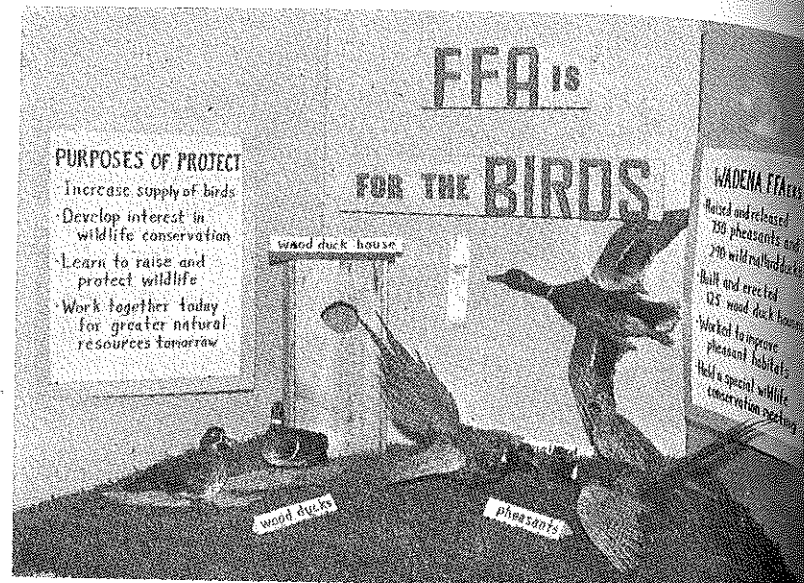


Stories in Pictures

Robert W. Walker
University of Illinois



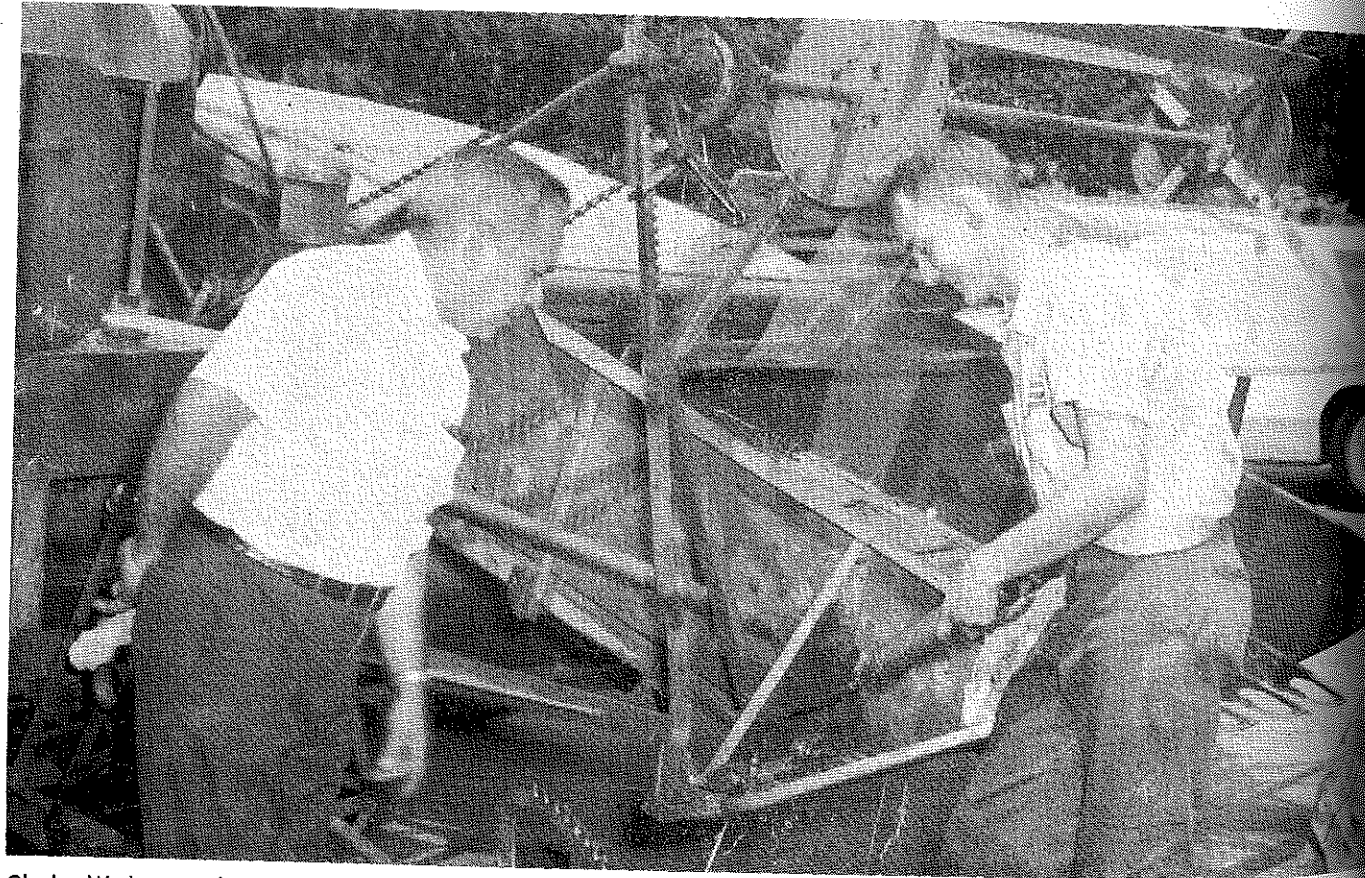
Conservation of renewable natural resources, game and wildlife are everybody's concern. The Wadena, Minnesota FFA in cooperation with more than 140 conservation, civic, fraternal, sportsmen, farm, agribusiness, and school groups participated in local programs. Major objectives are to preserve and improve environment, increase wildlife numbers and work together for improved natural resources in the future. (Photo furnished by W. Kortsmaki).



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Charles Workman, right, a 1969 graduate of Greenbrier East High School, Lewisburg, West Virginia, shows his Vocational Agriculture instructor, Nelson Dailey, how to properly lubricate a farm machine. Charles completed four years of Vocational Agriculture and one year of Agricultural Mechanics and is employed by Kyle's Garage where he does a considerable amount of farm machinery repair. (Photo by Guy E. Casper)



Featuring: MULTIPLE TEACHER DEPARTMENTS

MULTIPLE TEACHER VOCATIONAL AGRICULTURE DEPARTMENTS

Donald E. Wilson, Chief
Bureau of Agricultural Education
Sacramento, California



In California the number of multiple teacher vocational agriculture departments continues to grow. Our vocational agriculture enrollment has increased from 14,000 to 32,000 in grades 9 through 12 in the last ten years. The number of multiple teacher departments has risen from 77 to 122 over that period of time. Well over half of our vocational agriculture students are enrolled in programs located in multi-teacher departments, and the majority of our vocational agriculture teachers are employed in multi-teacher departments. Not only has the number of multi-teacher departments increased, but the number of teachers in the multi-teacher departments has also expanded. Two-teacher departments have grown into three, and three and four-teacher departments now have four and five teachers. The following chart illustrates the trend in multi-teacher departments.

Size of Vo-Ag Department Staff	1961	1971
2 teachers	60	83
3 teachers	11	25
4 teachers	6	10
5 teachers	0	3
6 teachers	0	0
7 teachers	0	1

As the number of multiple teacher departments increased, so did the incidence of problems in administration of these departments. Bureau of Agricultural Education staff members worked with individual vocational agriculture departments as problems arose in an attempt to provide assistance. This was more of a procedure of "putting out fires," rather than one of an organized program of improving administration and providing assistance. At no point in our preservice or inservice teacher education programs did we devote specific attention to the effective administration of multi-man vocational agriculture departments. Many of these departments became multi-man departments in the last ten years or grew from two-man to four-man departments, etc. Teachers became department heads because of length of service or because they

were on hand when the department expanded. There was little thought given to the role and responsibility of a department head as it varies from a single to a multiple man program. In many instances the department head role in two-man departments is "unofficial" and casual in nature. As these two-man departments grew, real problems developed because of no organized system of department administration.

The Bureau of Agricultural Education decided in 1970-71 to devote attention and effort to the improvement of administration in multi-man departments. A program to provide inservice training in this area was solicited and the provision of the Education Professions Development Act, and California State Polytechnic College at San Luis Obispo responded.

The in-service training program consisted of three day workshops each involving 30 vocational agriculture teachers who were heads of multiple man departments. These workshops were conducted in different areas of the state over a four-month period. Provision was made for reimbursement to the local school district for any substitute teacher time required and for per diem and travel expenses. A total of 90 department heads were involved in the training sessions, which included a one-day follow-up session four months after the initial three-day session. The program involved pre- and post-evaluation. The workshop addressed the following areas concerning department administration:

- Day-to-day maintenance and operation
- Planning for growth and expansion
- Staff involvement in supervision and advisement of occupational experience programs.
- Effective summer programs

Many different tasks, procedures, and items were considered under these topical areas.

A handbook on administration of multiple man vocational agriculture departments will be developed. It is intended that information developed and experience gained in these workshops will be utilized in our regular preservice inservice teacher education program so that this important area is not neglected in the future as it has been in the past.

MULTIPLE TEACHER DEPARTMENTS IN AGRI-BUSINESS AND NATURAL RESOURCES

Victor Bekkum
Instructor in Agriculture
Barron High School
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Wisconsin State University
River Falls, Wisconsin



The development of new emphases for secondary school courses in Agri-Business and Natural Resources have been of much importance in agriculture. These trends are reflected at both national and state levels. As an illustration, Wisconsin departments have shown increases in pupil enrollments from 15,747 in 1960 to 18,804 in 1970. With these increases in enrollment has also been the development of multiple teacher departments and these have grown from 13 in 1967 to 23 in 1971. Similar or greater growth has been experienced in nearly every state. As a further indication of the agricultural business emphasis in the Wisconsin programs, over 4,000 students are from a non-farm background and an increasing number of girls are being enrolled.

The problems involved in the development of multiple teacher departments are relatively new in most states. Comparisons of the findings of a Wisconsin study with those of other states provide a number of guidelines and conclusions which may be of use to teachers and administrators as they reach the need for a multiple teacher organization. In the summary following, reference is made to either "general" or "specialized" programs as they reflect emphasis on agri-business or adult programs.

When Does a Program Need Additional Teaching Staff?
The type of program developed seems to be of primary importance in

answering this question. Specialized programs require additional staffing more quickly than do general programs. At least in the early development of specialized programs, greater amounts of staff time are spent in individualized instruction and in the development of teaching facilities and equipment. The Wisconsin study showed that a second teacher was added when the enrollments reached 105 in general programs and 71 for specialized programs.

What are the Bases for Teacher Selection?

General programs with enlarged enrollments tend to rely upon beginning teachers for additional staffing. This may be a reflection that traditional teacher preparation programs are acceptable in meeting these needs. In most cases the administrator provides the initiative and responsibility in employing the additional staff member.

Specialized programs are more likely to look to other sources in meeting staff needs. Experienced teachers or agricultural specialists from other fields are often selected. Much emphasis is placed upon the special expertise of all teachers in the program and considerable consultation takes place between the administrator and existing staff before new teachers are employed.

How Are Programs Organized and Teacher Responsibilities Assigned?

Most multiple teacher departments have not relied upon a formal administrative structure in their organiza-

tion. In the smaller multiple teacher department, the majority of decisions seem to be made by the school administrator on the basis of advice from the teachers involved. However, as departments increase their teaching capabilities with both regular and para-professional staff members, the need for definite administrative organization becomes evident.

With respect to specific responsibilities, teachers in general programs tend to share rather than divide responsibilities. An example of this division of duties would be that one teacher would supervise the school land laboratory, another teacher train certain judging teams and another teacher be in charge of the departmental greenhouse.

Organizational patterns for departments where specialized programs are provided are still in an experimental stage in most states. Teachers and administrators will need to depend upon local advisory councils, state department consultants and teacher educators as they develop programs of organization most suitable to their local community. Whatever the form of organization, agricultural departments will find it necessary to provide more staffing as they attempt to serve their additional publics and increased responsibilities.



WILL WE DEVELOP MORE MULTIPLE TEACHER DEPARTMENTS?

Al Hilbert
Agribusiness Instructor
Southern Door High School
Brussels, Wisconsin



Fourteen years of work as an individual in a one man department of high school vocational agriculture and two years experience within a two teacher department have provided some insights and attitudes which reflect this writer's personal choice.

Our local high school has had a two man department since the advent of a pilot program added in 1969. In Wisconsin most departments are of the one man type, some have two teachers and a few are staffed with three instructors of vocational agriculture.

Here at Brussels, the flexible modular system of scheduling, which may have an effect on the desirability of multiple teacher departments, is in use. Experience has revealed some very real challenges and frustrations when performing in a one man department.

Let me sight two examples that perhaps are not unique to our school system.

1. Where flexible modular scheduling is employed, the lone teacher may be taxed for every minute of his time, in classes and in the resource center, not leaving sufficient freedom to perform special activities required of an agribusiness instructor.

2. In most high schools the department facilities are oftentimes at the furthest end of the school plant and faculty communication is difficult.

Many more real factors can be identified that can affect the performance of agribusiness teachers in our schools.

A VIEW FROM WITHIN

This writer has identified the following seven major benefits of a multiple teacher department.

1. Cooperation with one another for achieving greater individual instructor flexibility.

With more than one instructor a greater degree of flexibility in daily activities can persist. It is generally a simple matter for the co-worker to "cover," in such emergencies as special parental conferences, out of building individual or small group instruction, and supervision of urgent departmental responsibilities. This type of activity can be reciprocal with other instructors in a cooperative manner within a department.

2. The advantage of greater creativity.

The old adage that, "Two heads are better than one," can lead to more innovative techniques, providing that all instructors are aware of the challenges and problems of each other. It is the advantage of a pool of overall general knowledge and ideas.

3. Greater scope, depth and breadth of the total agribusiness program.

Vocational agriculture has taken on an ever broadening curriculum. One man may find it difficult to master all the subject areas necessary to adequately provide a comprehensive program of agribusiness.

4. Potential for team teaching practices.

It can permit the instructor with the greatest ability in a particular field to specialize and use those

talents in a given unit of instruction. A greater variety of teaching aids can usually be secured and shared within a department. Oftentimes school facilities are budgeted more on numbers of teachers than student numbers.

5. A sharing of trials, tribulations and successes.

This may not appear to be important, but a "shoulder to cry on," can be a very significant asset in carrying out professional responsibilities. Both receiving and giving counsel and advice, demands close understanding, concern and feeling for all members of a multiple department in their cooperative efforts in the school and community. In a positive sense, the mental health of a teacher can be strengthened with good conscientious co-workers.

6. The stimulating effect on performance due to close observation of co-workers.

The arousal of the sense of pride in performance of an instructor when his actions are closely observed. A second or third man can more fully appreciate the challenge of a task. "Gee, George, I like the way you handled that." Even teachers need reinforcement.

7. The evaluation of professional performance.

Multiple teacher departments have a built in and immediate opportunity for strengthening and the intensification of training of the efforts of each member of the department. Colleagues must be willing to accept a critical analysis and be able to offer it as well. Through communication

tions in a department, our professional work can be improved.

As in any organization where people work together there are some problems that exist in addition to a loss of some independence. Experience has uncovered three basic areas.

1. Extra effort is required for coordinating the mechanics of the departments.

A definite area of responsibilities needs to be inaugurated for the total and effective performance of each of the members in a multiple department. It is essential to know what your colleague is doing in relation to your segment of the program of instruction.

2. Extra effort is needed in tolerating possible bad habits of a co-worker.

This is true especially when facilities are closely shared. Such minor annoyances as leaving materials and supplies out of place can be a real source of irritation.

3. Adequate space and facilities for a multiple department must be justified.

As student enrollments grow, and instructional needs expand, it is unfortunate that facilities frequently do not enlarge proportionately. Adding an extra man where one man was before may not solve the problem of increased enrollment. The idea of sharing facilities is good, but space must be available for each instructor to operate.

This writer believes that student numbers generally dictate the advent of a multiple teacher department. It is perhaps more desirable to recognize that the broad field of agribusiness, and the intensification of training needed for tomorrow's agriculturists, should dictate a trend. Start thinking about a multiple teacher department in your school.

THE FORGOTTEN RESOURCE

— for Training in Agriculture

Harold Binkley, Teacher Education, University of Kentucky



In many communities where vocational agriculture is taught there are many farms, both specialized and diversified, which could be, but are not used for training students in farming. These are commercial farms

(good ones) on which there are no students taking vocational agriculture. And, if there are students from such farms, (which the fathers are not owners) many of them have a pig or a calf as a "get by" project.

We have forgotten or overlooked the resources of these commercial farms as training possibilities for students of vocational agriculture. We have been "near sighted" and have "thought small" where we should have been "far sighted" and "thought big." The operators of these farms have a need and our students have a need. These needs are compatible — the farmers need help in their farming operations and the students need training situations.

There is an appropriate saying for this situation. It goes like this:

*"Think big and your deeds will grow,
Think small and you will fall behind."*

Placement for Farm Experience, What it is

Placement for farm experience is locating a student on a farm (or ranch) for experience in farming (or ranching). If a student desires experience in farming which he can not get at home (or on a school farm) he may be placed on a good commercial farm for experience if proper arrangements can be made. The placement is not just

for working on the farm, though such work may have value. The farmer, as well as the teacher, must be concerned with the student learning from farming. Placement for learning a farming specialty apply to dairying, commercial poultry, vegetable or apple production, hog production, tobacco production and the like. Placement for farm experience can provide good experience for many students preparing for off-farm agricultural occupations that require knowledge and skill in farming.

Responsibilities of Parties Involved in Placement

The teacher has definite and important responsibilities in placing students for farm experience. His first responsibility is to judge the reality of the placement for farm experience from which the student may learn. Students should not be placed for farm experience if they are merely to work on the farm. The teacher should make certain that suitable facilities and equipment are available and that there is good farming going on. He must make quite sure that the learning situation for the student will be good.

Responsibility of the Farmer

Placement for farm experience is a misnomer if the farmer is concerned only with getting the work done. He must be interested in the student and what he is to learn. He should be willing to enter into an agreement and to cooperate in developing a training plan for the student which will help the teacher. The teacher must be welcome on the farm. However, he should not interfere with the work of the student or the farmer.

Student Responsibility

The student must be mature enough and willing to assume responsibility under direction. The student must be willing to work at the convenience of the farmer when he might have fun doing something else. The student should want to learn what he is supposed to learn, and be willing to use his time in learning how to perform the different jobs, before he does them on the farm.

Planning the Placement for Farm Experience

The training plan and placement agreement, worked out cooperatively by the student, the farmer, the parents, and the teacher should include the kinds of jobs the farmer will allow the student to perform on the farm. Many of the jobs to be performed should deal with improved or approved practices in farming. The student should have opportunity at school to secure knowledges and understandings needed to perform the jobs in the training plan before he performs them.

Recording and Evaluating the Placement for Farm Experience

The students should keep a record of the jobs and responsibilities he carries out on the farm, and of the degree and extent of the experience. The student and the teacher should evaluate with how well the student learned the different jobs. The student will also want to keep a record of his hours of labor and his earnings.

The teacher should develop ways of evaluating the accomplishments of students placed for farm experience. The following types of evidence may be used by the student in evaluating placement for farm experience:

Improved or approved practices learned;

Management decisions discussed or helped make;

New skills learned;

Habits learned;

Attitudes developed;

Evidence of honesty and dependability developed;

Achievements in terms of training plans.

The teacher should evaluate the

farm-placement situation, by answering such questions as:

1. Did the farmer cooperate with me?

2. Was he fair to the student?

3. Were there opportunities for the student to engage in many of the activities in farming?

4. Did the farmer use good training procedures?

5. Did he stress safety with the students?

An objective evaluation of the placement situation by the teacher is a means as a basis for determining the desirability of placing other students with the farmer. The opportunities for placement for farm (ranch) experience will be greater in the future than now. The need is clear. Farmers need the help and students need the training. Many students preparing for agricultural occupations need to have good experience in farming. The experience should be secured on good, well-operated commercial farms. The training resources are there. The teacher's job is to capitalize on these unused resources.

TEAMWORK-THE KEY TO SUCCESS IN MULTIPLE TEACHER VO-AG DEPARTMENTS

*Hillary Buescher
Agriculture Department
Sterling High School
Sterling, Colorado*

After more than two years experience, we are completely sold on the concept of a multiple teacher vocational agriculture department, providing the teachers are compatible and are free to develop team teaching techniques. Two teachers can do many things together which two teachers cannot accomplish alone.

For instance, our program is very flexible because we use the team approach. Whenever it benefits the instruction, we trade classes, so that a teacher is working in his area of greatest strength.

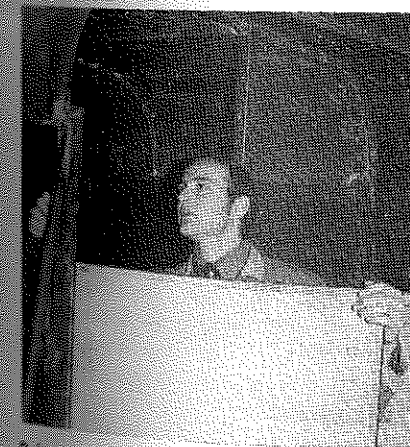
For another thing, each teacher can concentrate on fewer areas of instruction, because we have been able to divide the work according to individual teacher's interest and specialization. This improves the teaching techniques of both teachers and gives more time for preparation of specific lessons.

Very often we combine our efforts in a team teaching approach. One teacher will conduct a demonstration, while the other lectures and explains the procedures which are being demonstrated.

*Dale Hettinger
Agriculture Department
Sterling High School
Sterling, Colorado*

We have been able to expand the curriculum to include agri-business training for students who will not go into production agriculture. We have also added courses in farm management.

We have divided each class into morning and afternoon sections. Because there is a choice of sections, it is easier for a student to coordinate vocational agriculture with his total education program. This division also keeps our shop in use throughout the day which reduces the per-student cost of the facilities.



Dale Hettinger examines the workmanship of a livestock trailer being made by Norman Cook as a vocational agriculture shop project.



Hillary Buescher explains the judging of grain samples to a group of Ag III students.



Dale Hettinger fits Gene Miller's steer as Hillary Buescher (left) explains the process to a group of Ag II students.

We have had a steady increase in enrollment, although there has been no particular increase in overall school enrollment. Until two years ago, the school had only two vocational programs, agriculture and home economics. Two years ago, when an auto mechanics program was instituted, vocational agriculture enrollment continued to increase. Last year, when auto body repair and electronics were added to the vocational curriculum, vo-ag enrollments increased again. We believe this is because with two teachers we had been able to expand our agriculture offerings and provide more training for students interested in off-farm agricultural employment.

A Sterling vo-ag student has two options when he becomes a senior. He can choose between production agriculture or agricultural occupations.

Another advantage of a multiple teacher department, particularly one with a large enrollment, is the fact that a teacher is more available to students for individual training and counseling. It is easier to arrange time for individual students when there is another teacher available to carry on the regular routine.

However, a multiple teacher department is not the panacea.

For one thing, the shop is in operation the entire day. Certain makes of welding machines, for example, which hold up easily under a half-day schedule, break down under a full day's

operations. Drills and grinders not designed for heavy duty wear out rapidly. Maintenance is more extensive and more difficult. We now buy heavy duty industrial equipment and make certain that the equipment can be serviced promptly.

In a multiple teacher department, an instructor does not have the freedom to operate which a teacher in a one-man department enjoys. He must take the other teacher(s) into consideration before he makes any decisions or plans.

A teacher in a team situation finds he cannot participate in all phases of instruction. It takes longer for him to become well acquainted with all the students, their backgrounds and their problems. This is probably the biggest single disadvantage to sharing the work with another instructor.

Operation of a multiple teacher department requires more planning than in the case of an individual teacher department because major decisions must be made in advance and by mutual agreement.

We developed a policy statement, working together and with the assistance of our advisory committee. This was then submitted to school officials for approval.

This statement makes a specific division of all responsibilities. Mr. Buescher, as head of the department, has responsibility for the overall operation of the program. He prepares and sub-

mits all reports. Mr. Hettinger is specifically responsible for Young Farmer classes and activities. The department head conducts the adult education program. He is the advisor for the FFA chapter with the assistance of the second teacher.

Despite certain disadvantages and inconveniences which an individual ag teacher doesn't experience, we believe that the multiple teacher concept is good, and we prefer it. It presents a greater challenge to the teachers and a greater opportunity to develop their skills. At the same time, a teacher is relieved of some of the work load, particularly that part which suits him the least.

We feel that the reason this program has worked for us is that we enjoy working together and have found that we can resolve any differences without argument or antagonism. It would never work with teachers who cannot get along together.

With fewer young people going back to the farm, a high school vo-ag department must diversify to provide for those whose best opportunities lie in off-farm agricultural occupations. Unless the department is a very small one, or a part of the training can be farmed out to a community college or area school, more than one teacher will be required in order to maintain the quality of instruction and provide appropriate training for every student.

THE TEACHER AS A MANAGER

Robin R. Schade, Director
Operational Enterprise
Center for Planning and Development
American Management Association, Inc.
Hamilton, New York



The effectiveness of educational endeavors can be enhanced by emulating the procedures and techniques common to the business world. Properly applied management principles will greatly facilitate the attainment of specific instructional objectives, according to the project director of Operation Enterprise, American Management Association.

Teachers do not normally think of themselves as managers. The term usually brings visions of a successful businessman. School teams, however, also have "managers." *The educational manager is little different from the professional manager and the successful businessman.* In education, the term management is too often used only to refer to the term administration. Recent efforts to organize teachers tend to reinforce this concept because traditionally negotiations are between labor (teachers) and management (administrators). A much broader concept of management is needed. An examination of the management process reveals a number of principles which, if properly applied and executed, could make the teacher's job more effective and could put his work into new perspective.

Management, simply defined, is getting things done through people. This definition fits nicely for managers in business. Their role is to "manage" people in the making of "things" and get such products into the marketplace at a reasonable profit. However, this concept is far too narrow. Wherever something is to be accomplished, properly applied management principles greatly facilitate achievement. This broadened concept holds true not only for the businessman, but for doctors,

lawyers, teachers, and individuals who manage their own affairs. The teacher-manager's job is to achieve learning through and by his students. The teacher even has a profit motive — study should result in reasonable profit or increase in the student's knowledge.

There are seven basic steps in the management process: planning, organization of people, organization of things, performance standards, measurements, controls, and rewards or incentives. The application of these steps in managing the educational process can lend much to the effectiveness of the educational enterprise.

The manager's first step is to determine what he wants people to do. Most teachers are well aware of the need for careful planning. In the planning process, goals and objectives are established. This first step determines where to go. Proper planning gives direction to the remaining management effort.

The manager must then organize both the human and physical resources. These steps are used to determine what people are needed and what they themselves need in order to accomplish institutional goals and objectives. In the case of the teacher-manager, the people, in numbers, are already determined by class enrollments. But the teacher must still determine what the students should physically and mentally do, just as the businessman assigns tasks to his employees. In this part of the management process, the teacher decides upon appropriate methods to be used by students to accomplish specific objectives. Using the management process, however, has an advantage in that the teacher is forced to think about the method from the student's viewpoint. For example, from the student's point of view, the teacher might dismiss "listen to a lecture about such and such" when other methods may be much more effective.

Determining what the people themselves need is extremely important. For the manager in business, the step includes decisions about buildings, machinery, raw materials, etc. For the teacher-manager, this means identifying and organizing physical resources which will facilitate attainment of educational objectives. Besides textbooks, these will include all the materials which will assist the students in learning and achieving objectives. In fact, this may prove to be helpful in gaining necessary financial support when presented to school officials in terms of the complete management plan.

The fourth step in the managerial process is to determine how well people should perform. "Standards of performance" are widely used in management development programs. The teacher-manager can effectively use this step to improve student performance. The teacher should detail clearly what each student is expected to learn. Students should know what represents outstanding achievement, as well as the various levels between poor and outstanding. Students should understand what constitutes minimum performance. This requires discussion and cannot be accomplished by "we are going to learn about the world," or by passing out a sheet which lists course objectives. A great deal of interest and motivation can be developed in this step.

Application of this principle could mean a great deal for the underachiever and slow learner. Recognizing such individual differences can facilitate the establishment of realistic standards attuned to individual ability. Possibly for his first time in school, a "problem student" could be a success at learning something which he could see was within his grasp.

The fifth step is to determine how well people are doing. For the teacher, this is evaluation, another well-known

step in the educational process. For managers, this means a progress review of subordinate performance. If "standards" have been established and communicated to the students, this step is greatly simplified. Obviously, if the students know precisely what is expected, they will know themselves how well they have achieved in terms of the course objectives and established "standards". Again, this means additional attention given to students, not merely passing out graded tests. This should involve periodic individual appraisal in terms of the standards established for each student.

Step six must enable individuals to develop these abilities to the fullest

potential. In management, this is coaching, teaching, training, etc. This constitutes the largest part of the teacher's job and more of a good manager's job than most would realize. The teacher must continuously strive to assist, help and coach the students so that they will achieve instructional objectives.

Finally, one must determine what people should be paid. In business, this step includes financial and non-financial remuneration. For the teacher-manager, this may mean assigning grades and various forms of recognition as a form of "pay".

It is apparent that these steps are not necessarily followed one by one and that there is a great deal of overlap

in the application of each. However, the management process in business has been rather successful. Perhaps similar success can be attained by applying the same techniques in management of the educational enterprise. Using this concept does not change anything that the teacher traditionally has done, it merely re-emphasizes and re-directs teacher effort. Without doubt, there is room for a great deal of improvement in the management of classroom and instructional endeavors. The teacher should adapt management skills to the classroom, for he is truly a manager of men.

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RESOURCE IDENTIFICATION: AN IMPORTANT KEY TO IMPROVING INSTRUCTION IN MULTIPLE TEACHER DEPARTMENTS

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Center for Vocational and Technical Education
Columbus, Ohio



Would you like to know where you can easily identify and obtain over 800 economically priced and ready-to-use instructional materials for vocational agriculture classes? Would you like to know about instructional materials that are in the planning and developmental stages?

Improved curriculum and new instructional media are continuously being designed and developed by research centers, curriculum laboratories, and local schools across the country. The materials needed to broaden or improve your instructional program may already be available or in the developmental stages. Knowing where to efficiently identify these materials can save

the busy agricultural educator significant amounts of time for other activities.

Resource Identifiers

Many resumes of agricultural education curriculum studies and instructional materials can be found in Abstracts of Instructional Materials in Vocational and Technical Education (AIM)¹ which is published quarterly by the ERIC Clearinghouse on Vocational and Technical Education.² Many of these identify resources available from business and industry.

AIM announces the availability of completed and ready-to-use vocational instructional materials that have been contributed by sources throughout the United States. For example, there are at least 22 curriculum units or instructional material laboratories which reg-

ularly contribute materials for inclusion in AIM. The fine cooperation and contributions from these sources, as well as others, have resulted in the announcement of 3,041 new and revised vocational instructional materials in the first twelve issues of AIM.

Over 800 of these publications were specifically developed for use in vocational agriculture classes. The balance includes instructional materials developed for other vocational fields. Many of these items may be useful for vocational agricultural instruction, particularly those from distributive education and trade and industrial education. Entries in AIM provide complete information and industrial education.

Since time is a precious commodity, efficiency in locating materials can be attained by reading resumés of publications. Reviewing resumés can help one decide whether a publication is of suf-

some of them useful. But we had failed to zero in on the really important questions facing an operator of a farm business . . .

In an effort to develop an instructional program we secured a grant from the . . . Foundation to initiate teaching programs that would provide farm business operators with information that would help them answer these questions.

As of 1970, the farm business management instructional program has become an integral part, the basic element of the vo-ag adult instructional effort. Let it be understood that I do not take credit for the development of the program. In all modesty, however, I believe I can take some credit for the "creative" idea.

At this point it seems appropriate to remind the reader that an important part of the creative process depends upon how well the receiver receives. The perceptive reader will have recognized creative characteristics not mentioned previously which are possessed by the individuals represented by the examples. Two of the additional characteristics are modesty and dissatisfaction with the status quo. There are others which those who wish to experience "the fun of discovery" on a modest scale can determine. Participation is an essential part of either developing or evaluating creative ability!

As the title of this article indicates, "What is the most creative thing you've ever done?" is *A Good Question*. The respondents have made it so.

¹Parnes, Sidney J. and Harold F. Harding, *A Source Book for Creative Thinking*, Charles Scribner's Sons: New York, 1962, p. 59.

²"To Make a Difference in Five Days" by Thelma F. Grube, *The Journal of Creative Behavior*, Vol. 5, No. 1, First Quarter, 1971, pp. 74-75, is one person's views of the activities experienced at the Institute. An article in the same *Journal* is "Observed Creative Characteristics as Recorded in One Book" pp. 1-6.

³Hayakawa, S. I., *Symbol, Status and Personality*, Harcourt, Brace and World, Inc.: New York, 1953, p. 53.

⁴Stein, M. I., *Survey of the Psychological Literature in the Area of Creativity with a View Toward Needed Research*, U. S. Office of Education Cooperative Research Project No. E-3, New York University, N.Y., 1962.

TEAM TEACHING AT MINOT, NORTH DAKOTA

Gerald Iverson
Agriculture Department
Minot Senior High School
Minot, North Dakota

The staff at the Minot Senior High Vocational Agriculture Department uses a total team teaching concept. We do not divide our classes among the staff or teach units individually as many of the multiple staffed departments do. We believe that more students can be reached more efficiently, that we do a better job, and strengthen our program through our united efforts. Our goal is simple; to develop a vocational program in our community which will meet the needs of students with agriculturally related occupational objectives.

Team teaching means many things to both the instructor and the students. When the entire curriculum is team taught, all instructors must be thoroughly familiar with the lessons for each unit. Students receive more individualized instruction with two men in the classroom. While one instructor is leading a class discussion, the other is free to answer questions and assist the students. Instructors may take advantage of their speciality fields and use them to supplement the unit. Due to the increase in student contact, this system all but eliminates discipline problems. Class loads may be efficiently increased, but care must be taken not to defeat the main purpose. The instructors draw from each others' experiences and relate them to the teaching.

During shop instruction and demonstrations the instructors may specialize. For example, while one instructor teaches acetylene welding, the other teaches the arc section. Safety standards must be observed as the instructors of a multiple teaching staff branch out in different directions. They meet more

people, make more contacts, and secure additional support in the community. Evaluating a team teaching situation is a constant process. While working together the instructors may offer each other constructive criticism.

With team teaching it is necessary that all instructors stress community involvement, not only for the FFA or other parts of the program, but for themselves. It is through involvement that the community becomes aware of what vocational agriculture is doing. Teachers of vocational agriculture must always be prepared to address service clubs and other organizations.

Besides normal community involvement, the Minot vocational agriculture instructors are members of the Agriculture Committee of the Chamber of Commerce. Minot, as host for the North Dakota State Fair, gives us additional opportunity to serve as Superintendents of the Mechanics Division and the Youth parade.

We do not operate under involved, complicated concepts; our philosophy and ideas are simple and to the point.

1. Agriculture is North Dakota and will remain so through the efforts of Vocational Agriculture.
2. Student recognition is not only healthy, it is essential.
3. No new idea is so good that it cannot be improved through cooperative team thinking.
4. Students often need more help than we are aware of.
5. If all men were created equal that equality ended at creation.

THE PROGRAM

The Minot Vocational Agriculture program is similar to many of the programs throughout the state. We try to include as many occupational programs as possible. Our supervised occupational experience programs are coupled with our cooperative program. In addition, emphasis is given to providing time for the students who need additional opportunity to develop necessary skills essential to their vocational objectives. We prefer not to refer to these students as disadvantaged, but let's call a spade a spade, as the majority of our unassigned time is spent working with these people.

Our present high school program is set up as follows:

- A. Semester Courses
 1. Ag. Power
 2. Ag. Welding and Production
 3. Ag. Business
 4. Ag. Construction
 5. Ag. Conservation and Surveying

B. Full Year Courses

1. Ag. One
2. Ag. Two

The Minot Vocational Agriculture program includes two adult welding courses, each unit consisting of fifty-four hours of instruction for between twenty-four and twenty-eight adult farmers and other interested persons.

Groundwork is presently being laid for an adult Farm Management-Record Analysis Unit, as well as a unit of Structures and Rough Carpentry.

EVALUATION

Our graduates are yet too young to be evaluated in terms of economic progress if that is to be the criterion. None of them have completed their post-high school education, several are members of the Armed Forces, some are farming; but two years is too short a period in which to evaluate our system.

There are changes in the support received by vocational agriculture in Minot. The enrollment demand for

Vocational Agriculture has tripled. We had seventy-one students in 1969; we have two hundred and twenty-six registered for this school year. All Vocational Agriculture classes are filled to capacity, with sixty-four Freshmen in one section and forty in another. Vocational agriculture is growing in our community and we aim to keep it that way. For the first time the blue and gold FFA jacket is worn by members with the same pride ordinarily reserved for the lettermen's jacket. Service clubs and other organizations in the community ask for young FFA men of blue and gold, to give demonstrations of parliamentary procedure and to discuss with them what the vocational agriculture program means to the future of this community. Vocational agriculture receives community-wide acceptance. The people of this community appreciate all phases of vocational education. Vocational agriculture alone cannot take credit for this community appreciation, but because we receive their best, we pledge ours.

MULTIPLE-TEACHER DEPARTMENT SERVICE NEEDS



E. E. Kee
Department of Agriculture
Lexington High School
Lexington, Tennessee



McCall Lewis
Agriculture Department
Lexington High School
Lexington, Tennessee

The courses offered by the Vocational Agriculture Department at Lexington High School are a result of cooperative efforts of the instructors, the high school principal, the state supervisory staff, and local officials.

The primary responsibility for initiating a course lies with the local agriculture teachers. They must determine (1) community needs; (2) courses of study to meet student needs; (3) facilities available and needed in the department;

and (4) possibilities for course integration.

The school service area is dependent to a large extent on servicing the full and part-time farmers' needs, although industry has moved in to lend balance. Timber resources offer considerable employment. With the development of the Beech River watershed, recreation is becoming increasingly important.

Listed below are courses and division of responsibility by instructors for the school year 1971-72:

Course Offerings for 1971-72

1. AGRICULTURAL SCIENCE I

- A. Instructor: Parker
Agricultural Science I and agriculture-related arithmetic are given back-to-back for those students classified as disadvantaged. Training in fundamentals of leadership, record keeping, introduction to basic crop and animal science, and shop skills is offered. Either a supervised farming pro-

gram or supervised work experience is required. The courses are offered for one hour with one credit being given in each course. Each class is limited to 20 students. This course is a prerequisite to Agricultural Science II.

B. Instructor: Ledsinger
This course is offered to regular freshmen students and includes training in fundamentals of leadership, record keeping, introduction to basic crop and animal science, and basic shop skills. Either a supervised farming program and/or a supervised work experience is required. The course is offered for one hour with one credit given. Each class is limited to 25 students. This course is a prerequisite to Agriculture Science II.

2. AGRICULTURAL SCIENCE II

A. Instructor: Ledsinger
This course is offered to a limited number of students who are disadvantaged. It consists of developing skills in leadership activities, record keeping, a pursuit of basic knowledge in crop and animal science, with emphasis being given to shop skills. Either a supervised farming program and/or supervised work experience program is required. This course is offered for one hour with one credit being given. Class is limited to 20 students. This course is a prerequisite to Junior agriculture electives.

B. Instructor: Kee
This course is offered to more advanced or regular students who would receive additional training in leadership abilities, record keeping, along with pursuit of knowledge in basic crop and livestock science, and further development of shop skills. A supervised farming program and/or supervised work experience program is required. The course is offered for one hour with one credit being given. Classes will have 20-25 students enrolled. This course is a prerequisite to Junior options.

3. SPECIALIZED AREAS

A Farm Mechanics I. Instructor: Lewis

This course offers training in basic electricity, wiring, plumbing, major farm construction projects, and leadership. It is primarily designed for those students who plan to become an apprentice in a trade or enroll in a vocational-technical school for additional training. The course is limited to 20 Junior vocational agriculture students and is a prerequisite to Farm Mechanics II. The course will be offered two hours with two credits given.

B. Farm Supplies I. Instructor: Lewis
This course gives training to approximately 20 Junior vocational agriculture students in leadership, salesmanship, business operation and opportunities, and advanced shop skills. It is offered and is a prerequisite to those students who plan to take cooperative on-job training as Seniors in preparation for employment in some phase of the farm service field upon graduation from high school. The course will be offered two hours with two credits given.

C. Production Agriculture (Junior Course). Instructor: Kee
This course is for approximately 20 Junior vocational agriculture students who plan to become farmers, part-time farmers, or professional agriculturists after high school. Training will be offered in intensive leadership activities, record keeping and analysis, soil and water conservation, agricultural economics, crops and livestock production management, and more advanced shop skills. A supervised farming program and/or supervised work experience program will be required. The course will be offered one hour with one credit given. This course is a prerequisite to Senior Production Agriculture.

D. Farm Mechanics II. Instructor: Ledsinger
This course will be offered to approximately 20 agriculture Seniors who are looking toward work in an agricultural service

field, an apprenticeship in a trade or attending a vocational-technical school for further training. Training will be offered in maintenance and repair of small motors, assembly, operation, and repair of farm machinery, machinery parts; and leadership training. Course will be offered two hours with two credits being given.

E. Farm Supplies II (Co-op Students). Instructor: Lewis
This on-job training experience program is for 15-20 Seniors who will schedule at least three hours employment in a farm related business for at least 15 hours a week. Training is offered in salesmanship, machinery, assembly, operation and repair, welding, parts service, business operation, etc. This is for those Seniors who plan to go immediately into the farm service field upon graduation. Two credits will be given in Cooperative Education.

F. Production Agriculture (Senior Course). Instructor: Kee
This course is designed for 15-20 Seniors who are primarily interested in farming or becoming a professional agriculturist after further training beyond high school. They will be offered training in advanced leadership activities, agricultural economics, farm management and planning, and advanced shop skills. A supervised farming and/or supervised work experience program is required. The course will be offered for one hour and one credit will be given.

A plan has been submitted to the high school principal proposing a course in Agricultural Resources to be added to the Department's offerings. This could be accomplished by reducing the Freshman classes to four and the Junior Farm Supplies I class from a double to a single period. It has met favorable reaction and will probably begin with the school year 1972-73. The course is planned to train students for assistant technicians after high school or to pursue studies in agricultural resources in a university.

Carlos H. Moore
State Supervisor
Agricultural Education
State Department of Education
Phoenix, Arizona



When I drive through The University of Arizona campus late at night, I still expect to see the familiar light shining from the office that for many years was occupied by Dr. Russell W. Cline. Frequently, this was the only light in the building, for "Doc," as he was affectionately known by his friends, never believed in an eight-hour day for himself or his students. Agricultural education was his life and no man was more dedicated to his career. A perfectionist, he set high goals for himself and he did not accept a partial, half-hearted effort from his students. Those enrolled in his classes, not dedicated and motivated, were not encouraged to hang around. "Doc" did not want to send inferior teachers into our schools. He insisted that prospective teachers of vocational agriculture meet a higher grade point average than required by the University as a whole.

Dr. Cline was born on December 6, 1899, at Newton, North Carolina. He earned the B.S. degree at North Carolina State University in 1924, the M.S. degree from Virginia Polytechnic Institute in 1927 and the Ph.D. degree from The Ohio State University in 1939.

He taught in the Alexander-Wilson School, Graham, North Carolina, for two years. After one year as a fellow at Virginia Polytechnic Institute, he joined the faculty of North Carolina

PIONEERS IN AGRICULTURAL EDUCATION

RUSSELL W. CLINE



State College as assistant supervisor of agricultural education. He later moved to the University of West Virginia where he spent eight years as a critic teacher, instructor in education and teacher trainer. In 1937, he was appointed to the faculty of The University of Arizona as Professor and Head of the Department of Agricultural Education, a position he held until his death, August 3, 1965. Dr. Cline's association with agricultural education spanned all but three years of the life of Vocational Education as envisioned under the Smith-Hughes Act. His own professional growth, therefore, was concomitant with the development of Vocational Education in the United States. He and other great educators have proven the value of Vocational Education not just as training for jobs, but as an enlightened educational experience which has served equally well as the more traditional college preparatory programs for those who choose to pursue higher education.

His 29 years at The University of Arizona were fruitful. A tribute to Dr. Cline was the remark, "He could make you think." He repeatedly emphasized there is no such thing as a terminal course or terminal education. His subtle influences upon the philosophy of the individual students were apparent. Using accomplishments of former students as a measure of teacher success, Doc has earned his place among the great educators of his time. An impressive list of graduates includes successful secondary and post secondary teachers, department heads, state supervisors of Vocational Education, school admin-

istrators, lawyers, and at least two prominent medical doctors.

Early in his career he was recognized among his colleagues in the field of agricultural education as one of the most knowledgeable persons in the profession. He possessed a high degree of loyalty to the people for whom and with whom he worked. He was a great supporter of the total University program, never did he belittle any aspect of other departments. Likewise, he stood behind Vocational Education in the state and nation with all his strength. The teachers of agriculture and the students in the Arizona Chapters of the FFA were his special delight.

"Doc" did not strive for personal recognition but devoted all of his attention to his profession, and his character was above reproach. He was reserved in his attitude toward people, tended to keep his own counsel, yet he was a very friendly person. He recognized shortcomings, yet he invariably emphasized the good points of the individual.

Dr. Robert E. Taylor, Director of The Center for Vocational and Technical Education, The Ohio State University, a former student, had this to say about his old friend: "R. W. Cline was a man for all seasons. That is, in this modern age he truly represented and typified the renaissance man. He possessed an extremely keen mind, a sound philosophy, clear-cut goals and objectives for both the teacher and the student. Perhaps one of Doc's strongest suits was his emphasis on program planning and the

in off-farm instructional programs should be the responsibility of the instructor in charge of the class.

Developing Departmental Policy and Coordinating the Use of Facilities and Equipment

1. The development of a written statement of departmental policy should be a joint effort involving all teachers in the department and the local school administrators.
2. Written statements of departmental policy should be made available to all teachers in the department and the school administrators.
3. There should be a continuous interpretation of departmental policy through periodic study in staff meetings. Provision should be made for review and revision of policy at periodic intervals.
4. The departmental chairman should assume responsibility for coordinating the use, care, and maintenance of facilities and equipment in accordance with established policy.

Selecting an Additional or Replacement Teacher

1. The departmental chairman, in consultation with other teachers in the department, should be responsible for recommending to the school administrators that a department should add an additional teacher.
2. The selection of an additional or replacement teacher should complement the abilities and interests of those teachers presently employed in the department.
3. Teachers should be selected who can work in harmony with the other staff members.
4. The departmental chairman and his staff should recommend one person to the school administrators, who in turn make the final decision and recommend one person to the board of education for employment.

Program Evaluation

1. A periodic evaluation of all aspects of the program should be a combined effort of all staff members.

TODAY'S REALITIES . . .

TOMORROW'S FUTURE

Dan Theno
Agriculture Instructor
Oregon High School
Oregon, Wisconsin

Changes must occur in the curriculum in vocational agriculture to meet the occupational realities of today. This means converting our programs in "production agriculture" to "agribusiness" . . . and there is a difference. The term "production agriculture" connotes learning activities stressing the basic, practical skills and abilities necessary in farm operation. "Agribusiness", on the other hand, refers to the scientific and technical aspects of agriculture with emphasis on the non-farm agricultural occupations where most of our students will be heading. Curriculum is one area where not only we as individual teachers, but also our professional agricultural associations, have been lax. It's time to make a concerted effort to modernize our curriculums so that we may attract more career-oriented students and give them the type of training they want and need.

We need to improve our public relations and in doing so we might accomplish several goals. We will improve our image with the general public; we can build enthusiasm in our students and give them a feeling of importance and belonging; we can encourage increased enrollment, provided our programs are changed to meet the occupational realities of today; we can lend credibility to agricultural education in our legislative halls; and having accomplished the first four, we can expect feedback which will encourage and reward our efforts as teachers.

What would you think if the President of the United States had the official title of "Head of Waste Disposal?" Or if your local high school was named "Joint Prison No. 1?" Now, what do you think of a national organization that purports to be for all vocational agriculture students calling itself "Future Farmers of America?"

Without knowledge of the program, the name to the outsider describes what the organization is. When, according to Central Region FFA Vice-President Wayne Humphreys, less than three out of ten Future Farmers are actually future farmers, are we really describing ourselves accurately? Instead of wasting time and resources trying to explain to school boards, students and parents that we're something different than what we call ourselves, let's call ourselves what we are. It's time to give the FFA a broadly-based name that will include the farm student and the future farm operators along with the majority of our students who will be entering agribusiness occupations. Changing our label is not a cure-all, but it is a cure for part of our identity problem.

The mass media is one of the most effective means of conveying a message to people. Let's use it. Most of us probably have some program of publicity in our local newspapers, but newspapers, have only limited success. How many of you read the women's section or the business page if you are not

directly concerned with the topic? Get the picture?

What is needed is a combined effort by the FFA and our professional associations in using other forms of mass media, such as radio and TV, to bring the message of vocational agriculture to the people. FCC regulations require radio and TV companies to reserve part of their announcement time for public service messages. The only cost incurred by the user is the initial cost of making the announcement. Let's go to the people.

The FFA has been a proud, well-organized group from its inception, but some of its programs and structure must be modified to promise a future as bright as its past accomplishments. Like curriculum, the FFA must be tailored to fit the needs and expectations of today's agriculture student. There are several areas where change should occur in the FFA: (1) the name should be broadened; (2) the words "I believe in the future of farming . . ." in the Creed does little to spur the thoughts and hearts of agribusiness-directed members; (3) while our award system is changing, more must be offered as incentives to non-farm students; (4) our FFA degree system needs better identification; and (5) projects should be accepted and encouraged in areas of student occupational interests.

The changes we must bring about in agricultural education are not easy. Building a curriculum or organizing publicity, or restructuring the FFA will take work and dedication. But they must come. The contemporary youth of today need learning experiences that are real, that are interesting and that satisfy the personal goals of their lives. Will we, as professional agriculture instructors, have the will, the courage, and the foresight to cause changes instead of responding to them? Let's start the dialog, the thinking and the organization that the important changes will take. Let's bring about changes in agricultural education now that will secure its future in the years ahead.

"Change" may be defined as "departing from traditional norms, value systems and habits." Change must have as its goal, the improvement of some-

thing, not the destruction of something. It must have purpose, direction and timing. Change can be evolutionary or revolutionary, voluntary or involuntary, guided or mis-guided. But, regardless of its form, change does and will occur in agricultural education as it will in anything else.

In order to set a bearing on the direction, purpose and timing of changes that should occur in agricultural education, let's look at the present. From my viewpoint the picture in agricultural education looks bleak. The 1968 Amendments have generalized vocational education and our insurance on funding has been liquidated. Our national leadership in the Office of Education has been reduced. The Future Farmers of America is suffering from a membership lag and doesn't address itself to the needs of non-farm agricultural students. The public has a stereotyped version of a modern day agriculturist fresh from the screen of "Hee Haw" and "Green Acres". Many vocational agriculture departments are relying on outdated curriculums and are lax in providing career guidance in meeting the occupational objectives of today's youth. Enrollment in vocational agriculture is suffering and we are losing agriculture departments in areas that could supply many fine agribusiness leaders for the future. These are but a few of our problems and you could add to the list. The question remains, however, are we willing to respond to these problems through intelligent dialog and investigating? Let me address myself to three areas where I believe our problems are most localized: curriculum, image and FFA programs.

How many of you would recommend to your students to raise lard-type hogs when meat-type hogs are what the consumers are asking for? Assuming that the point has been made, how, then, can many of us justify a straight production agriculture curriculum when the energetic, restless youth of today (our consumers) are asking for contemporary learning activities? Statistics show that approximately 40% of the American work force is engaged in agribusiness while only 5% is engaged in the operation of a farm enterprise. One of the old philosophies of education is to teach "where the student is at". My philosophy is to teach "where the student is going".

What Others Are Doing

Occasionally items come across the editors desk that spark an idea. In the pictures below are two such items — a program of recognition for outstanding teaching and outstanding Doctoral study. Both awards were made recently at the National Meeting of the American Agricultural Economics Association held at the University of Southern Illinois, Carbondale, Illinois.



Michael D. Boehlje, right, Oklahoma State University Assistant Professor of Agricultural Economics, receives the American Agricultural Economics Association Doctoral Thesis Award for his Ph.D. dissertation at Purdue University. Making the presentation is Professor Willard Williams of Texas Technological University, Lubbock. Boehlje, a native of Iowa, is a 1965 graduate of Iowa State University.



Oklahoma State University agricultural economist John W. Goodwin, right, was awarded the American Agricultural Economics Association's Distinguished Undergraduate Teacher Award for 1971 from Professor John Malone of the University of Nevada. Goodwin, a native Oklahoman and graduate of the Panhandle A and M College in 1956, was selected from university teachers with less than ten years of service.



Dennis Dazey, (right), State President of the Illinois FFA, President Nixon, Governor Ogilvie of Illinois and the beautiful queen of county fair watch while an exhibitor shows his holstein cow at the Illinois State fair. (Photo by the Chicago Tribune)



Clemeal Harry, Vocational Agriculture Teacher at Folsom Jr. High School in St. Tammany Parish, Louisiana explains to his administrators, Principal Alfred Greenwood, (center), and Assistant Principal Earl Warren, (left), a skill in horticulture being put into practice by some of his students. (Photo from J. C. Simmons, Area Supervisor, Franklinton, Louisiana)

STORY IN PICTURES

by Robert Walker,

University of Illinois



Mel Warner briefs Ron Lindeman of Sleepy Eye and John McCread of Springfield, vocational agriculture teachers, who spent 3 1/2 years studying the Grain Terminal Association as part of a graduate course in agricultural education at the University of Minnesota. (photo from Farmers Union Grain Terminal Association)