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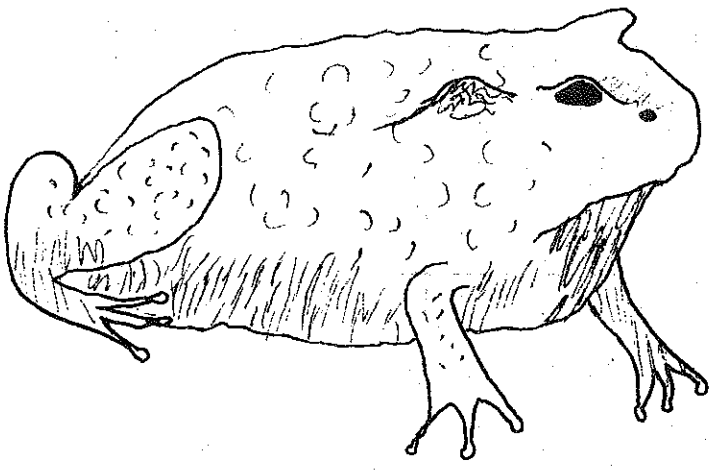

Sweet are the uses of adversity;
Which like the toad, ugly and venomous,
Wears yet a precious jewel in his head.

Shakespeare,
As You Like It,
Act II, Scene I, Line 2

THEME: Achieving Quality Programs With Decreasing Resources

THE
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MAGAZINE

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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

Reacting to Adversity

LARRY E. MILLER, EDITOR
(The Editor is a Professor in the Department of Agricultural Education at The Ohio State University.)

The state of the economy has produced some dire events that are affecting the people of this country. Education is just one of the tax supported programs that has and is feeling the impact of the downturn. Articles in this issue point out the severity of this problem. The most immediate concern of those associated with vocational agriculture is with the impact upon funding, but this is not the only resource diminished by the state of the economy.

The shifting of the work force in this country from an industrialized base to one focusing upon services and the so-called "high technology" would seem to indicate that if society is to be immediately responsive then people must be retrained. Those people currently in the educational system must receive training for the positions of the future. The resources to retool and upgrade the educational system to fulfill these charges are of exigent concern. Is it likely that additional support may be forthcoming from the local, state or federal levels when less dollars are available? Additional support is not likely, unless an enlightened constituency is developed.

What is the current opinion of your community regarding the need for education, vocational education and agricultural education? Do the taxpayers perceive that education is effective and producing high quality products? Will they be willing to provide additional support? I imagine the responses to these questions may be rather uniform across the country. Legislators' and policy makers' perceptions are probably the same at the state and federal level. Oh yes, we have some strong supporters at each level, but the preponderance of opinion is likely less than strongly supportive.

The quality of our agricultural programs may be affected because of the economy in more ways than just decreased funding. Learning opportunities may be directly affected in a number of ways. The production agriculture student seeking establishment may find it exceedingly difficult to obtain money for projects. The non-farm student seeking on-farm placement may not be able to locate placement/cooperative opportunities. The agribusiness placement/cooperative opportunities may also diminish. One can envision the difficulty a teacher might currently have in placing agricultural mechanics students in that financially troubled industry. The local businesses may actually be closing and opportunities totally unavailable. The implications for our program are too numerous to adequately describe in an editorial. But, as Longfellow noted, "The lowest ebb is the turn of the tide."

The Profession's Response

The future can easily look very bleak given all the repercussions that may come to bear upon our program. The quality of our programs can be affected. One can easily develop a defeatist attitude, hide and take whatever comes. The opposite should occur, however.

These are times that necessitate the highest of professionalism. Each of us can no longer sit by and wait or hope that someone will do something to help remediate the situation. Our professional integrity is at stake, and thus the very viability of the program. The youth and adults we serve are likely to be clearly, directly and permanently affected.

We must illustrate our accountability and the effects of our program. This message must be presented clearly, and often, to the people in our school district, to our administrators and to our fellow teachers. State leadership from teachers associations and supervisors will need to see that the state-wide picture is presented to legislators and policy makers. The same message must be carried to the federal level or by our national leadership. The most valuable tool of state and national leaders is grassroots support, which implies that all teachers must be involved.

Every group of teachers of vocational agriculture, whether at the county or national level, has its leaders. Members of the group know the teachers whose opinions are respected. These leaders need to step forward. They are urgently needed to supplement the current efforts or assume the elected positions of leadership. During this period of diminishing resources, these respected teachers will be needed to keep other teachers optimistic in times of discouragement, to keep the profession on a positive note, and to tell the story of the outstanding efforts of the profession to the legislators, administrators and the public.

Our programs can be kept viable and of high quality even in times of adversity and challenge. The programs must be of high quality in order that we have good, convincing evidence to describe our efforts. The tendency to want to do less, because less support is available, may seem an appropriate course to some. Fewer resources can provide some with excuses: excuses for not working with SOE programs, excuses for not having an adult program, excuses for this, excuses for that; until the quality of our program is greatly affected. Or, the result can be that we as a group, our communities, and support groups have to work together more closely, and we all grow because of the experience. Negative reactions will provide our critics the evidence they need to further curtail support or eliminate it entirely.

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Reacting to Adversity

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As Moore illustrates in this issue, education often grows stronger during periods of great adversity. Others do not perceive the importance of agriculture the same as we do. We cannot wait for others "to do" for us. The doing must be done by each of us. Each of us can improve our public relations efforts, and improve ourselves professionally. A strong professional organization has a vital role to play but each and every one of us must accept a leadership role. We have a leadership role to play in our school building, our community, our state and our nation. We need to protect our students. Negativism will only be self-perpetuating. Your leadership is needed to keep the enthusiasm high, the spirit optimistic, and the *esprit de corps* alive.

The high school student, the young adult and the established agribusinessperson are also going to be experiencing problems. They are going to need your help and encouragement more than ever. That vocational agriculture teacher down the road, the teacher across the hall, that state supervisor, and that teacher educator need your support and enthusiasm. Enthusiasm is contagious: Catch it! Spread it, and infect others! Without it, we can be our own worst enemies. A plague of discouragement and disillusionment can sweep through our ranks that will affect each of us individually; our programs; and, most importantly, the students we serve.

The Cover

"Decreasing resources could provide a valuable opportunity for updating and streamlining instructional programs. (Drawing courtesy of Joy Russell, daughter of the Theme Editor)."

THEME

Adversity And Improvement: Do They Go Together?

Sweet are the uses of adversity;
Which, like the toad, ugly and venemous,
Wears yet a precious jewel in his head.

— Shakespeare,
As You Like It,
Act II, Scene 1, Line 2

By Earl B. Russell, Theme Editor
(Editor's Note: Dr. Russell is Associate Professor, Division of Agricultural Education, University of Illinois, Champaign, Illinois 61820; and is the 1983 President of the American Vocational Education Research Association.)

We have been seeing headlines in newspapers, magazines, and professional newsletters which reflect decreasing resources. Examples are: "Ag Enrollments Decline," "Voc Ed Faces 40% Cut," "School Board Says 'No' to Ag Dept. Request," and "State Education Funds Shrink." McMahon and Geske (1982) highlighted the reasons for decreasing resources including declining student enrollments, slowed economic growth, inflation, and federal budget cuts with their resulting effects on state and local budget decisions. Such conditions directly affect agricultural education by sharpening the need for maintaining and improving quality.

Is Improvement Feasible

Is it reasonable to expect that we can make much improvement in the quality of agriculture programs under the very difficult conditions we face? Can we really focus on our short-term and long-term hopes for vocational agriculture with the sand shifting under our feet?

Declining school enrollments do not mean a deterioration of vocational agriculture programs. It is a mistake to associate population changes with the "goodness" of vocational agriculture.

Ralph Tyler (1982) has pointed out that periods of fiscal recession historically have been times of improvement in education. Congress established the land-grant college system in 1862 in the midst of the Civil War. Much of the progressive education movement grew out of the Great Depression of the 1930's.

Now that vocational agriculture has overcome the growing pains resulting from the Vocational Education Act of 1963 and its subsequent amendments, perhaps now is the time to give our big, serious problems a hard look. Agricultural educators, along with other educators, need to reexamine our priorities with an eye toward improving the quality of our programs.

Some Areas of Concern

Select important problems as the first ones to attack. Instructional programs in agriculture have many facets and it is easiest for us as individuals to focus our energies on one or two areas at a time, rather than trying to address several areas for improvement at once. The following areas of concern may be useful in thinking about where to begin.

The Agriculture Curriculum

Does the local program reflect the modern-day scope and complexity of agriculture in the surrounding community, state, nation, and world? Teachers need to drop from their curricula those parts which are irrevelant to all but a small portion of their students. On the other hand, microcomputer technology in agriculture stares us in the face. Related to this technology, agricultural educators need to find better ways to apply math and science in our programs if we expect to improve support in the future from parents, board members, administrators, and those who make policies which affect us.

Groups Served

Why do many vocational agriculture programs in similar community settings vary so greatly with respect to the types of students served? Teachers who insist on running programs almost solely for farm boys are likely to have a hard time staying in business in the future. Conversely, teachers who genuinely encourage female, special needs, small town, and urban students to take agriculture frequently see vocational agriculture enrollments increase even when overall school enrollments are declining. If students who can and should benefit from agricultural instruction do not perceive that such programs are accessible to them, there is obvious room for improvement.

Value of SOEP's

Is adequate attention being paid to the value of supervised occupational experience programs (SOEP's)? The renewed interest in SOEP's is heartening. The economic value of SOEP's is being documented in some quarters to show that agricultural education "pays off" in communities and states, and such data are valuable in maintaining support for vocational agriculture. Additional attention should be given to the educational value of SOEP's. Learning should take priority over earning. This represents yet another area for improvement.

David Allen, a University of Illinois student teacher, is presenting to a class at Moweaqua High School, Moweaqua, Illinois, on agribusiness uses of microcomputers. The following day the class observed microcomputers in use in a local grain elevator. (Photo by Earl Russell, University of Illinois.)

Conclusion

Other problem areas could be listed, but I hope these will suffice to make the point. The effectiveness of our responses to the problems we face in agricultural educaiton will determine the quality of our programs in the future, and their survival in many settings.

Shakespeare's view of adversity seems fitting for agricultural education today. While we find adversity uncomfortable, it should spur us to creativity and improvement in our efforts; in doing so, the great value of vocational agriculture to our students will grow and become more evident.

References

McMahon, Walter W. and Terry G. Geske (Editors). Financing Education: Overcoming Inefficiency and Inequity. University of Illinois Press, Urbana, IL, 1982.

Tyler, Ralph W. "Dynamic Response in a Time of Decline." Phi Delta Kappan, Volume 63, Number 10, June 1982, pp. 655-658.

BOOK REVIEW

Agricultural Economics and Agribusiness, by Gail L. Cramer and Clarence W. Jensen. New York, NY: John Wiley & Sons, Inc., 1982, 2nd ed., 465 pp., $23.95.

This book explores the structure and organization of agriculture and discusses economic principles as they apply to agriculture. The principles are used to demonstrate that theory makes reality more understandable.

The book contains 16 chapters. The topics covered include descriptions of American agriculture; consumer behavior and demand; producer decision making; production costs, supply, and price determination; competition and market regulation; marketing agricultural commodities; agricultural finance; natural resources; agricultural commodities; agricultural finance; natural resources; agricultural price and income policies; comparative agricultural systems; international economics; man and his food supply; and rural development.

The authors interpret the word agribusiness in accordance with the original meaning given by John H. Davis and Ray A. Goldberg of the Harvard Business School. These individuals defined agribusiness to include all operations involved in the manufacture and distribution of farm supplies; production operations on the farm; and the storage, processing, and distribution of farm commodities and items made from them.

The second edition contains revisions to update various topics and clarify concepts that students have found difficult. The changes involve expanding the macroeconomic content, reflecting changes in the agricultural credit system, incorporating more current energy data, including the latest changes in U.S. agricultural policy, and reflecting the latest information on policy changes for the USSR and China.

The authors designed this text for a one-quarter or one-semester introductory agricultural economics or agribusiness course. It would be useful as a reference for high school agricultural teachers in presenting the structure and organization of the agricultural industry.

J. Dale Oliver
Virginia Polytechnic Institute and
State University
Blacksburg, Virginia

THEME

Agricultural Education In An Environment Of Decreasing Resources

Education, no less than business, is trying to improve its productivity, quality of product, and innovative capacities. As enrollments have declined, improvements in these three areas have been seen as possible ways to offset the decline. Utah does not face declining student numbers, but the state's legislators have been emphasizing the productivity of education. Here, as elsewhere, financial support for education tends to shrink as maintenance costs soar. In Utah's universities, low student-faculty ratios are considered possible indicators of expendability. This is the environment surrounding the one and two year technical agriculture programs, and the vocational agricultural teacher preparation program. To survive, instructional progams at Utah State University (U.S.U.) must satisfy quality and productivity criteria.

Needs Assessment

The need for agricultural education in Utah has been examined through a needs assessment program initiated in 1977. This state-wide employee and competency study was proposed by the U.S.U.'s Department of Agricultural Education and supported by the State Board of Education and the Utah Agricultural Experiment Station. Employment needs in farming; ornamental horticulture; agricultural mechanization; and feed, seed, and grain operations were studied. A continuing, systematic study has been supported by the Utah Agricultural Experiment Station. The studies of competency and employee needs are done on a four-year cycle. Employer-employee relationships, such as incentive and fringe benefit policies, are also surveyed.

Technical Programs

U.S.U.'s Department of Agricultural Education started a program in agricultural mechanization in 1968 with support from the Utah State Board of Education.

The same kind of cooperation between the State Board of Education and the University supports a two year Ornamental Horticulture program in the Plant Science Department, a one year Meat Services program in the Nutrition and Food Science Department, and a one year Dairy Herdsman program in the Animal, Dairy, and Veterinary Science Department. In each case industry needs were defined and curricula were tailored to fit those needs. Inplace four year program courses were not used to provide a reorganized program.

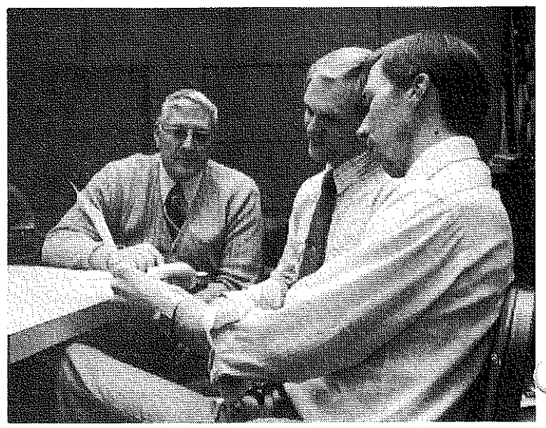
Cooperative occupational experience is part of the diploma or certificate requirements for all vocational-technical programs and helps promote a 90, plus, percent placement of students. This figure is computed after substracting the number of students who decide to extend their eduction, serve church missions, or enlist in the military.

By Gilbert A. Long
(Editor's Note: Dr. Long is Head, Department of Agricultural Education, at Utah State University, Logan, Utah 84322.)

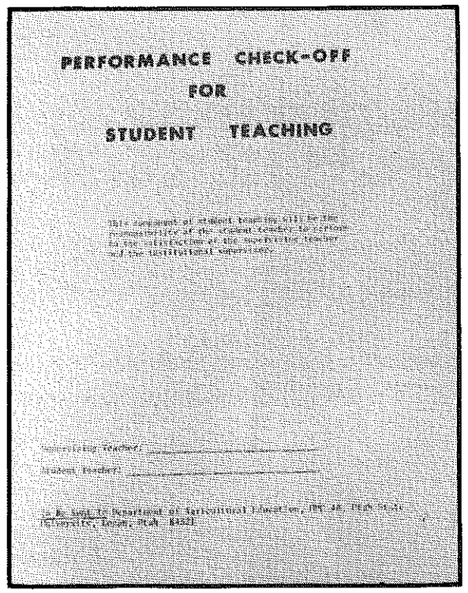
Doyle Matthews, Dean of U.S.U.'s College of Agriculture, described the technical programs as having added quality to the College's undergraduate instructional program. In this era of educational retrenchment, a land-grant university that provides technical training at less than a baccalaureate level is innovative.

Sharing as Resources Shrink

More can be done with less through the innovative sharing of resources. Utah State University and four nearby high schools are sharing resources with the Bridgerland Area Vocational Center. All six share facilities so they can serve their students' total vocational education needs. The Bridgerland Area Vocational Center supports the direct costs of three of the four College of Agriculture programs described. For these three (Meat Services, Ornamental Horticulture, and Dairy Herdsman), the University provides facilities and administration.



Knowledgeable persons assist prospective students in determining their aptitude for teaching. (Photographs courtesy of Gilbert Long.)



Achievement of competencies is assessed through a "Performance Check-off For Student Teaching". (Photograph courtesy of Gilbert Long.)

Students may register either for University credits or for Bridgerland certification. Those who pay University tuition earn lower-division credit and a certificate, thereby applying vocational-technical program competencies toward a baccalaureate degree. In the second instance, the student earns only a certificate of completion. Both types of students experience the same program. This allows Center-registered students the option of deciding later to pay the difference and seek University credit.

The intensive vocational-technical instruction benefits one, two and four year students. Instructed by masters of their craft, each student uses equipment, processes livestock carcasses, works with dairy animals, or produces greenhouse plants for sale. The USU technical program is richer than those typically provided during the first or second year of a baccalaureate program.

The cooperative sharing of resources has allowed us to more fully utilize University facilities, improve the quality both of laboratory facilities and of instruction, and increase student options. University administrators testify that the one and two year exit points for students have also enhanced the overall caliber of graduates of the agricultural education four year program. Only those motivated to achieve a baccalaureate degree stay.

Teacher Preparation

The two years of farm background required of Utah State University vocational agriculture teacher candidates is certainly not unique in the Western Region. Recently, however, a campus-wide, federally-funded cooperative occupational experience program has enabled us to give six agricultural education seniors additional practical experience; two in the Soil Conservation District, one as an animal technician for an international sheep and goat research project, one as a nursery technician for a state forestry seedling farm, one with the county spray applicator, and one with a progressive farmer. The returns in terms of experience, confidence, and competence more than justify the faculty time invested in coordinating this program.

The U.S.U. preparation program has been augmented by an early-experience program that has the prospective teachers tutor individual students; observe expert vocational agricultural teachers in their classrooms and laboratories; supervise experience programs; and observe FFA officers' meetings, team practices, and so forth. A leadership class has been initiated to help our students develop skills in parliamentary procedure and informal group leadership processes.

In teacher training programs, the adequacy of each prospective candidate must be evaluated. It is equally imperative that the selection process be fair and just and that an alternative exit option be available to students in the department. We believe we have fulfilled these criteria.

We screen teacher candidates prior to their being accepted into the senior performance phase of teacher preparation. The process is composed of a self-evaluation by each candidate, staff evaluations that include predicting the success of each in teaching, and an interview conducted by a professional, representing vocational agriculture teaching or supervision, and another professional from technical agriculture who is familiar with Utah's secondary vocational agriculture program.

The professional two-member committee evaluates the commitment, background, and personality of each candidate and predicts ultimate teaching success. This team also recommends to the department head that the candidate be (1) accepted into the senior/performance phase of teacher preparation, (2) directed to gain further agricultural experience and/or formal preparation before being accepted into the performance phase, or (3) denied entry and encouraged to pursue another vocation. The department head acts on the advice of this committee within the context of the additional information provided by the student and the agricultural education staff.

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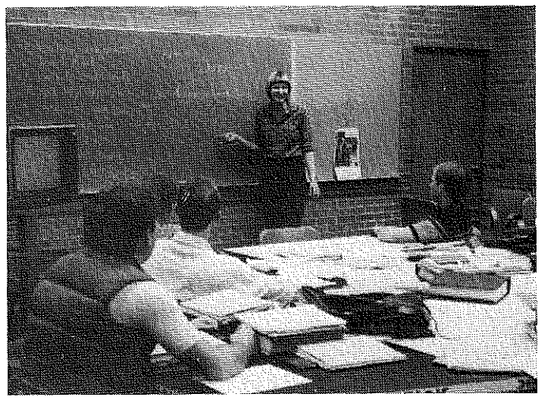

Performance evaluations of prospective teachers are perceived by the students as a quality indicator (Photograph courtesy of Gilbert Long.)

Agricultural Education In An Environment of Decreasing Resources

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The Department of Agricultural Education offers an agribusiness option that provides a general agriculture preparation program. This option gives a student access to a viable, alternative major if he/she changes direction when close to completing a baccalaureate degree, teacher certification program.

Our teacher selection process is apparently perceived by the students to be a quality indicator. At the same time, our 79 percent placement rate of students in teaching vocational agricultural may indirectly indicate that the process provides a higher than average percentage of students who are either committed or become committed to teaching. Most important, our evaluations seem to provide a more valid measure of predicted teaching success than would academic records alone.

Departmental concerns regarding any negative effects the selection process might have on student numbers have been put to rest. Numbers remain adequate and student quality and commitment have improved.

Directed practice or student teaching has been generally recognized as the most potent component of teacher training. However, the student teachers, in fear and trepidation, too often limit their teaching methods to those used by the cooperating teacher. Seldom did the student teacher plan and implement an adequate variety of teaching methods.

Because our available resources did not permit the number of teacher educator visits needed to closely supervise this experience program, we initiated a performance checkoff training plan. The required performances include four problem solving operations lists, a skill demonstration, and a safety demonstration. The master teacher is asked to evaluate the student's teaching of each of these "methods."

Finally, each student is required to attend two Young Farmer meetings and is encouraged to prepare and present part or all of a Young Farmer program. Fulfilling these prescriptive directions requires about 30 percent of the student teacher's ten weeks of directed experience. Some cooperating teachers appreciate the sense of purpose provided by this approach, while a few have resented it as interference.

In-service Workshops

By combining extension and agricultural education in-service training, we have produced some of the best technical, agricultural in-service workshops that Utah vocational agricultural teachers have experienced. Decreasing teacher in-service funds will demand innovative approaches if we are to continue such offerings. State Board of Education funds for program improvement do not promise continuous support for in-service education.

A Look into the Future

At the state level, vocational education programs will continue to vacillate between autonomy and its inclusion in the total educational decision-making system, within which vocational education tends to lose much of its identity. Universities which are in tune with the times must assume primary responsibility for preservice and in-service training of vocational teachers. Unfortunately, too many universities accept the responsibility for teacher in-service training only as a result of state legislation or because federal funds disappear.

Vocational teacher preparation will benefit from increased cooperative efforts in the future. Student transfers between colleges can be good for students and for optimizing the use of available resources.

As colleges of agriculture compete for their share of a declining total student population, the quality of technical, agriculture service courses will improve. College professors will be motivated to learn to better serve students aiming toward secondary teaching or agribusiness when these students sit in the same classes with subject majors.

Finally, promotion of agricultural education efforts at the national level must include greater support of teacher education preparation by vocational agriculture teachers, farmers, and people in agribusiness. Vocational education functions in the political arena. All of us must recognize this reality if we are to participate effectively.

BOOK REVIEW

THE HORSE, by J. Warren Evans, Anthony Borton, Harold F. Hintz, and L. Dale Van Vleck, San Francisco: W.H. Freeman and Co., 1977, 766 pp., $26.00.

The content of this text includes: History and Development of the Horse; Breeds in the U.S.; Horse Racing; Recreational Use; Digestive Physiology; Nutrients; Feeds and Feeding; Feeding Problems; Anatomy and Physiology of Reproduction; Horse Breeding Problems; Genetic Principles and Selection; Diseases and Parasites; Behavioral Principles of Training and Management; Basic Horsemanship; Anatomy and Care of the Foot; Buildings and Management of Horse Farms; plus a Color Chart.

This work excels in several areas. The pictures and illustrations are up to date, easy to understand, and of excellent quality. The Nutrient Requirement Tables for horses have, in the past, been practically unavailable. Also, the chapter on Behavioral Principles of Training and Management will be new to many readers. The karyotypes are well done and interesting. The authors have included an attractive, easy to use, color chart suitable for wall use. These extras enhance the readability of the text.

The text is best suited to college and advanced high school students, as a Fry Readability Estimate placed the reading level at Grade 13. In addition to its use as a school text, this work would be excellent as a teacher or personal reference.

Bob Hughes
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THEME

Planning Postsecondary Programs: Better Future During "Tough" Times

BY STEVEN L. VANAUSDLE
(Editor's Note: Dr. VanAusdle, a former Washington State high school and community college instructor of agriculture, is Vice President and Dean of the Faculty at Walla Walla Community College, Walla Walla, Washington 99362.)

The 1980's are living up to the expectations of being a decade of unprecedented change. The problems of inflation and increased competition for diminishing financial resources are converging with shifting or declining enrollments to create serious problems for two-year colleges. Never before have educators faced so many problems at one time. These times which hold such promise for the future.

Regardless of one's professional position, we should know how to plan and get involved in the process of achieving the promise. We all plan; the question is how well. To ignore planning is to make one's self the victim of the planning of others. This article is specifically designed for the agricultural educator who is not a specialist in planning but who can benefit by understanding the process. The approach to planning presented in this article has been used at Walla Walla Community College (WWCC) for eight years.

Walla Walla Community College is located in rural Southeastern Washington and serves an area where agriculture is the dominent industry.

Ten years ago the college offered two agricultural classes. Today, WWCC has eight full-time agriculture instructors and offers a comprehensive agriculture curriculum. Decreasing budgets have temporarily curtailed further expansion, but is hoped that an agricultural technology building will be funded when economic conditions improve. The college's success in establishing a respected agriculture program is attributable to two factors. Individuals responsible for the agriculture program did a good job of developing a plan reflecting the needs of students and the agriculture community, and then successfully sold the plan to key college and state officials.

Planning Defined

Planning attempts to predetermine a desired course of action. Planning is deciding where we are going and how and when we are going to get there. Think of planning as the process of obtaining and providing information for decision making or thinking things through before acting.

Strategic planning is used to determine where we are going or what we want to accomplish. An early result should be a document which contains a mission or purpose statement, assumptions about the future of the college and agriculture program, and goals. Strategic planning occurs on a formal or informal basis at both the institutional and program levels.

Operation planning is used to determine how and when goals will be accomplished. Annual plans are developed within the context of the assumptions and goals included in the strategic plan and are action oriented. Specific measurable objectives are developed along with procedures for implementing these objectives. The relationship between strategic and operational planning is shown in Figure 1.

In the past, many educational administrators and teachers have viewed planning as a headache imposed upon them from above, usually for the wrong reasons. Now these same individuals have come to realize that planning actually works to their benefit. Effective planning can help persuade others that you are deliberate in your actions and that the actions are meeting the needs for which you are responsible.

It is often said that if you do not know where you are going, any route will get you there, even though you probably would not know when or if you have arrived. Recall the case of the airline pilot who announced to his passengers, "I have some good news and some bad news. First the bad news: We are lost! Now for the good news: We are making very good time!"

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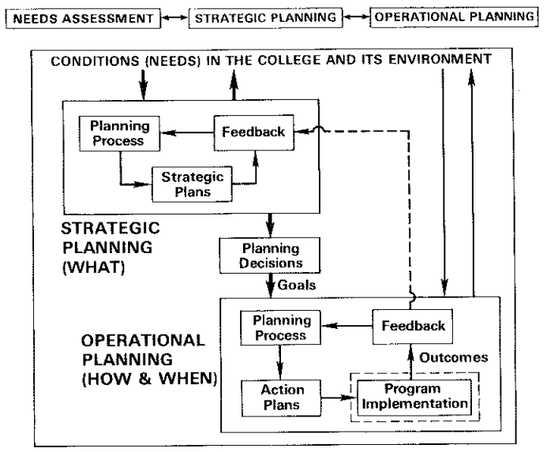

Figure 1. Relationship between Strategic and Operational Planning.

Planning Postsecondary Programs: Better Future During "Tough" Times

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The Process of Planning

Planning is best implemented by developing a step-by-step process. This section provides a general explanation of the Walla Walla Community College process (see Figure 2) and discusses examples of activities completed at WWCC in planning for the Agriculture Department.

Step 1. Conduct Environmental Assessment

Environmental needs assessment is concerned with obtaining, analyzing, and reporting information reflecting current and future needs of the agriculture department. Education and training needs of present and prospective students should be assessed. Another major area of study is present and future agricultural employment and career opportunities.

The agricultural faculty at WWCC recently conducted an agricultural employer survey and asked each program advisory committee for input on program needs. A high school senior survey was also conducted by the planning office at the college which identified seniors' career interests, educational plans, and perceptions of the programs and services available at WWCC.

Step 2. Assess Institutional Capabilities

Such assessment is concerned with documenting information on the present status and potential capacity of programs in the agriculture department. This information might be presented in the form of an annual report for the agriculture department. The report would describe the department by showing enrollment history and capacity by program.

Step 3. Review and Update Mission or Purpose Statement

At this step the purpose of agricultural programs should be examined within the context of the mission and goals of the college. If the college has been required to reduce services to certain clientele because of budget reductions, the agricultural department should adjust its plans accordingly.

Step 4. Write Planning Assumptions

Planning assumptions are statements of future plausible conditions. They are the basis for evaluating alternative ideas and establishing priorities. Information obtained in Steps 1, 2, and 3 serve as a basis for writing planning assumptions. Assumptions are prepared for each program. Factors faculty address when writing assumptions are 1) need for the program, 2) availability of students, 3) contributions of the program, 4) implications of changes in technology, 5) increases in tuition, and 6) a budget reduction.

Step 5. Specify Goals

The next step is to specify goals. A goal is defined as a desired future state or condition which, if attained, will contribute to the achievement of the purposes of the program and mission of the institution. Goals should make clear the specific intent of new or modified programs. In times of limited resources it is also recommended that goals

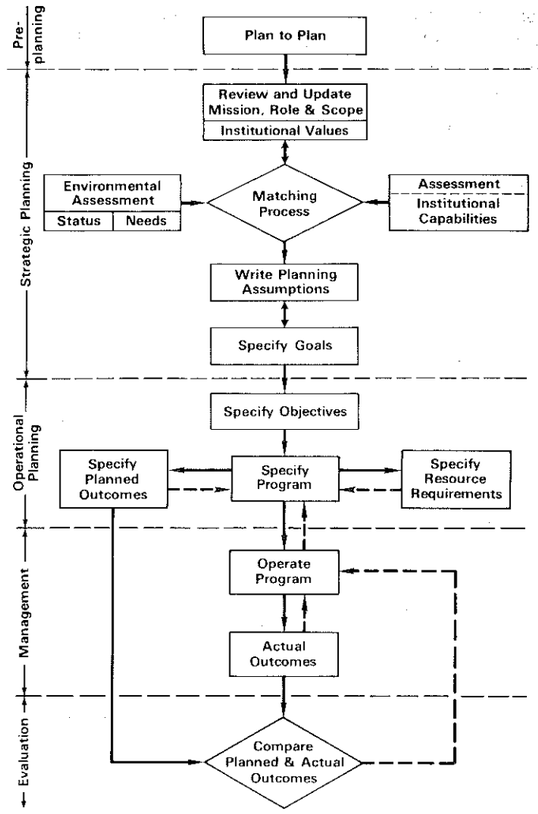

Figure 2. Walla Walla Community College Planning Model.

be presented in priority order. An example of a goal identified as a priority for an agriculture department is to expand the utilization of cooperative work experiences for students in agricultural industry.

Step 6. Specify Objectives

An objective is a desired future state or condition which will contribute to the achievement of one or more institutional goals. Objectives are subordinate to goals and are more concrete, specific, and subject to measurement. The achievement of a goal will normally require the attainment of several specific objectives. Objectives might include enrollment level, planned improvements, number of students completing with marketable skills, and a reduction in the number of dropouts.

Step 7. Specify Program and Planned Outcomes

This step involves the study of alternative methods of achieving objectives. Alternative methods need to be analyzed in terms of cost, political feasibility, and likely effectiveness and a decision made by appropriate persons (instructors, administrators, advisory committee members). Once the best alternatives have been selected, an action plan should be developed. The plan should include activities and tasks to be accomplished, time schedules, designation of responsible persons, and planned outcomes. Planned outcomes will be used when the program cycle is completed and evaluation occurs. The evaluation process includes a comparison of planned to actual outcomes.

Step 8. Specify Resource Requirements

A budget is the financial version of the plan. Developing the annual operating budget is the last step in the planning process. At WWCC the Agriculture Department presents its annual plan and budget to the planning and budgeting committee at a budget hearing. At that time, supervisors and faculty explain and justify their plan and budget request. Once all plans and budgets are approved by the committee they are published in a document and presented to the Board of Trustees for final approval.

Planning to Plan

If your institution has an effective institutional planning system, your challenge is to improve your contribution. This article may help you evaluate your role and suggest areas for improvement.

If your institution does not have an effective institutional planning process in place, then you have a lot of company. View this as an opportunity at your institution. Get the agricultural faculty together and make a commitment to do the best job you can of implementing the step-by-step planning process. Complete this task before budgeting time and use the plan as a basis for justifying your budget request. Such effort will significantly strengthen your position at budget time, and the time invested will pay good dividends. A short list of helpful references follows. A monograph titled COMPREHENSIVE INSTITUTIONAL PLANNING IN TWO-YEAR COLLEGES: A PLANNING PROCESS AND CASE STUDY, available through the National Center for Research in Vocational Education, would be particularly helpful in providing additional information about the planning process.

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THEME

Decreasing Resources: Survival Strategies for Agricultural Education

BY LINDA H. LEWIS

(Editor's Note: Dr. Lewis is Assistant Professor of Higher, Technical and Adult Education at The University of Connecticut, Storrs, Connecticut 06268.)

At a time of personnel freezes, when budgets are being trimmed and programs discontinued, the issue of quality is certainly called to the fore. Differential responses by institutions and administrators have involved calls for a re-evaluation of current programming, an analysis of staffing patterns, and measurements of outcome goals. Such accountability has resulted in additional work and pressure for both teachers and administrators, and in some instances, has affected morale. One of the questions facing leaders in agricultural education is how to develop a plan that will insure quality, even at a time of declining resources, without adversely affecting program participants and staff.

There are several common retrenchment strategies which have traditionally been employed in response to fiscal austerity. These have included reductions in non-instructional expenses, increased use of part-time faculty, higher student/teacher ratios, across the board cuts, and the curtailment of activities and offerings. The purpose of this article is not to promote or refute a particular approach, but rather to suggest several principles which might be employed to boost morale, and encourage continuing commitment by teachers.

Strategies for Achieving Quality

The following are recommended as strategies for insuring an objective, well-conceived approach to budgeting and program design.

First, and foremost, a participatory decision-making process should be implemented which involves input from a variety of areas and individuals. Planning should be decentralized in order to insure that those who will be affected by any proposed changes will have played a part in the decision-making process. In addition to insuring equity, a shared approach serves to foster a unified spirit of cooperation among teachers, students, community members,

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Decreasing Resources: Survival Strategies For Agricultural Education

(Continued from Page 12)

and special interest groups. The benefit of participatory planning lies not only in satisfying the demands of interested outsiders, but it also serves to improve the efficiency of the organization itself. Extension agents, representatives from student organizations, vocational agriculture teachers, state agency personnel, local business leaders, and farmers, just to name a few, can be brought together as members of an advisory committee. Jointly, these individuals can work together, scrutinizing various phases of programming and operations, in an attempt to put together new decision-making packages. As a result, a priority list can be established which can serve as the basis for evaluating and judging future programs and offerings.

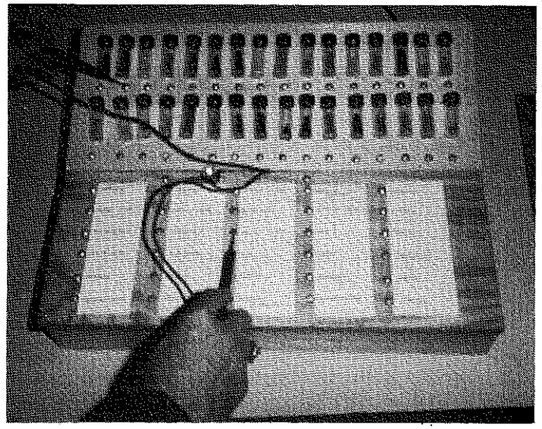
Too often in the past, budgets have been constructed by simply adding funds to the previous year's allocation. By developing reality-based programming, designed to meet the needs and interests of all phases of the community, a new creative approach to managing reductions can be implemented. By looking at the purpose of programs, the potential outcomes, and the audiences to be served, innovative methods can be designed in order to combine, reorder, expand, or curtail programs and services as needed.

Second, the "me-too" approach to decision-making must be avoided. Looking at another school or to someone else's program, and then implementing similar changes, can be disasterous. Each program and constituency being served is different. It is reasonable and prudent to seek information as to how others are proceeding in order to better delineate function and avoid a duplication of services; however, it is unrealistic to assume that a similar plan will work in one's own setting. A quality response to current economic difficulties should reflect: a) the unique qualities and needs of the agency, program, or institution, b) the current conditions, and c) the local requirements of the community and the participants.

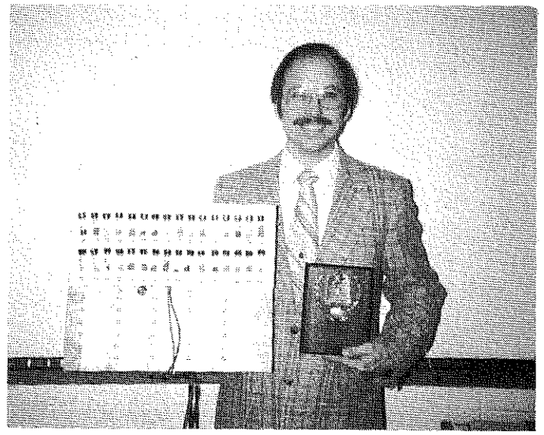
Third, although programs and classes should be reviewed and classified on the basis of benefits and outcomes, this cannot be done in terms of a strict cost-benefit analysis. When dealing with educational goals and objectives in dimensions such as self-concept, confidence, and personal growth. Behavioral changes which occur in the "affective domain" are all too often overlooked because they are more difficult to measure.

Fourth, aggressive leadership is imperative during a time of decreased funding. It is vital that administrators play a pivotal role in gathering information from a variety of sources. Leaders must be well-informed in order to assume a pro-active, rather than a reactive, posture in response to declining resources. On-going, active efforts to search for new funding sources must be implemented to insure additional options. Alternative strategies, such as customized prices of fee and salary schedules, should be developed in order to allow programs with low headcounts to be conducted. Linkages should be established with the private sector. Such cooperative ventures with agricultural business and industry can serve to enhance the potential of programs and provide new revenues and options.

Lastly, innovative strategies, exemplary programming, effective communications, networking, and partnerships are all necessary for maintaining and assuring quality. By implementing decisive, well-planned strategies and developing long-range plans, administrators will not be caught by surprise when calls for accountability are heard. For those in agricultural education, the key to quality programming lies in creative and participatory management.



Students have fun and gain confidence in identifying crop seeds using this low-cost, self-instructional board developed by Richard Schertz, Vo-Ag Instructor, Moweaqua High School, Moweaqua, Illinois 62550. (Photograph by Earl Russell, University of Illinois.)



Mr. Schertz was the NVATA Region IV winner of the 1982 Ideas Unlimited Contest for his crop seed identification board. He is pictured here with the board and his award which was sponsored by Ruritan National. Information on use and construction of the board is available by writing to Mr. Schertz. (Photograph by Earl Russell, University of Illinois)

TEACHING TIPS

Teaching Communication Skills The Fun Way

Regardless of one's occupation, the ability to effectively communicate with fellow employees or with the boss is absolutely necessary. Failure to follow directions can result in considerable expense to the employer, and could result in the dismissal of the employee. Failure to communicate with fellow workers can result in accidents, poor quality work, or unusable products.

To help insure effective communication, the employer must be capable of giving understandable directions or instructions; the employee must be capable of understanding the meaning of those directions or instructions. Failure on either one's part creates many kinds of problems. A look at the definition of "communication" helps us understand why its absence in personal relationships causes so many problems.

THE NEW WEBSTER'S DICTIONARY OF THE ENGLISH LANGUAGE states in part that communication means "the imparting or interchange of thoughts, opinions, or information by speech, writing or signs." Flesch, in his book, THE ABC OF STYLE: A GUIDE TO PLAIN ENGLISH, states that to communicate means to "tell, inform, be in touch."

How can a teacher of vocational agriculture prepare a student (a probable future employee) to effectively "be in touch" with other people? Roland Zimmerman, vocational agriculture teacher at Tiffin Columbian High School, Tiffin, Ohio, has had considerable success in helping students develop effective communication skills with the use of colored wooden 2" x 4"s.

States Mr. Zimmerman, "In my agribusiness class, I emphasize to my students that communication plays an important role in the success or failure of a student-employer relationship. With the use of the 2" x 4"s, I demonstrate how difficult it can be for a boss to give a very simple order to an unsuspecting student, and how the student can develop proficiency in the communication process."

How are the 2"x4"s used? Mr. Zimmerman prepares six 2" x 4"s, each one foot long. Two are painted red, two are painted white, and the remaining two are painted blue. Two students are selected to participate in the communication exercise. One student is to be the "builder;" the other the "communicator." A partition is erected in the center of a classroom table in order to shield the teacher from the student who will be the "builder." The teacher has one set of the 2 x 4's, i.e., one of each color. The student who is designated as the builder has the other set.

The teacher proceeds to build a structure with his/her three 2" x 4"s, which the student builder cannot see because of the partition. It is now the job of the second student, the "communicator," to describe the teacher's structure to the first student accurately enough so that the first student can build an identical structure.

What appears at first to be a simple task of one student describing the placement of three colored pieces of wood and the other student building an identical structure, turns out to be a humorous, and sometimes frustrating activity.

The student describing the teacher's structure will say to the builder, for example, "Put the red board on top of the white one, but at right angles." What the student didn't communicate was that the teacher's red board was placed on edge. With no further instructions, the builder usually places his/her red board on the flat side, rather than on edge.

Relating his experiences with the exercise, Mr. Zimmerman states, "At first, the students do not communicate effectively, and they will not build the same structure I build. After a few more attempts, but with better communication, they will usually be successful." Commenting further on the use of the exercise in teaching effective communication skills, Mr. Zimmerman explains, "Before I teach the communication unit, I have the class members experience failure in this exercise. As a result, they are usually very receptive to learning effective communication skills."

Next time you plan to help your students develop more effective communication skills, locate some scrap 2 x 4's, paint them red, white and blue, and have fun getting your students interested in "being in touch" with others.

LETTERS

"Letters to the Editor" are encouraged to bring about dialogue among readers of the MAGAZINE. Letters should be serious, professional efforts regarding issues in the field. Anonymous letters will not be published. The Editor reserves the right to determine the publishability of all letters. Your signed letter will be welcomed. Send all letters to the Editor: Larry E. Miller, Department of Agricultural Education, The Ohio State University, 204 Agricultural Administration Building, 2120 Fyffe Road, Columbus, OH 43210.

ARTICLE

Positive Actions for A Positive Future

By Eddie A. Moore
(Editor's Note: Dr. Moore is an Associate Professor in Agricultural Education at Michigan State University, East Lansing, Michigan 48824; and President of the American Association of Teacher Educators in Agriculture.)

One does not have to look very far today before being approached with information relative to the poor economy. The condition of the economy seems to dominate the news media to the extent that the positive things which are happening in society are being overlooked.

During these apparent difficult times, it is tempting to blame our perceived work related problems on other individuals, groups, and situations. Namely, the economy, poor instructional resources, school administrators, parents, and in some cases the types of students we have to teach. Obviously, some school districts will be in similar situations as are a number of corporations, businesses, governmental agencies, and farmers.

Needless to say, the decision-makers in financially troubled school districts will have to make some difficult decisions if they are going to maintain quality educational programs. These decisions will be unpopular for some individuals and perhaps beneficial for others. In light of current and future developments, it seems that if we are going to maintain quality vocational agriculture programs, we need to be aware of these developments in society, especially those in education.

Debating the Benefits

The debate within the educational arena with respect to the type (that is; vocational educational, general education or college bound program) of education students should receive at the secondary level has been with the profession for many years. In recent years some of the debate has been on the effectiveness of vocational education.

Some of the most interesting debate regarding the effectiveness of vocational education is reported in the January, 1983 issue of the Phi Delta Kappan. Vocational agriculture was mentioned a number of times in a positive way by Dr. Gene Bottoms, Executive Director of the American Vocational Association (AVA), and Patricia Copa, doctoral student at the University of Minnesota and currently serving as a policy analyst intern with AVA. Their article was titled, "A Perspective on Vocational Education Today." However, in the article titled "What Research Has to Say About Vocational Education and the High Schools," and written by Alan Weisberg, the author gives a different perspective in terms of the effectiveness of vocational education in preparing youth for the labor market. The implications for vocational agriculture in the Weisberg's article would not be as positive as the implications found in the article written by Bottoms and Copa.

The readers of this article may wish to review the two articles mentioned as well as the one written by Donna M. Mertens titled, "The Vocational Education Graduate in the Labor Market." This type of debate will probably continue for some years as educators continue their internal struggle for limited educational dollars. Vocational educators, including those of us in agricultural education, will want to keep abreast of the debates in light of the Vocational Education Act reauthorization.

Strategic Planning

In difficult economic times, the debates relative to the effectiveness of vocational education, and the use of limited educational dollars, the question may be "what should vocational agriculture teachers be doing to maintain quality programs during these times of uncertainties?" There are a number of actions which could be taken. However, I will only mention several which I think will make a difference at the local level.

Be aware of the situation in which you are working such as:

— general economic condition of the local community

— financial status of the school district

— goals and objectives for the school district

— composition of the school board

— degree of community and school support for the vocational agriculture program

2. Make an assessment of the program.

In other words, what is the status of the program?

This may include an analysis of:

— the extent to which program goals and objectives have been achieved

— curriculum

— supervised occupational experience program

— FFA program activities

— advisory committee composition, responsibilities and achievements

— characteristics and general background of students

3. Make an assessment of insructional resources such as:

— equipment and supplies

— school laboratory

— community resources

4. Develop short and long-range plans for the program.

This may include:

— establishing goals and objectives

— setting priorities for the program

— terminating some program efforts and initiating others

— revising the curriculum

— maintaining an effective advisory committee

— strengthening the supervised occupational experience program

— strengthening recruitment activities

— securing up-dated equipment and supplies

5. Emphasize communication.

It is critically important to communicate with different groups in the community relative to what you are doing to help students achieve their potential. These activities may include:

— preparing quarterly reports for school administrators

— hold formal meetings with school administrators to discuss accomplishments, concerns, issues or just to assess their perceptions of the program

— include articles about students in the school and community newspapers

— develop an audio visual presentation about the program and present to school and community groups

6. Sharpen the focus on accountability. In reviewing the possible roles and responsibilities of vocational agriculture teachers, one has to wonder how teachers are able to stay afloat. Vocational agriculture teachers are usually asked to assist individuals within and outside of the schools in carrying out their respective responsibilities, and to find some time during the day for themselves and/or families. In light of these demands, it is important for vocational agriculture teachers to prioritize their activities. Hopefully during the prioritization process, the goals and objectives for which one is accountable will be at the top of the list of things to do. More importantly, one should assess, from time to time, how well they are achieving the goals and objectives.

7. Convey a positive outlook. One of the problems related to our present economic situation is a lack of confidence on the part of many individuals in our society. Vocational agriculture teachers could be very helpful in this area by displaying a positive outlook and assisting others in clarifying their thinking. For example, most troubled individuals just need someone to listen to their concerns. Traditionally, vocational agriculture teachers have been some of the best counselors.

If we are going to maintain quality programs with decreasing resources, we have to initiate positive actions for a positive future.

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ARTICLE

Have You Educated Your Administrator?

By Clifford Van Berkum
(Editor's Note: Mr. Van Berkum is Vocational Agriculture Instructor for the North Kossuth Community Schools, P.O. Box B, Swea City, Iowa 50590.)

Some agriculture instructors are blessed by having only one or two administrator changes in their teaching career. Some are so blessed because they only taught a few years. But for those that have more than ten years of teaching experience, administrative changes may have been frequent.

A common comment heard when agriculture instructors get together, and one of the instructors is about to experience a new administrator, is "have you already educated your administrator?" Yes, educating the administration is important for good public relations. Many instructors feel that educating the administrator is for the purpose of getting that administrator to agree with what the instructor believes should be done. Too often this is a prejudiced view, and even though this might keep the vocational agriculture instructor happy, it may not agree with the plans of the administrator. People in education too often think it is necessary to complement each other for the purpose of receiving something back in return. This type of barter system is important to good public relations as long as both parties are deeply concerned for a proper education of the students.

Resolving Conflict

Changing administrators is somewhat like a second marriage. One has to relearn again how to put up with peculiarities and oddities. In other words, when the honeymoon is over, can both parties still put up with each other? It takes two people to start a disagreement. And it takes only one person to stop one. In a marriage, it is not wise to go to bed at night with anger toward each other. Nor is it wise for administrators and vocational agriculture instructors to go home at the end of the day with a disagreement between them. Stopping in the administrator's office at the end of the day and discussing the problem will allow both to sleep much better at night and give each a better outlook on the new day.

Very few vocational agriculture instructors have been asked to leave their teaching responsibility if they are doing the work required of them and can also communicate with the administration. A key point to remember is that both parties need to make adjustments. These adjustments will only become a reality through proper communication. Communication includes both listening and talking by both parties.

Fostering Positive Relationships

Some areas of communication that are important to good relationships in these difficult economic times are worthy of further consideration. Always let the administrator know what you are doing in the classroom, FFA and night classes. Stop and talk to the administration at least once each week. If both of you are free before school on Monday morning, this is a good time to talk. People that do not talk together soon start thinking negatively about the other person. This time can also be used to share common problems rather than just the instructor's problems. Administrators also have problems. This is difficult to remember when one is concerned with one's own. Basically, this is building good will between people.

Take the administration along on SOE visits, field trips, contests, FFA banquets, etc. Some of the time the administrators may be too busy with their own duties to be able to go. Instructors should understand this. Keep

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Have You Educated Your Administrator?

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giving them the invitation so that this route of communications stays open. During the summer months, when they have a bit more freedom, take them out on SOE visits. Once they have seen what the program is doing for the students and families involved, they also will become more interested in the program. It also gives you an opportunity to show the administration that your duties are beyond the confines of the school building.

Most administrators move in the summer months just before school starts in the fall. Offer to take the administrator around the community, show them the school district they will be serving, and introduce them to various people in the community. Never use this time to tell them about the community gossip. A person that talks about other people is not an easy person to trust. Besides, each person should have the opportunity to make their own judgements instead of becoming prejudiced from someone else.

Invite them and take them to the church and community activities, if they wish to attend. Help them feel welcome. For those people that have moved a few times, you can realize that the period after moving is a lonely time.

If the instructor has been in the community for a few years, volunteer to help out in making bus routes. The instructor may wish to drive the routes while the administrator maps and times each route. This is a time consuming job for most administrators who are responsible for this chore.

Introduce them to the departmental advisory council. When the administrator realizes that there are many people interested in the vocational agriculture program, it is difficult for them not to take an interest, also.

Have the FFA officers volunteer the FFA's services in the school functions. The officers can also go over the Program of Activities for the chapter with them.

Partnership in Professional Integrity

There are many more areas that help public relations. An honest effort by at least one of the parties involved is a necessity and this will help start the relationship in a favorable way. When both parties feel this way, it will be a happy relationship. We need people of integrity in education and we can start by showing some integrity as vocational agriculture instructors.

It is really not a matter of educating the administrator that matters. Instead, it is what both the administrator and the vocational agriculture instructor can learn together. It is a partnership in education.

ARTICLE

Quality Summer Programs in the Midst of an Economic Recession

By R. Lee Cole
(Editor's Note: Dr. Cole is Assistant Professor of Agricultural Education at Oregon State University, Corvallis, Oregon 97331.)

Are you having difficultuy justifying your 12 month contract? Do you still have such a contract? Administrators must find ways to save money, and extended contracts become an easy target.

Vocational agriculture teachers have long realized the importance of summer program activities, and the impetus those activities give to making a program truly vocational. Certainly, all agree that the summer months are when agriculture is most active and productive.

The problem seems to be that with the current financial crunch in education, we have not been effective in justifying our summer programs. Or worse, we have used our summer contracts for compensatory time for FFA activities conducted during the academic school year. Let us be professional and get on an extra-duty activity schedule for FFA activities and utilize the summer contract for instruction.

If we are to have an extended contract, we must prepare and present to administrators a "Summer Program of Activities." Such a program should identify summer program goals and activities. It is important to focus our summer program on those activities which are unique to vocational agriculture programs and which are instructional in nature. The following should **not** be included in a vocational agriculture teacher's "Summer Program of Activities."

(1) Cleaning the laboratory. Several other teachers would like extra pay for this, too; why should the vocational agriculture teacher receive special treatment?

(2) Up-dating curriculum. All teachers must do this, and some have just as many different subjects to teach as the vocational agriculture teacher.

(3) Purchase instructional materials, tools, and equipment for the upcoming year. All teachers would like similar treatment; this should be done in the days just after students leave at the end of the year, during the normal contract for all teachers.

(4) Inventory of department equipment and materials. Same reason as cited for number three.

Setting Summer Goals

What is unique to a vocational agriculture program which must be done in the summer months, hence requiring a summer contract, and how do I put that into a form of a "Summer Program of Activities"? These goals may help answer these questions.

GOAL I. Provide individual instruction through Supervised Occupational Experience Programs (SOEP) for vocational agriculture students.

Activities:

1. Complete a minimum of one SOEP visit to all students.
2. Complete a minimum of one supervisory visit per month to all students with cooperative work experience programs.
3. Complete a minimum of two supervisory visits to students with crop projects.
4. Complete a minimum of two supervisory visits to students involved in shows and fairs.
5. Develop SOEP sources for future use.

GOAL II. Conduct instructional activities appropriate to identified needs of vocational agriculture students.

Activities:

1. Teach short courses and individualize instruction to meet the needs of students, e.g., livestock evaluation, showing and fitting, tractor and equipment operation, etc.

GOAL III. Duties of the advisor for the Future Farmers of America (FFA) organization.

Activities:

1. Provide leadership training for FFA officers and conduct planning activities for the coming year.
2. Advise during a minimum of two summer FFA meetings; keeps students abreast of up-coming activities.
3. Prepare and supervise members for summer FFA competitive activities, e.g., livestock and dairy judging contests, tractor driving contests, etc.

GOAL IV. Conduct conferences with prospective students and parents.

Activities:

1. Visit prospective students and parents which are pre-registered or otherwise identified, and initiate SOEP planning.
2. Develop/update materials for identification and recruitment of prospective students.

How can these four goals be planned and organized into an effective "Summer Program of Activities" for the Vocational Agriculture Department?

In mid-spring, prepare a summer activities survey on which students identify the summer activities with which they desire to be involved.

With all surveys in hand, develop a "Summer Program of Activities". Hand this out in draft form to students before the end of school and make necessary corrections for student's vacations, etc. Complete a revised form, have it typed, and hand it to students before school is out; also hand a copy to administrators, and mail a copy to parents of students involved with the summer program.

The four goals identified are essential goals to be achieved each summer. Other goals which may be accomplished on a three or four year rotation include:

(1) Follow-up vocational agriculture program graduates, and implement desired change in the curriculum as identified from the follow-up surveys.

(2) Vocational agriculture program assessments, using advisory committee, administrator, and appropriate state staff, and implement desired changes.

(3) Develop a public relations plan for the vocational agriculture department.

(4) Complete a professional improvement plan.

(5) Plan facility renovations and/or new facilities.

Goals will depend on individual programs, but they need to be planned and include the following:

(1) Supervise the use of the Vocational Agriculture laboratory facilities. If you have a land laboratory, this supervision must be included in your "Summer Program of Activities".

(2) Work with the vocational agriculture advisory committee. Due to the summer work load of many agriculturists, it may not be wise to plan more than one advisory committee meeting in the summer months. In some cases, it may be best to schedule advisory committee meetings during the academic year only.

The key to quality, and the justification for the vocational agriculture summer program is planning. A key ingredient to the success of the summer program is commitment to the plan. Let us maintain and/or improve the quality of our vocational programs in agriculture through carefully planned and executed summer programs.

Summer Activities Survey

Name_____ Phone_____

Address_____

Equipment Operator's License: (circle one) Yes No

Circle the number in front of each vocational agriculture summer activity which you would like to participate in this year.

Instructional Activities	Fairs, Shows, and Contests
1. Tractor and Equipment Operator's Certification Program.	1. _____County Judging Contest
2. Beef Showing and Fitting Field Day.	2. _____County Judging Contest.
3. Sheep Showing and Fitting Field Day	3. State Livestock Judging Contest.
4. Swine Showing and Fitting Field Day.	4. State Dairy Judging Contest.
5. Dairy Showing and Fitting Field Day.	5. Exhibit Livestock at County Fair.
6. Horticulture and Crops Exhibiting Field Day.	6. Exhibit Field and/or Horticulture Crops at Fair.
7. Agricultural Mechanics Work nights.	7. Compete in County Tractor Driving Contest.
8. etc.	8. etc.

Summer Programs of Activities for

_____High School Vocational Agriculture Department

Summer Office Hrs: 8-9 a.m., Vocational Agriculture Classroom

June 17: end of 190-day contract.
June 20-24: Vocational Agriculture Teachers' Summer Conference, Princeville, Oregon
June 27 Supervise SOEPs of:
1. John Baird, 9-10:30 a.m.
2. John Fine, 10:45-12 Noon
3. Rob Horn, 1-2:30 p.m.
4. Mark Hopfer, 2:45-4:00 p.m.

June 28: Supervise SOEPs of:
1. Gary Sundseth, 9-10:30 a.m.
2. Dale Crawford, 10:45-12 Noon

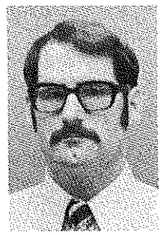
June 29: Tractor & Equip. Operator's Instruction, 1-4 p.m. etc.

1. Plan and take your vacation time and write it into the "Summer Program of Activities" so students and administrators know when you will not be available.
2. Use pressure sensitive forms with four copies to report SOEP visits. Mail one to parents, give one to students, give one to administrator, and keep on in your SOEP file.

ARTICLE

Declining Resources: Determination not Despair

By Steve Forsythe
(Editor's Note: Dr. Forsythe is an Assistant Professor of Agricultural Mechanics at Mid-American Nazarene College, Olathe, Kansas 66061.)



"Reagonomics" continues to worry all of us as individuals and professionally. We know that declining support on both the state and federal levels continues to reduce the resources available to support quality programs. This hurts on both the secondary and post-secondary level. For many high schools and post-secondary institutions, the demographic shocks and inflation of the "exciting eighties" give new meaning to the term economy. Both high school vocational agriculture programs as well as private and state supported colleges and universities have been affected! What can we as professionals concerned about our programs do in confronting the problems of declining resources?

The Mid-America Story

Mid-America Nazarene College (MANC) has a unique four year degree program at a traditonal "liberal arts" private college. In an attempt to discuss ways of maintaining quality agricultural programs with declining resources, it is important to give the reader an overview of the college. Although MANC is private, it perhaps typifies enrollment norms, demographics, and financial concerns of other post secondary institutions. From a small beginning in 1968, the college has grown to be the largest private college in Kansas with 1389 students. Four years ago, agricultural degree programs were developed as part of the college curriculum. At present, there are 48 agriculture majors pursuing coursework in a growing agribusiness and agrimissions program, as well as a program in agricultural education with Kansas State University. Yet, college enrollment is projected to be down 147 students next year! When college programs depend on a certain number of students, and are budgeted for that, and those students do not enroll; things can get bad.

Our agricultural program has been affected like programs in any other academic area. The predicted lowered birthrates, fewer high school enrollees, and worsening economy are bringing serious challenges. What can programs do, whether post-secondary or secondary in nature, to continue quality programs with diminished resources available?

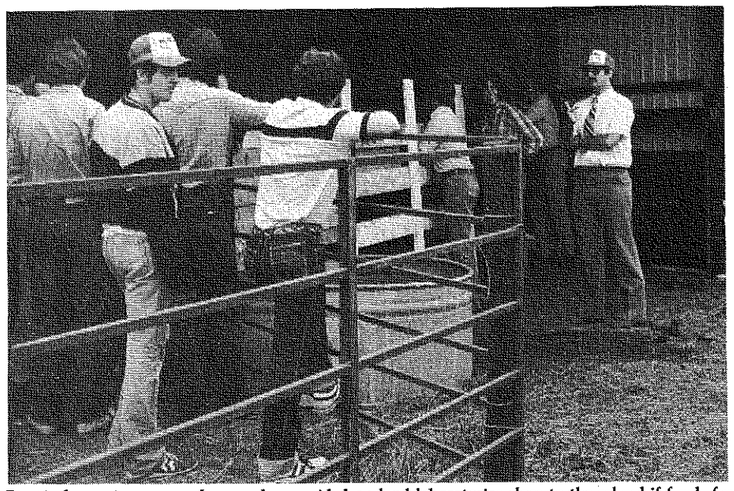
Retrenchment or Redirection?

"Retrenchment" is a scary word. It can mean that your program may have to be built into a leaner, more responsive, and mature operation. It may involve the reorganization, and reduction of certain areas of the program. It may even involve the elimination of faculty due to the needs of maintaining a balanced budget.

In most situations, it only involves eliminating program areas, not people! Yet, tougher times for our programs can allow us to do some alternative thinking, maybe resolve to redirect our efforts in neglected areas. Some good things might come out of financial exigency. Perhaps we can now accept financial crisis in our own local district, state, private university or college. We must re-examine our budget demands. Perhaps, in times past, we really did have a pretty good thing. Priorities must be set up among possible expenditure items as well as looking toward inter-institutional cooperations as a way of cutting costs.

Response

With the challenge before us of maintaining quality agriculture programs with declining resources, agricultural educators must get out and recruit and retain more students. For, like it or not, there is strength in numbers. Whether it is dollars for high school vocational agriculture or justification for budgeted items in certain university or college programs, student numbers can mean added resources.



Practical experiences may have to be provided on land laboratories close to the school if funds for field trips are reduced. (Photographs courtesy of the author).

But there are other resources we can use that can directly or indirectly spell success for our programs. People are a very important resource in helping achieve quality programs. People who serve and give to a collegiate agricultural scholarship or help teach a high school unit. We are going to have to look more and more to our constituency and our community for help in the coming days.

Grants and Foundations

Agricultural educators on every level must look to the private sector, large corporations, and foundations. The resources to benefit your program and students are there. Yet, obtaining grants is a difficult task and challenge. Writing proposals, and establishing contacts in Washington are necessary. Much work goes into every effort to obtain funding. It is not easy, but rekindled efforts in this direction need to be considered. Of course, whatever grant funding guidelines are required must "jive" with the objectives of your program.

Conclusion

We want quality programs for our students. To help benefit students with our educational efforts, resources are needed. Money is needed for adequate supplies, personnel, travel, etc. Yet, we as teachers are living in times of financial stress. We must find ways to redirect our efforts to do the best we can with what we got.

We also must try to go out and get! Get students, get funding for our programs, and get prepared for better or worse times. Dr. R. Curtis Smith, President of Mid-America Nazarene College summed it up adequately, "It serves no purpose to argue whose fault it is that we are sick or that we are indeed sick, but let us treat the fever or we will not get better."

Reference

Smith, R. Curtis in "Sixteenth Annual President's Report" Mid-America Nazarene College Trustees Report, (November 18, 1982), 27.

TEACHING TIPS

Build Your Own Teaching Machine

Most teachers are faced many times with the problem of what to do with students on a rainy day, how to keep the students occupied before homeroom period begins in the morning, or even what to do with students who finish exams or supervised study before other students. A "do-it-yourself" teaching machine may be one answer to the teacher's problem.

A teaching machine is sometimes referred to as a self-instructional device. Some educators call it a private tutor working under the supervision of the classroom teacher. Regardless of the name tag given it, a teaching machine allows the teacher to spend more time as an educator, stimulator and clarifier of problems rather than primarily acting in the role of drillmaster, homework and test corrector.

The teaching machine illustrated in Figure 1, is quite a simple device when compared to machines that can be purchased from commercial companies. Nevertheless, it can do many of the same things as sophisticated machines. The machine was built by Lowell Hedges while a teacher at Elgin High School, Marion County, Ohio; and now Teaching Tips Editor.

Although simple in construction and inexpensive to build, the teaching machine described still meets the basic requirements of a self-instructional device. These requirements are listed by Foltz as "(1) A data storage receptacle to contain the programmed materials to be presented to the student. (2) A display mechanism and panel to which the student will respond. (3) The response panel, with multiple-choice buttons, a write-in answer slot, a typewriter keyboard or some such means for active student response. (4) Some type of feed-back mechanism by which the student can get immediate knowledge of the correctness of his/her responses. (5) A separate reinforcement or reward mechanism which may be combined with number four."

Let us see how the illustrated teaching machine meets these five requirements. The shelves on the upright panel hold the materials to be views by the students. The panel box also may be used to store materials to be used when it is desired to change the items on the shelves. This arrangement meets the first requirement. The panel of button switches and the shelves meet requirement number two. The twenty bell switches provide the response panel (multiple-choice buttons) as discussed in requirement number three. The light bulb (which lights when the correct answer button is pushed) gives the student the immediate knowledge of the correctness of his/her response (number four requirement). The light also serves as a reward mechanism as suggested by requirement number five.

Constructing the Machine

The teaching machine can be constructed of scrap wood and a minimum of inexpensive hardware and electrical fixtures. A bill of materials for the machine is given below.

Materials Needed

Scrap ¼-inch plywood & 1-inch softwood
2 small butt hinges
20 push-button switches
10 clips
1 porcelain receptacle
1, 12-volt light bulb
Assorted pieces of lamp cord & bell wire
1 toy electric train transformer
1 clipboard clamp
Several dozen small brads & some glue
Unused paint (any color left over from shop projects)

The underside of the control panel is constructed to permit the changing of the connections between the answers and the questions or choices. This is necessary in order to prevent the stu-

(Continued on Page 20)

Build Your Own Teaching Machine

(Continued from Page 19)

dents from memorizing the combinations. Before the machine is put into use, the teacher should advisably encourage the students to learn to identify the objects, rather than to "cheat" by memorizing the position of the correct answer button in relation to the number of the object (question).

Programming the Machine

The wiring diagram, Figure 2, is drawn to represent the control panel as seen when the lid is lifted up, not as viewed from the top when the lid is closed. It shows how the question switches and the answer switches are connected to provide the desired combinations. The diagram also indicates how the light and the transformer are wired into the system. Only answer switches A, F, and J are connected with question switches. This is to avoid the confusion of too many lines on the drawing. However, the other switches should be connected in like manner.

To change the combinations, merely relocate the wires running from answer switches to connection clips (that are attached to the question switches). If, for example, switch A is connected with question switch 7, to change combinations, merely remove the answer switch wire from the clip and attach it to any other clip. Relocate the other wires in the same manner.

The teacher should write the combinations, such as A-7, J-1, F-6, etc., on a sheet of paper before closing the lid. The material to go on the shelves and the answers that are written on the answer sheet must be placed in the correct combinations (those listed on the sheet). For example, the test question or item to be identified should be placed on shelf seven, and the correct answer should be printed opposite answer switch A, as illustrated in Figure 2.

The "do-it-yourself" teaching machine would seem to be appropriate for many varied uses in many departments of vocational agriculture. Identification of plants, seeds, shop tools, hardware, livestock, and other items would be examples of how the machine can be used. Regardless of how teachers use the machine; whether with regular class work, as an interest-getter during rainy days, or when the students have finished assigned work; they will find it a welcome change from everyday routine, and so will the students.

References

1. **Foltz, Charles I.** The World Of Teaching Machines, Washington, D.C.; Teaching Research and Technology Division, Electronic Teaching Laboratories, 1961.
2. Lamber, Philip. The Teacher And The Machine. Madison, Wisconsin; Dembar Educational Research Services, Inc., 1962.

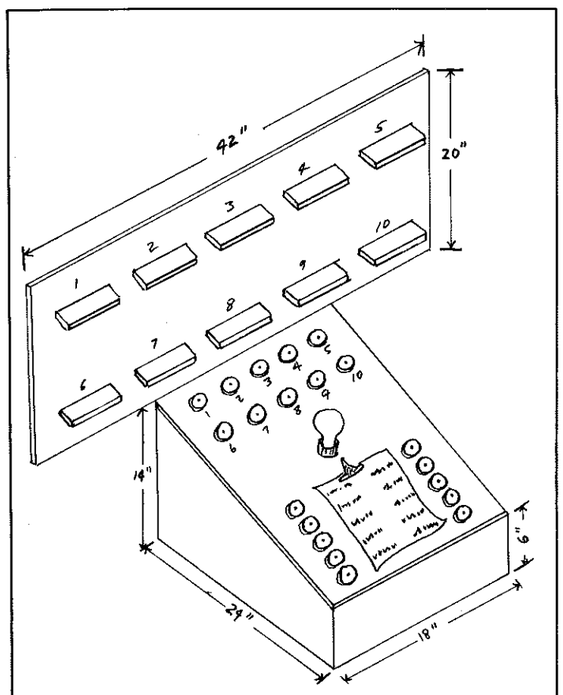


Figure 1

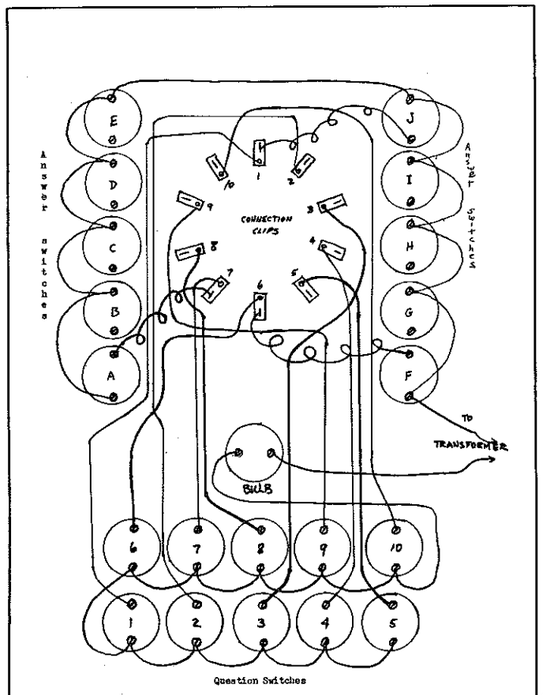


Figure 2

ARTICLE

Record Books Teach Basic Skills

By R. Kirby Barrick

(Editor's Note: Dr. Barrick is an Assistant Professor in the Department of Agricultural Education at The Ohio State University, Columbus, OH 43210.)

"Why can't Johnny read?" has all but disappeared from the dictionary of current criticisms of public education. Concern over basic skills has virtually been replaced by endeavors designed to keep school open in an era of dwindling revenue and students. The problems, however, has not vanished. High school students, including those in a vocational tract, still need assistance with basic math and communication skills.

Sound teaching practices in vocational agriculture help immensely in addressing the concern. The practice of using the problem solving approach to teaching in vocational agriculture is built upon accepted concepts and theories of learning. Crunkilton and Krebs (1982) have accumulated an extensive listing of those concepts.

Those concepts bolster the notion that record books can and should be a vital part of the problem solving method of teaching and that basic skills in math and communications can be taught effectively as a part of record keeping in vocational agriculture. The following discussion emanates from several of the learning concepts outlined by Crunkilton and Krebs.

Adding Revelance

One of the frequent criticisms of general education is that the content is not relevant. Rarely is there a need shown for or a chance to apply the basic skills that are taught. Through record books in vocational agriculture, teachers can help students apply math and communication skills to real life situations. Students are faced with actual problems and must perform basic math calculations and be able to communicate in writing as they conduct supervised occupational experience programs. Simple addition, subtraction, multiplication and division skills, as well as writing complete sentences that are properly punctuated and grammatically correct, are made relevant to the students by being taught as the need occurs.

Preparing budgets for occupational experience enterprises enables students of vocational agriculture to use basic math in a problem solving situation. Inventories, operating costs and records of sales and overhead costs all provide opportunities for students to perform math skills that are essential to successful employment.

Later in the experience, additional math skills are practiced in computing productivity and efficiency in the enterprise. As students determine labor and management income for their experiences and discuss ways of improving productivity and efficiency, the need for math becomes very apparent to them.

In addition to math skills, occupational experience program records can provide students with an opportunity to learn and practice communication skills, especially in written communications. Perhaps for the first time in their school experience, students write sentences and paragraphs about topics that are relevant, important and useful.

Such items as an enterprise agreement, the plan of practices, task proficiency statements and the summary of accomplishments in the occupational experience record provide a meaningful opportunity for students to enhance their basic communication skills.

Teaching Basic Skills

How should a teacher of vocational agriculture teach basic skills? There appear to be several different ways. First, teachers of vocational agriculture must make clear their expectations in the area of basic math and communication skills. Teachers must expect accuracy in math calculations and must expect complete sentences that are mechanically correct. Students will respond to those expectations.

Secondly, the teacher must teach by example. Not only should the teacher exhibit a command of the math and communication skills, but teachers should also provide clear examples of the calculations that are necessary in completing occupational experience records as well as sample agreements, plans of practice and goals that could be followed by the students.

Thirdly, the teacher must provide feedback to the students. As vocational agriculture students submit their work to the teacher, the teacher must provide feedback regarding record keeping principles and in math and communication skills. If work is not corrected, it becomes apparent to students that accuracy in math and communications is not important in vocational agriculture.

It is easy to ignore the problem that so many of us have faced in the vocational agriculture classroom. It is easier to blame others for the apparent lack of mastery of basic skills by our students. It is easier to let the math teacher teach math and the English teacher communications, but the easiest way is not necessarily the best way. Teachers of vocational agriculture have a golden opportunity to help students become proficient not only at vocational skills but also at skills in the area of basic math and communications. We owe it to our students to help them succeed in all phases of their impending careers.

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Crunkilton, John R. and Krebs, Alfred H. Teaching Agriculture Through Problem Solving, Danville, Illinois: The Interstate Printers and Publishers, Inc., 1982.

Roediger, Roger D. and Barrick, R. Kirby. Supervised Occupational Experience Program Record Keeping for Vocational Agriculture. Columbus: Ohio Agricultural Education Curriculum Materials Service,i1982.

Barrick, R. Kirby. Teacher Guide for Vocational Agriculture Record Keeping System. Columbus: Ohio Agricultural Education Curriculum Material Service, 1982.

ARTICLE

Questions for Beginning Teachers

BY HOBART L. HARMON (LEFT) AND FREDERICK H. DOEPKENS
(Editor's Note: The authors are teachers of vocational agriculture at Hereford Junior-Senior High School, Parkton, Maryland 21120.)

"I know I will be an excellent vocational agriculture teacher!" This statement reflects the enthusiasm of the agricultural education major about to enter the role of a vocational agriculture teacher. Most prospective teachers have listened to professors explain the characteristics of a good teacher; some have even memorized the vocational agriculture teacher's creed. The components of a quality program; classroom/laboratory instruction, FFA and SOEP; are embedded in the mind of the agricultural education major.

Armed with hundreds of textbooks, pounds of course notes, experiences of student teaching, some skills in technical agriculture, a college degree, and a lot of enthusiasm the new graduate marches off to teach vocational agriculture.

Too often beginning teachers of vocational agriculture fail to arm themselves with the questions needed to identify a desirable teaching position. Potentially successful beginning teachers may become unsuccessful if an undesirable teaching position is accepted. Worse yet, this potentially excellent teacher may choose to leave the teaching profession because of experiences encountered as a beginning teacher in an undesirable environment. Prepared with the right questions, the beginning teacher enhances the possibility of selecting a desirable teaching position.

Purpose of Agricultural Education

Does the vocational agriculture department have an identifiable purpose? The purpose of a department may be to offer a program that assures students develop the knowledge and skills needed for successful entry into an agricultural occupation. Some departments may provide students skills needed to fulfill avocational interests such as those required by part-time farmers.

Other departments may offer courses to provide students an appreciation or exploration of occupations and skills performed in agriculture. Departments may also desire to prepare students for more advanced study in agriculture at the college level.

Beginning teachers should be fairly certain the purpose of agricultural education at the school in question is similar to their philosophy and expectations. Review of the curriculum will reveal a description of skills taught in the program. Discussions with guidance counselors, program graduates and current students may reflect student attitude toward the program, type of student enrolled in agriculture, and the skills learned.

Parents of students, local farmers, employers in agribusiness, advisory committee members and teachers in other disciplines at the school can answer questions that will tell much about the image of the department. Comments from these persons, other teachers in the department and the former teacher(s) should enable the beginning teacher to identify the purpose of agricultural education at the school.

Community Support

What evidence suggests the community supports the program? A functioning advisory committee indicates people in the community have an interest in the agriculture program. Adults in the community may help train FFA teams. Agricultural organizations may sponsor field trips and FFA awards for students enrolled in agriculture.

Farmers and local agri-industry employers should be involved in student SOE programs and classroom instruction. Successful citrus fruit or other fund raising campaigns suggests the community supports the program and the FFA. Review of the FFA Chapter scrapbook may reveal evidence of community support. A good source of information about community support of the agriculture program may be local newspaper personnel.

Community involvement in the program will greatly depend upon the willingness and efforts of the school administration and former teacher to involve the community. No evidence of community support for agriculture at the school spells trouble for the beginning teacher if such support was actively solicited by the school administration and former teacher.

Administrative Support

What evidence suggest the school administration supports agricultural education? School administrators should understand and agree with the components of a quality vo-ag program: classroom/laboratory instruction, FFA and SOEP. Support of FFA as an integral part of the agricultural curriculum and year-round supervision of student SOE programs should be reflected in decision making policies of school administrators.

Administrative support can be reflected in the number of field trips approved to support classroom instruction, the encouragement of the teacher to use an advisory committee to improve program quality, and the "extra duties" the teacher must perform. Supportive administrators attend the FFA Banquet and encourage FFA involvement in the community.

Lack of administrative support definitely exists if the school administration allows the department to serve as a haven for disruptive and unruly students. Failure to provide funds for adequate facilities and instructional materials may also suggest poor administrative support.

Facilities and Supplies

Are facilities and supplies adequate to fulfill the objectives of vocational education in agriculture? Facilities must be available to provide students hands-on experiences. Schools without adequate facilities, or means by which students can obtain hands-on experiences, fail to provide vocational training for students.

Questions about the budget for textbooks, instructional media and agricultural mechanics and/or horticultural supplies will help determine the level of support for the program. Size of the agricultural mechanics facility should reflect the needs of the local community. If a school farm and/or greenhouse is operated by the department, facilities should reflect student needs for hands-on experiences.

The beginning teacher should know if facilities are used for student instruction or money making projects for the school. It is also wise to know if facilities are safe for student use. Inspect facilities and determine how the administration views teacher liability and student safety.

Role of the Vo-Ag Teacher

What does the administration and community expect of the teacher? School administrators require all teachers to properly manage the classroom.

Lack of organization and poor discipline control reflect undesirable teaching characteristics. The beginning teacher should know the attitude of the school administration and community toward winning FFA contests and supervision of student SOE programs. Each of these will require many hours after school if demands are inconsistent with teaching load and curriculum design.

Is the teacher expected to perform specific responsibilities on the school farm, at the county or local fair, or in agricultural organizations in the community? Who advises the FFA Alumni? Does the school conduct a young farmers program or offer adult education courses in agriculture? Is the teacher expected to maintain school facilities other than those in agriculture during the summer months? What extra duties must the teacher perform?

Beginning teachers must determine if the role of the vocational agriculture teacher at the school coincides with their personal expectations and aspirations. Continuous teacher turnover of the teaching position at the school could be related to expectations of the teacher by administration and community.

Summary

Beginning teachers of vocational agriculture should ask questions before accepting a teaching position. Answers to questions related to the purpose of agricultural education at the school, community support, administrative support, facilities and supplies and role of the teacher will help the beginning teacher select a desirable teaching position.

BOOK REVIEWS

NO NEED FOR HUNGER, by Robert R. Spitzer, Danville, Illinois: The Interstate Printers & Publishers, Inc., 1981, 341 pp., $11.95.

This book offers some hope and optimism in solving the problems of world hunger and poverty. Specific plans, strategies, and case studies are presented by the author to address these pressing issues. The author is the former U.S. Coordinator of Food for Peace and has headed two U.S. State Department Delegations to the Intergovernmental Food Committee of the United Nations Food and Agricultural Organization. These experiences make him well qualified to author a book on this subject.

The treatise of the book is that world hunger and poverty result in many countries from the decisions and practices of their national governments and also from the industries which operate in those nations. Three key questions are addressed: (1) Will national governments allow more free market conditions where people can secure food directly as farmers or have enough income from employment to buy their food? (2) Will American agribusiness help lead the way in developing a strategy to resolve the world food problem? and (3) Will the U.S. provide the technical assistance to bring national governments and agribusiness together to solve this problem? The conclusions are that self-help and economic development are the only long-range solutions to this world wide issue.

The book is divided into seven chapters and includes the 1980 World Hunger Commission's Summary Report. Vocational agriculture teachers may find this to be a useful reference book when planning lessons on the causes and the possible solutions to world hunger. The book would also be valuable to interested university students and faculties.

W. Wade Miller
Iowa State University
Ames, Iowa

ANIMAL REPRODUCTION, by Beltsville Symposia in Agricultural Research, Montclair, New Jersey; Allanheld, Osmun & Company Publishers, Inc., 1979, 434 pp., $27.50.

ANIMAL REPRODUCTION is designed for advanced college students in agriculture interested in animal reproduction in regards to practical problems on the farm, potential applications of newly developed technology, and basic research. It shows the detailed yet comprehensive research done by the numerous professors, scientists, and graduate students in many aspects of animal reproduction. The book was assembled by the Beltsville Symposia at a symposium held in May of 1978.

The book is divided into five major groups; Reproductive Problems of Farm Animals, Prospective Management Applications, Gamete Preservation, Endocrine Effects and Interactions, and Economics.

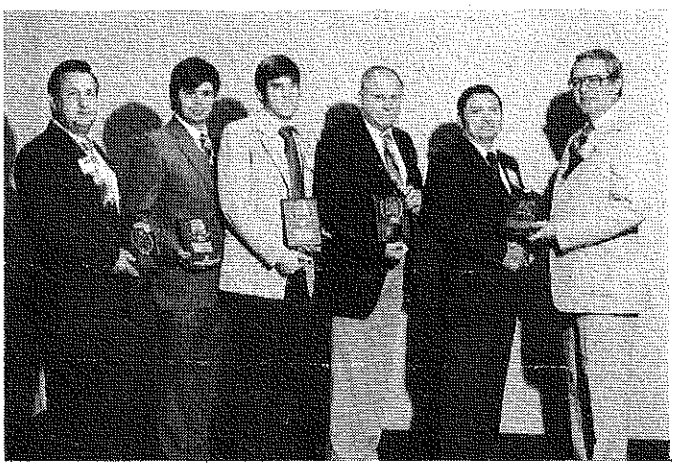
The five sections are made up of twenty-five papers contributed during the symposium. The papers are divided into an abstract, introduction, main body, conclusion, some papers include a section on research applications. Also included are a wide variety of black and white photos, charts, and tables pertaining to animal reproduction.

Laura Kay Ohlemacher
Poplar Grove, Illinois

Stories in Pictures

1982-83 NVATA Recognition

IDEAS UNLIMITED



Accepting the Ruritan National Award on behalf of their state winner were: (Left to Right) J.D. Melton, President, North Carolina Association, Creswell, North Carolina; Roy Walls, Jr., President, Maryland Association, Union Bridge, Maryland, Alan Redfield, President, Montana Association, Pray, Montana; N.F. Pohlman, Illinois Association, Quincy, Illinois; Elmo Castle, Secretary, Oklahoma Association (National Winner), Garber, Oklahoma; Layton G. Peters, NVATA Past President, New Ulm, Minnesota (Presenter).

HONORARY LIFE MEMBERSHIP

Persons who have made outstanding contributions to the NVATA and the vocational program in Agricultural Education are: (Left to Right) Butch Haugland, Past President, North Dakota VATA, Crosby, ND accepted the award for Don Erickson, State Supervisor (Retired), Agricultural Education, Mankoti, North Dakota; Curtis R. Weston, Agricultural Education, University of Missouri, Columbia, Missouri; Kenneth Lent, President, Idaho VATA, Newdale, ID accepted the award for Leslie G. Jackson, Agricultural Education (Retired), University of Idaho, Lava Hit Springs, Idaho; Art Nelson, State Supervisor (Retired), Agricultural Education, Olympia, Washington; Dale Butcher, NVATA President, West Lafayette, Indiana (Presenter).

SERVICE AND COOPERATION

The 1982 NVATA Outstanding Service and Cooperation Award was presented to John Deere, Moline, Illinois. Layton G. Peters (right), NVATA Past President, presented the award to John Coy, John Deere.

TEACHER RECOGNITION

The NVATA Agriculture Teacher Recognition Award is sponsored by the Pfizer Agriculture Division and presented to the vocational agriculture teachers who served as advisors to the national winners of the FFA Agricultural Proficiency Awards in Poultry, Beef, Diversified Livestock, Dairy and Swine Production Awards present to accept their awards during the NVATA National Convention. (Left to Right) Donna L. Regii, Pfizer Agriculture Division, New York City, New York (Presenter); John Shelstad, (Diversified Livestock Production) Kenyan, Minnesota; Dennis Swenson, (Swine Production) Madelia, Minnesota; Bruce Russell, (Poultry Production) Mt. Pleasant, Utah.