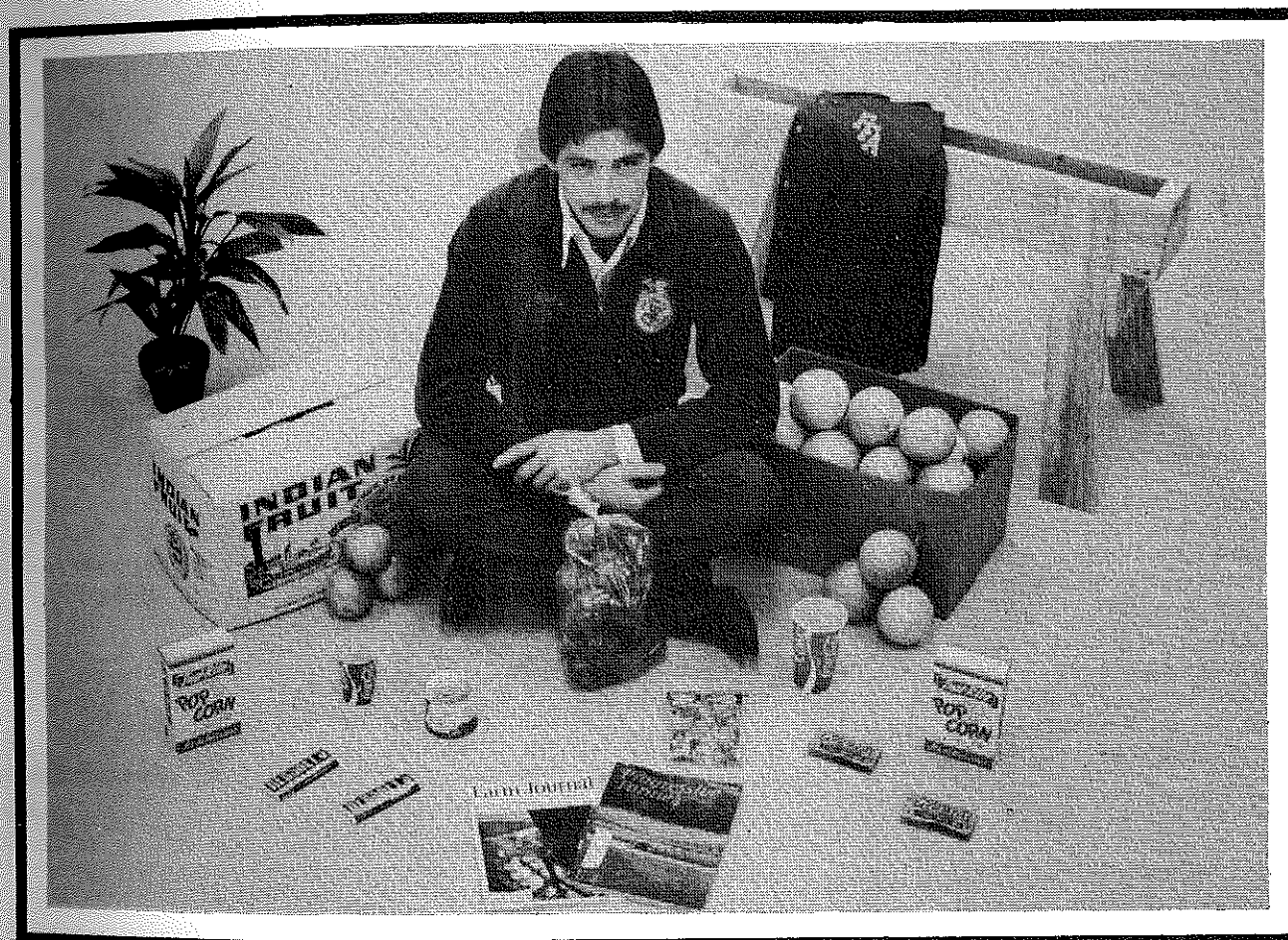
4. Adults will need to be taught new skills. What delivery system will be developed to meet changing educational demands? Reese Ishee, vo-ag instructor at West Jones High School, Laurel, Mississippi, demonstrates the pruning of a young muscadine grape. The production of this grape is an emerging agricultural commodity for the new wine industry of the South. (Photo by Jasper S. Lee, Editor)

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THEME: Funding the Local Program

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